PREVALENCE AND DETERMINANTS OF FERTILITY DESIRE DISCORDANCE AMONG COUPLES IN SABON GARI TOWN, FAGGE LOCAL GOVERNMENT AREA, KANO STATE

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DECLARATION

I hereby declare that this work is the product of my research efforts undertaken under the supervision of Dr. Mukhtar A. Gadanya and has not been presented anywhere for the award of a degree or certificate. All sources have been duly acknowledged.

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CERTIFICATION

This is to certify that the research work for this dissertation and the subsequent write-up (Ogbamikhumi Ifidon Alfred SPS/15/MPH/00011) were carried out under our supervision.

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ABSTRACT

Disagreement about childbearing has been shown to affect fertility; yet there is little systematic knowledge about how such disagreement affects fertility preference in northern Nigeria. This study focused on fertility desire discordance among couples in Sabon gari town, Fagge Local Government Area of Kano state; its prevalence and determinants and also the perceptions of couples about fertility desire discordance. Using a cross-sectional study design with concurrent mixed method of data collection, three hundred and fifty couples were studied. Systematic sampling was employed to select couples from the list of households in the town. Data was collected using an adapted structured interviewer-administered questionnaire and In-depth Interview (IDI) guides. Over half, 178(50.9%) of the couples wanted more children and 26(7.4%) of the spouses differed about the desire for more children. Using binary logistic regression, wife's age (AOR 29.88, 95% CI; 2.66-336.23), husband sex preference (AOR 0.04, 95% CI; 0.004-0.39), wife sex preference (AOR 17.87, 95% CI; 4.48-71.32) and wife contraceptive use (AOR 5.82, 95% CI; 1.09-31.12) significantly predicted fertility desire discordance. Perceptions on fertility desire discordance among couples varied from attainment of desired family size to financial constraint. The study highlighted the importance of considering the views of both partners and interspousal communication so that the analysis of the partner's actual desires can complement the other partner's perceived desires.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Fertility desire is a psychological state in which someone has the personal motivation to have a child. Those who are motivated to have more children in the future have fertility desire. Those who have no motivation to have more children have no fertility desire.[1]

Couples differ in their fertility intensions or desire thus leading to fertility desire discordance.[2] Women attribute more importance to their own desires than to their partner's ones, while men give as much emphasis to their partner's fertility desires as to their own ones they report their personal child-timing intentions. Couple discordance is one of the most relevant predictors of subsequent fertility behaviour.[2] Studies that focused on conflicting fertility intentions between partners shows that the resolution of a disagreement/ discordance depends on the type of the decision each partner wants to make, the existing level of gender equity, both at individual and societal level and on the prevalent rule adopted by the couple in disagreement.[2]

Fertility desires are personal preferences and do not translate into behaviour until after they have been transformed into intentions, described as, "conscious commitments to act in a certain way or to try to achieve a certain goal at some future time.[3]Different types of desires and corresponding intentions have been described as predictors of fertility: timing of child bearing and number of children.[3] Measuring fertility intentions and determining the extent to which they predict fertility behaviour, is important for population policy and the implementation of family planning programs.[4] These measurements could be termed as desired family size, ideal number

of children, desire for additional children, fertility intentions and etc. They have been used to describe and/or estimate the number of children that people actually want to have. Family planning approval is strongly dependent on fertility desire.[4]

Women's fertility motivations, desires and intentions, as well as how these constructs are related to fertility behaviour, such as contraceptive use, have been studied by researchers from different geographical settings and varying socio-cultural context.[3] The inclusion of men in survey studies has yielded some interesting results. It has been found that men and women differ in their fertility desires, attitude and goals thus resulting in fertility desire discordance among couples.[5,6] Variation in fertility preferences are argued to often be a result of the differences in individual value placed on children, as well as the perceived costs and benefits.[5,6] This cost-benefit, arguably, is the reason for gender differences in reproductive goals, which often is resolved by the power differences between spouses.[7] Fertility desires of both marriage partners are important predictors of the couple's fertility and that the desires of both spouses have equal effects on fertility behaviour.[8] Data from 13 sub-Saharan African countries show that couples often have different fertility desires.[9] In sub Saharan Africa (Nigeria), the husband's desire is however dominant in predicting couple's behaviour when the number of living children is small while the wife's desires become more important during the later stages of marriage.[8] This in effect means that the family size is governed by which spouse's fertility preference prevails.[10] Factors like age at marriage, age at first conception, type of family, per capital annual income, level of education, sex of child, awareness and use of contraceptive, religion, tradition, HIV status, wealth and poverty have all been found to play major roles in determining fertility behaviour and are important determinants that cause fertility desire discordance among couples resulting in whether there would be marital dis-harmony or not.[11,12]Fertility desires are known to reflect

subsequent fertility behaviour, therefore, understanding these desires could help in planning strategies to modify fertility behaviour.[13]

1.2 STATEMENT OF THE PROBLEM

High fertility is one of the primary determinants of rapid population growth which can hinder socioeconomic development.[14] Worldwide, fertility rates have fallen largely due to the widespread and increasing use of modern contraceptive methods.[14] High fertility remains one of the banes of development in sub-Saharan Africa.[15] In fact sub-Saharan fertility rates are among the highest in the world as a result of high fertility desires and unmet needs for contraception. Total fertility in West African countries ranges from 4.0 in Ghana to 7.0 in Niger, though there is evidence of slight decrease in few countries. Total fertility comprises of both marital and non-marital fertility. The two are on the high side in most developing countries.[15]

The complex relationship between fertility and development is well established and in Nigeria authorities recognised this when in 1988, the National Population Commission was established and adopted her first population policy with the aim of achieving a total fertility rate of 4 by the year 2000, this was referred to as the four children per family (woman) policy.[16] In February 2005, Nigerian government launched a reviewed population policy tagged the National Policy on Population for Sustainable Development.[14] The targets of this new policy include a reduction in population growth rate to 2% or lower by 2015 and reduction of the total fertility rate by at least 0.6 children every 5 years by encouraging child spacing through the use of family planning.[16] Indeed, the aim of different Nigerian population policies and programs has since been to reduce fertility in the country.[17] In spite of this, the Nigerian population has continued to grow while her GDP had continued to decline.[14]

Nigeria is currently the 7th most populous country in the world and the largest in Sub Saharan Africa with a United Nation's projected population of over 186 million by July 2016, 201 million by 2019 and 285 million by 2050.[18,19] There are an estimated 35 million women of reproductive age in the country, with an annual number of births of approximately 7 million and annual population growth of 3.2% per annum.[18] The country's rapid population growth has been driven by high fertility with a total fertility rate (TFR) of 5.5 children per woman which has fallen in the last few decades but not as rapidly as the fall of the crude death rate.[18] High population growth is related to the socioeconomic development of any nation including reduced per capita income, high rural to urban migration, heavy pressure on social services such as healthcare and education, high unemployment rates, poverty, land fragmentation and degradation, and communal clashes over arable land.[16,18] Within families, elevated risks of maternal and child mortality and a higher risk of being trapped in poverty are areas of concern as the family size increases.[17] High population levels such as seen in Nigeria can cause a reduction in the 'carrying capacity' of the ecosystem, over-exploitation, depletion and pressure on natural resources, thus threatening public health systems.[20]

Globally, fertility levels have been gradually reducing and the current average fertility estimates present 1.7 births in developed countries, 4.1 in less developed countries and 4.8 in sub-Saharan Africa.[21] Projections show that in Africa, fertility rates remain the same over the forth coming decades, the continent's rapidly growing population is bound to reach 3 billion by 2050 and about 15 billion by 2100.[22] While rates are seemingly reducing, Nigeria is one of the countries in Africa grappling with high fertility levels due to low levels of contraceptives uptake.[14] The uptake of contraception remains low due to cultural, economic and political barriers.[14]

In Nigeria today, the rate at which marital couples experience divorce and re-marriage is quite alarming as a result of poor marital harmony.[23] Many families have been and some are still seriously at war with themselves simply because of their failure to arrest, manage or resolve conflicting issues between couples or families. The effects on the children, couples themselves and the community are devastating. Marriages in Nigeria are besieged by numerous constraints that lead to increase in divorce and marital separation.[24] Fertility desire discordance is one major factor among others that causes marital disharmony among couples because male fertility desire usually predominates in negative childbearing plans, whereas , women prevail in positive fertility decisions.[25]

1.3 JUSTIFICATION OF STUDY

Marriage provides a sort of coverage for fertility, many of the fertility outcomes in marital-unions are concealed as desired outcomes, even in cases when they are not planned for. Evidence has confirmed that many children even within marriage are not desired or are products of unwanted pregnancies. A child born without plan will definitely pose a problem to the family welfare.[26]Unlike the non-marital fertility, marital fertility has a general acceptance within the society. It is embraced and celebrated. Effective and healthy fertility behaviour among couples will reduce infant, child, maternal morbidity and mortality as well as the spread of HIV/AIDS and high-risk pregnancy.[26]The healthy fertility behaviour among couples will also enhance the health of the mother, children and general welfare of the family. It will reduce cost expended on antenatal care, postnatal care and the stress on medical facilities. On the part of the family, it will reduce the dependency burden and increase the average income available to the family. The measures of reproductive health and sexual outcome have been based mostly on report of women in reproductive ages. This method may not be sufficient in revealing partners' knowledge,

opinion and experiences about fertility behaviour, it may therefore not represent couples position on fertility behaviour. Focusing on couples offers the opportunity to know the couple centred characteristics that influence fertility behaviour and also the consistency between husbands and wives in their fertility behaviour.[26]Most studies focused on determinants of fertility desire of women. It has been established that fertility desire of women decrease with wealth, parity, education and labour participation.[27] Religion has been found to be connected to fertility desire. Christians and Muslims are in support of high fertility.[28,29] Background characteristics have been found to be very important in shaping fertility behaviour. Sound and deep knowledge of factors in fertility desire of couples will help in formulating programs and policies that will stimulate fertility reduction. Effective contraception and fertility control require the joint action and cooperation of husbands and wives. Differentials in couples' background may determine both the extent and levels of fertility desire.[29]

This study would give us a good understanding of fertility desire and fertility desire discordance along-side its prevalence and determinants, it will elucidate how this factors affect family planning and its methods and how it would lead to either increase or decrease fertility rateand population growth in Africa and other developing countries amidst scarce resources.[30]

These determinants (age at marriage, age at first conception, type of family, per capital annual income, level of education, sex of child, awareness and use of contraceptive, religion, tradition, HIV status, wealth and poverty) of fertility desire discordance may explain the gap in terms of population growth between developed and developing countries, fertility desires, fertility behaviour and fertility rate, marital harmony and why there is an increase in population growth and fertility rate in Sub- Saharan Africa, it may also explain why some families have more children than others.[31] It is therefore important that the fertility desire discordance among

couples in our community are explored, its major determinants and prevalence ascertained with the hope that such results would be utilized in making factual decisions concerning family planning amidst our scarce resources in the country, state and local government like Sabon gari town, Fagge LGA. And will add to the body of knowledge on fertility and reproductive health issues in Nigeria.

1.4 RESEARCH QUESTIONS

- What is the prevalence of fertility desire discordance among couples living in Sabon gari town, Kano?
- What are the determinants of fertility desire discordance in couples living in Sabon gari town, Kano?
- What are couples perceptions of fertility desire discordance in Sabon gari town, Kano?

1.5 AIM AND OBJECTIVES

General Aim: To determine the prevalence and determinants of fertility desire discordance among couples in Sabon gari town, Fagge, Local Government Area of Kano state.

Specific Objectives:

(i) To assess the prevalence of fertility desire discordance among couples in the study area;

(ii) To identify the determinants of fertility desire discordance among couples in the study area.

(iii) To explore perceptions of couples about fertility desire discordance in the study area.

1.5 SCOPE OF STUDY

The scope of this study was limited to determining the prevalence and determinants of fertility desire discordance among couples in Sabon gari town, Fagge, Local Government Area of Kano State. It focused on responses of married women of child bearing age (15-49 years) and their husbands with the use of interviewer administered questionnaire. Explorations into the perceptions were covered using in-depth interview.

CHAPTER TWO

LITERATURE REVIEW

2.1 BACKGROUND

Fertility decision-making is an extremely complex process. Part of this complexity is due to the heterogeneous nature of reproductive behaviour, which encompasses biological, psychological, dyadic, and social dimensions. The dynamic resulting from couple interaction represents a relevant component in that process. Considerable evidence indicates that men and women both make independent contributions to fertility decisions. The strong correlation between male and female childbearing plans does not exclude the possibility of a disagreement within the couple. A disagreement can always arise given that intentions are not acquired once and for all but are frequently reassessed over the individual life course. This justifies the choice to analyse jointly decided couple intentions.[32]

Available evidence from natural studies in the United States indicates that many spouses disagree in the number of children that they desire and it seems reasonable to assume that there are similar degrees of disagreement in other motivational antecedents to childbearing. Such disagreements have practical consequences because differences in spousal fertility desires or intentions have been shown to affect the rate of childbearing. For this and other reasons, researchers have begun to develop various models of couple motivation to explore how well they explain fertility behavior.[33]

There is a widespread agreement in the international literature about the importance of men in reproductive decision-making, and a number of authors have adopted a couple-oriented approach in their fertility research. However, most of the studies on fertility continue to be primarily based

on the female perspective. This choice is usually justified by the high degree of homogamy within the couple, and the fact that women are the main actors and the most reliable reporters of childbearing events. A major difficulty in couple-level research lies in the need to have high-quality survey data that include information on both partners, possibly in repeated waves. These data are indispensable for researchers who want to ascertain the differences between partners' reproductive goals, and to identify the contribution of each member of the couple to the final childbearing outcome. While this is true in general, a lack of adequate data is an even greater problem in European countries, where longitudinal household surveys have only rarely been conducted in recent decades.[34]

2.2 PREVALENCE OF FERTILITY DESIRE DISCORDANCE AMONG COUPLES

Few studies have been carried out on the prevalence of fertility desire discordance in most developed countries. Data from a Multipurpose Household Survey on "Family and Social Subjects," which was carried out by the Italian National Institute of Statistics (Istat) between 2003 and 2007 on the decision of whether or not to have a child showed that the percentage of couples who were found to disagree was slightly less than 10%.[32] In a similar study done in France 2010, the perceived discordance of fertility desire was 8%. [35]

In a cross-sectional study to assess spousal fertility desire discordance in Jimma zone, Ethiopia 2010 proportion of couples who disagreed on wanting to have children was 27.8%,[36] while in a community based cross sectional survey carried out in Dukem town, central Ethiopia in 2010 showed a prevalence of 4.1% in couples disagreement to have children.[37] A similar study carried out in urban Kenya in 2010 to assess partner communication and discordant fertility goals, approximately 30% perceived their partner to have discordant fertility desires.[38]

In Nigeria, a cross-national survey on fertility desire among couples using the Nigeria demographic and health survey of 2008 recode dataset, it was found out that 38.2% of couples disagreed on fertility desire.[39] In South-western Nigeria, a study on the fertility desire of Yoruba couples in 2005 indicated that 13% of couples disagreed on fertility desire.[40] In a similar study on husband- wife communication and couples fertility desire among the Yoruba of Nigeria, a low level of spousal discordance of 13% was observed.[41]

2.3 DETERMINANTS OF FERTILITY DESIRE DISCORDANCE AMONG COUPLES

In a qualitative study on attainment of fertility desires in Nigeria,[42] it was discovered that economic factors, migration/living apart, marital disruption, infertility, ill-health (including rhesus incompatibility), occultic influence (in relation to magical power) and child mortality were some of the factors that hindered the realization of desired family size. Early/late marriage, polygamy, sex preference, societal and other third-party influences, improvement in economic conditions, lack of effective knowledge on contraception, mismatch in couples' desires (including abusive/drunkard husbands) and multiple births were some of the other important factors that made it difficult to achieve desired family size.

2.3.1 SOCIO-ECONOMIC FACTORS

2.3.1.1 Education

Education is the key determinant of the life style and status an individual enjoys in the society.[43] Studies have consistently shown that educational attainment has a strong effect on reproductive behavior, contraceptive use, fertility, attitudes and awareness related to family health hygiene, specifically, women with at least an incomplete primary education were more likely to use modern methods than thosewith no education.[43]

Education not only enhances cognitive abilities, but also it opens up economic opportunities and social mobility, and as a transformer of attitudes, schooling roles in attitude formation goes far beyond the enhancement of conceptual reasoning and may lead to ones transformations in aspirations and eventually, to questioning traditional beliefs. Education transforms attitudes and values from traditional toward modern and thereby enhancing modernization, which is essential and reliable to regulate fertility.[44]

Highly educated women have a tendency to replace child numbers with child quality.[45] A study in China showed that the preference for a small family was associated with younger age, urban residence, and higher level of education[46] and according to recent reports; white women had fewer number of children and a higher mean age at first birth than Hispanic and black women.[47] Another recent report indicated that men and women with low levels of education were likely to have high mean numbers of children.[47] In Nepal, literate women have only half the number of children ever born (CEB) than do illiterate women (1.9 vs. 3.7 for all; 3.6 vs. 5.2 for women aged 40-49). Furthermore, Muslim women, who had never been exposed to mass media, and poor/poorest women had significantly higher (CEB) than their comparison group. Similarly, those women who had less knowledge about family planning methods had significantly more CEB than those who had a higher level of knowledge about family planning.[48]

Couples in which the wife has little or no formal education are more likely to agree on having another child and that the husband's level of education has a stronger influence on the wife's fertility intentions than does the wife's own education. A study conducted in Benin, Chad, Ghana, Kenya, Mozambique, and Zambia, showed that a higher proportion of couples without formal education were more likely to agree to have another child as compared to couples in which the wife has formal education.[49] When the wife has less education than herhusband, her

ability to influence decisions on fertility preferences and family planning may be reduced. However, in 7 of the 14 countries (Benin, Chad, Ghana,Malawi, Namibia, Zambia, and Zimbabwe) the proportion of couples in agreement on wanting another child is lower when the husband is more educated than his wife. To the contrary, in Rwanda, and Uganda, a larger proportion of couples agree on having another child when the wife's education exceeds that of her husband.[49]

A study among 30 sub-Saharan countries to analyze the causes of educational differences in fertility found out that women with secondary or higher education have on average lower fertility than women with no education (3.4 vs. 6.3 births per woman), which is also the case in desired family size (3.7 vs. 5.6 births per woman). Additionally, there are differences by level of education in the relationships between reproductive indicators. As education rises, fertility is lower at a given level of contraceptive use, contraceptive use is higher at a given level of demand and demand is higher at a given level of desired family size. The most plausible explanations for these shifting relationships are that better-educated women marry later and less often, use contraception more effectively, have more knowledge about and access to contraception, have greater autonomy in reproductive decision making, and are more motivated to implement demand because of the higher opportunity costs of unintended childbearing.[50] From literature the general expectation is that the desire for more children should be lower for the educated women in comparison to the not educated women. Converse to this expectation, Kenyan women with secondary education and above had a higher level of desire for more children (42.8%) compared to women with primary (41.1%) and no education (29.3%).[51]

Study of fertility in Nigeria revealed that only 10 per cent of the women with education beyond the primary stage believed fertility to be determined by God', whereas 50 per cent of the totally uneducated women held that belief.[52] In most research studies it has been found that desired family size becomes smaller with the increase in women's educational levels.[53]

2.3.1.2Employment, Occupation and Place of residence

Employment is one of the important factors, which determine contraceptive use. Employment can also be a source of empowerment for both women and men. It may be particularly empowering for women if it puts them in control of income.

According to a Bangladeshi study on the impact of woman's status on fertility and contraceptive use in Bangladesh it revealed that three selected variables of woman's status namely education, occupation and discussion of family planning with partner were strongly associated with number of living children, ever use of contraception and current use of contraception.[54] As per the findings, higher education, skilled job and discussions about family planning with partner were related with having significantly fewer numbers of children.[54] Thailand was a frequently cited example, in places where women's status was high and fertility was lower than might be expected on the basis of developmental indicators alone.[55]

Women with gainful occupation are more likely to use contraception than those with no gainful occupation. A study conducted in Zimbabwe showed that, unemployed women were the least likely to be using modern methods and that could be associated with the low level of education.[43]A study conducted in Malawi discovered that events that change one's economic circumstances might alter plans for future childbearing.[56] For instance; job loss could lead to postponement of pregnancy to allow time for a household to regain financial balance before adding another member. On the contrary, a spouse beginning a new job could hasten a woman's

childbearing plans. Frequent changes in fertility preferences may also reflect the economic uncertainty that is common in developing societies such as Malawi, where employment may be sporadic or scarce.[57]In Meru, Kenya, it was discovered that women married to husbands with higher occupation status were more likely to desire to stop childbearing than those married to husbands with lower or middle status occupation hence an inverse relationship between the desire for more children and occupation.[58]

A significant relationship between occupation and desired fertility and fertility-related behavior is evident in several studies. A study done among the Yoruba of Nigeria revealed that desired fertility is lower for women married to husbands employed outside agriculture, compared with those in the agricultural sector.[59] Urban people prefer smaller families. Family size preference also varies regionally with variations of place of residence.[60]

2.3.2SOCIO- CULTURAL FACTORS

The main factors precluding fertility decline in sub Saharan Africa are rooted in the cultural background, which is centered on the traditional religious belief system that upholds lineage continuation and the succession of generations.[61] High fertility is the by-product or residue of cultural, economic and social factors.[62] Sociocultural factors or circumstances have been pinpointed to play pivotal role for the relatively high fertility rates prevailing in the region. This ranged from high infant and child mortality, early and universal marriage, low contraceptive use and the high value placed on child rearing. Sub- Saharan Africa has the lowest level of contraceptive use in the world.[63]In this circumstance of subordinate position, fertility is seen by women as a medium of attaining higher status within the family. As a result, women generally indulge in giving birth to many children, whereby the number of children a woman gives birth to, is viewed as a determinant factor that helps to ascertain and increase her status in the family.[63]

Sub Saharan Africa societies have set up an efficient system that strives to promote high fertility that encompass practices like early marriages, polygamy, rapid remarriage of widows.[64] The prevalence of high child and infant mortality has contributed to the practice of high fertility rates in sub Saharan African countries as well. In the face of high infant mortality rates, high fertility rate is viewed as a medium of increasing the chances of precluding lineage extinction as well as a means of raising the survival rate of the lineage.[65] The importance attached to lineage continuation is the main reason behind the high fertility levels in the region and also for the reluctance that surrounds fertility decline.[61] In essence, African societies are built in a manner wherein high fertility and large families are often economically as well as socially rewarding. [61]

2.3.2.1 Religion

Cultural factors, defined as language, religion, customs and values have been shown to have an impact on fertility behaviors. The fertility patterns are similar in culturally homogenous groups suggesting the importance of diffusion across such groups.[66] The National Health Statistics Reports in the United States revealed that the fertility intention of men and women differed across races and religions. With regard to religion, Catholic women tended to have fewer children than Protestant women; however, fertility intention was high among Mormons and Hispanics, regardless of their religion, and was lowest among Jewish women and those with no religion.[66]

It was discovered that local changes in reproductive behavior occur within religious groups; and assumed that social interactions among the women cannot be substituted with other interventions.[67] Studies showed homogeneity of choices in villages in the contraceptive preferences.[68] It must be as a result of the diffusion of contraceptive information through interpersonal networks.[69] Since individuals locate within the social networks, their child bearing

attitudes, preferences, decisions, and behavior may arise from the social learning and influence with the interactions of kin, relatives, peers.[75]

A case study of Kenya indicated that Muslims had the highest level of desire for more children (56.6%) whereas Catholics and Protestants were 42% and 43.4% respectively.[51]

There is a considerable body of literature on the role of religio-cultural processes as important factors in sustaining the high fertility in sub-Saharan Africa.[71] Therefore, the adoption of contraception seem to be a cultural process that depends on access to contraceptives and acceptability of information and this is related to one's faith or community faith.[72]

Findings from these studies indicate that Sub-Saharan Africa may well offer greater resistance to fertility decline than any other world region. The reasons are cultural and have much to do with a religious belief system that operates directly to sustain high fertility but, that also has molded a society in such a way as to bring rewards for high fertility.[71] Religion is still largelyseen as a barrier to fertility decline and to family planning adoption in the region.[73]

Some researchers have argued that the religious context in which individuals are socialized impacts their family values, attitudes and practices about sexual behavior and thus their fertility. Denominational differences in teachings and sanctions against proscribed behavior such as the use of contraceptives and premarital sex may influence the timing of marriage and fertility levels.[72]

Study found that Protestants and Catholics in urban Mozambique were more likely to have used or had conversations about modern family planning than were women from "spirit filled" or more evangelical churches. It was argued that the urban religious setting of Mission Protestants and Catholics, in which churches tend to be large and diverse, facilitates interaction and mixing of women of different education levels, thus enabling social learning that is relevant to

reproductive behaviour. In these heterogeneous settings, women who were less likely to know of or use contraceptives came into contact with women who were well versed in these technologies and subsequently adopted their behaviours.[72]

While religious effects in urban areas were specific to members of particular groups, in rural areas, on the other hand, any religious involvement was associated with increased contraceptive use and contraceptive dialogue. For these rural women, it was argued that, attending religious services provided important social interaction within their congregation in what could otherwise be a quite isolated lifestyle where little new information was available.[72] This argument is, of course, a variant on the theory of diffusion, which has long played a critical if occasionally controversial role in theorizing about fertility decline and the spread of contraceptive use.[74]

In many of the European studies, a woman's degree of religiosity is as or more important than her level of education in determining the number of children she will bear over a lifetime. In Spain, women who remain practicing Catholics were considerably more fertile than their non-practicing sisters, which was not the case as at 1985. This is probably because only those truly committed to religion remain attendees while nominal Catholics have dropped away. Since the more religious are more fertile, the departure of social or uncommitted attenders helps unmask the connection between religiosity and fertility.[75]

A study conducted in Ghana found out that many Ghanaians spend a considerable amount of their time in faith and religious-based interactions where the diffusion of information on reproductive norms is more likely to occur and religion could provide the organizational context for behavioral change on fertility related behavior.[71] Any variations in observed fertility behavior between religious groups reflect differential access to social and human capital (e.g. education)

rather than religion *per se*. Thus, a debate continues as to whether differences in fertility behavior are due primarily to religious processes or the interplay of socio-economic forces.[71]

In a survey, three quarters of those questioned in Africa identified religious leaders as the most trusted group, compared to only a third worldwide. Asked who had the most influence on their decision making over the past year, a significantly higher proportion of respondents in Africa indicated religious leaders. The figure for Africa was about three times greater than the global average.[71]

It was reported that Muslim demographic dynamics occurred firstly at the macro level, involving Islamist governments and political actors enacting policies which restrict access to family planning while exhorting their populations to havemore children. This kind of politics has delayed the onset of demographic transition in certain cases and therefore support for family planning in the Muslim world cannot be taken for granted and faces Islamist challenges in certain areas. The second form of Islamist fertility appears on the micro level, and seems likely to grow more important as Muslim societies modernize and move through their demographic transition. This involves Islamist individuals who have full access to family planning and urban material incentives not to have excess children choosing to have larger families than non-Islamist Muslims.[71]

It was also pointed out that changes in reproductive behavior do not always take place in isolation. The spread of information and new ideas about reproductive behavior is often influenced by several factors, including for instance, one's social networks.[71]The ties that religious congregations provide could in turn provide the stimulus for behavioral changes and the diffusion of small fertility norms.[71]

Declining fertility rate in Africa was linked to increased use of contraceptives.[77] It is in this area that religion could either have a negative or positive impact on contraceptive use. Because the religious and traditional belief systems are primarily anti-family planning, the use of contraceptives in traditional African societies tends to be de-emphasized.

2.3.2.2 Ethnicity.

The term ethnicity refers to the relationships between groups whose members consider themselves culturally distinctive. The social and family structures of many ethnic groups influence the ideological, cultural values and norms including sexuality. For example, in Kenya as in many African countries, ethnic identity/belonging is a much stronger attribute than the wider national identity. The important thing to note however is that the fertility rates for the majority of the ethnic groups are higher than the national average of 4.6 and that only a few ethnic groups, namely: Kikuyu, Embu, Meru and Taita/Taveta have fertility levels that are below the national average.[78] The role of contraceptive use as a major factor in fertility decline in Kenya appears to be negligible for the majority of the ethnic groups. For example, among the Somali, Turkana, Kuria, Luo, Maasai and Kalenjin, the index of contraceptive use had no effect or minimal effect in fertility inhibition. These are also the ethnic groups which had the highest fertility levels in 2003.[78] Increase in contraceptive use has been touted as being one of the major factors in fertility decline and stall in Kenya over the years.[79] However, use of contraceptive could only explain fertility declines among some ethnic groups while other reasons need to be sought for the low use and subsequent high fertility rates among some ethnic group.[78]InKenya, in terms of ethnicity Luos, Luhyas, Kisii had the highest desire for more children followed by the Kalenjin community and last but not least the Kamba, Kikuyu, Embu and Meru with the following percentages respectively (46%), (44.4%), and (38.1%). [51]

2.3.2.3 Sex composition

A study conducted in Tharu, rural of Nepal discovered high sex ratio at last birth and shorter birth spacing following female children.[80] Plan for next birth was strongly affected by sex composition; women having only female children in family were more likely to want another birth compared to others. Age and education of the women, number of current living children were significantly associated with current contraceptive practices. This high sex ratio at last birth for those who decided to stop child bearing or used permanent contraceptives suggests the childbirth-stopping behavior was driven by son preference and can be inferred that the son preference behavior exists in Tharu community. Higher sex ratio indicating son preference behavior has also been found in analysis of data from Nepal demographic and health survey 1996, 2001, 2006, and 2011.[80]

2.3.2.4 Age

A study carried out among women in both rural and urban Senegal showed that; age at first marriage occurs early in Senegal. In urban areas, over 49 percent of women aged 40-49 years were married before age 20 and 53 percent among urban women aged 15-29 years. On the other hand, 71 percent of rural women aged 40-49 years and 82 percent of rural women aged 15-29 were married before age 20. Early ages at first marriage expose Senegalese women to a long duration of pregnancy risk and high odds to give birth to numerous children.[81]

Large spousal age gap is correlated with high fertility level and it is often argued that young wives are pressured by their older husbands to produce more children against their own will. It is reported that young women and especially those in arranged marriages have less decision making within marriage.[82] Women's bargaining power matters a lot when they prefer more

children e.g. when they aremuch younger than their husbands. If the age gap is small, the conflict of interest tends to be small.[83]

The pattern of marriage in which the age gap between spouses favors the husband is an important indicator to measure the status and position of women in the society. This means that he is more dominant on family decisions and increases his different socio-economic and demographic dominance as a result of higher knowledge and experience because of the gender and age difference.[84]A study conducted in India found out that age difference between spouses influenced fertility through at least three mechanisms. First, there is evidence that fecundability varies slightly with age of the man, and thus the age difference will affect marital fertility. The age difference is also positively associated with the risk of dissolution of marriage through widowhood before the end of a woman's reproductive years.[85]

Finally, more substantial but less direct effect of the age difference on fertility and on other variables as well may come about through its influence on relations between the spouses and the resulting impact on variables such as marital stability, marital satisfaction, preference for family size and contraceptive use. It is generally observed that a large age gap between the sexes is a necessary mechanism for giving husband sufficient dominance to resist their wives sexual demand. Age gap between spouses decrease gradually as the status of the women increase and so the improvement of her statues in the society, and as these gaps increase between the spouses the lower the women status is, and her status in society is marginalized.[84] In this regard, many scholars in Jordan noted the need to take into account the importance of women education. Education helped to raise and strengthen women social roles and helped them to exceed those traditional roles that were surrounding them. Higher education of the women contributed to the probability for women to participate in the labour market and get regular material return, which

in turn helped in increasing their chances of marriage in late age, and reduce their material dependency to the husband. It also helped to strengthen their prestige and independence and raise their status both within their family or society. Thus becoming freer from their traditional roles and exercise their rights especially with regard to her right to choose the time and appropriate age at marriage. It seems that those factors combined narrowed the age gap between spouses.[84]Higher ages and educational attainment of husbands compared to their wives havealso been shown to affect reproductive preferences and behaviour.[85]

In Kenya, it was reported that the subgroups with low fertility (below the national average) were those where age and marriage and contraceptive use have played a role in their fertility levels.[78] This was mainly among the Kikuyu, Embu and Meru, hence the usual description of Kenya fertility transition being influenced by increases in age at marriage and contraceptive use may be applicable to these ethnic groups. This is consistent with findings from a number of studies in Kenya that have attributed to the decline in fertility to be as a result of an increase in age at first marriage for the majority of the ethnic groups.[79]

2.3.3 INTER SPOUSAL COMMUNICATION

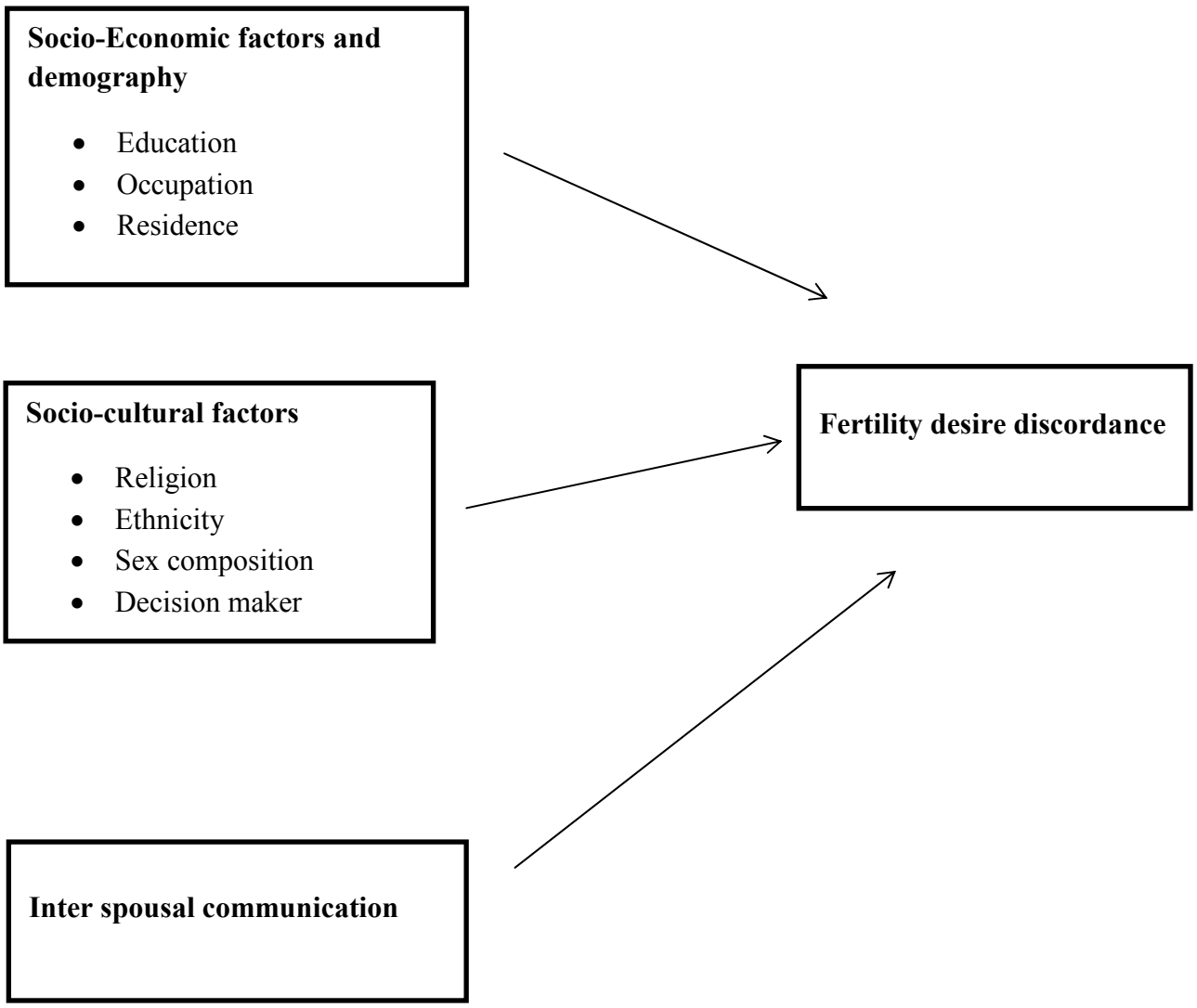
Studies conclude that communication between husband and wives is the first step in a rational process of fertility decision-making, and precursor of lower desired family size.[86] Couples' agreement, conjugal closeness or spousal communication is a strong predictor of intended fertility.[1] Another study suggests that communication is associated with lower fertility preference of couples.[87] From the review of the literature on selected interventions in Africa, it was discovered that low level of contraceptive use was due to lack of communication between spouses regarding family size.[88] Communication factors was also noted to affect husband's attitude towards family size.[89] Inter spousal discussion of family size and current use of

contraceptives are expected to have an inverse effect on family size.[90] Study conducted in Pakistan detected 'inter spousal communication' as a significant covariate of the desire to have no more children, although their findings did not undermine the influence of other socio-economic, religious and health factors, which produce a mutual set of interest even in the absence of overt communication.[86]

2.3 CONCEPTUAL FRAMEWORK FOR FERTILITY DESIRE DISCORDANCE

According to literature reviewed socio-economic, social cultural and demographic factors as well as programmatic factors such as contraceptive use and inter spousal communication may be conceptualized as factors that shape fertility desire discordance. It is anticipated that socio-economic and demographic factors like education, residence, occupation and age have influence on human attitudes and behavior; cultural factors like religion and sex composition also can predict the fertility desire discordance and factors like inter spousal communication can influence the attitude towards family size. Below is a conceptual framework adapted for this study.

Figure 1.0: Conceptual framework



Source: Adapted from economic utility theories of fertility Pullum[91]

CHAPTER THREE

METHODOLOGY

3.1 STUDY AREA

Kano State is located in North-Western Nigeria. It was created on May 27, 1967 from part of the Northern Region. Its capital is Kano and is located at coordinates 11°30'N 8°30'E/ 11.5°N 8.5°E. It has a total area of 20,131km^2, bordering Katsina State to the north-west, Jigawa State to the north-east, Bauchi State to the South-east and Kaduna State to the south-west. The state has a total of 44 local government areas, 8 of which form the Kano Metropolitan Area. These 8 local government areas are; Fagge, Dala, Gwale, Kano Municipal, Tarauni, Nassarawa, Kumbotso and Ungogo, which cover 499 km^2 and a 2018 projected population of 3,931,300 based on the 2006 Nigerian census, with an almost equal distribution of males (51%) and females (49%).[92]

Fagge is a Local Government Area in Kano State, Nigeria, within the greater Kano area. Its headquarters are in the suburb of Waje. It has an area of 21 km². Fagge local government area (LGA) was created on 25 December 1996. The predominant religion of Fagge is Islam though Christianity is practiced by a large number of the population. Fagge LGA has 10 political wards and one district head. The political wards are Fagge A, Fagge B, Fagge C, Fagge D1, Fagge D2, Sabon gari East, Sabon gari West, Kwachiri, Rijiyar Lemo and Yammata. There are 11 primary Health facilities, 6 secondary health facilities and 26 private health facilities across the LGA. Aminu Kano International Airport is also located in the LGA with its own port health clinic. The local government has a total 2019 projected population of 302,603 among which 12,105 are children 0-11 month (4%) 60,521 are children 0-59 months (20%), 66,573 are women of child

bearing age (22%) while 15,130 are pregnant women (5%) .The major tribe of the community is Hausa and the main occupation of the people is trading and civil services.[93]

Sabon gari landscape area located in Fagge LGA has two political wards: Sabon gari East and Sabon gari west politically headed by councilors elect during local government general elections. The predominant tribes in the area are non- natives of kano state, these includes the Igbos, Yorubas, Edo, Delta, Babur, Idoma, Igala, Eshan, Ebira, Baju, Tangale, Igara, etc. Sabon gari has four demarcated borders with the boundary at Airport road (north cardinal point), Egbe road (south), Murtala Muhammed way (east) and Nomansland (west). Sabon gari has 48 major streets within its landscape which includes: France road, Niger road, church road, Yoruba road, Emir road, New road, middle road, Aitken road, Abeokuta road, Enugu road, Warri road, Aba road, Ijebu road, Onitsha road, Ballat hughes, sarkin yaki, zungeru road, Russell avenue, Okonkwo avenue, ilaro road, tudun wada road, imam road, airport road, stadium road, Dambatta way, jaba etc. Sabon gari district is basically a commercial activities center compounded with residential avenues. The predominant occupation is trading among others.[94]

3.2 STUDY DESIGN

The study design was descriptive cross-sectional with concurrent mixed method of data collection.

3.3 STUDY POPULATION

The populations of the study are couples living in Sabon gari that is husbands and their wives within the reproductive age group (15-49 years).

3.3.1 Inclusion criteria for quantitative and qualitative method

Married couples with children residing in the study area.

3.3.2 Exclusion criteria for quantitative and qualitative method

Infertile married couples and those in a polygamous family setting within the study area.

3.4 SAMPLE SIZE DETERMINATION

3.4.1 Quantitative Method

The sample size formula for estimating a single proportion for population greater than 10,000 was used to determine the sample size. It is given below:

$$n = \frac{(Z\alpha/2)^2 \, p \, (1-p)}{d^2}$$ [95]

n = desired sample size

p = proportion of fertility desire discordance among couples from a previous study =27.8%.[36]

d = is the desired level of precision (5%) =0.05

Zα/2 = is the value of standard normal deviate corresponding to level of significance of 5% = 1.96 (obtained from normal distribution table)

n_o = minimum sample size

The value of n on imputing the above values is given by

$$n_o = \frac{1.96^2 \times 0.28 \, (1 - 0.28)}{}$$

$$0.05^2$$

$$n_o = \frac{3.8416 \times 0.28 \times 0.72}{0.05^2}$$

$$n_o = \frac{0.7745}{0.05^2}$$

$$n_o = 309.79 \approx 310$$

n_o = sample size = 310

However, putting into account non-response rate at 10%.

The minimum sample size is given by

$$n = \frac{n_o}{1 - 0.1} = \frac{310}{1 - 0.1}$$

$$n = \frac{310}{0.9} = 344.44$$

Minimum sample size (n) = 344.44 ≈ 350

n = 350 couples

3.4.2 Qualitative Method

For qualitative method, In-depth interviews (IDI) of 10 couples (10 husbands and 10 wives within reproductive age of 15-49 years) were carried out to a point of saturation.

3.5 SAMPLING TECHNIQUE

3.5.1 Quantitative Method

Sabon gari is a town within Fagge LGA. It is made up of two wards (sabon gari east and sabon gari west) with an estimated population of 66,045 and an estimated household of 30,780.[96] Systematic sampling was used for quantitative study.Sample size and sampling frame was used to determine sampling fraction. To calculate the sampling interval, the formula below was used:

Sample interval =$sample\ frame\ \div sample\ size$: where;

Sample frame = 30,780

Sample size = 350

Sampling interval = 30,780÷350= 88.

The first household interviewed was determined from the house number register obtained from the LGA office using balloting method. The next household was identified by systematically adding the number of interval to the preceding one. If more than one eligible respondent were found in the selected household, only one respondent was chosen by balloting method. In cases where no eligible respondent is identified in the selected household, the interviewer moved to the next household and this procedure was continued until the desired sample size was obtained

3.5.2 Qualitative Method

For the qualitative data collection, a non-probability sampling technique using purposive sampling was used to select IDI participants.

3.6 DATA COLLECTION

3.6.1 Data Collection Instrument

Quantitative data was collected using an adapted[36]structured interviewer administered questionnaire (Appendix 2). It was developed in English language, pre-tested and analyzed on a similar population of 20 couples from a different district (Badawa) to identify ambiguous questions and ensure acceptability and appropriateness of skip pattern. Section A reflected the socio-demographic characteristics of the respondents. Section B obtained information on the prevalence and determinants of fertility desire discordanceamong couples. Qualitative data was collected using Interview guide (Appendix 3) for in-depth interviews (IDI) in English language. IDI guides for fertility desire discordance focused on perceptions of couples about their fertility desire and factors that influenced couples' perceptions about their fertility desire.

3.6.2 Data Collection Procedure

Data was collected from October 2018 to November 2018. Three research assistants with tertiary level of education were trained under supervision by the main researcher to conduct interviews in three-day training with a broad introduction to the research objectives, observational skills, and ethical issues. The training had a session per day. The contents of the training include study objectives, community entry, interpersonal communication and study tools administration. In addition, Research assistants were provided with information on referring clients requiring additional support. During the course of the training research assistants were taught with the aid

of information, education and communication (IEC) materials and were given practice sections for better understanding.

For the quantitative method, interviewers administered the questionnaires to consenting couples in English. Each questionnaire took about 6 minutes to fill. Non-repetitive unique identification numbers were used on each questionnaire and were linked for each respondent's data entry.

Participants for IDIs were contacted and invited, and then a convenient venue at a set date and time were arranged. Standard IDI procedures were followed; a moderator (researcher) conducted the session, accompanied by a note-taker that recorded the interviews using a digital voice recorder and lasted between 30-40 minutes for IDIs.

3.7 DATA MANAGEMENT AND ANALYSIS

For data collected using quantitative method, filled questionnaires were checked during collection on the field to ensure completeness, rule out missing information and ensure corrections are made before leaving the field on the same day. Data cleaning and checking was subsequently done to exclude incomplete, inaccurate and inconsistent data before analysis. Data were coded and entered using double data entry into a spread sheet on Microsoft Excel and analyzed using Statistical Package for the Social Sciences (SPSS) version 20 statistical software. Quantitative variables were summarized and presented using mean, standard deviation and grouped frequency tables, while qualitative (categorical) variables were summarized and presented using frequency tables. To determine association between socio-demographic characteristics and fertility desire discordance, Chi-square test of association for statistically significant association was used, with a p-value <0.05 was considered as significant. To determine associations between fertility desire discordance and determinants among couples, a

Chi-square test of association was used to test for statistically significant difference with a p-value <0.05 considered as significant. Logistic regression was used to control for confounders and assess predictors of fertility desire discordance.

Thematic analysis approach was employed for qualitative analysis and was done manually using MS Word and MS Excel. All IDI recordings were transcribed in their original language (English) and non-repetitive unique identifiers were assigned to all transcripts which linked each transcript to some de-identified characteristics of the respondents. The transcripts were stored and managed in a password-protected computer accessible only to the researcher.

After reviewing research objective, the researcher used a method of reiterative immersion for all transcripts and the first cycle of coding was done line-by-line inductively to assign tags and generate codes and categories. This was done simultaneously during data collection process to ensure saturation. Transcripts were then sorted according to themes generated from the first cycle of coding and further reviewed with previous literature for a second cycle of coding. New themes were further reflected on and transcripts re-sorted. Findings were triangulated with quantitative results and between IDI findings. Transcripts were analyzed in English language. Translation was done at the level of presentation of findings.

3.8 ETHICAL CONSIDERATION

Ethical approval was obtained from the Kano State Ministry of Health (see Appendix 5). After ethical approval, introduction letter was sent to the Executive Chairman of Fagge LGA before commencement of data collection. Formal permission was also obtained from traditional rulers/community leaders.

All necessary information was read to potential participants including assuring confidentiality, anonymity, benefits to the participants and freedom to withdraw at any time without any negative consequence. Once understood and accepted, the participants signed the informed consent form (Appendix 4).

3.9 LIMITATIONS OF THE STUDY

1. Social desirability bias: includes the personal reproductive health history of each respondent, which is highly affected by cultural values. However, they were assured of confidentiality, reminded of the benefits of the study and the need for their honest responses.
2. One of the problems encountered is that, all the data were collected by visiting respondents in their households during the day; hence most of the respondents found at home were housewives and those who were working from home. Employed respondents were not found at home during day time on week days. This problem was solved by collecting data even on weekends and those respondents who their work place are nearby, the interview was conducted at their work place whenever possible upon agreement. Also was the problem of finding of oneperson at home (that is a husband or a wife) and not both of the partners. This wasmostly for the case of business men/women and civil servants; but again, arrangement wasmade to get those who were not at home in later hours, and it worked.
3. Some men were hesitant to participate in this research as they thought the issue offamily planning is for women only, but aftereducating them a bit about the whole issue they understood and agreed to participate.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 RESULTS AND FINDINGS

A total of 350 couples (700 respondents) were approached for the quantitative component of this study and all the questionnaires were correctly filled and analysed, giving a response rate of 100%. For the qualitative component, 10 IDIs (10 husbands and their wives) were conducted and included in the analysis.

4.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1. Socio-demographic characteristics:

	Husband		**Wife**	
Characteristics	**No.(350)**	**%(100)**	**No.(350)**	**%(100)**
Age group				
15-24	5	1.4	23	6.6
25-34	55	15.7	152	43.4
35-44	166	47.4	131	47.4
>45	124	35.4	44	12.6
Mean±SD	**41.9±8.3**		**34.6±7.3**	
Religion				
Islam	82	23.4	72	20.6
Christianity	268	76.6	278	79.4
Tribe				
Hausa	52	14.9	47	13.4
Igbo	130	37.1	127	36.3
Yoruba	104	29.7	109	31.1
Others	64	18.3	67	19.1
Education				
Incomplete primary	15	4.3	41	11.7
Complete primary	19	5.4	23	6.6
Incomplete secondary	116	33.1	142	40.6
Complete secondary	8	2.3	11	3.1
Incomplete tertiary	176	50.3	109	31.1
Complete tertiary	16	4.6	24	6.9
Occupation				
Civil servants	116	33.1	77	22.0
Business men/women	186	53.1	111	31.7
Petty traders	21	6.0	78	22.3
Housewife	-	-	64	18.3
Others	27	7.7	20	5.7

Income/mth(₦)				
<5000	19	5.4	114	32.6
5000-20000	108	30.9	102	29.1
20000-50000	113	32.3	66	18.9
50000-100000	65	18.6	29	8.3
>100000	45	12.9	12	3.4
No income	0	0.0	27	7.7

The age range for husbands was from 24 to 68 years with mean age of 41.9 years and for wives was from 19 to 49 years with mean age of 34.6 years. Majority of the husband respondents 166 (47.4%) were between 35-44 years while most of the wives 152 (43.4%) were between 25- 34 years. Most respondents were Christians: husbands 268 (76.6%) and wives 278 (79.4%). The predominant tribe was Igbo – 130 (37.1%) husbands and 127(36.2%) wives; Yoruba were 104 (29.7%) husbands and 109 (31.1%) wives, Hausa 52 (14.9%) husbands and 47 (13.4%) wives and other tribes such as Babur, Idoma, Igala, Jukum, Ebira, Baju, Tiv, Zaar, Ebu, Gbagyi, Eggon, Ukwani, Jenjo, Nupe, Ibibio, Ijaw, Agbo, Efik, Ika, Urhobo, Isoko, Atyop, Edo, Maagavul, Delta, were 64 (18.3%) husbands and 67 (19.1%) wives. All respondents had formal education as complete or incomplete. Most of the husband respondents had incomplete tertiary education; 176 (50.3%) while most wives had incomplete secondary education 142 (40.6%). A vast majority of respondents were business men and women: 186 (53.1%) husbands and 111 (31.7%) wives, some are civil servants, petty traders, housewives and so many others students, bankers, lawyers, teachers, retirees, tailors, carpenters, plumbers, electricians, company staffs, caterers, food vendors, commercial drivers and automobile mechanics. Most of the respondents were income earners. Husbands earn mostly between 20000-50000 Naira per month; 113 (32.3%) while wives earn less than 5000 Naira per month; 114 (32.6%).

Table 1. Socio-demographic characteristics (contd):

Characteristics	Husband		Wife	
	No.(350)	**%(100)**	**No.(350)**	**%(100)**
Age at marriage				
15-24	181	51.7	210	60.0
25-34	127	36.3	124	35.4
35-44	41	11.7	16	4.6
>45	1	0.3	0	0.0
Age at first child birth				
15-24	85	24.3	155	44.3
25-34	212	60.6	173	49.4
35-44	52	14.9	121	6.0
>45	1	0.3	1	0.3
No. of children				
1-2	182	52.0	182	52.0
3-4	138	39.4	138	39.4
5-6	25	7.1	25	7.1
>6	5	1.4	5	1.4

Majority of respondents had their age at marriage between 15-24 years: husbands 181(51.7%) and wives 210 (60.0%) while a greater proportion of them had their age at first child birth between 25-34 years: husbands 212 (60.6%) and wives 173 (49.4%). Most couples had between 1-2 children; 182 (52.0%).

4.3 PREVALENCE OF FERTILITY DESIRE DISCORDANCE

Table 2: Prevalence of Fertility Desire Discordance

Desire to have more children?	Frequency	%
Couple both want more	178	50.9
Couple both do not want more	146	41.7
Couple disagree with one another	26	7.4
Total	**350**	**100**

The prevalence of fertility desire discordance is 7.4% among couples in Sabon gari, Fagge LGA of Kano State

Table 3: Fertility Desire Discordance

	Husband		Wife	
Characteristics	**No.**	**%**	**No.**	**%**
Desire no more children (reasons)				
Don't have enough money	24	36.3	20	35.4
Attained desired family size	135	51.7	123	60.0
Mother's health	41	11.7	7	4.6
Child's health	0	0.0	3	2.0
Desire more children (reasons)				
Have enough money	12	6.4	10	5.1
Not attained the desired family size	158	84.5	153	78.1
Need a male child	12	6.4	24	12.2
Need a female child	5	2.7	9	4.6
Additional number of children desired				
1 more	63	33.3	74	37.6
2 more	72	38.1	74	37.6
3 more	35	18.5	40	20.3
>4	19	10.1	9	4.6
Who decide the number of children desired				
Myself	79	22.6	36	10.3
My husband	13	3.7	54	15.4
Both of us	246	70.3	249	71.1
External family members	7	2.0	5	1.4
Others	5	1.4	6	1.7
Do you think your spouse wants to have more children				
Yes	203	58.0	189	54.0
No	147	42.0	161	46.0
If no, why do you think so?				
Financial constraint	24	16.6	30	18.9
Attained the family size	115	79.3	123	77.3
Mother's health	6	4.1	6	3.8
If yes, why do you think so?				
Cultural acceptance	1	0.5	1	0.5
Financially buoyant	11	5.5	12	6.1
God's will	1	0.5	1	0.5
Have only female children	24	12.0	24	12.3
Have not yet attained family size	144	72.0	146	74.5
Have only male children	3	1.5	3	1.5
Love for kids	10	5.0	5	2.6
Need a male child	1	0.5	1	0.5
They are helpmate	2	1.0	2	1.0
Need a female child	3	1.5	1	0.5
Do couples disagree on fertility desire?				
Yes	233	66.6	241	68.9
No	117	33.4	109	31.1

Most reasons proffered for desiring no more children was that they have attained their desired family size; husbands 135 (51.7%) and wives 123 (60.0%). Other reasons incude financial constraint and mother's medical health status. Reasons given by majority who desire more was more of not having attained the desired family size; husbands 158 (84.5%) and wives 153 (78.1%), others were being financially buoyant, some needed a male child and some female child. Majority of husband respondents desire 2 more children; 72 (38.1%) while the wives desire 1 or 2 more child/children, each 74 (37.6%). A greater number of both set of respondents said that both partners decide the number of children desired; husband 246 (70.3%) and wives 249 (71.1%). Some said either of the spouses, some extended family members and others said God. Most spouses were of the opinion that their partner wanted to have more children; husbands 203 (58.0%) and wives 189 (54.4%), while most reasons for this opinion was that they have not yet attained their desired family size; husbands 144 (72.0%) and wives 146 (74.5%). Majority of those who opined that spouses desire no more children said so because they have attained the desired family size; husband 115 (79.3%) and wives 123 (77.3%). However a vast majority of couples think that couples disagree on fertility desire; husbands 233 (66.6%) and wives 241 (68.9%).

Table 3: Fertility Desire Discordance (Contd):

	Husband		Wife	
Characteristics	**No.**	**%**	**No.**	**%**
Do you have sex preference?				
Yes	74	21.1	88	25.1
No	276	78.9	262	74.9
If yes, what is your preferred sex?				
Male	49	66.2	49	55.7
Female	25	33.8	39	44.3
Why would you prefer for your said choice?				
Because I am a man	5	6.8	2	2.3
caregivers at old age	11	14.9	6	6.8
cultural reasons	6	8.1	6	6.8
easy to train	1	1.3	0	0.0
God's will	1	1.3	0	0.0
have female children	10	13.5	19	21.6
have male children	10	13.5	14	15.9
head of household	23	31.1	23	26.1
Helpmate	5	6.8	16	18.1
Love for my mother	2	2.7	2	2.3
Love for my father	0	0.0	1	1.1
Do you think your desire for sex preference would cause you to have more children?				
Yes	39	52.7	52	59.1
No	35	47.3	36	40.9
Would you have had more children if you were more financial buoyant?				
Yes	110	31.4	257	73.4
No	240	68.6	93	26.6

Most respondents do not have sex preference; husbands 276 (78.9%) and wives 262 (74.9%) while those that have preferred the male sex; husbands 49 (66.2%) and wives 49 (55.7%). Major reason for this preference was because they would become heads of households; husbands 23 (31.1%) and wives 23 (26.1%), other reasons were that of individual sex status, caregivers at old age, cultural reasons, easy to train, God's will, wanting male and female children, help mates and love of sexes of both parents. Majority felt that their desire for sex preference would not lead to more children; husbands 39 (52.7%) and wives 52 (59.1%). Most of the husbands felt they would not have had more children even if they were financially buoyant; 240 (68.6%) while the

wives thinks being financially buoyant would had cause them to have more children; 257 (73.4%).

Table 3: Fertility Desire Discordance (Contd):

	Husband		Wife	
Characteristics	**No.**	**%**	**No.**	**%**
Ideal family size				
Yes	257	73.4	258	73.7
No	93	26.6	92	26.2
Knowledge of family planning				
Yes	322	92.0	277	79.1
No	28	8.0	73	20.9
Knowledge of contraceptives				
Yes	277	79.1	297	84.9
No	73	20.9	53	15.1
Use of contraceptives				
Yes	140	40.0	169	48.3
No	210	60.0	181	51.7
Inter-spousal communication on Family Planning				
Yes	299	85.4	303	86.6
No	51	14.6	47	13.4

Majority of respondents said that they have a predetermined family size; husbands 257 (73.4%) and wives 258 (73.7%). Most of them have knowledge of family planning; husbands 322 (92.0%) and wives 297 (84.9). Also, most of the respondents have knowledge of contraceptives; husbands 277 (79.1%) and wives 297 (84.9%). Contraceptive use was very poor as most respondents do not use any form of contraception; husbands 210 (60.0%) and wives 181 (51.7%). couples felt good inter-spousal communication would help in family planning; husbands 299 (85.4%) and wives 303 (86.6%).

4.4FACTORS ASSOCIATED WITH FERTILITY DESIRE DISCORDANCE

Table 4: Factors Associated With Fertility Desire Discordance:

	Fertility desire				
Characteristics	**Concordant couples**	**Discordant couples**	**Total**	**$\chi 2$**	**p- value**
Husband age					
15-24	5(100.0)	0(0.0)	5(100.0)	0.834	0.841
25-34	50(90.9)	5(9.1)	55(100.0)		
35-44	153(92.2)	13(7.8)	166(100.0)		
>45	116(93.5)	8(6.5)	124(100.0)		
Wife age					
15-24	18(78.3)	5(21.7)	23(100.0)	9.209	0.027*
25-34	144(94.7)	8(5.3)	152(100.0)		
35-44	123(93.9)	8(6.1)	131(100.0)		
>45	39(88.6)	5(11.4)	44(100.00		
Husband religion					
Islam	71(86.6)	11(13.4)	82(100.0)	5.580	0.018*
Christianity	253(94.4)	15(5.6)	268(100.0)		
Wife religion					
Islam	63(87.5)	9(12.5)	72(100.0)	3.390	0.066*
Christianity	261(93.9)	17(6.1)	278(100.0)		
Husband tribe					
Hausa	45(86.5)	7(13.5)	52(100.0)	4.273	0.233
Igbo	124(95.4)	6(4.6)	130(100.0)		
Yoruba	96(92.3)	8(7.7)	104(100.0)		
Others	59(92.2)	5(7.8)	64(100.0)		
Wife tribe					
Hausa	41(87.2)	6(12.8)	47(100.0)	3.526	0.317
Igbo	121(95.3)	6(4.7)	127(100.0)		
Yoruba	101(92.7)	8(7.3)	109(100.0)		
Others	61(91.0)	6(9.0)	67(100.0)		
Husband education					
Incomplete primary	13(86.7)	2(13.3)	15(100.0)	3.634	0.603
Complete primary	17(89.5)	2(10.5)	19(100.0)		
Incomplete secondary	111(95.7)	5(4.3)	116(100.0)		
Complete secondary	7(87.5)	1(12.5)	8(100.0)		
Incomplete tertiary	162(92.0)	14(8.0)	176(100.0)		
Complete tertiary	14(87.5)	2(12.5)	16(100.0)		
Wife education					
Incomplete primary	38(92.7)	3(7.3)	41(100.0)	1.822	0.873
Complete primary	21(91.3)	2(8.7)	23(100.0)		
Incomplete secondary	132(93.0)	10(7.2)	142(100.0)		
Complete secondary	11(100.0)	0(0.0)	1(100.0)		
Incomplete tertiary	23(95.8)	1(4.2)	21(100.0)		
Complete tertiary	234(92.6)	26(7.4)	350(100.0)		

*Statistically significant (p= 0.05-0.10)

Table 4: Factors Associated With Fertility Desire Discordance (Contd):

	Fertility desire				
Characteristics	**Concordant couples**	**Discordant couples**	**Total**	**χ2**	**p- value**
Husband occupation					
Civil servants	109(94.0)	7(6.0)	116(100.0)	1.379	0.710
Business men/women	170(91.4)	16(8.6)	186(100.0)		
Petty traders	19(90.5)	2(9.5)	21(100.0)		
Housewife	-	-	-		
Others	26(96.3)	1(3.7)	27(100.0)		
Wife occupation					
Civil servants	70(90.9)	7(9.1)	77(100.0)	4.590	0.332
Business men/women	102(91.9)	9(8.1)	111(100.0)		
Petty traders	75(96.2)	3(3.8)	78(100.0)		
Housewife	57(89.1)	7(10.9)	64(100.0)		
Others	20(100.0)	0(0.0)	20(100.00		
Husband income(₦)					
<5000	18(94.7)	1(5.3)	19(100.0)	4.029	0.402
5000-20000	99(91.7)	9(8.3)	108(100.0)		
20000-50000	108(95.6)	5(4.4)	113(100.0)		
50000-100000	60(92.3)	5(7.7)	65(100.0)		
>100000	39(86.7)	6(13.3)	45(100.0)		
None					
Wife income(₦)					
<5000	107(93.9)	7(6.1)	114(100.0)	4.850	0.434
5000-20000	95(93.1)	7(6.9)	102(100.0)		
20000-50000	63(95.5)	3(4.5)	66(100.0)		
50000-100000	25(86.2)	4(13.8)	29(100.0)		
>100000	10(83.3)	2(16.7)	12(100.0)		
No income	24(88.9)	3(11.1)	27(100.0)		

*Statistically significant (p= 0.05-0.10)

Table 4: Factors Associated With Fertility Desire Discordance (Contd):

	Fertility desire				
Characteristics	**Concordant couples**	**Discordant couples**	**Total**	**$\chi 2$**	**p- value**
Husband age at marriage					
15-24	172(95.0)	9(5.0)	181(100.0)	5.603	0.133
25-34	112(88.2)	15(11.8)	127(100.0)		
35-44	39(95.1)	2(4.9)	41(100.0)		
>45	1(100.0)	0(0.0)	1(100.0)		
Wife age at marriage					
15-24	196(93.3)	14(6.7)	210(100.0)	2.373	0.305
25-34	112(90.3)	12(9.7)	124(100.0)		
35-44	324(92.6)	26(7.4)	350(100.0)		
No. of children					
1-2	169(92.9)	13(7.1)	182(100.0)	1.189	0.756
3-4	128(92.8)	10(7.2)	138(100.0)		
5-6	22(88.0)	3(12.0)	25(100.0)		
>6	5(100.0)	0(0.0)	5(100.0)		

*Statistically significant (p= 0.05-0.10)

Table 4: Factors Associated With Fertility Desire Discordance (Contd):

	Fertility desire				
Characteristics	**Concordant couples**	**Discordant couples**	**Total**	**χ2**	**p- value**
Husband sex preference					
Yes	72(97.3)	2(2.7)	74(100.0)	3.048	0.081*
No	252(91.3)	24(8.7)	276(100.0)		
Wife sex preference					
Yes	70(79.5)	18(20.5)	88(100.0)	29.006	<0.001*
No	254(96.9)	8(3.1)	262(100.0)		
Husband Ideal family size					
Yes	239(93.0)	18(7.0)	257(100.0)	0.254	0.615
No	85(91.4)	8(8.6)	93(100.0)		
Wife Ideal family size					
Yes	242(93.8)	16(6.2)	258(100.0)	2.149	0.143
No	82(89.8)	10(10.9)	92(100.0)		
Husband contraceptive use					
Yes	125(89.3)	15(10.7)	140(100.0)	3.663	0.056*
No	199(94.8)	11(5.2)	210(100.0)		
Wife contraceptive use					
Yes	150(88.8)	19(11.2)	169(100.0)	6.913	0.009*
No	48(94.1)	7(3.9)	181(100.0)		
Husband inter-spousal communication					
Yes	276(92.3)	23(7.7)	299(100.0)	0.208	0.649
No	48(94.1)	3(5.9)	51(100.0)		
Wife inter-spousal communication					
Yes	280(92.4)	23(7.6)	303(100.0)	0.086	0.769
No	44(93.6)	3(6.4)	47(100.0)		

*Statistically significant (p= 0.05-0.10)

Factors associated with fertility desire discordance were assessed at bivariate level using chi-square (x^2) test or fisher's exact test where appropriate as shown in Table 4. Wife age, husband and wife religion, husband and wife sex preferences and husband and wife contraceptive use were found to be significantly associated with fertility desire discordance with p-values all <0.05.To adjust for confounding, these factors that were found to be statistically significant at bivariate level were further subjected to a binary logistic regression.This is shown in Table 5.

4.5: PREDICTORS OF FERTILITY DESIRE DISCORDANCE

Table 5: Predictors of Fertility Desire Discordance

Factors	Crude Odd Ratio (COR)	Adjusted Odd Ratio AOR (95% CI)	P value
Wife age			
15-24	3.40	29.88(2.66-336.23)	0.01*
25-34	0.37	1.44(0.24-8.77)	0.69
35-44	0.53	1.69(0.26-10.75)	0.58
>45	1		
Husband religion			
Islam	1.08	2.95(0.32-27.22)	0.34
Christianity	1		
Wife religion			
Islam	-0.18	0.84(0.08-8.69)	0.88
Christianity	1		
Husband sex preference			
Yes	-3.24	0.04(0.004-0.39)	0.01*
No	1		
Wife sex preference			
Yes	2.88	17.87(4.48-71.32)	<0.01*
No	1		
Husband contraceptive use			
Yes	0.04	1.04(0.25-4.32)	0.96
No	1		
Wife contraceptive use			
Yes	1.76	5.82(1.09-31.12)	0.04*
No	1		

Table 5 show that wife age, husband sex preference, wife sex preference and wife contraceptive use remained significantly associated with fertility desire discordance. Wives who are between 15-24 years are 30 times more likely to have fertility desire discordance than those of other age group (AOR 29.88, 95% CI; 2.66-336.23). Husbands who have sex preference are 0.04 times likely to have fertility desire discordance than those who do not have sex preference (AOR 0.04, 95% CI; 0.004-0.39). Wives who have sex preference are 18 times likely to have fertility desire discordance than those who do not have sex preference (AOR 17.87, 95% CI; 4.48-71.32). Wives who use contraceptives are almost six times more likely to have fertility desire discordance than those who do not use contraceptives (AOR 5.82, 95% CI; 1.09-31.12).

4.6 PERCEPTION OF FERTILITY DESIRE DISCORDANCE AMONG COUPLES

All ten couples consented to participate in the interview; the following opinions were made during the interview:

For how long have you been married?

Majority of couples interviewed were married for longer than 15 years with only two married for less than 10 years. One couple had been married for more than 25 years.

Do you have children?

All the interviewees narrated that they have more than 3 children with least number of children reported by a couple as two.

Would you intend to have more children/do you have the desire to have more children?

All the respondents wanted to have more children; a female interviewee who narrated to have no interest in having more children said that: *"No, it is enough for me. Because they are enough for me to handle, and there is hardships, poverty, their school fees, feedings and everything is not easy"*.

In contrast with a male respondent who opined that: *"Yes, I want to have more but as a t now due to situation of the country I don't want to have any additional because of the harsh situation like poverty and hunger". "My reason I just want to have many children and more blessed ones and have the provision in taking good care of them all"*.

One among the males respondent opined that: *"to make sure I educate, feed and trained them well up to the time they grown up".*

Also a female respondent narrates that: *"Yes, of course I would like to have but because of the situation in the country things are getting harder that is the reasons that most mothers do not think of having more children because things are getting much expensive every day. Even food to eat is a problem so those are the things that make us not to have children as at now".*

She also gave her reason as*: "Yes, if God helps that the country is doing ok and things are getting better I will have more children. My mum has more than 10 children if things are getting better in the country I will add 2 more".*

Another female respondent narrates that: *"If God permits I will have more, even though it is one or two, but if God brings another I will have more again".* She also narrates: *"Just before I got married to my husband I have that decision of having four children".*

A female respondent narrates *"Yes, if God wishes because is not my power but we are suffering a lot".*

Who makes the decision on the numbers of children you intend to have as a couple?

While up to 3 females respondents narrated their involvement in decision making to have more children, majority of the male interviewed mentioned only men as key in decision making as narrated by one of them: *"This is my own decision not my wife because I am the head of the family and I am the one to make any decision that will suit me".*

Another male and female respondentboth narrates that: *"Both of us collectively made the decision to have more children"*.

Do you feel that your husband's/wife's decision affects your own decision?

None of the respondents mentioned the role of his/her spouse's decision in affecting his/her decision. All respondents said that their spouse's decision does not affect theirs.

Was there previous agreement on the number of children you intend to have before marriage?

There were equal number of respondents that narrated having agreement on number children they desire to have, a narration by a female respondent was *"Yes, we agreed to have five children but later we had seven because I have five girls and I need boys that is why we planned to get more children and now I got two male children"*. And is the only one that exceeded the desired number of children which was due to having female children only.

One of the male respondents narrates that: *"No, we did not make any agreement on the number of children that we intend to have before I married her. It was after we got married that we made this decision and all of us agreed on that"*.

A male respondent kept mute as he refused to say any word on this, while a female respondent said *"Yes, there is an agreement but God can change us anytime"*.

Another male respondent said:"*yes, we intend to have four"*. Third female respondent opined: *"No, we didn't decide it before marriage, but we only decided because of the situation of our country because of hardships"*.

One male respondent opined: *"Like I have told you this is my own opinion there is no any agreement I just wish Allah to provide for them"*.

Other female respondent said yes, there is such agreement while a male respondent said:"*there is no such agreement between us"*.

Did you exceed the desired number or did you feel a lesser number of children was preferable?

One male respondent said:"*I have not exceeded the desired number"*. While other female respondent said: *"No, I did not exceed the desired number of preferable children"*.

Other male respondent opined: *"Even before I got married I had the desire to have more than 30 children, my opinion is to have more than 30 children but some are dead"*.

A female respondent opined that:"*I have not exceeded the desired number of children"*.

One male respondent said: *No, we need only four*. While another female respondent said she had reached the desired number of children she wanted to have.

Another male respondent narrated that: *"No, I have just started I have four children now and I need to have more.*

A female respondent also opined: "*Yes I have reached the desired number of children in life, because we need to have both sexes"*.

Other male respondent opined: *"No, I want to have more but as at now due to situation of the country I don't want to have any additional because of the harsh situation like poverty and hunger"*.

Why was there a change in the number of children initially?

One of the male respondents narrated: *"No, there was no any change on the number of children I intend to have"*. While a female respondent was mute about this issue, as she refused to say anything.

Another of the male respondent opined: *"My opinion is to have more than 30 children but some are dead and I need to have more but need to take care of them effectively"*.

A female respondent narrates: *"Yes, because I need to have both sexes, female and male but initially I got all female one after the other. I therefore change my mind because I need a male child"*.

Is there any special factor or reasons that affect your resolve to have or not to have more children as stated apart from what you have told us so far?

Majority of the respondents attributed factors like family history, culture and religion as major factors in relation to having more children, however, a narration by a female respondent was

"The situation of the country is getting harder that is the reason; there is no how I will explain more than this. There is no good roads, no better schools, they system of education is poor and likewise the private schools are very expensive to take your children".

Among the male, an respondent narrates: *"Since I was a child my father had only one wife with the same number of children, so I copied this from my father so that I will have the capability to take good care of my children".*

Another male respondent said *"I have a desire to have more and many children and I am praying for God intervention".*

Other female respondent narrates: *"It is even harder to take good care of the children, their school, accommodation and their feeding. You have to cut your coat according to your cloth. Life is not easy at this time and everything is hard".*

Another female interviewee opined: *"I need to have more children but lack of food, money and hardships but only God knows best".*

A female respondent was narrated: *"I need to have male children because they are in charge and support to the entire family".*

CHAPTER FIVE

5.0 DISCUSSION

Researches on couple disagreement over fertility desire are few. There is paucity of studies on fertility desire discordance. The study identified the prevalence of fertility desire discordance to be 7.4% as compared to a similar study in south-western Nigeria which found a 13%[40] discordance level in fertility desire among Yoruba couples. Another Nigeriancross-national survey using the NDHS 2008 recodes dataset revealed 38.2%[39] prevalence among couples disagreeing about their fertility desire. A much higher finding was noted in surveys carried out in urban Kenya where approximately 30% had discordant fertility desires[38]. Similarly this study findings are similar to the ones carried out in in Italy (10%)[32] and France (8%)[35].

In this study, it was noticed that couples with sex preference intention, those who wish for more financial capacity, couples with ideal family size and those who actually use one form of contraception disagree more on having more children.This highlight the importance of collecting data from both husband and wife separately in order to have a good understanding of the couple's fertility desires, rather than relying on the information provided by one of the spouses exclusively.

Wives ages were a predictor of fertility desire discordance. Women of age group between 15-24 years are more likely to disagree on having more children owing to the fact pregnancy and delivery complications are much higher in this age group. They are also more likely have to children with poor health outcome. Low level of education and marital inexperience are also among reasons this group would disagree for more children.

Husband and wife sex preferences were also predictors of fertility desire discordance. The preference for either sex will always make both couple to disagree on the desire for more children. These individual preferences could lead couples to adopt several means of contraceptives.

Wife's contraceptive use is also a correlate of fertility desire discordance. Wives who use contraceptives are almost six times more likely to have fertility desire discordance. They disagree more because they are better aware of the benefits of child spacing and family planning and its implication on their health.

Interestingly, religion of couples was not a correlate of fertility desire discordance in this study but this is in contrast to study in Kenya[51] where religion was a strong predictor of fertility desire.

Analysis show that inter-spousal communication on family planning was high but not a correlate of fertility desire discordance in this study which is contrary to studies in Africa[1,87,88].

Respondents of IDI gave different responses regarding determinants of fertility desire discordance, majority of respondents believe that although the decision on the number of children is curtailed by religious and cultural beliefs, people should behave responsibly by having the number they can cater for. It is however evident from further interviews that people have been revising the number of children downward due to supposed economic hardship in the country and the need to give quality education, training and care to the children.

The interview on the reasons for the number of children desired also brought out the fact that their desires are strongly influenced by their perception of the value attached to children as well as the costs and potential benefits of children.

Women and men take into account their partner's current fertility desire when they report their individual child-timing intentions and the use of contraception, but men give as much importance to their partner's desires as to their own desires while women attribute more relevance to their own child desire.

The findings suggest that the fertility desire discordance of marital partners is influenced in important ways by a myriad of factors operating at the individual, community and societal level. The study reveals significant associations between couple's fertility desires and individual and shared characteristics of marital partners. Some of the strongest predictors of couples' fertility discordance are socio-demographic factors of both marital partners. It cannot be determined from the present study whether social normative factors influence couples' fertility desire; nevertheless, the findings lend strong support for reproductive health programs being directed to both husband and wife. The findings on education are noteworthy: it was expected that couples with close educational attainment would have a higher preference for wanting to stop child bearing, though analyses confirmed a negative association. However, the effect of spousal communication on family planning may account for the unexpected difference in the fertility desire of highly educated and low literate couples, because at higher levels of education partners may appear to be more comfortable discussing issues over which decision-making power is traditionally regarded as within the purview or domain of men. In addition, the improved educational achievement among both females and males in recent years, which came about as a result of universal free education that enhanced the possibility of working outside the home, might have contributed significantly to the level of inter-spousal communication reported in the study communities. The less educated may be considering the cost of raising children in terms of

educational cost because the average man or woman wants their children to have a better education.

A major reason why couples differ on fertility desires was because most respondents have attained their desired family size (83.3%) while financial security, mothers' medical condition and other children health status were other reasons. Several reasons were given by our respondents for the number of children they desired with majority (84.5%) giving not attained the desire family size as the main reasons while others gave sex preference as another reason. The preference of our study population and attendant reasons may be a product of the generally low economic situation and their level of education which will have raised their awareness to their responsibilities for the care of their offspring beyond mere provision of food and shelter. Indeed education has been known to modify the fertility preferences of women, the more educated women tended to desire fewer children.

It has been found that changes in child-bearing plans may occur in response to partner's wishes, social norms, re-partnering and from knowledge got about implications of parenthood, thus, as the economic conditions improve, changes may be observed in the fertility desire in no distant time.

Communication had been established as an important factor in reproductive behaviour. This was of low degree among the couples in Nigeria. However, equal fertility desire among them was high, majority of couples had equal fertility desire and the desire of husbands was more compared to that of wives. This buttressed the importance of men involvement in family reproductive behaviour.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

This study has explored the extent to which spouses concord or discord regarding fertility desire and how this affects a couple's contraceptive use. As the differences observed between spouses in fertility desire were substantial, it is essential, in order to identify mechanisms for better family planning practices, to not only take into account wives' responses, but to involve men's viewpoints as well. This recommendation is based upon the finding that in those couples where the wife is the only one wishing to limit pregnancies, well-informed husbands tend to obstruct their spouses' access to family planning. In addition, the husband's desire for more children determines greatly women's contraceptive use. Hence, it is imperative to involve the husband in family planning programs for couples' contraceptive use, precisely because their role in decision making is significant.

Spousal communication/joint decision making was established as a major factor in fertility desire of couples in Nigeria. Couples who communicated very well would plan their fertility together. Communication would enhance agreement that would foster effective fertility behaviour of couples and consequently the welfare of children, women and that of the family at large. If fertility is effectively control and manage, it may reduce the stress on prenatal, neonatal, postnatal and maternal health care services and also reduce the population growth rate.

6.2 RECOMMENDATIONS

The State and Local Government

- Policy that would enhance effective spousal communication among couples in Nigeria should be put in place.
- Education, intervention and policy programmes should focus on spousal communication rather than men or women in their messages to encourage responsible reproductive and fertility behaviours.
- Prenatal, Post-natal and Maternal care services should also incorporate couples rather than women alone. It is noted in Nigeria that prenatal, post-natal and maternal health care services are mostly women centred. Men should be more involved. Cooperation and participation of men will surely enhance the services utilization of women and general welfare of the family.
- To conduct community advocacy and mobilization in order to increase family planning awareness and use. This will help reduce beliefs that people have on contraceptives especially modern contraceptives.

Religious and traditional leaders

- Religious leaders can be mobilized, properly trained and involved in the family planning programs to provide people with the proper knowledge and correct the misinterpretation regarding religious teaching, thus generating smaller family norm among the conservative and less educated couples. In a culturally conservative society, it might be difficult to motivate religious leaders to be involved in such projects. However, it can be started at a small scale involving better educated and leading religious leaders who then can influence others.

Community and individual

- Men can be involved into dissemination of information and knowledge to theirwives and communities concerning family planning sources and their advantages.They can be motivated to support and encourage their wives in usingcontraceptive methods as well. This will ultimately empower them to make theright decisions for the betterment of their families.

REFERENCES

1. Bankole, A., & Singh, S. (1998). Couples‟ fertility and contraceptive decision-making in developing countries: Hearing the Man's Voice. International Family Planning Perspectives, 24, pp. 15-24

2. Testa, M.R. 2010. She Wants, He Wants: Couple's Childbearing Desires in Austria. A working paper.Vienna Institute of Demography Austrian Academy of Sciences.

3. Ibisomi, L., & Odimegwu C. (2011). Understanding resolution of differential fertility preferences among couples in Nigeria. International Journal of Business and Social Science, 2, (4), 99-105

4. Miller WB, Pasta DJ. (1995) Behavioral intentions: Which ones predict fertility behavior in married couples? J Appl Soc Psychol. ;25(6):530–55

5. Mason, K.O. & Taj, A.M. (1987). Differences between women's and men's reproductive goals in developing countries. Population and Development Review, 13(4), 611-638

6. Beckman, L. J. (1983). Communication, power, and the influence of social networks in couple decisions on fertility. In R. A. Bulatao & R. D. Lee (Eds.), Determinants of fertility in developing countries. Vol. 2 pp. 415-443 New York: Academic Press.

7. WHO (2017) Global prevalence of infertility, infecundity and childlessness retrieved from http://www.who.int/reproductivehealth/topics/infertility/burden/en/

8. Bankole, A. (1995). Desired fertility and fertility behavior among the Yoruba of Nigeria: a Study of Couple Preferences and Subsequent Fertility: Population Studies, Vol. 49, No. 2 (Jul., 1995), pp. 317-328

9. Bongaarts J and Bruce J. (1995) The causes of unmet need for contraception and the social content of services. *Stud Fam Plann* 1995; 26:243-4.

10. Hollander D (1996). In Nigeria, Family Size Governs Which Spouse's Fertility Desires Prevail. International Family Planning Perspectives. Vol. 22, No. pp. 82-83
11. DeRose, L. F., Dodoo. N-A. F., &Patil, V. (2002) Fertility Desires and Perceptions of Power in Reproductive Conflict in Ghana. Gender and Society, Vol. 16(1) 53-73
12. Das Gupta M. (1987) Selective discrimination against female children in rural Punjab, North India. Population and Development Review. 13:77–100.
13. Umoh A, Abah G. and Ekanem U (2011) A study of fertility intentions of women in Uyo, Nigeria ,*Journal of Public Health and Epidemiology Vol. 4(1), pp. 14-18*
14. Umoh AV, Abah GM, Ekanem US (2011). A study of fertility intentions of women in Uyo, Nigeria. J Publ H Epid;4(1):14-18.
15. National Population Commission (NpopC) [Nigeria] and ICF Macro. 2014. *Nigeria Demographic and Health Survey 2013 (Preliminary Report).* Abuja, Nigeria: National Population Commission and ICF Macro.
16. Olalekan AW, Olufunmilayo AOE (2012). A comparative study of contraceptive use among rural and urban women in Osun state, Nigeria. Intl J Trop & Hlt.2(3):214-224.
17. Adiri F, Ibrahim IH, Ajayi V, Sulayman HU, Yafeh AM, Ejembi CL (2010). Fertility behavior of men and women in three communities in Kaduna state, Nigeria. Afr J R Hlt. 14(3):106.
18. National Population Commission [Nigeria] and ICF International (2014). Nigeria Demographic and Health Survey 2013. Rockville, Maryland, USA: National Population Commission and ICF International
19. United Nations World population prospects. (2013), the 2012 revisions: Key findings and advance tables. New York: United Nations.

20. Avidime S, Aku-Akai L, Ado ZM, Adaji S, Oladapo S, Ejembi C (2010). Fertility intentions, contraceptive awareness and contraceptive use among women in three communities in Northern Nigeria. Afr J R Hlt. 14(3):65-70.
21. United Nations (2011). State of the World Population Report 2011. U.N.P. Fund, Ed. New York: UNFPA.
22. Chamie (2011) The Globalist *In* The Globalist Washington-based Globalist Research centre.
23. Dada, M.F. & Idowu, A.J. (2006). Factors Enhancing Marital Stability as perceived by Educated Spouses in Ilorin Metropolis. The counselor, 22(I) 127-138.
24. Kolo, Z.N. (1999). Factors that Influence Marital Stability and Productive Adult live. A paper presented at a conference of school of Education, Technical. Lafiagi, Nigeria.
25. Dodoo, F.Nii-Amoo (1998a). Men matter: additive and interactive gendered preferences and reproductive behavior in Kenya. *Demography* 1998; 35:229-242.
26. Koffi, A. K., Adjiwanou, V. D., Becker, S., Olaolorun, F. and Tsui, A. O. (2012). Correlates of and Couples' Concordance in Reports of Recent Sexual Behaviour and Contraceptive Use. *Studies in Family Planning* 43 (1): 33 – 42
27. Costello, M. P. and Casterline, J. B. (2009). Fertility Decline in the Philippines: Current Status, Future Prospects. In: United Nations Department of Economic and Social Affairs Population Division. Completing the Fertility Transition.
28. Hayford, S. R. and Morgan, S. P. (2008). Religiosity and fertility in the United States: The Role of Fertility Intentions. Social Forces, 86(3), 1163-1188

29. Mazharul Islam, M. and Bairagi, R. (2003). Fertility Intentions and Subsequent Fertility Behaviour in Matlab: Do Fertility Intentions Matter? Journal of Biosocial Science, 35(04), 615-619.
30. DeRose, L. F., Dodoo. N-A. F., &Patil, V. (2002) Fertility Desires and Perceptions of Power in Reproductive Conflict in Ghana. Gender and Society, Vol. 16(1) 53-73
31. Yadav K, Singh B, Goswami K. Agreement and concordance regarding reproductive intentions and contraception between husbands and wives in rural Ballab garh, India. Indian J Community Med 2010;35:19-23
32. Rosina A & Testa MR (2009). Couples' First Child Intentions and Disagreement:An Analysis of the Italian Case. Eur J Population S25:487–502
33. Miller WB, Severy LJ, & Pasta DJ (2004). A framework of modeling fertility motivation in couples. Population studies, 58, 193-205
34. Testa MR, Cavalli L, Rosina A (2012). The Decision of Whether to Have a Child: Does Couple Disagreement Matter? Vienna Institute of Demography Working Papers, No. 7
35. Fecond study (2010). Discordance of fertility desires with perceived partner fertility desires and association with contraceptive use.
36. Tilahun T., Gily C., Marleen T. and Olivier D. 2014. Spousal discordance on fertility preference and its effect on contraceptive practice among married couples in Jimma zone, Ethiopia. Reproductive Health 11:27. http://www.reproductive-health-journal.com/content/11/1/27
37. Diro CW and Afework MF (2013). Agreement and concordancebetween married couples regarding family planning utilization and fertility intention in Dukem, Ethiopia. BMC Public Health 13:903.

38. Tumlinson K, Speizer IS, Davis JT, Fotso JC, Kuria P, Archer LH (2013). Partner Communication, Discordant Fertility Goals, and Contraceptive Use in Urban Kenya. *African Journal of Reproductive Health September 2013; 17(3):79-90*
39. Odusina Ek, Bisiriyu L & AkinyemiA (2008). Determinants Of Fertility Desire Among Couples In Nigeria: Evidence From DHS. African Population Studies Vol. 29, No. 2
40. Oyediran KA (2005). Fertility Desires Of Yoruba CouplesOf South-Western Nigeria. J. bio soc. Sci. 00, 1–20
41. Oyediran, K.A., & Isiugo-Abanihe, U.C. (2002). Husband and wife communication and couple's fertility desires among the Yoruba of Nigeria. African Population Studies, 17(2), 61-80.
42. Ibisomi, L.D.G. 2007. Analysis of Fertility Dynamics in Nigeria: Exploration i n t o F e r t i l i t y P r e f e r e n c e Implementation. A Research Thesis Submitted to the Faculty of Humanities, University of the Witwatersrand, Johannesburg, in fulfilment of the Requirements for the Award of the Degree of Doctor of Philosophy in Demography and Population Studies.
43. Clements, S. & Madise, N. (2004): Who is being served least by family planning providers? A study of modern contraceptive use in Ghana, Tanzania andZimbabwe. African Journal of Reproductive Health, Vol.8 (2), 124–136.
44. Ayoub, S. A. (2004). Effects of women's schooling on Contraceptive use and fertility in Tanzania. African Population Studies. Union for African population Studies, Vol.19 (2), 139-157.
45. Becker, G.S., and Lewis, H.G. (1973). On the interaction between the quantity and quality of children. Journal of Political Economy, 81(2), 279-288.

46. Ding, Q.J., Hesketh, T. (2006). Family size, fertility preferences, and sex ratio in China in the era of the one child family policy: results from national family planning and reproductive health survey. BMJ 2006, 333(7564):371–373.
47. National survey of family growth, (2006-2010). Fertility of men and women aged 15–44 years in the United States. http://www.cdc.gov/nchs/data/nhsr/nhsr051.pdf.
48. Adhikari, R. (2010). Demographic, Socio economic and cultural factors that affect fertility differentials in Nepal. BMC Pregnancy and childbirth 10:19 http://www.biomedcentral.com/1471-2393/10/19
49. DeRose, L. F., &Ezeh, A. C. (2005). Men's influence on the onset and progress offertility decline in Ghana, 1988-98. Population Studies,Vol.59 (2), 197–210.
50. Bongaarts, J. (2010). Poverty, gender and youth: The causes of educational differences in fertility in sub-Saharan Africa. Population Council.
51. Wachira, E.W. (2001). Determinants of fertility preferences in Kenya study based on Kenya Demographic and Health Survey. Vol. 8 pp 31-50
52. Cochrane, S. H. (1978). Fertility and Education: What do We Really Know? London; Baltimore: The John Hopkins University Press (For the World Bank). (1) pp 66-67
53. Cleland, J., and Jejeebhoy, S. (1996). Maternal Schooling and Fertility: Evidence from Censuses and Surveys. In Girl's Schooling, Autonomy and Fertility Change in South Asia. Roger Jeffery and Alaka M. Basu (eds.). Thousand Oaks, C.A.: Sage Publications. Pp.72-106.
54. Kabir, M. A., Khan, M. M., Kabir, M., Rahman, M. M. & Patwary, F. K. (2005) Impact of woman's status on fertility and contraceptive use in Bangladesh: evidence from

Bangladesh Demographic and Health Survey, 1999–2000. Journal of Family Welfare 51(1), 10.

55. Freedman, R. (1979). Theories of fertility decline: A reappraisal," Social Forces 58:1-17.
56. Sennott, C and Yeatman, S. (2012). Stability and change in fertility preferences among young women in Malawi. Int Perspect Sex Reprod Health. Mar; 38(1): 34–42
57. Johnson-Hanks, J. (2007). Natural intentions: Fertility decline in the African demographic and health surveys. American Journal of Sociology. 112(4):1008–1043.
58. Ayehu, T.Y. (1998). Correlates of fertility preference of Kenyan women: Evidence from 1993 KDHS.
59. Bankole, A and Westoff, C.F. (1995). Childbearing attitudes and intentions demographic surveys comparative studies number 17, Macro international Inc., Calverton Maryland USA.
60. Ali, M. (2000). The effect of selected socio-demographic characteristics on desire of additional children among couple's in Bangladesh. Master's thesis, faculty of graduate studies, Mahidol University, Thailand.
61. Caldwell, J. C. and P. Caldwell. 1987. "The Cultural Context of High Fertility in sub-Saharan Africa." Population and Development Review, 18(2): 211-242
62. Ezeh, C.A., Mberu, U B., Emina, O. J. (2009). Stall in fertility decline in eastern African countries: Regional analysis of patterns, determinants and implication. Philosophical transactions. The Royal Society Biological Science, vol. 364 no. 1532 2991-3007
63. Merrick, T. (2002). Population and poverty: new views on an old controversy.International Family Planning Perspectives. Vol. 28 no. 1. Pp 41-46

64. Mbacke, C. (1994). Family planning programmes and fertility in sub Saharan, in population dynamics of Sub-Sahara Africa. Population Development Review. Vol 1 20 No 1 (publish by population council). Pp. 188-194

65. Makinwa-Adebusoye P. (2001). Sociocultural Factors Affecting Fertility in Sub-Sahara Africa.Workshop on Prospects for Fertility Decline in High Fertility Countries. Population Division, Department of Economic and Social Affairs, United Nations Secretariat. New York, 9-11 July 2001. UN/POP/PFD/2001/12.

66. Cleland, J., and Wilson, C. (1987). Demand theories of the fertility transition: An Iconoclastic View. Population Studies 41(1): 5-30

67. Munshi, K. and Myaux, J. (2005). Social norms and the fertility transition. Journal of Development Economics, 80 (2005) 1-38.

68. Entwisle, B., Rindfuss, R.D. Guilkey, D.K. Chamratrithirong, A. Curran, S.R. and Sawangde, Y. (1996). 'Community and contraceptive choice in rural Thailand: A Case Study of Nang Rong', Demography 33 (1): 1-11.

69. Rogers, E. M., Vaughan, P.W., Swalehe, R.M.A., Rao, N., Svenkeurd, P., and Sood,S. (1999) .'Effects of an entertainment-education radio soap opera on family planning behavior in Tanzania', Studies in Family Planning 30(3):193-211.

70. Bernardi, L., Keim, S. and Lippe, H (2007). Social influence on fertility: A comparative mixed methods study in Eastern and Western Germany', Journal of Mixed Methods Research 1(1):23-47.

71. Takyi, B., Gyimah, S., & Addai, I. (2006). Religion and fertility behavior of marriedmen and women: An empirical examination of data from Ghana, sub-SaharanAfrica. Paper

Presented at the Annual Meeting of The Population Associationof America, Los Angeles, LA. March 30-April 1, 2006.

72. Agadjanian, V. (2006). Religion, social milieu, and contraceptive revolution.Population Studies. Vol. (55), 135-148.
73. Yeatman, S. & Trinitapoli, J. (2008). Beyond denomination: The relationship between religion and family planning in rural Malawi. Demographic research journal. Volume 19(55):1851-1882. Retrieved on April, 23rd 2012 from http://www.demographicresearch.org/Volumes /Vol19/55/.
74. Bongaarts, J & Watkins, S. C. (1996). "Social interactions and contemporary fertility transitions." Population and Development Review, Vol.22, 639–82.
75. Berghammer, C & Philipov, D. (2006). Religiosity and demographic events: A comparative study of European countries. Paper presented at the European Population Conference (EPC), Liverpool.
76. Karim, M. (2005). Islamic Teachings on Reproductive Health. Islam, the State and Population. G. Jones and M. Karim. London, Hurst and Co.: 40-55.
77. Cohen, L. Manion, L., & Morrison, K. (2007). Research methods in education (6thed). London: Routledge.
78. Khasakhala, A. A. (2011). Ethnic fertility differentials and their proximate determinants in Kenya: Implications for development. Paper submitted to Population Association of America Annual Meeting, Washington D.C 31stMarch to 2nd April 2011.
79. Westoff, C. F., & Cross, A. R. (2005). "The Stall in the Fertility Transition in Kenya." DHS Analytical Studies 9, ORC, Macro Calverton, Md, USA, 2006. Retrieved on May, 23rd 2013 http://www.econ.upf.edu/montalvo/sec1034/jde.pdf.

80. Pramila R, Paudel IS, Ghimire A, Pokharel PK, Rijal R, Niraula SR. (2014) Effect of gender preference on fertility:cross-sectional study among women of Tharu community from rural area of eastern region of Nepal. Reprod Health. Feb 14;11(1):15
81. Singh, S., and Casterline, J. (1985). "The Socio-economic determinants of fertility", In J. Cleland and J. Hobcraft (eds). Reproductive change in developing countries. Oxford University press. 199-222.
82. Haberland, N., Chong, E. & Bracken, H. (2003). Married adolescents: An overview.Paper prepared for the Technical Consultation on Married Adolescents.Geneva: WHO; 2003. Dec 9–12.
83. Tao, L. (2009). Spousal age gap and fertility preferences within a family. Paper presented at American Economic Association Conference. January 3-5, 2009.
84. Haddad, Z. J. (2012). Age variance between the spouses and its relation with their reproductive behaviour: A quantitative Analysis. European Journal of Social Sciences, Vol. 29 (4), 501-511.
85. Gebreselassie, T., & Mishra, V. (2007). Spousal agreement on family planning inSub-Saharan Africa, DHS Analytical Studies. Calverton, USA: Macro International.
86. Mahmud, N., and Ringheim, K, (1997). Knowledge, approval and communication about family planning as correlates of desired family among spouses in Pakistan.International Family Planning Perspective, 23:122-129and 145
87. Coombs, L. C., and Fernandez, D. (1978). Husband–Wife Agreement about Reproductive Goals. *Demography*, vol. 15, Issue 1, pp 57–73

88. Toure, L. (1996). Male involvement in family planning. A review of literature and selected program initiatives in Africa. Washington, DC: Academy for Educational Development.
89. Frank. O. and Mc Nicoll, G. (1987). An Interpretation of Fertility and Population Policy in Kenya. Population and Development Review, vol. 13, No.2 pp.209-43.
90. Uche, C., and Isiugo-Abanihe (1995). Bride wealth, marriage and fertility in East-Central States of Nigeria. Genus 51(3- 4), 151-178
91. Pullum, TW (1980). Illustrative Analysis; fertility preferences in Sri-Lanka. A World Fertility Survey Scientific Report. International Statistical Institute. Voorsburg. Netherlands.
92. Kano State Ministry of Health. State Strategic Health Development Plan (2010 – 2015). Kano; 2015.
93. Fagge Local Government Area Kano StateHealth Operational Plan, 2019.
94. Abdulrasheed Z. (2018). Brief history of Sabon gari community in Kano. From the palace of Oba of Yoruba, Kano.
95. Kish, Leslie. (1965). Survey Sampling. New York: John Wiley and Sons, Inc
96. National Immunization Plus Days (NIPDs) in Fagge LGA. Enumeration and Immunization for June 2018.

APPENDIX 1

LITERATURE SEARCH STRATEGY

Published and unpublished literature were searched using Google Scholar, African Journals Online, International Journal of Reproductive health, Plos One, UNAIDS /WHO publications, UNFPA and PUBMED. The search was carried out between 3rd and 31st of January 2017 and updated between October 2017 and May 2018 and was limited to manuscripts in English for which full articles and abstracts are available of studies published between 1980 till date. The following search terms “prevalence of fertility desire in northern Nigeria” fertility desire discordance among couples” determinants of fertility desire discordance” spousal disagreement about fertility were used which yielded a number of articles from which recent and relevant literature were selected. A total of 52 articles were selected for this literature review.

APPENDIX 2

QUESTIONNAIRE ON THE PREVALENCE AND DETERMINANTS OF FERTILITY DESIRE DISCORDANCE AMONG MARRIED COUPLES IN SABON GARI, FAGGE LGA OF KANO STATE.

Your correct answers are very important. Please answer each question carefully and honestly. Tick one option for each question as appropriate.

SECTION A: Socio-Demographic Characteristics

1. **Age:** …… Phone no: ……..
2. **Sex:** (a)Male (b) Female
3. **Religion:**(a) Islam (b) Christianity (c) others specify…….
4. **Tribe:**(a) Hausa (b) Igbo (c) Yoruba (d) Others (Specify)……
5. **Educational status**: Primary education: (a) completed (b) not completed

   Secondary education (a) completed (b) not completed Tertiary education

   (a) completed (b) not completed
6. **Occupation:**(a) Civil servant (b) Business man/woman (c) Petty trader

   (d) Housewife (e) Others (specify) …….....
7. **Estimated monthly income (N):** (a)< 5000 (b) 5000 – 20,000 (c) 20,000 – 50,000

   (d) 50,000 – 100,000 (e) > 100,000

SECTION B: Fertility Desire

8. **Age of marriage:** (a) 15 -24, (b) 25 - 34, (c) 35- 44 (d) >44

9. **Age at first child birth:** (a) 15 -24, (b) 25 - 34, (c) 35- 44 (d) >44

10. **Do you have children**: (a) Yes (b) No

11. **If no**, **why?**(a) Can't have children (b) don't want too (c) can't afford to (d) other reasons specify……..

12. **If yes**, how many children do you have? (a) 1-2 (b) 3-4 (c) 5-6 (d) > 6

13. **Do you still want to have more children?** (a) Yes (b) No

14. **If no**, (a) don't have enough money (b) have attained desired family size

(c) mother's health (d) child health (e) others specify…….

15. **If yes**, why do you want to have more children? (a) have enough money (b) not yet attained desired family size (c) need a male child (d) need a female child (e) others specify……..

16. **How many more children do you want to have?** (a) 1more (b) 2 more (c) 3 more (d) >4

17. **Who decides the number of children you want to have?** (a) you (b) your spouse (c) both of you agree (d) external family members (d) others specify……..

18. **Do you think your spouse wants to have more children?** (a) Yes (b) No

19**. If no**, why do you think so…….....

20. **If yes**, why do you think so……...

21. **Do you think couples disagree about the number of children they want to have?**

(a) Yes [ ] (b) No [ ]

22. **Do you have sex preference for children**? (a) Yes (b) No

23**. If yes, which sex of child would you prefer?**(a) Male child (b) Female child

24. **Why would you prefer your said choice**……..

25. **Do you think your desire for sex preference would cause you to have more children**? (a) Yes (b) No

26. **Would you have had more children if you were more financially buoyant?** (a) Yes (b) No

27. **Do you have a predetermined family size**? (a) Yes (b) No

28. **Do you know about family planning?**(a) Yes (b) No

29. **Have you heard of contraception?**(a) Yes (b) No

30. **Do you use contraceptives?** (a)Yes (b) No

31. Do you think that communication between you and your spouse would reduce disagreement concerning the number of children you want to have? (a) Yes (b) No

Thanks for your time

APPENDIX 3

INTERVIEW DISCUSSION GUIDE

1. Self Introduction

2. State your reasons for the interview.

3. Questions for discussion proper

i. For how long have you been married?
ii. Do you have children.
iii. Do you intend to have more children? (Prompt how many and why)
iv. Who makes the decisions on the numbers of children you intend to have as a couple?
v. Do you feel that your wife's/husband's decision affects your own need for children? (Prompt to ensure they both express their views)
vi. Was there a previous agreement on the number of children you intended to have before marriage
vii. Did you exceed that desired number or did you feel a lesser number of children was preferable?
viii. Why was there a change in the number of children initially?
ix. Is there any special factor or reasons that affects your reasons to have/not to have more children?

4. Thank the respondent.

APPENDIX 4

CONSENT FORM

My name is Ogbamikhumi Ifidon Alfred, a postgraduate student of Bayero University Kano conducting a research on the above-named topic in partial fulfilment of the requirements for the award of M.sc Public Health of the University. The research will be used to determine how prevalent is fertility desire discordance among couples and the factors that are responsible.

Attached is a questionnaire which will be used to obtain information from you that will take an average of 15 minutes of your time. No reference will be made to your name and all responses will be kept confidential and anonymous. You are at liberty to refuse to participate in this study, and should you participate, you may refuse to answer any question that you are uncomfortable with and can opt out anytime. However, your honest answers will be highly appreciated.

By signing this form it means you have read and are willing to participate in the study.

Thank you for your time.

---------- ----------

Respondent's Signature/ Date Witness Signature/ Date

CONSENT TO PARTICIPATE IN IN-DEPTH INTERVIEW

You have been asked to participate in a in-depth interview by, Ogbamikhumi Ifidon Alfred, a postgraduate student of Bayero University Kano interested in fertility desire discordance among

couples. The information will be used for my dissertation and to design public health messages that will help to understand the reason why married couples disagree on family size and utilized in making factual decisions concerning family planning and population control.

You can choose whether or not to participate in the discussion and stop at any time. The discussion shall be tape recorded however your responses will remain anonymous and no name will be mentioned in the report.

There is no right or wrong answer and I want to hear many different view-points and would like to hear from everyone. I hope you can be honest even when your response may not be in agreement with the rest of the group. In respect for each other, I ask that only one person speaks at a time in the group and that responses made by all participants be kept confidential.

I understand this information and agree to participate fully under the conditions stated above:

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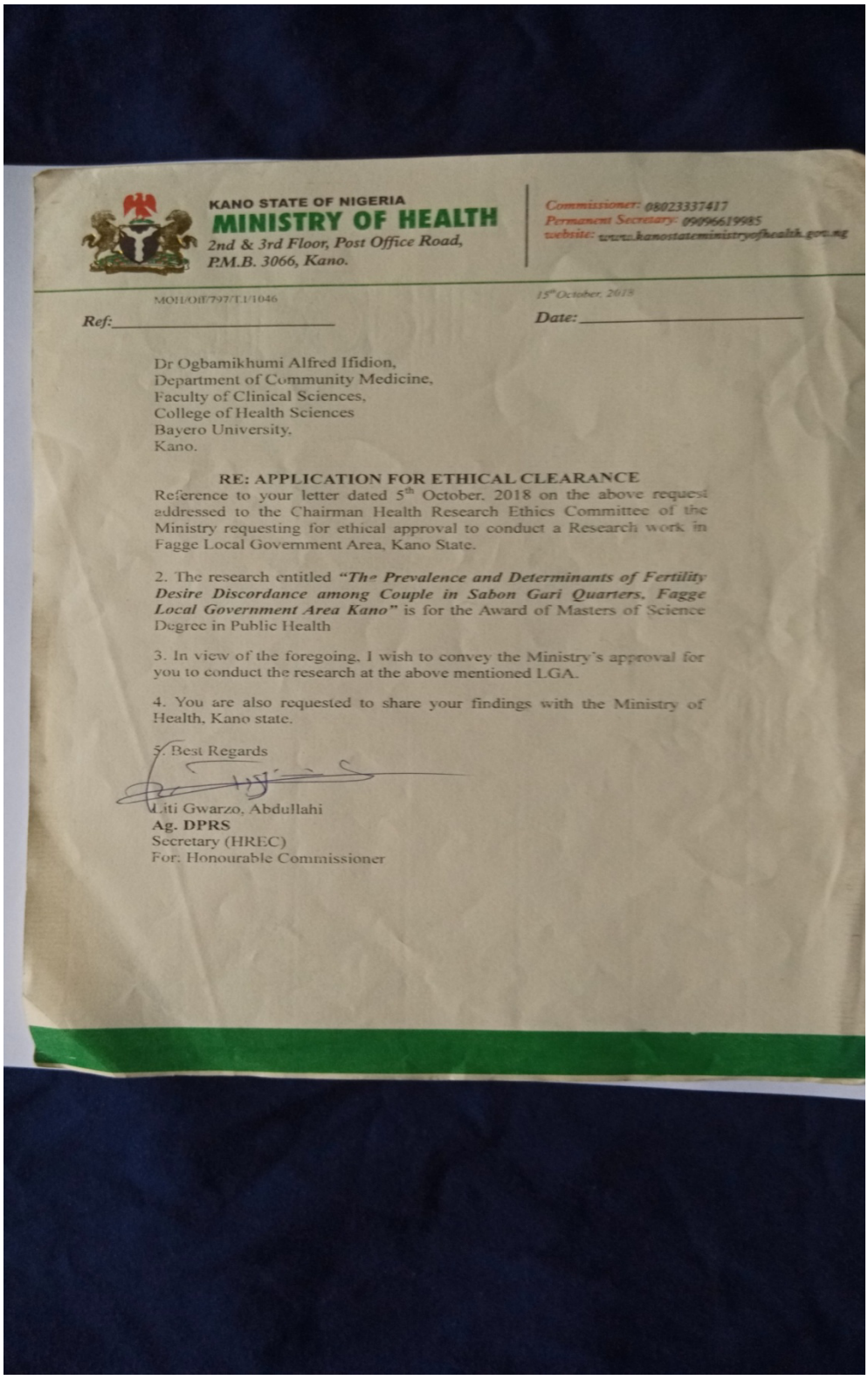
Respondent's Signature/ Date Witness Signature/ Date

APPENDIX 5

ETHICAL CLEARANCE



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Permanent Secretary: 09096619985
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Ref: MOH/Off/797/T.1/1046 *Date:* 15th October, 2018

Dr Ogbamikhumi Alfred Ifidion,
Department of Community Medicine,
Faculty of Clinical Sciences,
College of Health Sciences
Bayero University,
Kano.

RE: APPLICATION FOR ETHICAL CLEARANCE

Reference to your letter dated 5th October, 2018 on the above request addressed to the Chairman Health Research Ethics Committee of the Ministry requesting for ethical approval to conduct a Research work in Fagge Local Government Area, Kano State.

2. The research entitled ***"The Prevalence and Determinants of Fertility Desire Discordance among Couple in Sabon Gari Quarters, Fagge Local Government Area Kano"*** is for the Award of Masters of Science Degree in Public Health

3. In view of the foregoing, I wish to convey the Ministry's approval for you to conduct the research at the above mentioned LGA.

4. You are also requested to share your findings with the Ministry of Health, Kano state.

5. Best Regards

Liti Gwarzo, Abdullahi
Ag. DPRS
Secretary (HREC)
For: Honourable Commissioner