MEN'S INVOLVEMENT IN BIRTH SPACING IN NIGERIA

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CERTIFICATION

This is to certify that **MUSTAPHA, OLUWASEGUN SAM** of the Department of Demography and Social Statistics, Faculty of Social Sciences, carried out a Research on the Topic: **"Men's Involvement in Birth Spacing in Nigeria"** in partial fulfillment of the award of Bachelor of Science (B.Sc.), Federal University Oye-Ekiti, Nigeria under my Supervision.

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DATE

DEDICATION

The project is dedicated to almighty God and also to my parents, Mr and Mrs Mustapha Kasali.

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With a grateful heart I give all glory and adoration to almighty God who gave me the grace to embark on this project and for seeing me through despite all the difficulties I encountered throughout my sojourn in Federal University Oye-Ekiti.

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ABSTRACT

Birth spacing is one of the major aspects of reproductive health which contributes to the increase or decrease of mortality related to women and children. Existing researches on birth spacing have revealed that short birth interval has implications on mothers and their children. However, adequate attention has not been given to men's involvement in birth spacing. This study examined the relationship between characteristics of men aged 15-49 years who are in union and their preferred waiting time for next birth. It further studied their perception of birth interval. The mixed method approach (qualitative and quantitative method) was used in this study. Six men were interviewed, and manual thematic content analysis was used in analyzing the information obtained from the interview. This was complemented with data from the 2013 Nigeria Demographic and Health Survey data set (male recode) which weighted sample size was 5920 men in monogamous union aged of 15-49 years who wanted another child. The univariate result revealed that the majority of the men spaced their birth for at least 2 years. The bivariate analysis showed that there was significant relationship between preferred birth interval and individual men's characteristics, except number of living children. At the multivariate level, many characteristics of men such as number of living children, heard of family planning, exposure to media, and current contraceptive method were significantly associated with their preferred birth interval. The findings revealed that men had good perception about birth spacing, and that religion can hinder men from involving in birth spacing. In conclusion, birth spacing in Nigeria is related to men's characteristics. Therefore, programmes and policy effort are required to encourage men's involvement maternal related issues such as birth spacing.

Keywords: Men's involvement, Birth spacing, Reproductive health, Family planning, Perception

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Scholars have drawn attention to men's involvement in reproductive health and the role they can play in society health, particularly as reproductive health problems affect not only the women, but the entire family. This concern motivated the International Conference on Population and Development Programme of Action which introduced the concept of male responsibility and participation in reproductive health care (Odu, Ijadunola&Parakoyi, 2005). As a result of Nigeria's patriarchal society which has made reproductive health under the purview of womenfolk, encouraging men's involvement in reproductive health is a complex process that requires social and behavioural change. However in view of the positive contributions that male involvement in the decision-making on reproductive health, efforts must be made to incorporate men into the fold. Afroz, Mumu & Shahjahan (2013) established that male involvement in reproductive health issues engenders a better understanding between husband and wife while also facilitating a reduction in the number of unwanted pregnancies and the unmet need for family planning.

While men and women have responsibility and interest in reproductive health and family planning, demographic studies on fertility and family planning have overwhelmingly focused on women (Berer, 1996; Biddlecom& Greene, 2000). In reality,men have been found to be substantially influential in decision-making that affect themselves and their wives' reproductive lives. This thus suggests that the exclusion of men from information, counseling, and services is counterproductive in achieving the goal of providing couples with information on their

reproductive health choices (Bloom, Bassett, Plotkin, &Tsui, 2000). In fact, men are also as interested in family planning choices and alternatives and are willing to take informed decisions as long as necessary and adequate attention and services are directed at them and tailored to their needs.

Existing studies on male involvement in decision-making on family planning issues have indicated that men are immensely active and influential in the taking of such decisions, either through their direct participation or by enabling their partners to use contraception (Terefe& Larson 1993; Drennan, 1998; Varkey et al, 2004). In addition, a United Nations Population Fund (UNFPA) study in Kenya noted that husbands are most often the sole determinant of women's decisions to subscribe to reproductive health services such as family planning (UNFPA, 2009). In some parts of Nigeria, a woman's subscription, even in emergency obstetric conditions, to health care is contingent on spousal permission. This is further aggravated in the absence of the 'chief' (husband) of the household, as a male must accompany the woman to the clinic (Raimi *et al.*, 1999). Women are thus exclusively reliant on the decisions of their husbands in such societies.

Birth interval is defined as the period of time between two successive live births. As a crucial aspect of reproductive health, if properly instituted, it is a major contributor to the increase or decrease of maternal mortality, infant mortality and under-five mortality. Information about birth intervals assists in understanding the health status of women as well as those of young children. Research has shown that short birth intervals (less than 24 months) are associated with poor health outcomes, especially during infancy. Therefore, children who are born too soon after a previous birth are susceptible to increased risk of sickness and death at an early age. Longer birth intervals (more than two years) however contribute to improved health status for both mother

and children (National Population Commission (NPC) & ICF International, 2014). The United Nations International Children's Emergency Fund (UNICEF, 2015) estimated that 5.9 million children aged less than five years die yearly. 99 percent of the deaths are recorded in developing countries. Conclusive evidence have reinforced the relationship between shorter birth intervals and high infant and child mortality (Rutstein, 2003) and shown that closely spaced pregnancies are linked to low birth weight, intrauterine growth retardation and pre-term delivery (Zhu, 2005).

That the interval between births is consequential on a woman's health is incontestable. A woman's body needs rest following childbirth. This is why families are advised to suspend pregnancy for up to at least two years. This enables the woman to maintain the best health for her body and her children. The 2 years rest period is called "birth spacing". A lesser spacing time frame denies the woman's body enough rest necessary for having a healthy baby. If additional children are desired after a child is born, it is healthier for the mother and the child to wait at least 2 years after the previous birth before attempting to conceive (but not more than 5 years). If it is after a miscarriage or abortion, it is healthier to wait at least 6 months (USAID, 2008). Of the 99% of maternal deaths in developing countries, over 50% are recorded in sub-Saharan Africa and almost a third in South Asia. In addition, approximately 830 women die from preventable causes related to pregnancy and childbirth daily (WHO, 2015) with many of these deaths caused by complications linked with short birth interval.

Davanzo et al (2004) avers that women with inadequate spacing between pregnancies are more prone to preeclampsia, high blood pressure, and premature rupture of membranes. The undesirable consequences of shorter inter-birth intervals such as perinatal, infant and child mortality and maternal mortality have been attributed to maternal depletion syndrome, a

biological phenomenon that refers to an inadequate recuperation of the mother from one pregnancy that avails an inhospitable intrauterine environment to accommodate a subsequent pregnancy.

Studies such as Mbizvo & Adamchak (1991);Ezeh, Seroussi & Raggers (1996); Oyediran, Ishola & Feyisetan (2002) emphasize the necessity of shaping men's general knowledge and attitude concerning the ideal family size, gender preference of children, ideal spacing between child births, and contraceptive methods used as this have been adjudged vital in influencing women's preferences, opinions and actions. It is in view of this that the present study examines the relationship between characteristics of men in union (married and living together) and birth spacing, in Nigeria, and their perceptions about birth interval.

1.1 Statement of the Problem

Okwor and Olaseha (2010) reported that the decision on the choice and eventual use of any method of family planning by women is mostly influenced by their husbands. Formally however, men have rarely been involved either in receipt of or providing information on sexuality, reproductive health, or birth spacing. In fact, in the Nigerian environment, they are largely ignored or excluded from participating in many Family Planning programmes as such programmes are wronglyperceived as a woman's affair (Wambui & Alehagen, 2009). However, in the observance of the fact that men are customarily the heads of households and important decision makers in issues concerning their households, the role of men in decisions on choice of Family Planning method, the number of children, and how to use what is produced by the family should be officially recognized and validated through specific programmes planned for their information and education.

With an estimated population of over 177 million in 2015, Nigeria is Africa's most populous country. However, as is obtainable in many developing nations, the nation's infant and maternal mortality levels are high. The 2013 Nigeria Demographic and Health Survey (NDHS) estimated infant mortality rate at 69 deaths per 1,000 live births and maternal mortality ratio of 576 per 100,000 live births, neonatal mortality rate is 37 deaths per 1,000 live births (NPC & ICF International, 2014). While efforts at reducing the infant and maternal mortality rates are yielding positive fruits, when the latest data are compared with previous NDHS results, the values are still comparatively high relative to other contemporary developing nations.

Researches on the analysis of birth interval showed that short birth interval result in tremendous health hazards on mothers and their children. Mothers, for instance have an increased risk of death, trimester bleeding, and anemia, premature rupture of membranes, puerperal endometritis and malnutrition. In children, there is an increase in the risk of fetal death, preterm death, low birth weight, small for gestation age, neonatal death, stunting and underweight (Conde- Agudelo, 2002; Rutstein, 2003).

Poor birth spacing has also been identified as a determinant of childhood under-nutrition through its association with preterm births and low birth weight. If a pregnancy occurs too soon after the previous birth, the mother may not have recovered her nutritional status, which can contribute to preterm birth and low birth weight. Adequate birth spacing therefore allows women to recover and be healthy for their next pregnancy. Under nutrition set in because of premature weaning of breastfeeding and inadequate alternative feeding practices, as a result of a younger sibling's birth in a short period of time. In addition to providing high quality nutrition, breast milk strengthens the immune system against infections and diarrheal diseases, two common contributors to weight loss in children. Mothers who adequately space their pregnancies are able to provide their

children with the necessary nutrition for growth development and a strong immune system, thereby reducing the likelihood of childhood under-nutrition.

Improper birth spacing may also affect parents' investments in their children. Price (2008) observed that parents spend significantly more time with first-born than second-born children, and this translates into less time spent reading to the younger child and lower reading test scores. When births are not properly spaced, the children on ground are denied attention by their parents; this may culminate in misbehavior.

Birth spacing, if not practiced as recommended in the Nigerian family system, portends grave implications on the families, the women, husbands, children, the economy and the nation at large. In addition to the injurious effect of short birth interval to the health of women and children, if women do not wait longer before conceiving, the fertility rate of the nation will continue to increase. Longer intervals have been proven to reduce fertility and consequently result in beneficial effects on population size (Abera, Girma, Wondafrash&Yohannes, 2011). Also, inadequate timing of birth negatively influences women's contribution to the nation's GDP. Since not all occupations grant birth leave for women to nurse their babies, the women either choose between their jobs or childbearing.

1.2 Research Questions

The research questions guiding this study are:

- What is the preferred birth interval among the study population?
- Is there any relationship between men's characteristics and birth spacing in Nigeria?
- What is the perception of men about birth spacing?

1.3 Research Objectives

The general objective of this paper is to examine men's involvement in child spacing and their perceptions about birth spacing. The specific objectives include:

- To examine preferred birth interval among the study population;
- To investigate the relationship between men's characteristics and birth spacing in Nigeria; and,
- To examine the perception of men about birth spacing.

1.4 Justification of the Study

This study is of theoretical and practical relevance. The theoretical relevance relies on its contribution to existing studies on the demographics of reproductive health in Nigeria. It elucidates issues arising from birth spacing and men's involvement. Findings from this research further draw attention to a hitherto under-studied aspect of reproductive health. From past literature on male involvement on reproductive health, it is noticed that adequate attention has not been given to child spacing and child spacing is one of the important factors in reproductive health.

Practically, this research work will make policy makers decide on the best waiting time and make policies on it. Also, the study highlights the extent of men's involvement and will encourage men to be more involved in birth spacing as this paper will point out risk attributed to non spacing of birth to the children and their wives. Also, it will enhance their knowledge on the best interval they should give.

1.5 Definition of Terms

- **Men's involvement**: This refers to men's participation in birth spacing practice.

- **Birth spacing:** It is used interchangeably with birth interval or child spacing. It is defined as the period of time between two successive live births (NDHS, 2013).
- **Reproductive health:** This is defined as a state of complete physical, mental and social well-being in all matters relating to the reproductive system.
- **Family planning:** This refers to the practice of controlling the number of children in a family and the intervals between their births, particularly by means of artificial contraception or voluntary sterilization.
- **Preterm birth**: This is defined as babies born alive before 37 weeks of pregnancy are completed.
- **Preeclampsia:** This is a condition that pregnant women develop. It is marked by high blood pressure in women who have previously not experienced high blood pressure before.
- **Perinatal mortality:** This, as defined by the World Health Organization, is the "number of stillbirths and deaths in the first week of life per 1,000 total births. The perinatal period commences at 22 completed weeks (154 days) of gestation and ends seven completed days after birth", but other definitions have been used.
- **Infant mortality:** This is defined as the death that occurs before a baby reaches his or her first birthday.
- **Maternal mortality:** according to WHO, it is "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes."
- **Neonatal death:** is defined as deaths that occur during the first four weeks after delivery.

1.6. Conclusion

This chapter focused on the background introduction of the topic, the statement of research problem as well as the study's objectives and research questions. The chapter also includes the justification for carrying out this study and the operational definition of terms used in the study so as to avoid misconception.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, different relevant literatures are identified and reviewed. The chapter is divided into the following sections:

1. Birth interval: associated factors and consequences.
2. Attitudes of men toward birth interval.
3. Men's involvement in women's reproductive health.

Also, the chapter covers the hypothesis and conceptual framework for the study.

2.1 Birth Interval: Associated Factors and Consequences

2.1.1Associated Factors

Globally, studies have examined interval between births alongside its determinants and influences on demographic and health behaviour and outcome. For instance, a Haitian study concentrated on the factors associated with birth spacing and contraceptive use in Leogane. The study was aimed at determining opportunities to develop culturally sensitive programs to increase contraceptive use and increase birth spacing. The study revealed that 27% of the women had spaced at least one of their births inappropriately in their lifetime whereas 73% spaced all of their births appropriately. Of the variables used in the study, it was found that birth spacing was associated with age, number of people in the household, marital status, employment status, type of housing, and use of modern contraceptives. 552 women were surveyed. Of these, only 44% had ever used modern contraceptives to increase the birth interval or prevent pregnancy while 11% used traditional methods. Local practices, such as post-coitus persil leaf tea, ice water, or

salt water were thought to prevent pregnancy. Some women also believed that cold beer after coitus prevented pregnancy. Although many of the women surveyed who used these traditional methods had become pregnant, the practice of these methods continues (Chakhtoura, 2012).

Moitreyee (2010) conducted a study on knowledge, attitudes, and a practice relating to child-spacing methods in assessing current trends in traditional and modern child-spacing methods in Northern Burkina Faso. Its findings showed that time length of individual postpartum sexual abstinence differs between 40 days and 3 years. Durations of amenorrhea were fairly short at between 9 and 11 months. Both demand for modem contraception and contraceptive prevalence less than 1%.The study recommended that the population should be sensitized to the initiative that Islam does not necessarily reject contraception.

Saha, Basak& Banerjee(2006) conducted a study on birth intervals and injectable contraception in sub-Saharan Africa. They investigated associations between use of depot-medroxy progesterone acetate and other reversible contraception and short birth intervals in sub-Saharan Africa. Logistic regression was used to explain changes in the proportion of short birth intervals. The result shows that the overall odds ratio for the trend was 0.90. The odds of a short birth interval were reduced by exclusive breastfeeding and increased by use of injectable contraception. Extensive adoption of injectable contraception is associated with greater odds of a short birth interval.

Ngianga-Bakwin & Stones (2005) assessed the association between birth spacing and risk of adverse maternal outcomes in sub-Saharan Africa. The study included a systematic review of 22 observational studies which examined the relationship between inter-pregnancy or birth interval and adverse maternal outcomes. The results revealed that short intervals are associated with

increased risk of uterine rupture and uterus-placental bleeding disorders like placenta previa and placental abruption and also other adverse outcomes such as anemia and maternal death. The study concludes that short inter-pregnancy intervals lead to adverse maternal outcomes.

In Nigeria, Fayehun, Omololu & Isiugo-Abanihe (2011) conducted a study on sex of preceding child and birth spacing with the objective to understand the pattern of birth spacing among ethnic groups in Nigeria and how the sex of the preceding child affects this pattern. The study further examined the effects of demographic, socioeconomic and socio-cultural factors on birth spacing among Nigerian ethnic groups. The study revealed that level of education, residence and place of work are not significant on birth spacing; while wealth index and type of marital union are reasonably significant. Birth interval was higher in Yoruba ethnic group compared to Hausa and Igbo ethnic groups. It was also identified that if the sex of the first child is female, the minorities in the Yoruba, Igbo and Northern minorities have higher birth interval unlike their southern counterpart who has shorter birth interval. In addition, older women were likely to have higher birth interval, while women who married late were more likely to have shorter birth interval in order to give birth to as many as possible children. Also survival status of the preceding child is a significant predictor of birth interval. Apart from the southern minorities among whom educational attainment, wealth index and type of marriage are significantly associated with birth spacing, the socio-demographic factors have little effect on birth spacing across the ethnic groups. The result of the multivariate analysis revealed that sex preference need and sex of prior births have a weak non-consistent relationship with birth interval among the ethnic groups.

Amah, Andrew, Ekwe, Ezeugwu, &Orekyeh's (2015) study focused on the perceptual influence of child spacing campaigns on the knowledge, attitude and practices of rural women in South-East Nigeria. It revealed that while 88% of the women respondents have knowledge on child

spacing practice, inter-spousal communication was important indecisions on birth spacing. It further identified the cruciality of the mass media in forming opinions on birth spacing. Child spacing campaigns have increased the awareness and knowledge of the South-East rural women, and also brought about attitudinal changes.

In a cross sectional study conducted in Bayelsa state, which investigated birth spacing practices and its' determinants in a tertiary centre in the state found out that the mean birth interval was 32 months but was lower to Ghana with a median birth interval of 40 months (Abdel, Khalid Yassin & Nagla, 2014). It was revealed that majority of the respondents did not plan to space their children and thus, they did not plan their families. One of the factors acknowledged to be working against birth spacing was re-marriage. Women tend to give birth to their new husbands. 46% of the respondents perceived the ideal family size as four. However, the study failed to consider the effects of the mass media on birth spacing. It also failed to acknowledge men's involvement (Addah, Omietimi&Kotingo, 2015).

2.1.2 Consequences

An Indian study on birth spacing and its effects on birth weight revealed that the mean birth spacing was 34.8 months among 104 mothers from the Sri AvittomThirunal Hospital, Thiruvananthapuram. There was a significant difference between the birth weights of infants born to mothers who had a birth interval of less than 28 months and those with more or equal to 29 months. Contraceptive methods were not practiced by 73% of mothers, stressing the potential importance of birth spacing (Jayasudha, Johnsy, Santhi&sundari, 2008).

In a retrospective cross-sectional study carried out in Uruguay, women with inter-pregnancy intervals of 5 months or less had a 250% increased odds of maternal death, a 73% increased odds

of third trimester bleeding, a 72% increased odds of premature rupture of membranes, a 33% increased odds of puerperal endometritis, and a 30% increased odds of anemia compared to women with an inter-pregnancy interval of 18 to 23 months. Women with inter-pregnancy intervals longer than 59 months had significantly increased odds of pre eclampsia (83%) and eclampsia (80%) compared to women with an inter-pregnancy interval of 18-23 months (Conde-Agudelo & Belizan, 2000). It was also established that women with very short birth intervals, less than six months, were more likely to experience complications such as bleeding, premature rupture of membranes, and high blood pressure (Razzaque et al, 2005).

An interval of less than six months between pregnancies is associated with the highest risks of adverse outcomes. Under-5 child mortality, low birth weight and infant or child malnutrition are significantly increased with birth-to-pregnancy intervals of less than six months, while an interval of at least two years, but no more than five years, between pregnancies has been linked to improved neonatal morbidity and mortality and associated with the healthiest pregnancies (Conde-Aguedo, 2007).

In a cross-sectional survey conducted in Ghana on knowledge, attitude and practice of birth spacing among Ghanaian mothers, a total number of 200 women attending antenatal and/or postnatal clinics at a hospital in Accra were surveyed. The study revealed that 98% of the respondents had heard about birth spacing. Of the various methods used for birth spacing, the three most used birth spacing methods known by most respondents were pills (83%), followed by the male or female condom (72%) and abstinence (56%). It was also revealed that women who do not properly space their birth (between 1-2 years) affect their nutritional status. Friends and family were seen as contributor to the source of information. It was also revealed that 45% of the respondents knew while 20% practices optimum birth spacing (between 3-5 years). It was

found that 34% involves their partner in issues concerning birth spacing, and the reason for this is that, they felt their partner were responsible for the children financially, they are the head of the house and they take the final decisions. 66% do not involve their partner on birth spacing related issues because they were shy and they do not know how to start reproductive health issues with their partners. (Nti, Gadegbeku, Dodoo, Ofosu, Akoto & Agbi-Dzorkar, 2014).

Although birth interval is an important aspect of reproductive health, negligible research attention has been paid to men's involvement in birth interval. However, many studies have been conducted on several other aspects reproductive health and men's involvement. This study therefore deems fit to study the involvement of men in birth spacing.

2.2 Attitudes of Men toward Birth Interval

In a cross-sectional survey conducted on 241 men in Amman Jordan revealed that majority of the respondents (98%) had heard of birth spacing, but only 40% of them could correct give a concise definition of birth spacing. It also revealed that level of education has a significant effect on men's general knowledge about family planning, 74% of the respondents do discuss family planning with their wives. The chi-square results showed that annual family income influenced men's attitudes towards family planning and contraceptive use. The chi-square analyses also revealed that there was disparity in men's attitudes according to their educational level. 39.0% of the respondents said that large numbers of children will affect child upkeep and parents' physical and mental health (Wasileh, 1999.).

2.3 Men's Involvement in Women's Reproductive Health

A cross-sectional research conducted in Bangladesh to examine the determinants of male participation in reproductive healthcare services (Afroz, Hasina, Shahjahan, Shirin , Kapil &

Russell ,2013), aimed to determine the factors that influence the involvement of males in reproductive healthcare, found out that men who have higher level of education tends to involved in reproductive health more than others. Also, men who are more exposed to mass media such as newspaper, radio, TV, have effects in changing their attitudes to use of family planning, and also discussed the reproductive health related matter with their wives. The authors did not examine the role of cultural beliefs and religion in the variable for measures, and this variables contributes a lot in determining whether a man will be involved in any reproductive healthcare or not.

Another study conducted in Bangladesh on Determinants of male involvement in family planning and reproductive health (Mohammad, Shahidul, Muhammad &Enamol, 2013), seeks to explore the specific information about the factors that influence male participation in family planning and reproductive health in Bangladesh. The dependent variable used in the paper is- male involvement in family planning and reproductive health, the indicators are: Men currently using any contraceptives, Husband goes with wife to visit reproductive health services, Men's want no or fewer children, Husbands have positive attitudes toward modern contraceptives use. The Independent variables are, age of husband, age of women, spousal communication- talk with social networks, husband occupation and knowledge on contraception and STD's, knowledge on HIV, media exposure, current living children, couples income, women's occupation and education of husband. They failed to include birth spacing as part of their variables, and birth spacing is one of the important aspects of reproductive health and also a major reason why couples practice family planning because of the benefits accompanying it. The paper found out that male involvement in family planning and reproductive health increases when the age of male increases. The Chi-square test also shows there is a strong association between the age of women and male involvement in family planning and reproductive health is significant. The study

reveals that those couples with sound educational background are more communicative about family planning. The study further affirms that mass media determines men's participation in reproductive health as found out in the study of Afoz et al (2013). Mass media also play roles that raise awareness about the importance of male participation in family planning.

Several studies on male involvement in reproductive health have been conducted in Africa. Dennis & Mburu (2015) in their work on factors associated with male involvement in family planning in west Pokot County, Kenya, found that demographic factors such as age, number of children, and the educational level of the respondent are related to male involvement in family planning. Also some social factor that was significantly associated with male involvement in family planning in this study included religion of the respondent. While the religion of the respondent was not significantly associated with family planning, those who do not belong to any religion were found out to be more involved in family planning. Over 70% of the respondents were not members of any formal social groups. Membership to a social group in this study was not significantly associated with male involvement in family planning. The study also revealed that men who were highly involved in family planning tend to decrease with the increasing number of children they have. However, this study did not include exposure to media, contraceptive use and knowledge on family planning in the variables for analysis.

In a study conducted in Uganda, men ages 15-54 years and women in their reproductive years were interviewed. The study found some reasons why men do not involve in contraceptive uptake and reproductive health services in the country, among them are they perceived that female contraceptive methods may disturb sexual activity. They also were of the thought that if women use contraceptives, they will become promiscuous. Also, preference for large family sizes which are uninhibited by prolonged birth spacing. The study was also able to point out the

fact that men are less involved in reproductive health as a result of lack of awareness on reproductive health. One of the factors found to be attributing to lack of men's involvement in reproductive health is social norms, they believe that childbearing and rearing is women's business, all the husband needs to do is to look for money to cater for the family. Religion was also seen to be hindering men in using contraception, they believe in the multiplication. They also held the fact that high number of children is good political wise (kabagengi, Jennings, Reid, Nalwadda, Ntozi & Atuyambe, 2014). However, this study failed to recognize the effect of mass media on men's involvement, mass media has been seen to be a good contributing factor to involvement of men in reproductive health.

In Nigeria, a study conducted on demographic factors related to male involvement in reproductive health care services, the aims of the study was to assess the relationship between the level of men's involvement in reproductive health and demographic variables, in order to measure the contribution of different factors to the involvement of men in reproductive, and also to assess the effect of access to the media, contraceptive use and attitudes towards family planning on men's involvement in reproductive health issues. The dependent variables used in the study was male involvement in reproductive health, the independent variables are age, level of education, occupation, income, access to media, duration of marriage, number of living children, approval of family planning, inter-spousal communication. The study found out that couples discussion of reproductive health related issues was high, and this will encourage them to participate more and also in turn encourage their spouse to use contraceptives. The bi-variate analysis found out that male involvement were associated with education, occupation, age, income, access to media, number of living children and duration of marriage. The study pointed out the role of mass media as being vital in providing information and motivation about

reproductive issues and encouraging them to be more involved in reproductive health. Another vital factor that determines the involvement of men in reproductive health is education, it was found in this study that men who have higher level of education were more involved in reproductive health than those who have lower level of education (Ani, Abiodun, Faturoti, Imaralu, Olaleye&Sotunsa, 2015). However, this study failed to include cultural and religious factors, because these factors are key determinant of male involvement in reproductive health.

In a cross-sectional study conducted in Olorunda Local Government Area, Osogbo, Nigeria on the challenges and way forward to male involvement in family planning, the variables used in this study are age, occupation, income, number of living children, marital duration, education, and religion. The study found out that more than half of the respondents (53.7%) have knowledge on family planning, the majority of them were Muslims (83.1%) and also the majority of them were from Yoruba tribe (97.4%). It was found out that there was no inter-spousal communication on reproductive health issues, and this was in contrast with the study conducted in Nigeria by Ani et al (2015). Also, it found out that men believe that if women should be using family planning, they will be promiscuous. This corroborates the findings of kabagengi et al (2014). The study also pointed out the issue of social norms, men perceives family planning as women's business and this supported the research conducted by kabagengi et al (2014), but some of the participants believe that it is good for them (men) to be involved in family planning so as to show love, support their wives and to enhance their knowledge on reproductive health issues. This study was able to find out that few of the respondents (4.8%) have ever involved in family planning with their wives and this implies that majority of men still do not participate in family planning in the study area. The study found out some reasons why men do not involve in family planning, they include believe that family planning is women's

activity (89.4%), their custom does not support men's involvement in family planning (90.6%), duration of time used at the family planning clinic (80.9%), money (69.4%) (Adelekan, Omoregie & Edoni, 2014). This study did not take into consideration the role of mass media in involving men in family planning, if they are not inform about it, there is no way they tend to involve, and it is likely think that is a major reason why the involvement rate (4.8%) was very low.

In summary, majority of the literatures reviewed found out that mass media was one major factor that contributes to men's involvement in family planning, also some of the respondents in various studies on child spacing got their knowledge from mass media. However, this present study will also point out some factors that hinder men in participating in family planning and also address their involvement in child spacing since little attentions are given to this important aspect of reproductive health.

2.4 Hypothesis

H_0: There is no significant relationship between men's characteristics and birth spacing in Nigeria.

H_1: There is a significant relationship between men's characteristics and birth spacing in Nigeria.

2.5 CONCEPTUAL FRAMEWORK

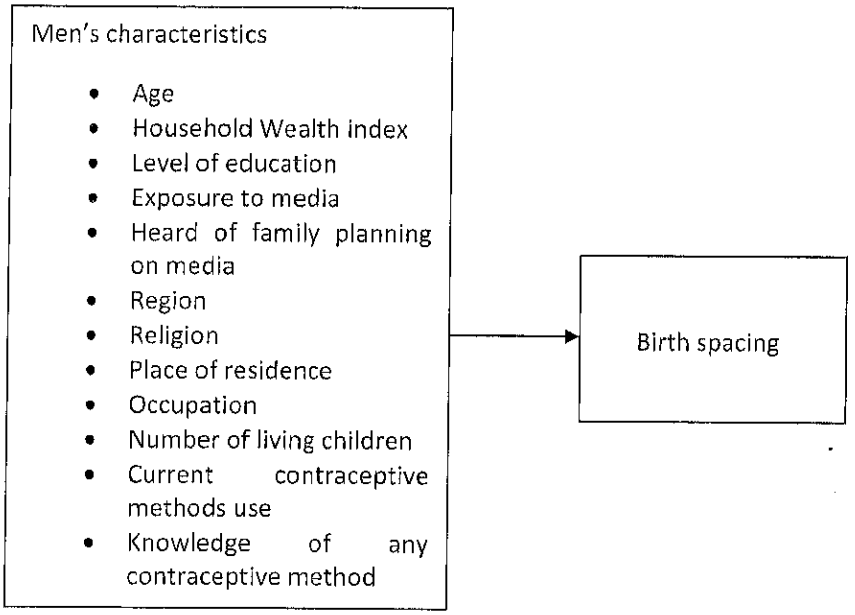

Fig 1: A Conceptual Framework examining the relationship between men's socio-demographic characteristics and birth spacing in Nigeria.

Based on past studies, it is expected that men's involvement in birth spacing in Nigeria will be influenced by the characteristics listed above as independent variables. The level of education of men will influence their attitude and acceptance of birth spacing since they know the risks and benefits attributed to birth spacing. Also, men who are exposure to media are more likely to be involved in reproductive health than their counterpart who is not exposed to mass media.

Occupation also have a great influence on birth spacing, it is difficult for those who not self-employed to be giving birth at short intervals, for instance, those working in a banking system are not privileged to go on maternity leave often and this will in turn influence them to space their children optimally. But for those who are self-employed, it is easier for them to give birth at intervals they like.Region and place of residence also influences birth spacing, for instance, those

living in the rural area in the Northern part of the Nigeria do not properly space their children. They give births to as much as possible at shorter interval because they tend to marry at early age.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter focuses on the various techniques and procedures used in this research. It provides relevant information on the following: background of the study area, study design, target population, sample size and design, source of data, measurement of variables, data processing and analysis.

3.1 Background of Study Area

The study location for this research is Nigeria. The country is situated in the West African region sharing common boundaries with Niger republic to the north, Cameron and Chad republics to the east, Benin republic to the west, and Atlantic Ocean to the south. It has a total land mass of about 923,768 square kilometers. Nigeria has a different climate with the north central and north east having uplands of 600 and 1,300 meters respectively, where as the lowlands of 20 meters are along the coastal areas of the south-south and south-west zones of the country. The country has a tropical climate with rainy (April to August) and dry seasons (September to March).

Nigeria is the most populous country in Africa with an estimated population of over 177 million in 2015. Nigeria has 36 states, the 36 states are clustered into six geopolitical zones: South-south zone with predominant ethnic group being Kalbiriljaw, Ikoi, Itsekiri, and Ibibio; South west zone with Yoruba as the dominant ethnic group; North Central zone with major ethnic groups being Nupe, Ebira, Idoma, Tivs, Igala, Gwari, and Angas; North East is largely made up of Kanuri, Fulani, Marghi, Babur,Mumuye, and Jukun; South East with Igbo as the dominant ethnic; and

North west zone that are largely Hausa and Fulani ethnic groups. Islam and Christianity are the dominant religions having followership of about 99% of Nigerians with Islam predominantly in the Northern and Christianity in the Southern geopolitical zones respectively.

The country operates as a federation with federal, state and local governments headed by democratically elected executive and legislative assemblies at all levels. There are 774 local government areas (LGAs), spread across 36 states and a federal capital territory. The country has 374 ethnic groups.

3.2 Target Population

The target population for this study was men in monogamous union (married or living with partner). This was however limited to men between the ages of 15 and 49 years who wanted another child.

3.3 Sources of Data

The data for quantitative analysis were extracted from the 2013 Nigeria Demographic and Health Survey (NDHS) data set (male recode).Relevant aspects of the data to the study population were extracted. For the qualitative data, information was collected using in-depth interview (IDI).The participants were asked questions, such as their socio-demographic characteristics such as their age, educational level, occupation, monthly income, ethnic group, religion, etc.

3.4 Sample Design and Size

This study employed a mixed method approach, that is, both qualitative and quantitative methods were used. The weighted sample size for the quantitative method was 5920, drawn from NDHS 2013 male recode data. The 2013 NDHS used a multi-stage cluster design to select nationally

representative sample of men aged 15-49 years. While six men (6) from each of the six geo-political zones, resident in Ekiti State were selected for IDI. The men were selected in Ekiti state, Oye local government, because of financial and time constraint.

3.5.0 Measurement of Variables

The variables used for the study are classified into dependent and independent variables.

- **DEPENDENT VARIABLE**: Birth spacing, was measured using preferred waiting time for another child. Non numeric and 'don't know' responses were merged to mean intentions to wait less than 12 months.
- **INDEPENDENT VARIABLES**: Based on past studies, the following characteristics were selected as independent variables: age, household wealth index, educational level, exposure to media, heard of family planning on media, region, religion, place of residence, occupation, number of living children, current contraceptive methods use, knowledge of any contraceptive method, and attitude to family planning.

The measures for each variable are represented in Table 1 below

Table 3.1.: Variables and measures

S/n	Variable	DHS measure	Measure for analysis
1.	Birth spacing	Preferred waiting time of a/another child (grouped) <12months 1 year 2 years 3 years 4 years 5 years 6+ years Non numeric Don't know	Preferred waiting time; <2 years coded 0 and 2+ years coded 1

2.	Age	15-19 20-24 25-29 30-34 35-39 40-44 45-49	As used in DHS
4.	Wealth index	Poorest Poorer Middle Richer Richest	As used in DHS
5.	Region	North Central North East North West South South South West	As used in DHS
6.	Type of place of residence	Urban Rural	As used in DHS
7.	Religion	Catholic Other Christian Islam Traditionalist Other	Catholic Other Christian Islam Traditionalist/other
8.	Occupation (grouped)	Not working Professional/technical/managerial Clerical Sales Agriculture - self employed Agriculture – employee Household and domestic Services Skilled manual Unskilled manual Other	not working working

9.	Educational level	No education Primary Secondary Higher	As used in DHS
10.	Number of living children	1 2 3 4 . . . 17	0-4 5+
11.	Heard of family planning on; Radio TV Newspaper	 Yes No Yes No Yes No	 0 Not heard (no in all three DHS questions) 1 Heard (yes in all three DHS questions)
13.	Current contraceptive methods use	Not using Pill IUD Injections Diaphragm Condom Periodic Abstinence Withdrawal Other Implants/Norplant Lactational amenorrhea (LAM) Female condom Foam or jelly Other modern method	Not using Using
14.	Attitude to family planning	Contraception is woman's business, Man should not worry Disagree Agree Don't know Women who use contraception become promiscuous Disagree Agree Don't know	Positive (agree in all three DHS questions) Negative (disagree in all three DHS questions) Neutral(don't know in all DHS questions)

15.	Exposure to media; Newspaper Radio Television	 Not at all Less than once a week At least once a week Not at all Less than once a week At least once a week Not at all Less than once a week At least once a week	0. No (not at all in all three DHS question) 1. Yes (less than once/atleast once a week)
16.	Knowledge of any contraceptive method	Knows no method Knows only folkloric method Knows only traditional method Knows modern method	Knows no method Knows folkloric/traditional method Knows modern method

3.5 Data Processing and Analysis

The data were processed and analyzed using Stata application package (Stata 12.0). The data processing was essential before the proper analysis for the purpose of measuring the variables precisely as well as to make the analysis presentable and easily interpretable. Uni-variate analysis was carried out using tables of frequency distribution to describe the background characteristics of the respondents. The Bivariate analysis used the chisquare ($\chi 2$) to show the association between the dependent and independent variables. Furthermore, logistic regression was used in the multivariate analysis to determine the strength and direction of association. The hypothesis was tested at .05 level of significance. At the multivariate level, occupation and household wealth index were excluded from the analysis because of high colinearity.

Manual thematic content analysis was conducted for the IDI. The transcripts from the taped information collected from the respondents were transcribed verbatim. Similar words and phrases were coded so as to enable us quantify and organize them into relevant interpretable themes.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF THE FINDINGS

4.0 Data Presentation and Analysis of Results

This chapter is focused on the presentation and discussion of the findings. The analysis was done in line with the research questions and hypothesis. Simple percentages were used to present the univariate and bivariate results while the hypothesis was tested at .05 level of significance using Pearson chi-square and logistic regression.

4.1 Univariate Analysis

Table 4.1.1 presents result of univariate analysis conducted to answer research question one. The table shows the percentage distribution the study population by preferred waiting time for next child, the proxy for birth spacing and other selected background characteristics.

Research Question 1: What is the preferred birth interval among the study population?

TABLE4.1.1 Percentage Distribution of the study population by selected characteristics

VARIABLES	FREQUENCIES	PERCENTAGES
PREFERRED WAITING TIME		
<2 years	2,718	48.62
2+ years	2,872	51.38
TOTAL	5,590	100.00
WEALTH INDEX		
Poorest	1,093	19.41
Poorer	1,158	20.56
Middle	1,040	18.47
Richer	1,137	20.19
Richest	1,203	21.36
TOTAL	5,631	100.00
OCCUPATION		
Not working	60	1.07
Working	5,549	98.93

TOTAL	5,609	100.00
AGE OF RESPONDENTS		
15-24	365	6.48
25-29	1,074	19.07
30-34	1,330	23.62
35-39	1,269	22.54
40-44	877	15.57
45-49	716	12.72
TOTAL	5,631	100.00
NUMBER OF LIVING CHILDREN		
0-4	4,664	82.83
5+	967	17.17
TOTAL	5,631	100.00
CURRENT MARITAL STATUS		
Married	5,452	96.82
Living with partner	179	3.18
TOTAL	5,631	100.00
TYPE OF PLACE OF RESIDENCE		
Urban	1,997	35.46
Rural	3,634	64.54
TOTAL	5,631	100.00
REGION		
North Central	991	17.60
North East	1,118	19.85
North West	1,541	27.37
South East	392	6.96
South South	835	14.83
South West	754	13.39
TOTAL	5,631	100.00
RELIGION		
Catholic	484	8.60
Other Christian	2,024	35.94
Islam	3,048	54.13
Traditional/Other	75	1.33
TOTAL	5,631	100.00
HEARD OF FAMILY PLANNING		
Not Heard Of Family Planning	2,585	45.91
Heard Of Family Planning	3,046	54.09
TOTAL	5,631	100.00
KNOWLEDGE OF ANY CONTRACEPTIVE METHOD		
Knows no method	205	3.64
Knows Folkloric/Traditional method	65	1.15
Knows Modern method	5,361	95.21
TOTAL	5,631	100.00

CURRENT CONTRACEPTIVE METHOD		
Not using	4,849	86.11
Using	782	13.89
TOTAL	5,631	100.00
ATTITUDE TOWARDS FAMILY PLANNING		
Positive	2,826	50.19
Negative	2,332	41.41
Neutral	473	8.40
TOTAL	5,631	100.00
EDUCATIONAL LEVEL		
No Education	1,560	27.70
Primary	1,155	20.51
Secondary	1,995	35.43
Higher	921	16.36
TOTAL	5,631	100.00
EXPOSURE TO MEDIA		
No	864	15.34
Yes	4,767	84.66
TOTAL	**5,631**	**100.00**

SOURCE: 2013 NDHS

From the table above, the percentage distribution of the study population shows that a little more than half of the respondents preferred to space birth 2 years and over (51.38%). The majority of the respondents were in the richest quintile of wealth index (21.36%), while the least were in the middle quintile of wealth index (18.47%).

The majority of the respondents were between the ages of 30-34 (23%), while the least were in the age group of 15-24 (6.48%). More than half of the respondents had 0-4 living children. Almost all of the respondents were married and more than half of them resided in the rural area. More than one- quarter of the respondents was from the North Western region of the country, while the least of them were from the South Eastern part of the country.

Slightly more than of half of them were Muslim (54%), while the least were traditionalist (1.33%). More than half of them had knowledge of family planning, and they knew more of modern method of contraceptives compared to other methods. Majority of them were not using

any contraceptive method (86.11%), while only few of the respondents were using contraceptive methods (13.89%). Half of them had positive attitude toward family planning (50.19%), while 8.40% of them had neutral attitude. The majority of them had secondary education (35.43%), while only 20.51% of them had primary education. Approximately 85% of them were exposed to media, whereas 15% were not.

4.2 Bivariate Analysis

This section presents the bivariate analysis of the relationship between preferred birth interval and men's individual characteristics with the results of chi-square test of association.

Question 2: Is there any relationship between men's characteristics and birth spacing in Nigeria?

TABLE 4.2.1 Percentage Distribution of preferred birth interval by men's characteristics

CHARACTERISTIC	PREFERRED BIRTH INTERVAL % (N)		CHI-SQUARE P-VALUE
	< 2YEARS	2+ YEARS	
WEALTH INDEX			
Poorest	22.08 (600)	16.75 (481)	
Poorer	21.67 (589)	19.53 (561)	χ^2=36.8126,
Middle	17.44 (474)	19.60 (563)	p=0.000
Richer	19.09 (519)	21.24 (610)	
Richest	19.72 (536)	22.88 (657)	
OCCUPATION			
Not working	1.14 (31)	1.01 (29)	χ^2= 0.2205,
Working	98.86 (2,678)	98.99 (2,830)	p=0.639
AGE OF RESPONDENTS			
15-24	6.55 (178)	6.51 (187)	
25-29	17.03 (463)	20.86 (599)	
30-34	21.96 (597)	25.21 (724)	χ^2=69.1956,
35-39	22.33 (607)	22.74 (653)	p=0.000
40-44	15.93 (433)	15.36 (441)	
45-49	16.19 (440)	9.33 (268)	

NUMBER OF LIVING CHILDREN			
0-4	82.45 (2,241)	83.32 (2,393)	χ^2=0.7479
5+	17.55 (477)	16.68 (479)	p=0.387
CURRENT MARITAL STATUS			
Married	97.31 (2,645)	96.31 (2,766)	χ^2=4.5505
Living with partner	2.69 (73)	3.69 (106)	p=0.033
TYPE OF PLACE OF RESIDENCE			
Urban	34.07 (926)	36.73 (1,055)	χ^2=4.3342
Rural	65.93 (1,792)	63.27 (1,817)	p=0.037
REGION			
North Central	14.35 (390)	20.40 (586)	
North East	20.53 (558)	19.12 (549)	χ^2=126.1532
North West	33.52 (911)	21.59 (620)	p=0.000
South East	6.03 (164)	7.90 (227)	
South South	12.99 (353)	16.68 (479)	
South West	12.58 (342)	14.31 (411)	
RELIGION			
Catholic	7.95 (216)	9.26 (266)	χ^2=102.0921
Other Christian	30.10 (818)	41.61 (1,195)	p=0.000
Islam	60.85 (1,654)	47.56 (1,366)	
Traditional/Other	1.10 (30)	1.57 (45)	
HEARD OF FAMILY PLANNING			
Not Heard Of Family Planning	56.29 (1,530)	36.18 (1,039)	χ^2=227.4834
Heard Of Family Planning	43.71 (1,188)	63.82 (1,833)	p=0.000
KNOWLEDGE OF ANY CONTRACEPTIVE METHOD			
Knows no method	4.38 (119)	2.96 (85)	χ^2=8.3628
Knows Folkloric/Traditional method	1.03 (28)	1.22 (35)	p=0.015
Knows Modern method	94.59 (2,571)	95.82 (2,752)	
CURRENT CONTRACEPTIVE METHOD			
Not using	90.84 (2,469)	81.65 (2,345)	χ^2=98.6191
Using	9.16 (249)	18,35 (527)	p=0.000
ATTITUDE TOWARDS FAMILY PLANNING			
Positive	46.80 (1,272)	53.45 (1,535)	χ^2=29.1188
Negative	43.45 (1,181)	39.42 (1,132)	p=0.000
Neutral	9.75 (265)	7.14 (205)	
EDUCATIONAL LEVEL			
No Education	33.89 (921)	21.80 (626)	
Primary	20.16 (548)	20.75 (596)	χ^2=110.1351
Secondary	31.09 (845)	39.62 (1,138)	p=0.000
Higher	14.86 (404)	17.83 (512)	
EXPOSURE TO MEDIA			

No	20.16 (548)	10.69 (307)	χ^2=96.7132
Yes	79.84 (2,170)	89.31 (2,565)	p=0.000

SOURCE: 2013, NDHS

From the table above, the majority (22.08%) of the respondents who reported preferred birth interval of less than 2 years were in the poorest quintile of wealth index, while the least (17.44%) were in the middle quintile. Also, the majority (22.88%) of respondents who reported preference for birth interval of at least 2 years fall in the richest quintile, while the least (6.75%) fall in the poorest quintile. The result indicates that the richest were more likely than the others to space birth for at least 2 years, whereas the poorest category were more likely to space births for less than 2 years. Chi-square test of association shows that there was a significant relationship between household wealth index and birth interval (χ^2 =36.8126, p=0.000).

The majority of the respondents who preferred to space birth for less than 2 years were working (98.86 %), while 1.14% falls in the category of those who were not working. For those who reported preference to have space their birth for at least 2 years, the majority of them were working (98.99 %), while 1.01% of them were not working. The result indicates that those who were working were more likely than others to space their birth for less than 2 years and at least 2 years. There was no significant relationship between occupation and birth interval (χ^2= 0.2205, p=0.639)

Respondents who were between the age group of 35-39years were seen to have majorly preferred birth interval of less than 2 years (22.33%), while 6.55% fall in the age group of 15-24years. Also, the majority of respondents who reported preference for birth interval of at least 2 years fall in the age group of 25-29years (25.21%), whereas 6.51% fall in the age group of 15-24years. The results indicate that respondents who were between 15-24years were less likely than others

to space their birth for less than 2 years and at least 2 years, those between 35-39years were more likely to prefer birth interval of less than 2 years while those in the age group of 25-29years were seen to be more likely to prefer birth interval of at least 2 years. There was a significant relationship between birth interval and age of respondents (χ^2=69.1956, p=0.000)

Among respondents who reported to have preference for birth interval of less than 2 years, the majority had 0-4 living children (82.45%), while 17.55% had 5 living children and above. Also, most of those with 0-4 living (83.32%) reported to have preferred birth interval of at least 2 years, while 16.68% had 5 living children and above. The result indicates that those who had 0-4living children were more likely to space birth for less than 2 years and at least 2 years. There was no significant relationship between number(s) of living children and birth interval (χ^2=0.7479. p=0.387).

For marital status of the respondents, 97.61% of those who reported preference for birth interval of less than 2 years were married while 2.69% were living with partner. Also, majority (96.31%) of those who reported to have preference for birth interval of at least 2 years were married while 3.69% were living with partners. The result implies that those who were married were more likely to space birth for less than 2 years and at least 2 years than those living with partners. There was a significant relationship between marital status and birth interval (χ^2=4.5505, p=0.033).

The Majority of the respondents who reported to have preferred birth interval of less than 2 years were residing in the rural area (65.93%), while 34.07% resided in urban areas. Also, the majority of the respondents who reported to have preferred birth interval of at least 2 years resided in the rural area (63.28%), while 36.73% resided in urban areas. The results indicates that it was more

likely for those in the rural area to space for at least 2 years and less than 2 years than those who resided in urban areas. There was a significant relationship between type of place of residence and birth spacing (χ^2=4.3342, p=0.037).

The majority of the respondents who reported to have preferred birth interval of less than 2 years were from the North western region of the country (33.52%) while the least (6.03%) were from south eastern region. Also, 7.90% of respondents' whose preference for birth interval of at least 2 years were from south eastern region while 20.40% were from the north central region. The results implies that those from the North central of the country were more likely than others to space birth for at least 2 years, whereas those in the north western region were more likely to space birth for less than 2 years. There is a significant relationship between region and birth interval (χ^2=126.1532, p=0.000).

The majority of respondents who reported to have preferred birth interval of less than 2 years were Muslims (60.85%), while the least (1.10%) were traditional/other religion. Also, the majority of the respondents who reported to have preferred birth for at least 2 years Islam (47.56%), while the least (1.57%) were traditional/other religion. The result indicates that respondents who practiced Islamic religion were more likely than others to space birth for at least 2 years and less than 2 years. There is a significant relationship between religion and birth interval (χ^2=102.0921, p=0.000)

The majority of respondents who reported to have preferred birth intervalof less than 2 years have not heard about family planning (56.29%), while the least (43.71%) have heard about family planning. For those who reported to have preference for birth interval of at least 2 years, 36.18% have not heard of family planning, while 63.82% have heard of family planning. The

results indicate that those who have heard of family planning are more likely than those who have not heard of family planning to space birth for at least 2 years, whereas those who have not heard of family planning were more likely than those who have heard of family planning to space birth for less than 2 years. There is a significant relationship between heard of family planning and birth interval (χ^2=227.4834, p=0.000).

About 95% of respondents who reported to have preferred birth interval of less than 2 years knew modern method of contraceptive, while 1.03% of them knew traditional method. Among those who reported to have preference for birth interval of at least 2 years, 95.82% of them knew modern method, while 1.22% knew traditional method. The results imply that, those who knew modern method of contraceptive were more likely than others to space birth for less than 2 years and at least 2 years. There is a significant relationship between knowledge of contraceptive methods and birth interval (χ^2=8.3628, p=0.015)

Of the respondents who reported to have preferred birth interval of less than 2 years, 46.81% had positive attitude toward family planning, while 9.75% had neutral attitude. For those whose preference for birth interval of at least 2 years, 53.45% of them had positive attitude toward family planning, while 7.14% were neutral. The results indicate that, respondents who had positive attitude toward family planning were more likely to space birth for less than 2 years and at least 2 years. There is a significant relationship between attitude toward family planning and birth interval (χ^2=29.1188, p=0.000).

The majority of the respondents (33.89%) who reported to have preferred birth intervalof less than 2 years had no education, while 14.86% had higher education. For those who reported to have preference for birth intervalof at least 2 years, 39.62% had secondary education while

17.83% had higher education. The results indicate that, those who had secondary education were more likely than others to spaced birth for at least 2 years, whereas those who had no education were more likely than others to space birth for less than 2 years (χ^2=110.1351, p=0.000).

Among those who reported to have preferred birth intervalof less than 2 years, 79.84% were exposed to the media, while 20.16% were not exposed to the media. The majority of respondents (89.31%) who reported to have preference for birth intervalof at least 2 years were exposed to the media, while 10.69% were not exposed to the media. The results indicate that, those who were exposed to the media were more likely than those who were not to space birth for at least 2 years and less than 2 years. There was a significant relationship between exposure to media and birth interval (χ^2=96.7132, p=0.000).

In conclusion, the result revealed that there is relationship between birth interval and wealth index, age, type of place of residence, current marital status, region, religion, heard of family planning, knowledge of contraceptive method, current contraceptive method, attitude toward family planning, level of education, and exposure to media, whereas no significant relationship existed between birth interval, occupation and number of living children.

4.2.2 Test of hypothesis

H_0: There is no relationship between men's characteristics and birth spacing in Nigeria

H_1: There is a relationship between men's characteristics and birth spacing in Nigeria

Decision

From the chi-square test, the relationship between wealth index and birth interval was statistically significant (χ^2=36.8126, p=0.000). We can conclude that there is a significant

relationship between wealth index and birth spacing. Therefore we reject the null and accept the alternate.

The chi-square test also shows that the relationship between occupation was not statistically significant (χ^2=0.2205, p>0.05). This implies that occupational status of men influences birth interval. Therefore, we accept the null hypothesis

The age of the respondents was also significantly related with birth interval (χ^2=69.1956, p<0.05). We conclude that there is a significant relationship between age and birth interval, therefore we reject the null hypothesis.

The number of living children was revealed not to be statistically significant with birth interval (χ^2=0.7479, p>0.05). This signifies that the number of living children does not influence birth interval. We therefore fail to reject the null hypothesis and reject the alternate hypothesis.

This study also revealed that the marital status of the respondents was significantly related with birth interval (χ^2=4.5505, p<0.05). We conclude that there is a significant relationship between current marital status and birth interval. Therefore, we reject the null hypothesis.

The place of residence of the respondents, whether they reside in the rural or urban areas was also significantly related with birth interval (χ^2=4.3342, p<0.05). We conclude that there is a significant relationship between the place of residence of respondents and birth interval. Therefore, we reject the null hypothesis and accept the alternate hypothesis.

The region of respondents was also revealed to significantly influence birth interval (χ^2=126.1532, p<0.05). We conclude that there is a significant relationship between the region of the respondents and birth interval. Therefore, we reject the null hypothesis.

With regards to religion, it was revealed in this study that the religion of the respondents was significantly related with birth interval (χ^2=102.0921, p=0.000). We conclude that there is a significant relationship between religion and birth interval. Therefore, we accept the alternate hypothesis and reject the null hypothesis.

This study also revealed that there was a significant relationship between heard of family planning and birth interval (χ^2=227.4834, p=0.000). Therefore, we reject the null hypothesis and accept the alternate hypothesis.

The knowledge of contraceptive method was seen to be significantly related with birth interval (χ^2=8.3628, p<0.05). Therefore, we accept the alternate hypothesis.

The current contraceptive method used by respondents was seen to be significantly related with birth interval (χ^2=98.6191, p<0.05). Therefore, we accept the alternate hypothesis.

Men's attitude toward family planning was seen to be significantly related to birth interval (χ^2=29.1188, p=0.000). Therefore, we accept the alternate hypothesis and reject the null hypothesis.

The level of education of the respondents was also revealed to be significantly related with birth interval (χ^2=110.1351, p=0.000). We conclude that there is a significant relationship between educational level and birth interval. Therefore, we reject the null hypothesis.

Exposure to media was seen to be a useful predicator of birth spacing. This study revealed that there was a significantly relationship between men's exposure to the media and birth interval (χ^2=96.7132, p=0.000).

The above chi-square test only reveals association, for further test of the hypothesis for this study with regard to magnitude and direction of association between men's characteristics and preferred birth interval in Nigeria, multivariate analysis using logistic regression was conducted. The results are presented in the next section.

4.3 Multivariate analysis

The multivariate analysis using logistic regression was used to show the strength and the direction of the relationship between men's characteristics and preferred birth interval. The results are presented in odds ratios, associated p-values and confidence interval.

TABLE 4.3.1 Logistics Regression of preferred birth interval by men's characteristics

VARIABLES	Odds Ratio	P>|z|	[95% Conf. Interval]	
Age				
15-24	1.00(R.C)			
25-29	1.11	0.422	.86	1.42
30-34	.95	0.668	.74	1.21
35-39	.77	0.043	.60	.99
40-44	.64	0.001	.48	.83
45-49	.39	0.000	.29	.52
Number living children				
0-4	1.00(R.C)			
5+	1.47	0.000	1.24	1.74
Current marital status				
Married	1.00(R.C)			
Living with partner	.98	0.907	.70	1.35
Type of place of residence				
Urban	1.00(R.C)			
Rural	.90	0.135	.79	1.03
Region				
North Central	1.00(R.C)			
North East	.86	0.153	.71	1.05
North West	.62	0.000	.51	.74
South East	.87	0.339	.66	1.14
South South	.64	0.000	.51	.79
South West	.60	0.000	.49	.75
Religion				

Catholic	1.00(R.C)			
Other Christian	1.33	0.010	1.07	1.67
Islam	.98	0.871	.77	1.24
Traditional/others	1.74	0.038	1.03	2.94
Heard of family planning				
Not heard of	1.00(R.C)			
Heard of	2.04	0.000	1.80	2.32
Knowledge of any contraceptive method				
Knows no method	1.00(R.C)			
Folkloric/traditional	1.86	0.037	1.03	3.34
Modern method	.83	0.272	.61	1.14
Attitude towards family planning				
Positive	1.00(R.C)			
Negative	.92	0.172	.82	1.04
Neutral	.79	0.038	.64	.99
Exposure to media				
No	1.00(R.C)			
Yes	1.38	0.000	1.15	.65
Educational level				
No education	1.00(R.C)			
Primary	1.21	0.033	1.02	1.45
Secondary	1.18	0.062	.99	1.41
Higher	1.00	0.989	.81	1.24
Current contraceptive method				
Not using	1.00(R.C)			
Using	1.79	0.000	1.51	2.13

SOURCE: 2013, NDHS R.C = Reference Category O.R=Odds ratio

Age was seen to contribute to the likelihood of birth spacing. Taking the age group of respondents between 15-24 years as a reference category, respondents in the age group of 25-29 years are more likely than the reference category to prefer birth space of at least 2 years (OR=1.10, $p>0.05$), but those in the age groups of 30-34, 35-39, 40-44, and 45-49 years were less likely than the reference category to prefer birth space of at least 2 years with respective odds ratio and p-value (OR=0.94, $p>0.05$, OR=0.77, $p<0.05$, OR=0.63, $P<0.01$ and OR=0.39, $p<0.01$).

Those who had 5 or more living children were 47% more likely than who had below 5 (reference category 1.00) to prefer spacing birth for at least 2 years (OR=1.47, p<0.01). Also men who were living with partner were 2% less likely to prefer spacing birth for at least 2 years (OR=0.98, p>0.05) than the married.

Those who resided in the rural were seen to be insignificantly less likely to prefer spacing birth for at least 2 years than those in the urban areas (OR=0.90, p>0.05). More so, region of residence of the respondents contributed less to the likelihood of preference for spacing birth for at least 2 years in Nigeria. Taking North Central region as the reference category, North East and South East regions were significantly less likely than North Central region to prefer spacing birth for at least 2 years, except from the North Western, South Southern and South Western regions where the relationship were insignificant.

This study also revealed that religion contributes to the likelihood of preference for spacing birth among married men in Nigeria. Taking Catholic as a reference category (1.00), respondents who were affiliated to Islam were insignificantly less likely to prefer spacing birth for at least 2 years (OR=0.98, p>0.05), whereas other Christians and Traditionalist were significantly more likely than Catholic to have preference for birth space of at least 2 years in Nigeria (OR=1.33, p<0.05. OR=1.74, p<0.05), respectively.

With regard to knowledge of contraceptives, those who knew about folkloric/traditional method were more likely than those who knew no method (RC) to prefer spacing birth for at least 2 years (OR=1.86, p<0.05), whereas those who knew modern method were insignificantly less likely than the reference category to have preference for birth intervalof at least 2 years (OR=0.83. p>0.05).

Attitude toward family planning also influenced the likelihood to prefer birth spacing practices among married men in Nigeria. The result revealed that men who had negative and neutral attitudes were less likely than those who had positive attitude (RC) toward family planning to prefer spacing birth for at least 2 years (OR=0.92, p>0.05 and OR=0.79, p<0.05), respectively.

The result also revealed that those who have heard of family planning were two times more likely than those who have not heard of family planning (RC=1.00) to prefer spacing birth for at least 2 years (OR=2.04, p<0.01). Also, those who were exposed to media are more likely than those who were not exposed to prefer spacing birth for at least 2 years (OR=1.38, p<0.01).

Taking no education as the reference category (1.00), respondents who attained primary and secondary education were more likely than those in the reference category to prefer spacing birth for at least 2 years with the respective odds ratio and p-values (OR=1.21, p<0.05 and OR=1.18, p>0.05). Respondents who attained higher education were seen to insignificantly prefer spacing birth equally for at least 2 years with those who had no education (OR=1.00, p>0.05).

Those who were currently using contraceptives were significantly more likely than those who were not using contraceptives (reference category) to prefer spacing birth for at least 2 years (OR=1.79, p<0.01).

4.3.2 **Test of hypothesis**

Testing the hypothesis using logistic regression results shows that not all the tested characteristics were significantly associated with preferred birth spacing among men in Nigeria.

Decision

The logistic regression result revealed that current marital status, type of place of residence was not significantly related with birth spacing. Therefore, we reject the alternate hypothesis and accept the null hypothesis.

Also, this study revealed that age, region, religion, knowledge of any contraceptive method, attitudes toward family planning, and educational level were to some extent significantly related with birth spacing. We therefore conclude that the null hypothesis was to some extent true.

The number of living children, heard of family planning, exposure to the media and current contraceptive method were significantly related with birth spacing. Therefore, we accept the alternate hypothesis.

4.4.1 Qualitative Analysis

For this study, a total of six (6) men age 15-49 years who were married were interviewed on men's involvement in birth spacing in Nigeria. The analysis of the interview was conducted in line with the research questions.

Socio-demographic characteristics of the respondents

The majority (4) of the respondents were in the age group of 35-39 years, while the others were in the age groups of 40-44 and 45-49years. Also, four of them were civil servants, while the two were businessmen. With regard to their religion, the majority were Christian (5), while one of them was a Muslim. Only one of the respondents had primary education, while the majority had higher education. Few of the respondents had monthly income below #50,000 monthly, while the highest paid among them had at monthly income of #100,000-110,000. Five of the respondents had 0-4 living children, while one had 5 living children.

Knowledge of birth spacing

Five of the respondents knew about birth spacing, and the majority of them heard about birth spacing from the media, while the others heard about it from health practitioners, and seminars. One of them said *"from studies, and from friends, I read it from newspaper, from news online" (Res1: 36 year's, post graduate, civil servant, 2 living children, Christian).* It was revealed that the major source of knowledge of birth spacing practices was the media, according to one of them *"I heard about child spacing from the Medias" (Res.3: 45year's old, a degree holder, public servant, Muslim, 3 living children).*

The majority (4) of the respondents in the interview had positive attitude toward family planning and this also influenced their decision to space birth. According to one of them

> *"family planning is a good method that really helps mothers and even family in a way they plan their children for the health of the mother so that they can prevent unwanted pregnancy and at the same time they can still enjoy themselves as husbands and wives"(Res1: 36 year's, post graduate, civil servant, 2 living children, Christian)*

Research question 1: What is the preferred birth interval among the study population?

The majority (4) of the respondents who were interviewed spaced their birth for 3 years, while the others spaced their birth for less than 3 years. According to one of the respondent's when asked the space between his children, he responded that *"I spaced my children for 3 years" (Res.3: 45year's old, a degree holder, public servant, Muslim, 3 living children)*

Research question 3: what is the perception of men about child spacing?

The entire respondents had good perception on birth spacing, and this can be seen to have led them to have been involved in birth spacing. One of the respondents said "*....it is good to have enough spacing and for the health of the child too, it also help, that is why I see it as something that is very necessary to be involved" (Res1: 36 year's, post graduate, civil servant, 2 living children, Christian).* Positive perception on child spacing can be said to be an influencing factor of child spacing.

From the interview, the respondents gave clues on why some men do not involve in child spacing. To some they believe there are no barriers that hinder men from involving in birth spacing, while some believed that there were barriers. According to one of the respondents that believed that there was no barrier to men's involvement in birth spacing, he said "*I don't see anything that stops people from child spacing at all, I even wished people to be increased in child spacing. I don't see any barrier that stops it." (Res2: 36 year's old, OND holder, businessman, Christian, 3 living children).*

One of the respondents believed that religion could be a force working against men involving in birth spacing in Nigeria; he said

> *"some men do not involve because, number 1, religious wise some men you know their religion do not allow them to be involved in family planning, so at least if your religion does not allow family planning and you can eventually get your wife pregnant unless your wife go for abortion, so that is why you see some people who do not involve in birth spacing give birth to children every year" (Res4: 40years, HND holder, Okada business, Christian, 1 living child).*

When asked the best interval they would suggest for their friends and other men who do not space birth, the majority of them said they would suggest 3 years. One of them said *"3 years is okay, I space my children within 3 years and I know that it is good ....I will tell them 3 years if they can do it" (Res6: 35 years, B.sc holder, civil servant, Christian, 4 living children).*

4.4.2 Discussion of the Findings from Qualitative Analysis

The qualitative analysis in this study was conducted in order to examine the perception of men towards birth spacing practice and also to validate some of the quantitative results. This study revealed that men in Nigeria had a good idea and knowledge of birth spacing practice. All (6) respondents believed that birth spacing was a good practice and they all spaced their birth, but they did not have the same birth interval. It is evident that attitude toward birth spacing can influence birth spacing practice.

It was evident that the media plays important role in widening men's knowledge and also an influential factor of birth spacing practices by men. It was revealed that men who were exposed to the media were more likely to space birth appropriately than those who were not. Half of the respondents gained the knowledge on birth spacing from the media, while some heard from health practitioners. The majority of the respondents spaced their birth optimally, and this might be as a result of the knowledge on birth spacing they got from the media and health practitioners.

It was also revealed that attitude toward family planning also influences birth spacing. Men who had positive attitude toward family planning were seen to have spaced their birth. This implies that, birth spacing may be the sole aim of men practicing family planning. Men who also want to limit family size indirectly space birth.

Religion is identified as a hindering factor in men's involvement in birth spacing in Nigeria. This implies that some religions do not support men's involvement in reproductive health issues. Some respondents saw no reason why men should not be involved in birth spacing and stressed the need for men to be involved in birth spacing for the benefit of their wife, children and their income.

4.5 Discussion of the Findings from Quantitative Analysis

This study was conducted with the objectives of examining men's involvement in child spacing and their perceptions about birth spacing. The study discovered that the majority of the respondents preferred to space their next birth by at least 2 years (51.4%) while those who preferred less than 2 years were 48.6%. This indicate that the majority of men who were married or living with partner in Nigeria preferred waiting for at least two years before their wives conceive the next child. This might be as a reason to their exposure to media and information on the advantages of family planning and birth spacing. It was revealed in this study that the majority of the respondents was exposed to the media and knew modern methods of contraceptives; this confirms a study conducted by Nti et al. (2014) in Ghana.

At the bivariate level of analysis, the study revealed some factors that significantly influenced birth spacing among married men and those living with their partner they include, household wealth index, age, current marital status, current marital status, type of place of residence, region, religion, heard of family planning, knowledge of contraceptive method, attitude towards family planning, level of education, and exposure to the media. This was in contrast to the study conducted by Fayehun,Omololu&Isiugo-Abanihe (2011) who found out that level of education and residence are not significantly associated with birth spacing.

The age of respondents also influence birth spacing. It was revealed that men were in the age group of 15-24 years were the least to space birth for less than 2 years and at least 2 years. Meanwhile, respondents in the age group of 30-34 years preferred spacing birth for at least 2 years. This might be as a result that they have almost attained their desired family size. This was in line with the study conducted by McGuire & Stephenson (2015) on Community Factors Influencing Birth Spacing among Married Women in Uganda and Zimbabwe. Their study revealed that age had a significant association with the length of the preceding birth interval in both countries

The results also revealed that respondents who have heard of family planning are more likely to prefer spacing birth for at least 2 years than those who have not heard of family planning. This is true because men who have heard of family planning would know the consequences and benefits associated with family planning and by so doing they will prefer to space birth appropriately. Mass media was also seen to be one of the factors that influence birth spacing. Respondents who were exposed to the mass media were seen to be more likely than those who were not exposed to prefer spacing birth for less than 2 years and at least 2 years. This result corroborate the study conducted by Amah et al. (2015) on the perceptual influence of child spacing campaigns on the knowledge, attitude and practices of rural women in South-East of Nigeria.

Religion is identified to play a vital role in men's involvement on birth spacing. Christians were seen to be more likely than Catholics to prefer spacing birth for at least 2 years. Muslims were insignificantly less likely to prefer spacing birth for at least 2 years, while the traditionalist were also more likely to prefer spacing birth for at least 2 years when compared with the Catholics. This result may be because Catholics are more likely than other Christians to be pro-natalist. From the interview conducted, it was revealed that religion can be a factor militating against men

involving in child spacing while some believed that there are no reasons for men not to be involved in birth spacing.

With regard to attitude toward family planning, it was revealed that men who had negative and neutral attitude toward family planning were not likely to prefer spacing birth for at least 2 years. Men who were using contraceptives were seen to be significantly more likely than those who were not using contraceptives to prefer spacing birth for at least 2 years. There is high tendency for men who do not use contraceptives to impregnate their partner's every time they meet and this will result to not spacing of birth appropriately.

It was revealed that only primary education was significantly associated with men's preferred waiting time for next birth. This corroborates to a good extent the study by Fayehun, Omololu and Isiugo-Abanihe (2011). Although all categories of educated men were more likely than their uneducated counterparts to prefer two or more years waiting period for the next child, only primary education was significant, while those who had higher education were insignificantly with those who had primary education to prefer spacing birth for at least 2 years. Knowledge on birth spacing increases with the increase in educational attainment of men, and this will bring about more practice of birth spacing. This was in contrast to some extent with the study of McGuire & Stephenson (2015), they found out that Women's education was significantly associated with the length of the preceding birth interval in Zimbabwe, with women reporting secondary or higher education reporting shorter birth intervals. In this study, it was seen that the respondents who had secondary and higher education had length of birth spacing of at least 2 years. Male involvement in family planning and reproductive health increases when husband receives higher education (Kamal et al, 2013).

It can be concluded therefore that access to media, and perception of respondents on child spacing play significant roles in men's involvement in child spacing in Nigeria. Other significant factors are age, marital status, number of living children, type of place of residence, region, education, religion, heard of family planning, knowledge of contraceptive method, and attitude toward family planning. Thus, the hypothesis for this study is confirmed to a very large extent.

4.6. Summary

This chapter has presented the result of the various analyses. These results have also been interpreted and discussed. This chapter included the test of hypothesis using both the chi-square and binary logistic regression.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter contains the summary of findings, conclusion and recommendations drawn from the result of the qualitative and quantitative analysis.

5.1 Summary of findings

This study identified that 51.38% of the respondents' in the sample population preferred to space their next birth for at least 2 years while 48.62% preferred than 2 years. It was also seen in the result of the qualitative analysis that 5 of the respondents, which is the majority spaced their birth for at least 2 years (4 respondents spaced for 3years and 1 respondent spaced for 2½ years).

The bivariate analysis on men's characteristics and preferred birth spacing showed a significant relationship between men's preferred waiting time for next birth and age, wealth index, marital status, number of living children, type of place of residence, region, education, religion, heard of family planning, knowledge of contraceptive method, and attitude toward family planning, and access to media. It was revealed that there was no significant relationship between number of living children, occupation and birth spacing.

The binary logistic regression of men's characteristics and preferred birth spacing revealed that men who had 5 or more living children were significantly more likely than those who below 5 living children to preferred spacing birth for at least 2 years. Also, it was revealed that men who were living with partner were not significantly likely to prefer spacing birth for at least two years. Men who have heard of family planning were significantly more likely than those who have not heard of family planning. The result revealed that those who resided in the rural were

insignificantly more likely to prefer spacing birth for at least 2 years than those in the urban areas.

Furthermore, the multivariate result revealed that the number of living children, heard of family planning, exposure to the media was significantly related with preferred birth interval. While, age, wealth index, region, religion, knowledge of any contraceptive method, attitude towards family planning, and educational level were to some extent significantly related with preferred birth interval.

The respondents interviewed had a positive perception on birth spacing, and they all believed that it is a good practice. It was also revealed that religion could act as a factor that could work against men in involving in birth spacing. Furthermore, it was revealed that that the mass media played a vital role in the knowledge of the respondents toward birth spacing. Half of the respondents heard about child spacing from the media.

5.2 Conclusion

This study examined the relationship between individual men's characteristics and birth spacing in Nigeria. We noted a significant relationship between many men's characteristics and their preferred birth spacing. 51% of men in Nigeria preferred spacing their birth for at least 2 years. This suggests that men would like to wait for at least 2 years before their wives conceive the next child, a situation that will improve the health of the baby and also give women enough time to recover from the delivery of last birth.

5.3 Recommendations

Based on the findings of this study, the following are recommendations for theoretical and practical purposes:

1. Further researches should be conducted on barriers to men's involvement in child spacing so as to ascertain the factors that hinder men from getting involved in birth spacing.
2. Men should be educated on the health benefits and consequences attributed with birth spacing for both the mother and children. Also, the effects of closely spaced birth on their household income and their wives occupation.
3. Programmes on awareness of men's involvement on child spacing should be put in place by both the government and non-governmental agencies so has to increase their involvement in birth spacing.
4. Existing policies on child spacing in Nigeria should be reviewed and also incorporate policies that will encourage men's involvement in birth spacing.
5. Religious leaders should preach the importance of birth spacing to their followers, and also encourage them to practice healthy birth spacing.
6. Reproductive health should be included in primary and secondary school curriculum.
7. Health providers should increase advocacy on birth interval.

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Appendix-1

IDI –interview Guide

CONSENT FORM

Good morning/afternoon/evening sir, my name is Mustapha Oluwasegun Sam, I'm a final year student of the Department of Demography and Social Statistics, Federal University Oye Ekiti. I am conducting a research topic **"men's involvement in birth spacing in Nigeria",** with the aim of examining the perception of men about birth spacing in Nigeria. All information given to me by you will be treated confidentially and no word(s) will be traced back to you. Promise not to take much of your precious time.

Can I proceed with the interview?

(a) Yes (b) No

Thank you for your coorperation.

Section A- socio-demographic characteristics

- Age:
- Educational level:
- Occupation:
- Monthly income:
- Religion:
- The number of their living children:

Section B

- Have they heard about family planning

- Their view on family planning
- Do they discuss family planning with partner
- What method of family planning do they know
- Which of the methods do they use
- Have they heard about birth spacing, if yes, how and where?
- What is their attitude toward birth spacing
- Have they been or are involve in birth spacing, if not, why? If yes, why?
- Their perception about birth spacing
- The age of their first born and the preceding child
- Do they know the best interval for birth?