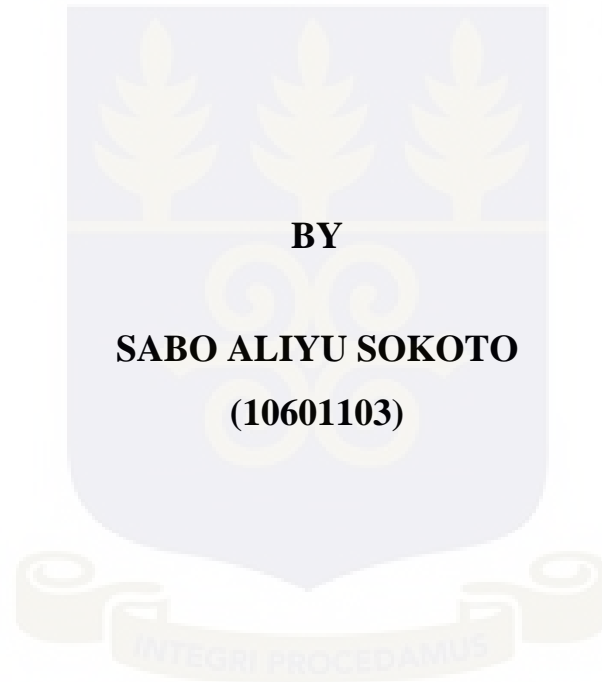




**FACTORS INFLUENCING THE CHOICE OF CONTRACEPTIVES
AMONG WOMEN AT A SPECIALIST HOSPITAL, SOKOTO-NIGERIA**



BY

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**THIS DESSERTATION IS SUBMITTED TO THE SCHOOL OF
GRADUATE STUDIES, UNIVERSITY OF GHANA, LEGON IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE AWARD OF MSC NURSING DEGREE**

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DECLARATION

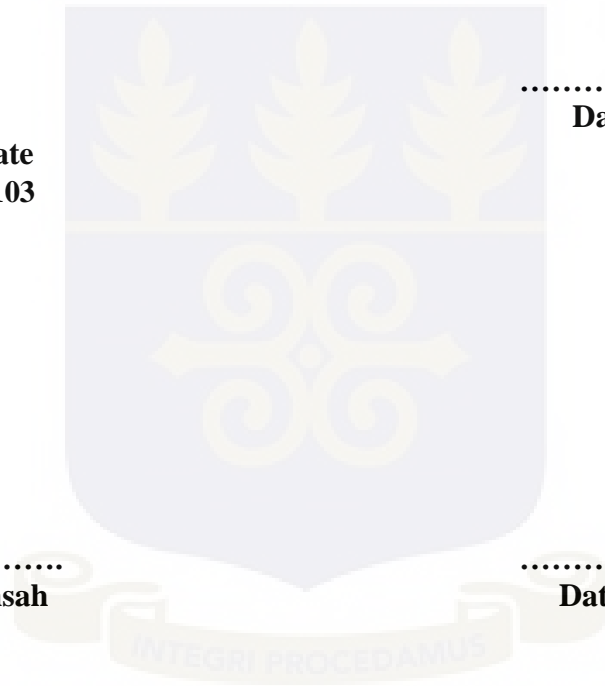
I declare that this thesis is the result of my own research work, with the exception of references to other people's work which have been duly acknowledged. This thesis has neither in part nor whole been submitted to this University or elsewhere for another degree or certificate.

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.....
Date



DEDICATION

This work is dedicated to the Almighty God, oppressed people in the world and to my entire families.



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All thanks be to God for making this work possible. My ineffable and utmost gratitude goes to Almighty God for sparing my life up to this day and I wish to express my gratitude to my initial research supervisor; Professor Ernestina Safoa Donkor who guided me and offered her relentless support in this dissertation. I am also grateful to my research supervisor, Dr. Mary Ani-Amponsah for her guidance, constructive criticisms and productive contribution in this research work. My deepest appreciation extends to Dr. Gladys Dzansi for supporting me with her quantitative expertise despite her tight schedule. God Bless You!

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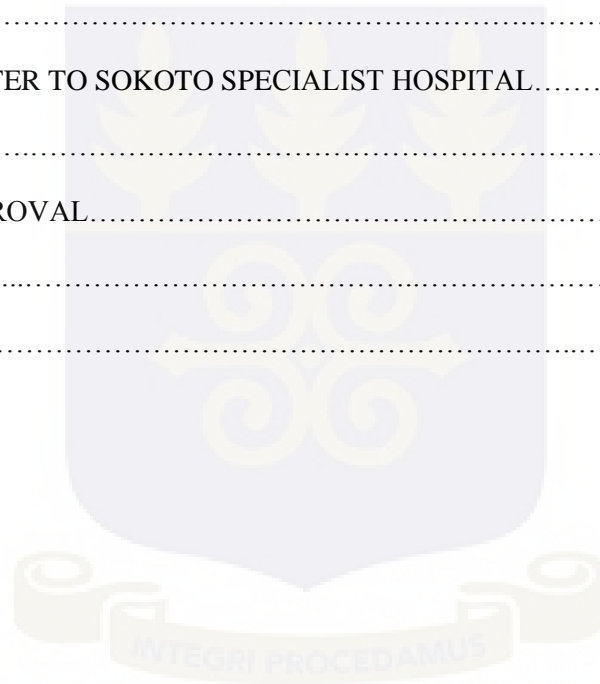
Thank God

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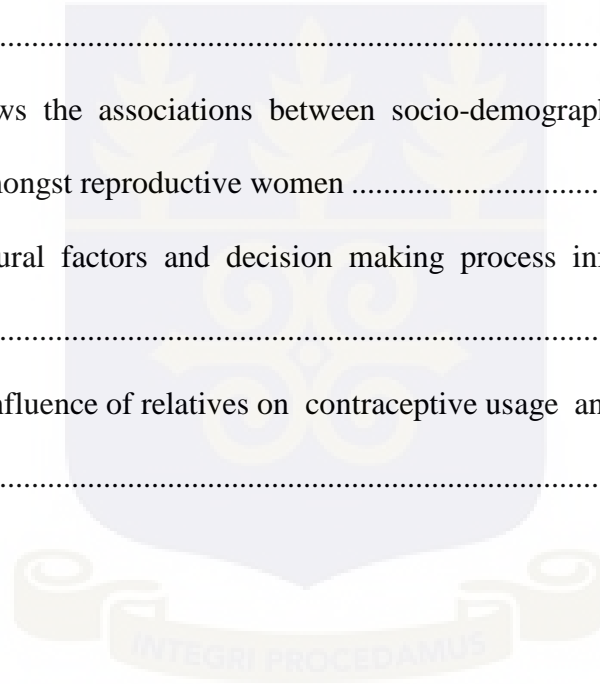
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ABSTRACT

Contraceptive choices that couples make is a key component of the Sustainable Development Goal agenda and a major contributor to national health. In spite of the importance of increased contraceptive uptake among couples of reproductive age, meeting the reproductive health rights of women remains an issue due to multi-faceted obstacles within complex environments. The issues which impact women's reproductive health rights in relation to contraception relate to availability, accessibility, affordability, literacy, tradition, and culture. This study describe the factors which influence the choice of contraceptives among women who are accessing family planning services at a Specialist hospital, Sokoto-Nigeria. A cross sectional study was used in this quantitative research to generate data on contraceptive choices of women within the reproductive age (18-49 years) who are accessing family planning services at Specialist hospital, Sokoto. A structured questionnaire was used to elicit information from 352 respondents who were randomly sampled at a Specialist hospital, Sokoto-Nigeria. Data was analysed using SPSS version 20.0 for the descriptive data to meet the study objectives. Descriptive statistics, a Chi-Square test was used in the data analyses to check the association of the two variables. Logistic regression was also used to investigate the association of the study's independent variables. The result of the study indicated that knowledge of the study participants, occupation, personal factors, cultural norms and decision making are all significant factors that influence the choice of contraceptives among the women accessing family planning unit of Specialist Hospital Sokoto. It is anticipated that the findings of this research will serve as basis for policy makers to intensify efforts on the education of women on family planning towards increased utilization of services. It is expected that collaborative efforts between families, health care providers, community members and stakeholders will be

established to address personal, economic and socio-cultural barriers to family planning services and women's right to family planning choices.

Key Words: *Contraceptives, Birth Control, Women, Choices, Reproductive Health*



CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The contraceptive methods couples choose for birth control generates key issues in the reproductive rights and health of women. The International Conference on Population and Development [ICPD] which took place in 1994 in Cairo, emphasized that reproductive health includes the right of men and women to have access to Family Planning (Tobergte & Curtis, 2013). FP encompasses the decision of women on the intended number of children to give birth to include the choice and decision not to have any children. The issue of couples deciding whether or not to have children is primarily influenced by external forces such as marital status, the cultural and socio-economic status of women (Tobergte & Curtis, 2013; Mosh, Ruben, & Kakoko, 2013) . Cognitive and physical disabilities are also known to affect the woman's well-being and ultimately influences reproductive health decision making (Tobergte & Curtis, 2013) .

Family planning (FP) is the ability of spouses, partners or individuals to choose the number of children they desire and the time to have them (Bremner & Graff, 2014) . This can be achieved by the use of contraceptive methods which is one of the most cost-effective public health interventions pivotal in reducing a country's fertility rate (Bremner & Graff, 2014) Family planning has also been found to promote gender equality as well as educational and economic empowerment for women (Yue, O'Donnell, & Sparks, 2010) . Despite the estimated 7.3 billion world population with projections up to 9.7 billion by 2050 and 11.2 billion by 2100 (United Nations / Department of Economic and Social Affairs, 2009), family planning remains an issue globally. The United Nations Population Prospects data indicate that in India, the state of Uttar Pradesh's 183 million populations almost equals that of Brazil's 187 million (United

Nations / Department of Economic and Social Affairs, 2015) . Evidence from similar data also indicates that 89.1 and 91.49 percent of women of child bearing age have knowledge of almost all child spacing methods respectively but only 31% of the partners are using family planning methods of their choice(Singh, Darroch, Ashford, & Vlassoff, 2009) . Although millions of women who are sexually active would prefer to avoid becoming pregnant, they do not use any method of contraception to avoid pregnancy (Shaikh & Dwivedi, 2014). Whilst the benefits of family planning services cannot be overemphasized, the acceptance of the service still remains very low in Sub-Saharan Africa where marginal population increase remains concerning (Eliason et al., 2013) .

Sub-Saharan Africa has the highest fertility rate in the world with 5.5 births per woman with one in every three births being involuntary(Singh et al., 2009). Fertility and population growth are much higher in sub-Saharan Africa than in any part of the world (Ezeh, Bongaarts, & Mberu, 2012). Uncontrolled population growth in Africa will consequentially hinder the attainment of socio-economic growth where FP service uptake is hindered by contextual factors such as inadequate access, culture, limited choice of contraceptives, lack of education (Eliason et al., 2013) .

Contraceptive choices are also influenced by health workers (Osmani, Reyer, Osmani, & Hamajima, 2015). In Kenya for instance, health service providers played significant roles in the sexual and reproductive attitude of the population, and choices of contraceptives were positively influenced by family planning service providers in the post-natal clinic (Wanjiku, 2013). A study conducted in Lagos on contraceptive use in sub-Saharan Africa revealed that about 50% of the respondents had gotten their contraceptive information from the service providers (Adegbola, Murtazha, & Adeyemi, 2016). Health care providers built a good relationship between

themselves and their clients. The service providers usually greeted their clients, introducing themselves to them in the process in service delivery (Atuahene, Afari, Adjuik, & Obed, 2016). Another study conducted in Pakistan also established a relationship between the various methods of contraception and the economic status of individuals (Amin, 2012). On the economic factors, clients from richer household were more likely to use long term family planning than those from a poor household. Women from poor household were most likely to use fewer contraceptives than women from rich families (Snow, 2016).

Fertility decline measures aim at achieving demographic dividend with consequent reduction of poverty, boosting economic growth and happiness of the couple and country at large (Bremner & Graff, 2014). In Nigeria, it is estimated that a reduction in fertility by one child per woman would lead to 13% increase in gross domestic product per capita within 20 years (Canning, Karra, & Wilde, 2014). Nigeria is yet to get a very good dividend of FP as the choice and usage of contraception remains very low (National Population Commission (NPC) [Nigeria] and ICF International, 2013). Minimizing fertility rate of women to one child per woman will potentially cause an increase in the GDP to 13% in 20 years' time if properly implemented (Salami & Oladosu, 2016).

Having an understanding that access to a safe voluntary choice of contraception is not only a human right but rather a promoter of gender equality and women empowerment is essential for poverty reduction (Barber, 2007; United Nations Population Fund, 2016). Although unlikely in Africa countries, in Taiwan, a women's decision on reproductive rights tend to over-rule or prevail when couples decide on when to have another child (Barber, 2007). In most African families, decision-making about family planning; contraception use and choice may not include (and when included, in a lesser percentage) the potential child-bearing mothers

themselves. Males play a dominant role in women's reproductive health decision making (Mishra et al., 2014). The communities and societies in which couples live have a significant influence on their personal health behaviour. This is because interactions exist between an individual's beliefs and attitudinal orientation and that of the community's norms and values. Concerning contraceptive usage and choice, women must adhere to family, community and societal norms in order to fulfill their ideals in terms of fertility and family planning decision making (Ejembi, 2015).

Family members may have a significant role to play in women's reproductive health decision-making. The people making such decisions may not necessarily discuss issues with the woman involved mainly because such women lack the social status, or knowledge to do so or they feel uncomfortable talking about the issue. Opposition by husbands or partners also impedes oral contraceptive use (Nalwadda, Mirembe, Byamugisha, & Faxelid, 2010). This opposition may be related to personal, cultural or religious reasons. Studies in Tanzania (Nalwadda et al., 2010; Schuler, Rottach, & Mukiri, 2011), revealed that using family planning of any type secretly or privately or without the husband's permission or knowledge can lead to violence or divorce or separation. These findings show a strong relationship between husband and wife or between both partners on the choice of contraceptives to use.

Tradition and cultural beliefs also play significant role in the usage of FP. The ability of couples to choose freely the plan they want are hindered by traditional and cultural beliefs in the society. The use of traditional FP methods tends to be higher where the acceptance of FP is low or weak (Sharan, Soucat, May, & Ahmed, 2009). In a Niger-based study, cultural norms directly impacted contraceptive choice and uptake among woman with no formal education living in rural or urban settlements (Mayaki & Kouabenan, 2015). For women with some level of formal

education, their knowledge of FP had a direct impact on their FP use and choice. Where women opt for traditional methods as a continual practice from their forefathers; they practice periodic abstinence, withdrawal and the use of charms and herbal mixtures. Research evidence establishes that out of 351 women, 25% have a superstitious belief against FP and 22% believe FP (Asekun-Olarinmoye et al., 2013). In Nigeria particularly, contraceptive intake and choice are influenced by cultural/religious belief which results in the high unmet need for contraceptive use and choice (Shehu & Burodo, 2013).

In Nigeria, women who have a higher educational level are more likely to decide on the contraception to use than women with secondary or lower education (Asekun-Olarinmoye et al., 2013). On the contrary, couples contraception choice is known to be higher if at least one partner has had a primary or higher education than if both had no education (Ibisomi, 2014). However, women who have a higher education than their husbands tend to use and choose contraceptives they prefer more than women who have less education compared to their husbands (Ayo, Ph, Martin, & Ph, 2014). Whilst only 15 % of married couples were choosing and using the type of contraceptive they preferred, 10% did not use any type of modern contraception (Oluwole, Kuyinu, Goodman, Odugbemi, & Akinyinka, 2016).

1.2 Statement of the Problem

In many countries, family planning programmers are part of the national, economic and social development efforts which foster equity in decision making and understanding on reproductive rights of women. The community and society also influence the uptake of various types of FP methods (Jacobson, 2000). In choosing contraceptives, one has to consider his/her partner's preferences. For instance, some men do not prefer to use condoms. In that, case, birth

control pills might be a better choice for preventing unwanted pregnancy (Lanre, 2011) but without protection against sexually transmitted infections. Although FP services are provided free with varied resources by the public health sector and Non-governmental organizations (NGOs) in Nigeria, contraceptive use is as low as 15% and unmet need for contraceptives stagnating at 16% (NPC Nigeria and ICFI, 2013) the N D H S estimates that, knowledge on contraceptives is generally higher in Nigeria but the uptake is low with only 15% of the reproductive age being married women (NPC Nigeria and ICF, 2013).

The National aggregate of Nigeria has markedly wide differences in the uptake and utilization of FP in Nigeria. The southern part is having the highest uptake of contraceptive use and choice compared to the Northern part of Nigeria. The Northern part of Nigeria, including Sokoto state, has the lowest contraceptive uptake in the world (NPC Nigeri and ICFI, 2013). This uptake varies from 26% in Lagos- the south western state of the country, to less than 1% in Kano and Jigawa- in the northern part of Nigeria which have similar demographic statistics like Sokoto in terms of religion, culture, tradition, weather (NPC Nigeri and ICFI, 2013) and language.

In many cases, women do not start FP till they at least have one delivery. About 2% of women use contraceptives before marriage but also, women who have one or more children are more likely to use and choose contraceptives than those who do not have any children (NPC Nigeri and ICFI, 2013). Whilst the use and choice of contraceptives in women differ, factors which account for this variation include lack of education, social classification, poor economic status, and equity issues within the environment. Typically, for women living in urban settlements, contraceptive usage is about 27% as compared to 9% usage among rural women (NPC Nigeri and ICFI, 2013) .The facilities which offer different types of FP methods are most likely to meet the demands of its clientele since almost all FP-related health facilities in Nigeria

offer at least 4 types of contraceptives example Implanon, injectable ,pills intra uterine device (Wanjiku, 2013). However, the non-availability of many types of contraceptive methods decreases the likelihood for individuals to choose the method desired (Wanjiku, 2013). In Sokoto state for instance, women go to the FP unit of Sokoto specialist hospital for the FP method of their choice where there is the provision of a wide range of contraceptive methods like the injectable (Depo Provera and Noristerat), Pills, Implanon, Jadelle, and other intra uterine devices which increase the opportunity for the couple/ individual to choose the method that best suits their needs and preferences. Elements of safety, availability, affordability, and acceptability which primarily determine the choice of the contraceptive method are usually least addressed.

Statistics gathered from the FP unit of Sokoto Specialist Hospital's daily register between January 2015 and December 2016 indicated that a total number of 6,194 women had access to FP services (Specialist Hospital Sokoto, 2016). These women chose their preferred contraceptives for birth control but there is a lack of data on their contraception awareness. Research evidence establishes that contraception awareness rate is not consistent with the choice and usage of contraceptives in Nigeria (Appiah-agyekum & Kayi, 2013; Somba, Mbonile, Obure, & Mahande, 2014; United Nations, 2013) Therefore, this study aims at exploring factors that influence the choice of contraceptive methods among women accessing family planning services at Sokoto Specialist Hospital in Nigeria.

13. Purpose of the Study

The purpose of this research is to describe the factors that influence the choice of contraceptives among women who are accessing family planning services at the Sokoto Specialist Hospital in Nigeria.

1.3.1 Specific Objectives

The specific objectives of this study are to:

- i. assess the knowledge level of women on family planning services.
- ii. examine the factors that influence contraceptive choices among women of reproductive age.
- iii. describe the influence of cultural norms of the society on the choice of contraceptives among women.
- iv. assess the decision making processes of women accessing family planning services.

1.3.2 Research Questions

- i. What is the level of knowledge possessed by women on family planning?
- ii. What factors influence the choice of contraceptives among women accessing family planning services?
- iii. What cultural norms of the society influence the choice of contraceptives among married couples?
- iv. What considerations are involved in decision making among women on contraceptives?

1.3.3 Significance of the Study

Family Planning is critical for national development since its focus on socio-economic benefits to women; mothers and children typically impact the reduction of maternal mortality and infant deaths. It is therefore anticipated that the findings of this study will guide policy makers in formulating and implementing supportive reproductive health policies to improve women's health. In addition, it is expected that this study's findings will establish a basis for FP

stakeholders to design effective strategies to address the problem of unmet needs of contraception, low uptake of contraceptives usage, limited FP choices, and unplanned pregnancies as well as sexually transmitted infections. The findings of this research are also expected to guide future research on contextual FP issues that need further exploration towards establishing sustainable interventions.

1.4 Operational Definition of Terms

Contraceptive: It is a drug or device used to prevent pregnancy

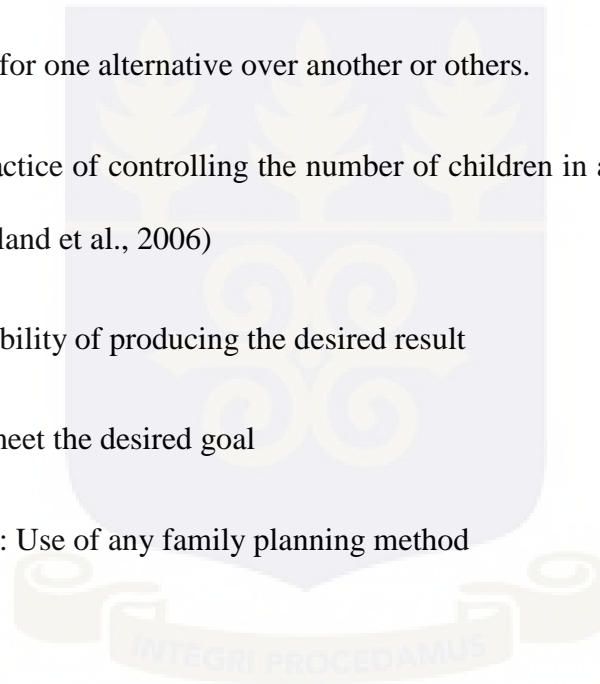
Choice: A greater liking for one alternative over another or others.

Family Planning: the practice of controlling the number of children in a family and the intervals between their births (Cleland et al., 2006)

Effectiveness: is the capability of producing the desired result

Unmet need: Unable to meet the desired goal

Uptake of contraceptives: Use of any family planning method



CHAPTER TWO: LITERATURE REVIEW

2.0 Overview

This chapter presents a synthesis of relevant literature on the factors which influence the choice of contraceptives. The databases used in the search for relevant literature include CINAHL, MEDLINE, PubMed, Science Direct, Web of Science, African Medicus Index and Google Scholar. Key terms used included a combination of key words such as ‘contraceptives,’ ‘contraceptive uptake,’ ‘family planning,’ ‘family planning methods,’ ‘family planning and culture,’ ‘family planning and education,’ ‘women and birth control,’ ‘birth control choices,’ ‘women’s reproductive health,’ ‘married couple,’ and ‘partners. Guided by this study’s objectives, the discussions on the literature review focuses on ‘family planning options, women’s knowledge level about family planning services; factors influencing contraceptive choice among women of reproductive age; influence of cultural norms on the choice of contraceptives among women; and decision-making process of women accessing family planning services’.

2.1 Family Planning Options

The contraceptive method couples choose and have access to in birth control is one of the key factors in the reproductive right and health of women that generate issues. The availability of various types of FP methods increases the opportunity for couples to choose from varied contraceptives options. Although the majority of the respondents chose condoms as their preferred method of FP because it is an efficient method of contraception (Radulovi, Šagri, Višnji, Tasi, & Markovi, 2006), some prefer other options because it is most suitable. The modern contraceptive methods range from short to long term and temporary or permanent. Other long term options are vasectomy for males and tubal ligations for females (Ross et al., 2016). To

achieve the universal goal of sexual and reproductive health, it is important to increase contraceptive options to women and couples in both remote and urban communities. These options must be available, accessible and affordable at all times since contraceptive prevalence is higher in countries where a wide range of short and long term FP methods are accessible (Ross et al., 2016). With these increased contraceptive options, maternal and infant health outcomes are positively influenced as women's socio-economic status and knowledge about family planning are promoted.

2.2 Influence of Knowledge on Family Planning Services

Education plays a vital function in the choice and use of contraceptives. Prior studies in Nis has shown that knowledge and higher educational levels of women increase their chances of using a contraceptive (Radulovi, Šagri, Višnji, Tasi, & Markovi, 2006) One- third of the participants with primary education in that study estimated their knowledge as 'unsatisfactory', which makes the lowest percentage. In other studies on natural family planning methods among Hispanics women, low educational levels of the women correlated with the lack of information about FP methods (Witt, McEvers, & Kelly, 2013). Less Witt than one-third of the women had knowledge about the fertile time of their cycle methods. (Witt et al., 2013) Meanwhile, as high as 82.8% of women recorded failure with Lactational Amenorrhea Method (LAM) due to lack of knowledge on this natural FP method (Turk, 2010)

Other research works have demonstrated the relative differences in couples' knowledge and use of contraceptives. For instance, in Ethiopia, women's attitude towards FP did not support their knowledge acquisition about the various FP methods despite couple influence (Lee et al., 2014; Mulatu & Mekonnen, 2016). A contrasting view was also presented in the findings of a

qualitative study in Afghanistan about high knowledge of contraception among couples (Haider et al., 2009). Research evidence from Kashmir indicates that 70% of women who participated in the study lacked adequate knowledge in the prevention and management of complications associated with the use of contraceptives such as Copper-T (Haffiz, Haffiz, Chhugani, & Akhtar, 2016). It is concerning that these studies which were rural and district based presented a finding that calls for collaborative attention. The seemingly striking issue also relates to the low level of knowledge of the health personals providing these FP services.

The economic status of women is linked with their knowledge on the various FP methods (Christopher, 2014). Women from a higher socio-economic class are more likely to use contraceptives as FP method compared to those from lower socio- economic class. In this study, more than half of the respondents reported inadequate knowledge about FP (Adegbola et al., 2016). In similar study, contraceptive choices by married market women in the north-central state of Jos plateau revealed that, 65 % of the participants used various types of FP methods with majority of the respondents choosing condom (30 .8 %) followed by the intra uterine device and pills (Emmanuel, Achema, & Omale, 2014). Health workers were identified as the main source of information on contraceptive methods. The study also revealed that education of the participants played an integral role in the use and choice of contraceptives (Emmanuel et al., 2014). This implies that FP uptake and choices made are also influenced by the information women and couples receive from health workers.

There is a wide awareness of contraceptive options in almost all parts of Nigeria, however, the awareness does not equate to choices and uses of contraceptives (United Nations, 2013). In Nigeria, women who have a higher educational level are more likely to make self-choices on contraceptives than women with secondary or lower education (Asekun-Olarinmoye

et al., 2013) Similarly, there is a likelihood that a couple's contraceptive choice will be higher if at least one partner had a primary or higher education than if both had no education (Ibisomi, 2014). However, women who have a higher education than their husbands tend to use and choose contraceptives they preferred more than women who have less education compared to their husbands (Ayo et al., 2014).

On the contrary, study findings from Lanre (2011) revealed that socio-economic status, religious factors, and cultural norms do not influence couples' choice but remaining well-informed about the importance of FP choices and accessing preferred choice helps to reduce maternal mortality and unwanted pregnancy. The same study showed that the educational background of the couples and involvement of partners toward the choice of FP significantly influenced the choice of FP among couples. It is, therefore, the responsibility of governments and stakeholders to enlighten the populace on the importance of using FP services. A study conducted in Lagos on the factors influencing the uptake of FP methods among women of reproductive age in rural communities revealed that 67% of the women had knowledge of FP as a means of preventing pregnancy (Oluwole et al., 2016). The findings revealed that majority of the women in the study did not favour early age marriage but rather preferred a later smaller family size. However, religious beliefs and the attitude of husbands and family members were primarily considered to be unfavourable towards the use of contraception especially surgical sterilization in limiting the family size. Other barriers include fear of side-effects of IUDs (intra uterine device) and prejudiced behaviour of health care providers (Oluwole et al., 2016).

Education of women is an essential investment in the long-term improvement of women's reproductive health (Garg, Shyamsunder, Singh, & Avtar, 2010). Another study in Malda district of India showed that a woman's level of knowledge has a significant effect on her

contraceptive choice and use. It is expected that the higher her educational goals, the longer she delays in getting married. In this case, she can freely discuss FP issues with her partner or spouse. In contrast, the knowledge of the husband may have no significant effect on the wife's current choice or intake of contraceptives (Tawiah, 2017).

2.3 Health Determinants of Contraceptive Usage

Within the plethora of literature, numerous factors influencing contraceptive choices of couples and women have been identified. Such factors span from demographic and socio-economic, through to facility-based concerns with the lack of awareness on FP methods which does not translate into practice. In India for instance, women who earned below Rs 2000 presented a 98.6% awareness and a 47.92% acceptance of FP (Hussain, 2011). There was a marginal difference in the high income-earning women with 98.53% knowledge and 50.26% acceptance (Hussain, 2011). In Pakistan, women in the low and middle income-earning backgrounds tend to choose injectable as their preferred FP methods (Amin, 2012).

In Kenya, demographic and socioeconomic factors greatly impact the uptake of FP methods such that disparities in the level of financial standing, education, and residential area influenced contraceptive uptake (Okech, Wawire, & Mburu, 2011). The research findings of Creanga, Gillespie, Karklins, and Tsui emphasized that women who came from rich families chose long term family planning compared to those from poor households (Creanga, Gillespie, Karklins, & Tsui, 2011). In Ethiopia, the need for more children, husband approval and couple's discussion on FP issues influenced contraceptive use (Mohammed, Woldeyohannes, Feleke, & Megabiaw, 2014). Besides, the economic status and level of knowledge of couples influence contraceptive usage (Wekesa & Coast, 2015) whilst availability of contraceptives methods, side

effects, and costs influence the uptake of contraceptives (Amin, 2012; Oluwole et al., 2016 ;Ross et al., 2016).

There are consistent reports in Malawi, Kenya and Ghana about the perception of quality services and health care provider attitude on FP uptake (Atuahene et al., 2016; Michaels-igbokwe, Terris-prestholt, Lagarde, & Chipeta, 2015; Okech et al., 2011). For instance, in Ghana, the inappropriate layout of facility, non-availability of resource materials to educate and counsel clients on FP influence contraceptive usage (Atuahene et al., 2016) About 93% of the respondents were averagely satisfied with care whilst 83% preferred and used injectable contraceptives (Atuahene et al., 2016). Other research findings from rural Malawi have emphasized proximity of health facility to homes, information dissemination and facility waiting time as factors that influence women's contraceptive patronage (Michaels-igbokwe et al., 2015).

In Nigeria, study findings establish that a woman's marital status (Asekun-Olarinmoye et al., 2013; Oluwole et al., 2016), religion and nature of her work (Oluwole et al., 2016) underscored her uptake of contraceptives. Again, there are similar studies which specify the barriers of FP choice among women. Such factors included ignorance (32.6%), misinformation (25%), side effects of contraceptives (44%), superstition (22%) culture (20.3%) (Asekun-Olarinmoye et al., 2013). From this study, it is evident that side effects represent a strong barrier to the choice of contraceptives. Similarly, findings of predictive factors in contraceptive usage include respondents' awareness of service provider location, higher educational status, and approval of contraceptive usage (Asekun-Olarinmoye et al., 2013). It is important to note the differences in the choice of contraceptive usage. Whereas male condoms were the frequently used method (Asekun-Olarinmoye et al., 2013), it was the least preferred FP method in study findings of Shehu & Burodo (2013). Rather, Implanon was the most preferred and used method

whilst child spacing was the strongest reason for choosing contraceptives (Shehu & Burodo, 2013).

2.4. Cultural Norms in Contraceptive Usage

Cultural beliefs and norms are among the significant factors that influence contraceptive uptake, choices, and usage, typically Africa. Child bearing mothers do not have the power to make decisions or access material resources in FP services (Susan Babirye Kayongo, 2013). Cultural beliefs, the tradition of the society, familial support from the husband and desire for a large family are predominant factors that impact contraceptive choices and usage (Abdulai, 2015; Michael, 2012; Oladeji, Olufunmilayo, & Onibanjo, 2007). In some circumstances, religion and culture play a significant role in influencing a couple's choice and usage of a particular FP method especially when both have different cultural backgrounds (Abdulai, 2015). Despite the approval of FP by some religious scholars, other people do not agree to the utilization of FP services (Abdulai, 2015).

In India, 35.5% of women expressed the need for a bigger family size, whilst 22.2% had the desire of having a male child, and husband and in-laws also preferred male children (Shaikh & Dwivedi, 2014). In one India-based qualitative study, most of the women in the study did not want early marriage and chose to have smaller family sizes. However, husbands and their families did not approve the uptake of family planning drug or devices aimed at limiting the family size (Rustagi, Taneja, Kaur, & Ingle, 2010). Religious beliefs and culture were the most commonly cited barriers to contraceptive usage (Rustagi et al., 2010). In a similar study, 58.6% of women were using contraceptives, whilst the others were not using contraceptives because of

opposition from family and mother in-laws and women's personal desire to have more children (Kishore, 2014).

In Nigeria and Pakistan, tradition, the cultural and religious inclination of clients influences contraceptive uptake. These factors are directly related to unmet needs and lower chances of choosing and making decisions on what FP method one desires (Shehu & Burodo, 2013). Furthermore, studies conducted in Democratic Republic of Congo and Benha establish that traditional methods and religious opposition are the key determiners of unmet needs for contraceptives. Sexual abstinence was also reported as a common practice in the Republic of Congo which eventually led to a higher rate of polygamy (Gendy et al., 2012; Izale, Govender, Fina, & Tumbo, 2014).

Cultural norms and practices in traditional communities' impact child bearing and the reproductive attitude of women towards contraceptives uptake and usage. Such practices include gender preference, widow inheritance and childbirth by women who have advanced in age (Solanke, 2017). A similar study in Pakistan revealed that the commonest way of FP was condom use and the traditional method whilst community practice and cultural beliefs discourage modern contraceptives usage due to the belief that contraceptives interfere with what nature intends to do (Musarrat, Fouzia, Farmanullah, & Javed, 2011). Whilst both literate and illiterate couples use the traditional method of abstinence and prolong breast feeding to plan their families, 50% of the respondents stated that they relied on abstinence, withdrawal method and prolong lactation as FP methods (Anyanwu, Ezegbe, & Eskay, 2013)

2.5 Decision Making Process in the Choice and Usage of Contraceptives

Male dominance in decision making around contraceptive choice and usage remains a major barrier to women's reproductive health. Whereas research evidence from Kashmir shows as low as 45% male influence (Anyanwu et al., 2013), another study finding from Nepal state as high as 91.6% male dominance (Bhandari, Shrestha, & Thakuri, 2013). Meanwhile, about 45% of women were found to be in absolute control in decision making in contraceptive choice and usage in USA (Cox, Posner, & Sangi-Haghpeykar, 2010). These study findings indicate that male partners play significant roles in decision making on contraceptive choice and subsequent usage. Interestingly, inter-spousal communication is known to facilitate women's ability to choose their preferred FP method even though the literacy levels of partners played a major factor (Bhandari et al., 2013).

In Tanzania and Kenya, there is similar concerning evidence on male dominance in decision-making contraceptives usage aimed at limiting family size such that the man's ultimate decision on the number of children to birth hold binding on the woman and she has no say or control over such decision (Mosha et al., 2013). Contrasting findings from another study established that over 80% of couples decide together on which method of contraceptive to choose (Lasee & Becker, 1997). In Kano, Ite-Ife the Yoruba lands, men have total control over women and they play significant roles in decision making over family issues (Alfred Adewuyi & Ogunjuyigbe, 2003; Duze & Mohammed, 2007; Ijadunola et al., 2010). The findings revealed that close to 78% of Kano women have no say in determining family size (Duze & Mohammed, 2007), whilst more than 50% and close to 90% of men in Lagos and Ite-Ife approved contraceptive usage (Adegbola et al., 2016; Ijadunola et al., 2010) respectively.

Since significant relationship exists between particular variables in women's reproductive health and FP, it is recommended that counselling intervention strategies be implemented for couples to achieve effective FP usage and positive reproductive health behaviour (Oladeji, 2008).

2.6 Summary of Literature Review

The majority of these relevant studies were undertaken in the rural settings or district health facilities. These settings may have potentially contributed to the varying level of satisfaction in client service coupled with other socio-cultural factors that influence the choice of contraceptive use among couples. In this literature review, factors that influence the choice and usage of contraceptives traversed knowledge level of women, demographic, socioeconomic and health facility/provider attitude. Research evidence on male dominance and partner communication is also known to significantly impact decision making on contraceptive choices and usage. At the Specialist hospital in Sokoto, an African context, the factors which influence the choice of contraceptives among women have not been adequately explored. Therefore, this study aims to investigate and describe the factors which influence women's choice of contraceptives at the Specialist hospital in Sokoto, Nigeria

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Overview

This chapter presents how the study was conducted. The research design, study setting, study population, population and sampling, inclusion- exclusion criteria, data collection strategies and data analysis have been discussed. Reliability and validity measures, ethical considerations and anticipated limitations of the study were also presented.

3.1. Research Design

In this study, a cross-sectional design was used to elicit information from participants on the factors that influence women's choices of contraceptives at the Specialist Hospital in Sokoto. The relationship between the study variables was explored. Using a cross-sectional design, statistical and numerical analysis can be generalized among individuals or groups, or across a wider population to provide clarification on a prevailing event or phenomenon (Babbie, 2010).

3.2 Research Setting

The research was conducted in the Sokoto state of Nigeria. Nigeria lies on the west coast of Africa. It operates a federal system of government with three types of administrations; federal, state and the local government supported by three arms of government. It has thirty-six (36) states with Abuja being its federal capital. The three arms of Government are the executive, the legislative and the judiciary. The legislative arm of government comprises the house of the senate and representatives, and each state of the federation has its own legislative arm. Sokoto state, created in February 1976, is one of the thirty-six (36) states of the federation with its capital being Sokoto city. Sokoto state which is located in the northwest of Nigeria occupies about 32,000 sq/km with an estimated population of 5, 52,400 million. The state shares border

with the Niger Republic in the north, and Kebbi state at the southwest, and Zamfara state in the east.

Aside Usman Danfodio University Teaching Hospital which is owned by the federal government, the Sokoto Specialist hospital is the second biggest hospital in the state. The hospital was established in 1938 by the British Colonial government. The hospital which was formally known as Sokoto General Hospital was later renamed Sokoto Specialist Hospital in 1991 by the then military regime of General Ibrahim Badamasi Babangida. There are other general hospitals under the supervision of health service management boards also owned by the government. The Sokoto specialist hospital has a board of management which governs the hospital's affairs. It is headed by a Chief Medical Director, followed by the chairman of the Medical Advisory Committee and the Deputy Director of Nursing Services heading the Nursing Department. The hospital has a capacity of five hundred and twenty beds, with eight clinics.

3.3 Study Population

The study population comprised of women of reproductive age who access the family planning clinic at the Specialist hospital for FP purposes.

3.3.1 Inclusion Criteria

This study included women of reproductive age between 18-49 years who were accessing FP services at the Sokoto specialist hospital. Respondents were those who could speak Hausa, Fulani or English. These respondents voluntarily consented and participated in the study.

3.3.2 Exclusion Criteria

Women above 49 years or below 18 years seeking health service at the Specialist hospital were excluded from the study. The reason for excluding the women outside these age bracket

was related to biological influences on birthing. Clients who could not speak Hausa, Fulani or English, or were unwilling to participate in the study were also excluded from the study.

3.3.3 Sample Size and Sampling Technique

Convenient sampling technique was used to recruit participants for the study. The sample population was drawn from the FP clinic of Sokoto Specialist Hospital. This sampling technique is appropriate when the population consists of various types of people but identify with a specified event or phenomenon (contraceptive) (Bowling, 2009) over a stipulated period of time. Ethical approval for this study (Appendix A), with an introductory letter from the School of Nursing and Midwifery, University of Ghana (Appendix B), and a written institutional approval was obtained from the Sokoto State Specialist Hospital (Appendix C) .

3.3.4 Determination of Sample Size

According to the Sokoto Specialist hospital’s medical record register (2016), an average of 3,000 women of reproductive age attend the facility yearly. The sample size of the study was therefore determined by using Yamane Taro’s formula (1967).

$$n = \frac{N}{1 + N (e)^2}$$

n = sample size

N =population size = 3000

e = sampling error = 0.05

$$n = \frac{3000}{1 + 3000 (0.05)^2}$$

$$n = \frac{3000}{8.5}$$

$$n = 352$$

3.4 Data Collection

A questionnaire (Appendix D) was developed to elicit information from participants on contraceptive choices, uptake, and usage. The questionnaire was structured in sections with a focus on demographic data, knowledge on family planning, influence of cultural norms, factors influencing respondents' choice of contraceptives and decision-making process.

3.4.1 Pre-testing

The designed questionnaire was pretested with 35 clients (i.e. 10% of the population) at the Maryam Abacha Women and Children's Hospital, Sokoto. The hospital had similarities with the type of population for the study. The findings of the pre-test were used to guide the researcher in making adjustments or amendments in the questionnaire for the original research. This pre-testing also helped the researcher to validate the questionnaire towards establishing the reliability of the instrument for the study.

3.4.2 Data Collection Procedure

Ethical clearance from the Institutional Review Board (IRB) of the Noguchi Memorial Institute for Medical Research, University of Ghana, was obtained to gain access to study participants (Appendix A). An introductory letter was also obtained from the School of Nursing and Midwifery at the University of Ghana to the Chief Medical Director of Specialist Hospital for institutional approval where data were collected from women who volunteered to participate in the study (Appendix B). Subsequently, clearance was given by the ethical committee of the specialist hospital Sokoto (Appendix C) that allowed the researcher to conduct his research in the hospital. The aim of the research and its significance was discussed with potential respondents of the research using the study information on the questionnaire three nursing officers were trained

as Research Assistants to assist in the administration of the questionnaires to women who met the inclusion criteria. Each questionnaire took approximately 45 minutes to 1 hour to complete. The need to respond to all questions in the questionnaire was emphasized. Data collection was completed within three weeks from the day institutional approval was given.

3.4.3 Reliability and Validity

Reliability refers to the consistency and trustworthiness of measurements of attributes that can be assessed using the test–retest reliability method (Strainer, Norman & Cairney, 2015). The internal consistency of a tool is usually assessed based on single administration while the stability of a tool is measured based on multiple administration of the instrument at different times. To enhance reliability, a pre- test of the research instrument was conducted with 35 clients in \Maryam Abacha Women and Children Hospital Sokoto to identify and modify areas of misunderstanding in the tools. The Cronbach’s alpha coefficient of reliability of the instrument was also determined and the overall Cronbach’s alpha of the research questionnaire was 0.701 which is considered acceptable for newly developed or adapted instruments (Polit & Beck, 2013.) Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Ellis, 2013). The researcher aims for the outcome of the research to be as trustworthy as possible through carefully followed procedures in the entire research process. The questionnaire was subjected to peer review by research experts who ensured that the questionnaire items were congruent with each other whilst noting ambiguities and having a focus on items that met the intended objectives of the study.

3.5 Data Analysis

The analytic strategies used in the study was primarily informed by what best fits the data rather than the technique chosen beforehand. After the raw data was collected, the responses were coded and entered into SPSS 20.0 for analysis. Since the data collected was basically quantitative, it was analysed descriptively which included frequencies and percentages. The results were presented using tables and figures. The statistical analysis used for the study was chi-square test of independence and binary logistic regression.

The Chi-Square test is used when to check the association between two categorical variables. If there is no association between variables, they are independent. Two variables are independent if the distribution of one in no way depends on the distribution of the other. If two variables are not associated (that is, if they are independent), then the knowing the value of the variable for some subject will not help to determine the value of the other variable for the same subject the multivariate statistical method examines the association of all the independent variables with the dependent variable and trims the inter-correlation among the independent variables if any. With independent variables measured on different scales, the most opposite multivariate tool is logistic regression (Snedecor, & Cochran, 1977).

A logistic regression was used in this study to investigate the association of all the independent variables individually discussed in relation to the dependent variable. These statistical tools were used because they were suitable means of breaking down and analysing the generated data.

3.6 Ethical Considerations

This study was conducted in accordance with the Declaration of Helsinki (World Health Organisation, 2013). The research proposal was first submitted to the IRB of the Noguchi

Memorial Institute for Medical Research, University of Ghana for ethical clearance. The research was commenced when clearance was given. After gaining the approval, an introductory letter was obtained from the School of Nursing and Midwifery, University of Ghana which enabled the researcher to gain access to potential participants in the study setting. Clearance was given by the ethical committee that permitted the researcher to elicit information from the clients who were accessing the FP unit of the Specialist Hospital, Sokoto.

To ensure anonymity for participants who agreed to participate in the study (Bowling, 2009), respondents' names were not written on any of the questionnaires, pseudonyms were used instead. Guided by the study information sheet, detailed information about the study was explained to the participants to gain their informed consent prior to administering the questionnaire. Questions and concerns were duly addressed. The right to remain or withdraw from the study without any cost or harm to participants was also explained to all participants. To ensure confidentiality, all personal identifiers were deleted during the writing of the study's findings.

In this chapter, research procedures for this study have been duly explained. In the next chapter, I discuss the study findings.

CHAPTER FOUR: FINDINGS

4.0 Overview

This chapter presents the findings on the study which are divided into sections. The first section reports the demographic characteristics of the participants. The rest of the sections present the results according to the objectives of the research.

4.1 Socio-demographic Characteristics

Table 4.1 shows the socio-demographic characteristics of the respondents. The results shows 99 (28.1%), 30-36 while 86(24.4%) were ages between 18-24. Education level of respondents revealed 133(37.8%) had tertiary education and 125(35.5%) had secondary education while 68(19.3%) had no formal education. Approximately, four-fifth 277(78.7%) majority of the respondents were Muslims while the remaining were Christians 75(21.3%). Out of the total respondents, 129 (37.5%) were students, 121(35.2%) worked in the informal sector while 79(23.0%) were in the formal sector employment. Some respondents (n = 121, 36.9%) noted their husbands were having other wives (polygamous) while more than half (n = 207, 63.1%) said otherwise. More than half of the respondents (n = 191, 56%) had between 1-3 children while 33(9.7%) of the respondents had no children.

Table 4.1 Showing Socio-demographic Data Report of Respondents

Category	Level	Frequency	Percent (%)
Age (years)	18 – 24	86	24.4
	25 – 29	72	20.5
	30 – 36	99	28.1
	37 – 49	95	27
	None	68	19.3
Education	Basic	26	7.4
	SHS	125	35.5
	Tertiary	133	37.8
Religion	Islam	277	78.7
	Christianity	75	21.3
Occupation	Student	129	37.5
	Unemployed	15	4.4
	Formal	79	23
	Informal	121	35.2
Polygyny	No	207	63.1
	Yes	121	36.9
Number of dependents	None	33	9.7
	1-3	191	56
	4-6	87	25.5
	> 6	30	8.8

4.2 Knowledge Level of Respondents about Contraceptives

Knowledge respondents about contraceptive were assessed at the Specialist Hospital in Sokoto. Table 4.2 showed respondents had knowledge of one or more contraceptive methods. Out of the 352 respondents, 214 (60.8%) had low knowledge on contraceptives, 58(16.5%) had moderate level of knowledge and 80 (22.7%) had higher level of knowledge.

Table 4.2 Knowledge Level of Respondents on Family Planning Methods

Knowledge Level	Frequency	Percent
Low	214	60.8
Moderate	58	16.5
High	80	22.7
Total	352	100

4.2.1 Knowledge of specific/common types of family planning methods

Table 4.21 shows the level of knowledge on specific types of FP drugs or devices that are used by the research respondents assessing family planning unit at Specialist Hospital in Sokoto. Majority of respondents (n = 228, 76.0%) know about implants. Most of the respondents (n = 180, 60%) had knowledge about injectable. This was followed by Knowledge about pills 169(56.3%) and male condoms 165(55%). Only 143(47.7%) knew about lactation amenorrhea method. The least known family planning methods was male 56(18.7%) and female 63(21%) sterilization.

Table 4.2.1 Knowledge of Specific/Common Types of Family Planning Methods

Family Planning method	Frequency	Percentage%
Female sterilization	63	21%
Male sterilization	56	18.7%
Implants	228	76%
Intra uterine device	130	43.3%
Injectable	180	60%
Pill	169	56.3%
Female condom	103	34.3%
Male condom	165	55%
Diaphragm	96	32%
Form or jelly	89	29.7%
Calendar method	132	44%
Withdrawal	120	40%
Lactation amenorrhea method	143	47.7%
Emergency contraception	117	39%

4.4 Use of Contraceptives among Women of Reproductive Age

Table 4.4 shows the frequency distribution of contraceptive usage among women of reproductive age accessing the family planning unit of Specialist Hospital Sokoto. Respondents who had ever used contraceptives were 274 (77.8%). Most respondents 273(77.6%) were currently using contraceptives while 56 (15.9%) indicated otherwise. Notably, 229 (65.1%) of the respondents were ready to use contraceptives in the future.

Table 4.4 Distribution of Response on Contraceptives Usage among Women of Reproductive Age

		Frequency	Percent
Ever use contraceptive	Yes	274	77.8
	No	54	15.3
	Total	328	93.2
Missing	System	24	6.8
Total		352	100.0
Currently using contraceptives	Yes	273	77.6
	No	56	15.9
	Total	329	93.5
Missing	System	23	6.5
Total		352	100.0
Future use of contraceptives	Yes	229	65.1
	No	55	15.6
	I don't know	48	13.6
	Total	332	94.3
Missing	System	20	5.7
Total		352	100.0

4.5 Respondents' Current Use of Contraceptive Methods

Figure 4.3 shows prevalence of specific contraceptive methods used by women in their reproductive age that is, (18-49 years) accessing family planning. Implant was the most commonly used method by the respondents which comprised 125 (35.5%) of the respondents and closely followed by injectable, 90 (30.6%). Again, both pill and male condom recorded the same number of respondents 17(5.8%). The usage of male sterilization 1(0.3%) and female sterilization 2 (0.7%) respectively were found to be less patronized among the study respondents.

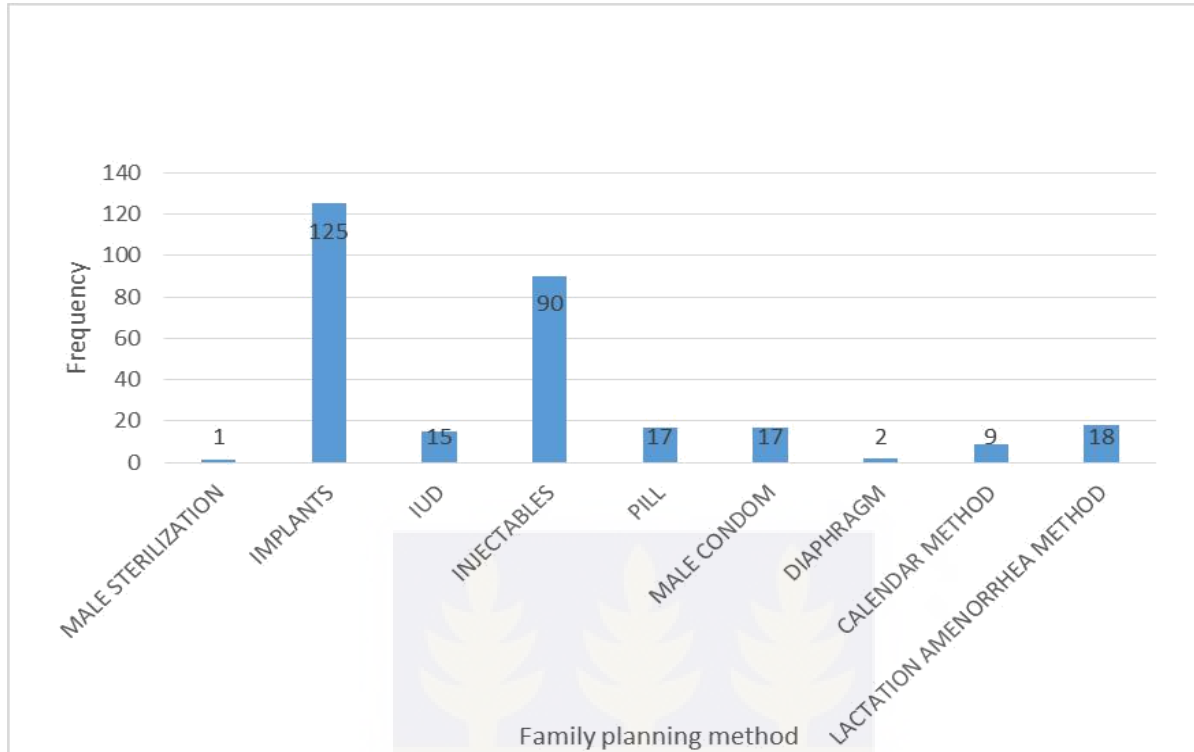


Figure 4.3 Current Use of Contraceptive Methods

The figure above shows a cross-tabulation between factors associated with the choice of family planning methods and knowledge on contraceptives usage of women aged (18-49 years). Out of 260 respondents who reported using contraceptives, constituting 29.2%, the statement indicated that they are using these contraceptives based on accessibility. Again, of those who revealed to have knowledge on contraceptives or currently using contraceptives, respectively 21.5% and 18.5% indicated their choice of FP methods were based on privacy and long-term protection. Other respondents cited 13.5% affordability and 8.1% convenience as reasons for using FP methods. A few of the respondents noted their choice of FP method was based on short-term protection and side effect of other methods.

A Chi-Square test was therefore performed to determine the level of dependence between factors associated with choice making of family planning method and knowledge on

contraceptives usage. The test performed at 6 degrees of freedom revealed a test value of 119.140. This was therefore statistically significant since the significance probability of the test is less than the set significance level, 5%. Thus $p\text{-value} < 0.05$. This suggests that the contraceptive usage in women actually depends on these factors (that is, affordability, convenience, privacy, accessibility, long-term protection, short-term protection and side effects of other methods).

Table 4.7: General Factors Influencing the Choice of Family Planning Method: Distribution of Factors Influencing Contraceptive Usage and Choice

Factors	Frequency	Percent (%)
Personal	158	46.7
Social	25	7.4
Cultural	57	16.9
Economic/Financial	32	9.5
Education/Information/Literacy Planning	66	19.5
Total	338	100

Table 4.7 shows the distribution of various factors that respondents revealed to be influential in their choice of a particular contraceptive usage. Some respondents mentioned factors (n = 158, 46.7%) they use contraceptive for personal reasons, education (n = 66, 19.5%), and (n = 57, 16.9%) cultural reasons.

Table 4.8 Socio-demographic Factors Influencing the Contraceptives Uptake of Women of Reproductive Age

Socio-demographic factors		Current use of contraceptive		Degrees of freedom	Chi-square test value	p-value
		No	Yes			
Religion	Islam	55(21.1%)	206(78.9%)	1	14.676	0.001
	Christianity	1(1.5%)	67(98.5%)			
Polygamy	No	22(11.4%)	171(88.6%)	1	6.486	0.001
	Yes	25(22.3%)	87(77.7%)			
Age Categories	18 – 24	4(4.7%)	81(95.3%)	3	17.925	0.011
	25 – 29	8(13.1%)	53(86.9%)			
	30 – 36	19(20.4)	74(79.6%)			
	37 – 49	25(27.8%)	65(72.2%)			
Number of dependent	None	0(0.0%)	26(100.0%)	3	41.473	0.001
	1-3	24(13.7%)	151(86.3%)			
	4-6	8(9.2%)	79(90.8%)			
	> 6	16(53.3%)	14(46.7%)			
Education	None	32(47.1%)	36(52.9%)	3	68.976	0.001
	Basic	7(26.9%)	19(73.1%)			
	SHS	17(13.7%)	107(86.3%)			
	Tertiary Student	0(0.0%)	111(100.0%)			
Occupation	Unemployed	0(0.0%)	15(100.0%)	3	93.289	0.001
	Formal	0(0.0%)	71(100.0%)			
	Informal	48(39.7%)	73(60.3%)			

4.8 Influence of Socio-demographic Characteristics on the Usage of Contraceptives

Variables were individually examined to confirm any statistically significant association with the contraceptive usage. A multivariate statistical method examines the association of all the independent variables with the dependent variable and trims the inter-correlation among the independent variables if any. With independent variables measured on different scales, the most

opposite multivariate tool is logistic regression. A logistic regression was used in this study to investigate the association of all the independent variables individually discussed thus far with the dependent variable (current contraceptives usage).

4.9 Associations between Socio-Demographics Characteristics and Contraceptive Usage amongst Reproductive Women

With regards to the dependent variable, respondents indicated that they are currently using contraceptives in the reference category (Table 4.9) whilst those who indicated otherwise is the case variable. The reference categories of the various response variables have clearly indicated a negative coefficient (or odds ratio – OR less than 1) and that the particular relation is reversed. The corresponding significance probability (p-value) shows whether the association is significant or not. The odds of women from Islamic religion using contraceptives was 157.73 times the odds of Christian respondents [OR= 157.73(95% CI, 10.939, 2274.475)]. In the analysis, this association was found to be statistically significant.

The odds of women with rivals who do not use contraceptive was 0.3 times less likely the odds of those with rivals [OR= 0.307(95% CI, 0.122, 0.770)]. On age, the odds of women aged between 18-24, 25-29 and 30-36 years using contraceptives were 591, 1.200, 2.599 times the odds of women aged between 37- 48 [OR= 0.591(95% CI, 0.141, 2.471)] and [OR= 1.200 (95%CI, 0.345, 4.174)] [OR= 2.599(95%CI, 0.843, 8.011)] respectively. This analysis was however not statistically significant. Furthermore, the odds of women having between 1-3 and 4-6 children using contraceptives was reduced 0.04 and 0.012 times less likely as compared to women with more than six children [OR=0.04, (95% CI, 0.005, 0.362)], [OR=0.012, (95% CI, 0.001, 0.106)] respectively. The test analysis proved to be statistically significant. However, the odds of women with no children using contraceptives was 0.248 times less likely as compared to

women with more than 6 children [OR=0.248, (95% CI, 0.021 ,2.873)]. In the analysis, this was statistically and significantly associated.

Moreover, there was no statistically significant association between education level and contraceptive usage. With the exception of women with no formal education, the odds of women with Basic and Secondary/Technical education using contraceptives were all less likely as against those with Tertiary education [OR=1.119, (95% CI, 0.200, 6.267)], [OR=0.980, (95% CI, 0.142, 6.778)] and [OR=0.854, (95% CI, 0.244, 2.986)] respectively.

Finally, respondents' occupation was found to be statistically significantly associated with contraceptive usage in women. The odds of women being a student, unemployed and formally (public and private sector employed) using contraceptives were all less likely as compared to those who are informally employed and without education [OR=0.038, (95% CI, 0.008, 0.172)], [OR=0.160, (95% CI, 0.030, 0.864)] and [OR=0.012, (95% CI, 0.001, 0.108)] respectively.

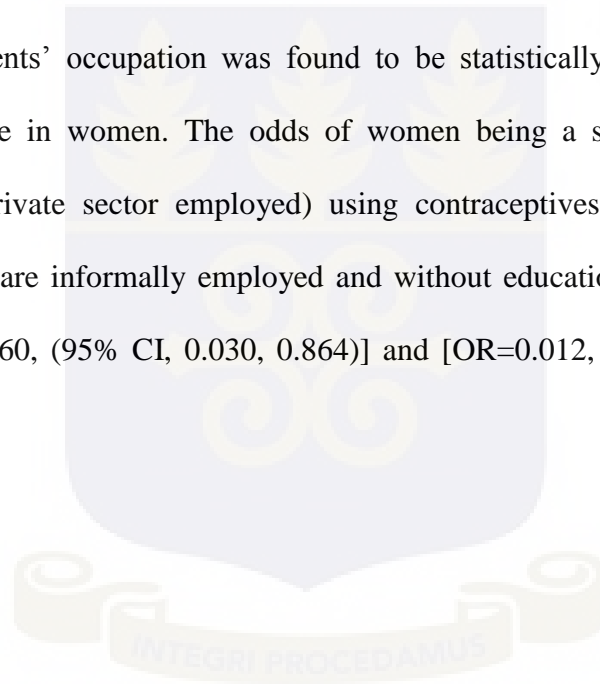


Table 4.9 Associations between Socio-demographics Characteristics and Contraceptive Usage amongst Reproductive Women

	Co-efficient	Std Error	Wald (Statistic)	p-value	Odds Ratio (OR)	95% C.I. for OR	
						Lower	Upper
Religious(Ref = Christianity)					1.000		
Islam	5.061	1.362	13.816	.000	157.734	10.939	2274.475
Polygamy (Ref = Yes)					1.000		
No	-1.181	.469	6.332	.012	.307	.122	.770
Age (Ref = 37-48 years)			6.186	.103			
18-24	-.525	.730	.519	.471	.591	.141	2.471
25-29	.182	.636	.082	.775	1.200	.345	4.174
30-36	.955	.574	2.767	.096	2.599	.843	8.011
Number of Children (Ref = more than 6)			19.077	.000			
None	-1.396	1.251	1.246	.264	.248	.021	2.873
1-3	-3.126	1.077	8.427	.004	.044	.005	.362
4-6	-4.439	1.121	15.689	.000	.012	.001	.106
Educational level (Ref = Tertiary)			.222	.974			
None	.113	.879	.016	.898	1.119	.200	6.267
Basic	-.020	.987	.000	.984	.980	.142	6.778
Secondary/Technical	-.158	.639	.061	.804	.854	.244	2.986
Occupation (Ref = Informal)			23.150	.000			
Student	-3.278	.776	17.848	.000	.038	.008	.172
Unemployed	-1.832	.860	4.537	.033	.160	.030	.864
Formal	-4.410	1.113	15.702	.000	.012	.001	.108

4.10 Socio-Cultural Factors and Decision Making Process Influencing the Choice of Contraceptives Uptake

Table 4.10 below shows results on socio-cultural and decision making process that influence the choice of contraceptive uptake. It was revealed that the subject of discussing family planning with partner/husband was significantly associated with the choice of contraceptive uptake. The odds of women who discussed FP with their husbands were 0.112 likely to use contraceptive as compared to those who never discuss with their husbands [OR= 0.112(95% CI:0.051, 0.241)]. Also those who hardly discussed family planning with their husbands are 0.963 likely to use contraceptives as compared to those who never discussed with their husbands [OR= 0.963(95% CI: 0.392, 2.360)]. The following factors were all found to be statistically significantly associated with contraceptive usage: (a). The use of contraceptives without husbands knowledge and approval ,(b) education from service providers on contraceptives, (c) discouragement from the side effects from the usage of contraceptives, (d) child bearing decision should solely be determined by the husband, (e) the use of contraceptives were based only on husband's approval and stigma is placed on people known to be on contraceptives. The odds of women who did not agree to these statements are 4, 43, 5.513, 0.012, 3.89, 13.599 and 0.013 times to use contraceptives did not agree [OR= 4.43(95% CI: 1.273, 15.466)], [OR= 5.513(95% CI: 1.693, 17.953)] [OR= 0.012(95% CI: 0.002-0.07)], [OR= 3.89(95% CI: 1.201, 12.602)], [OR= 13.599(95% CI: 4.953, 37.335)] and [OR=0.013(95% CI: 0.001, 0.167)] respectively compared their counterparts who agreed to these statements.

However, dominance of males influencing the choice of family planning was not significantly associated with contraceptive usage. The odds of women who disagreed with this statement were 0.707 less likely to use contraceptives as compared to their counterparts who

agreed [OR= 0.707(95% CI: 0.266, 1.873)]. Also with regards to the statement of husbands' knowledge about their wives using contraceptives, it was found to be statistically significant. The likelihood of women who did not agree to disclose to their husband about their contraceptive usage however were 1.751 times more to use contraceptives as compared to those who agreed to inform their husbands [OR= 1.751(95% CI: 0.795, 3.857)]. Moreover, women who disagreed with the attitude of service providers, indicated that this discouraged them from FP services, but their husband encouraged them to use contraceptive, Religion/culture does not permit contraceptive usage, and decision making about contraceptives between couple should be encouraged were all not statistically significantly associated with contraceptive usage. The odds of respondents who disagreed to these statements were 1.034 1.034, 1.408 and 0.547 times likely to use contraceptives [OR= 1.034(95% CI: 1.329, 0.354)], [OR= 1.034(95% CI: 0.411, 2.605)], [OR= 1.408(95% CI: 0.198, 10.033)] and [OR=0.547(95% CI: 0.221, 1.356)] respectively compared to their counterparts who agreed to these statements.

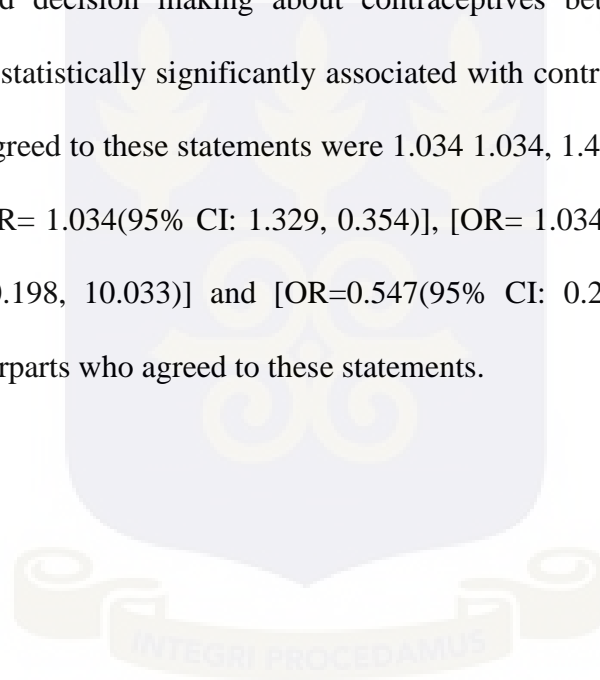


Table 4.10 Socio-cultural Factors and Decision Making Process Influencing the Choice of Contraceptives Uptake

		Co-efficient	Std Error	Wald (Statistic)	p-value	OR	95% C.I.for OR	
							Lower	Upper
Family discussion	Planning With husband(Ref = Never)	=		45.111	0.001			
Yes		-2.191	0.401	29.826	0.001	0.112	0.051	0.241
Hardly		-0.038	0.458	0.007	0.934	0.963	0.392	2.360
Male influences of my family planning (Ref = Agree)	Dominance my choice					1.000		
Disagree		-0.347	0.498	0.488	0.485	0.707	0.266	1.873
My husband knows I use contraceptives (Ref = Agree)						1.000		
Disagree		0.56	0.403	1.932	0.165	1.751	0.795	3.857
My encourages me to Contraceptive (Ref = Agree)	Husband					1.000		
Disagree		1.357	.547	6.152	.013	3.885	1.329	

Table 4.10 Socio-cultural Factors and Decision Making Process Influencing the Choice of Contraceptives Uptake

	Co-efficient	Std Error	Wald (Statistic)	p-value	OR	95% C.I.for OR	
						Lower	Upper
The attitude of My Service Provider discourages me from Family Planning services(Ref = Agree)					1.000		
Disagree	0.034	.471	.005	.943	1.034		
My service provider educates Me on contraceptives(Ref = Agree)					1.000		
Disagree	1.707	.602	8.033	.005	5.513	1.693	17.953
I will use contraceptives even if my husband does not approve it (Ref = Agree)					1.000		
Disagree	1.49	0.637	5.471	0.019	4.437	1.273	15.466
Child bearing decision is solely determined by my husband(Ref = Agree)					1.000		
Disagree	1.358	0.6	5.129	0.024	3.89		

Table 4.10 Socio-cultural factors and decision making process influencing the choice of contraceptives uptake – Cont'd

my husband agrees (Ref = Agree)								
Disagree	2.61	0.515	25.657	0.001	13.599	4.953	37.335	
My religion/culture Does Not permit contraceptive usage (Ref = Agree)					1.000			
Disagree	0.342	1.002	0.116	0.733	1.408	0.198	10.033	
People known to be on contraceptives are stigmatized (Ref = Agree)					1.000			
Disagree	-4.365	1.315	11.021	0.001	0.013	0.001	0.167	
In My opinion decision making between the couple Should be encouraged(Ref = Agree)					1.000			
Disagree	-0.602	0.463	1.694	0.193	0.547	0.221	1.356	

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Table 4.11: Cultural Influence of Relatives on Contraceptive Usage and Choice among the Respondents

Relation	Most influence	Average influence	Minimum influence	No Influence
Spouse/partner/husband	192(68.1%)	50(14.2%)	19(5.4%)	21(6.0%)
Mother in law	24(6.8%)	67(19.0%)	98(46.2%)	38(10.8%)
Father in law	13(3.7%)	17(4.8%)	84(23.9%)	84(45.7%)
Mother	43(12.2%)	72(20.5%)	73(20.7%)	25(7.1%)
Father	20(5.7%)	78(22.2%)	54(15.3%)	70(31.5%)
Friends	14(6.9%)	121(59.6%)	36(17.7%)	32(15.8%)
Sisters	27(12.9%)	83(39.5%)	55(26.2%)	45(21.4%)
Brothers	1(0.5%)	32(17.4%)	67(36.4%)	84(45.7%)
Others	2(1.2%)	9(5.3%)	50(29.6%)	108(63.9%)

4.12 Inferred from above, majority of the respondents 192 (68.1%) confirms, that their husbands have most influence on the contraceptive usage and choice, then mother 43 represented as (12.2%), sisters 27(12.9%), mother in-law 24(6.8%) and the response from others with 2 (1.2%)

. Conversely, sisters, 83(39.5%) has the highest response on average influence on contraceptive usage and choice, followed by Father, 78(22.2%), mother, 72(20.5%) and spouse/ partner 50 (14.2%) respectively.

While mother-in-law, 98(46.2%), father-in-law, 84 represented as (23.9%) , brothers, 67(36.4%), sisters, 55 represented by (26.2%), spouse/ husband, 19(5.4%) and friends, 36 represented as (17.7%) of the respondents indicated responses respectively on minimum influence and with regard to no influence has indicated respectively: , 108(63.9%) had the highest per cent,

84(45.7%) were goes for brothers and father in-law and 70(31.5%)whilst the least was 21(6.0% that goes to husband/partner/spouse.

4.12 Summary of Findings

The result of this study showed that the respondents of this study were women between 18-49 years of age who were accessing the specialist Hospital at Sokoto. The demographic distribution of the respondents showed that all the respondents are married women. The finding has revealed that the respondents are from two major religions in Nigeria 277 (78.7%) representing the Muslim population while the remaining were Christians and are both from Hausa Fulani tribe.

The finding on the knowledge level of the respondents showed that all the participants had knowledge of specific family planning method 76.0% representing implant, 60.0% representing injectable 56.3% representing pills and 55.0% representing male condom while male sterilization was 18.7% and 21.0% was identified for female sterilization. This finding has shown that male and female sterilization have the least responses on knowledge of specific contraceptive whilst implants and injectable contraceptives have the highest respondents.

On the prevalence level of the contraceptive method, it also showed 35.5% representing implant, while 30.6% represented injectable male sterilization (0.3%) and 0.7% representing female sterilization. The finding of this study described factors associated with the choice of FP. The result indicates that 30.4% choose FP method base on affordability, accessibility, privacy, long term effect, and convenience attached to the FP method.

The finding of the study has shown a significant relationship between the use and choice of contraceptives, occupation, religion, and age of the respondents on FP.

The findings also revealed that students have the highest percentage of respondents in this study.

On culture and decision making of the respondents on choice of contraceptives, the finding has showed a significant and positive influence of cultural norms of the society on the choice of contraceptives. The study revealed that husband's approval on the choice of contraceptive has a positive impact and women who discussed FP with their husbands/partners were more likely to use contraceptives compared to those who did not discuss with their husbands/partners. On factors related to decision making among the spouses, the finding has shown a significant influence of husbands/spouse on the decision making. Majority of the respondents agreed that decision making on child bearing is determined by the husband/spouse. Based on this majority of the study respondents agreed that decision making between couples should be encouraged.

In this chapter, the findings have been discussed in relation to the social and demographic information, knowledge, culture and socio-economic factors that influence choice of contraceptives among women accessing services at Sokoto Specialist Hospital. These findings were compared with other studies.

CHAPTER FIVE: DISCUSSION OF FINDINGS

This chapter discusses findings based on the study of contraceptive choices among women in their reproductive age (18-49 years) who access the Family Planning Unit of Specialist Hospital in Sokoto. The study findings reveal that the socio-demographic characteristics of respondents influence the choice and usage of contraceptives of the various age groups. Based on the factors that influence choice of contraceptives, the results show that the highest proportion of the women who were understudied in the survey were women between 30-36 years of age constituting 28.1% of the sample, while 25-29 years of age recorded the least number of respondents captured in the study representing 24.5% of the total respondents. This finding is in agreement with that of Deb (2010) and Wanjiku (2013) which indicate that the use and choice of contraceptive are predominant between the ages of 25 and 35 years. Therefore, this results confirm a significant relationship that exists between the age of the study respondents and the family planning usage.

5.1 Demographic Characteristics

From the study findings, it is seen that those with post /higher /tertiary education, have the highest of the respondents in the study which indicates that the level of educational qualification has a significant role to play in contraceptive usage. From the findings, it is obvious that women with higher educational qualification have the highest percentage of the respondents 133(37.8%), followed by those with secondary education 125(35.5) while women with the primary educational background, have the lowest percentage of respondents 26 (7.4%). The finding of this research established that women with higher education are more likely to use contraceptives than their counterparts in secondary school and those in secondary are likely to use contraceptives than those with primary education. This finding is similar to the findings

Rahman and Kabir (2005) which indicated that the level of education of respondents has a significant role in the usage and choice of contraceptives. Again, the research finding of , Šagri, Višnji, Tasi, and Markovi (2006) further indicates that the relevance of the educational background of respondents plays a very important role in the usage and choice of contraceptives. The finding of this study is also similar to the study finding of Dynes, Stephenson, Rubardt, and Bartel (2012) which emphasize that women with higher level of education have a better chance of using and choosing modern contraceptives than their counterparts in the lower educational cadre. The findings in this study are also similar to what was observed in this current study. In another Nigerian-based study, the findings stress that women with a higher educational level, are more likely to make self-choices on contraceptives than women with secondary or lower education (Asekun-Olarinmoye et al., 2013) .

It is worthy of note that, the findings this study again establish age and level of education are directly related with the usage and choice of contraceptives among women accessing family planning unit at a Specialist hospital in Sokoto. The outcomes of this study which relate to occupation of respondents indicate that students have the highest percentage of contraceptive usage, representing 129(36.6%) out of 352 while those who are formally employed are less likely to use contraceptives. This in juxtaposition with a Tanzanian study confirms that the type of occupation plays a major role in choice and usage of contraceptives (Michael, 2012).

5.2 Knowledge on Family Planning

Knowledge on Family Planning has been found to have a positive influence on contraceptive usage and choice among women of reproductive age accessing care at FP unit at the specialist hospital in Sokoto. Seventy-six percent have more knowledge of implant as a contraceptive method in use than injectable contraceptive with a percentage of 60. Followed by

pills with 56.3% and male and female sterilization are the least known method representing 18.7% and 21.0% respectively. The finding of this study is similar to the finding of Shehu and Burodo (2013) which indicated that majority of the respondents in the research have knowledge on Implant as their contraceptive of choice as compared with other available contraceptives.

Similarly, a study conducted in Nigeria revealed that majority of the respondents had the knowledge of contraceptives usage (Adegbola et al., 2016). In addition, a study on knowledge of adolescent on contraceptive by Rahman and Kabir (2005) has revealed that all the understudied participants had knowledge on a specific contraceptives. In contrast, this current study finding revealed that the participants had more knowledge on pills with 99.3% followed by condom with 85.3%. This finding can be attributed to respondents level of education, hence the need to increase awareness on contraceptives. Therefore, it can be concluded that age, the level of education and occupation has a positive impact on the usage and choice of contraceptives among the understudied participant in the specialist hospital in Sokoto.

In relation to occupation of the respondents, students had the highest percentage of 129(36.6%) out of 352 while those who were formally employed were less likely to use contraceptives. This finding is similar to that observed in Tanzania which reveals that the type of occupation plays a role in choice and usage of contraceptives (Michael, 2012).

5.3 Prevalence of Contraceptives

In this study, Implanon was the well-known birth control method among all respondents. This finding is connected with the efficacy of the drug, affordability, accessibility, its long lasting effect and partner's agreement to the decision making in specialist hospital Sokoto. This is similar to the finding of Shehu and Burodo (2013) which indicated a higher percentage of the

research participants representing 55.8% chose Implanon. However, this finding is inconsistent with the finding of Abdulai,(2015) which indicated in her findings that condom is the most common method of choice in Tamale metropolis . The finding is again in contradiction to the finding in Zaria which revealed injectable contraceptive as the drug of choice among their study participants (Ameh, 2007)

The study has shown the prevalence of contraceptive usage and choice of various contraceptives among the reproductive mothers accessing the FP unit of Specialist Hospital in Sokoto which revealed Implanon was observed to be the commonest FP method of choice among the study participants of 125(35%) and closely followed by injectable with 90(30.6%) and the least of respondents who used male and female sterilization are represented as 1(0.3%) and 2(0.7%) respectively and this found to be less used among the studied respondents.

The use of contraceptives was prevalent among the student population as 129 (36.6%) among the participants. This finding potentially connect their desire to control unplanned pregnancies to allow concentration on learning. This was followed by home keepers with 88 (25.0%). The higher percentage of students that patronized Implanon is related to its availability, easy accessibility, and affordability at the study facility. Another factor that attributes to the percentage of the respondents who chose Implanon relates to the higher literacy rate of the respondents. This study finding has established that education and knowledge of the respondents are directly related to usage and choice of contraceptives: thus, the more an individual possesses higher knowledge the more likely the use of contraceptives (Rahman & Kabir, 2005).The finding of this study shows that age, occupation, education of respondents play a significant role in the usage and choice of contraceptives. Women with higher education are most likely to use contraceptive compared to that of women with lesser education. A study that was conducted

in southern Ghana has revealed that educational status of women is the most significant factor that determines (Abdulai 2015) their contraceptive usage. The finding has revealed that women without formal education, had a 48% reduction in the odd of once contraceptives and 66% reduction in the odd of those who are currently using contraceptives (Abdulai 2015). This revealed outcome affirms that of (Dynes et al., 2012) which has indicated that women with higher education had a greater chance of using modern family planning methods.

5.4 Factors Influencing the Choice of Contraceptives

This research has identified specific related factors influencing the choice of contraceptives. It shows economic factor as one among the key determinants that influence the choice of contraceptives. Economic factors have a major influence on the choice of contraceptives among the study participants in Sokoto Specialist Hospital. Thirty two, representing (9.5%) mentioned that economic factors were the reason for their choice of contraceptives. Finding of this current study, has however revealed that, economic factors have minimal influence on usage and choice of contraceptives on participants accessing service at Specialist Hospital in Sokoto. Lanre supports that economic status of the couple has less influence on their usage and choice of contraceptives (2011) The finding of the study showed that economic factors have little influence on the choice of contraceptives among the participants of the study. Inferred data analysis of this study postulate that, 32 (9.5%) of the study participants chose contraceptives out of 338 participants based on the economic factor. This finding has a similitude to the study of Christopher,(2014) which revealed that economic status of women is linked with their knowledge on the various family planning methods. Findings on personal factors have revealed that 158 (46.7%) chose FP base on personal factors. This higher percentage of respondents on personal factors has a significant effect on the choice and usage of

contraceptives. This factor may be as a result of easy accessibility and reversibility of the drugs or privacy associated with family planning intake or usage.

Another factor that is associated with choice making has shown that FP usage and choice depend on the following factors that are: affordability, accessibility, privacy, long time effect, short time effect, and convenience. The finding of this study subsequently shows that almost all the participants have chosen the contraceptives which best suit them. The majority of the participants are known to be using contraceptives based on convenience with (44.3%) among the study participant followed by affordability (30.4%). This finding is in agreement with a finding in Jos Nigeria which stated that participants of the study chose FP based on convenience (47%), safety (26.9%), and affordability (23.1%) (Emmanuel et al., 2014).

5.5 Cultural Norms and Decision Making In the Choice and Usage of Contraceptives

On the cultural norms, the study finding revealed that partners' approval has a significant role in the usage and choice of contraceptives among the women accessing the FP unit at the Specialist hospital in Sokoto. The women that is discussion with their partners in the use and choice of contraceptive recorded the highest percentage of 192 (68.1%), followed by mother which has 43 (12.2%) less influence as compared with husbands and as well more influence as compared to mother-in-law with 24 (6.8%) Brothers had the least level of influence with 1 (0%). This finding is similar to the finding in southern Ghana which revealed that spousal approval is very important in the use and choice of contraceptives (Adongo et al., 2013). In a study by Okech et al., (2011), the findings emphasized spousal approval in the usage and choice of contraceptives. The study further showed religious inclination of the spouses influenced on spousal approval before deciding nad commencing FP and involving them in decision making (Adegbola et al., 2016). A similar study which was also conducted in Kenya revealed the

importance of spousal approval in the uptake and choice of contraceptives to both couples (Okech et al., 2011).

For couples who are involved in FP decision making on family planning, there is the likelihood for the partner to succeed as it has been found in this study that 116 (33.0%) strongly agreed that decision making be jointly done and be encouraged by the couple. The findings show that husbands need to be involved in making a decision on FP for it to succeed. In this study finding, only 10 (2.8%) of the respondents strongly disagreed decision making should not be done between the couples but this stance often related to their religious or cultural beliefs. The finding of this research also relates to the finding of (Adegbola et al., 2016) which revealed that the importance of partner involvement in decision making before embarking on FP. The finding revealed that husband involvement in decision making gives significant positive results in the usage and choice of FP method.

The religious inclination of the respondent has a positive impact on the choice of FP. Majority of the participants strongly disagreed with the fact that religion did not permit or allow FP. Fifty-four percent respondents out of 197 strongly indicated that religion has an effect on the use and choice of contraceptive in Specialist Hospital in Sokoto. This finding is similar to that of (Abdulai, 2015) which revealed that religion and culture play a significant role in influencing the choice and usage of FP.

The study has identified factors associated with the role of health workers in influencing the choice of contraceptives. The finding shows a significant outcome for clients who receive education on contraceptives from the health workers are more likely to use contraceptives compared to those who do not have the knowledge or education of family planning. Therefore,

this finding significantly identified the relationship between the service providers' role in the usage and choice of contraceptives in Specialist Hospital in Sokoto. This finding is similar to that of Okech et al. (2011) which stress that the association of service providers education of the client has a positive impact on the usage and choice of contraceptives and this again confirms the study of Abdulai (2015) in Tamale Metropolis.

The study also unraveled health facility-related factors that influence contraceptive usage. These were education on contraceptives by service providers and attitude of health service providers. The study findings showed that women who did not receive education on contraception from service providers were more likely to use contraceptives than women who did receive any education. Factors such as education of women on contraceptive use, friendliness of service provider, and proximity to the service provider and usage of contraceptives were reported to be significant in a study by Kenyan (Oketch et al., 2011). Again women who were not discouraged by the service provider's attitude were more likely to use contraceptives. Service provider's support has been revealed to be positively related to contraceptive usage with most clients who received better care and making follow up visit (Abdulai 2015).

Women who did not discuss contraception with their partners were about 4 times more likely to use contraceptives. This was in contrast to an earlier study in southern Ghana which reported that spousal approval was relevant in contraceptive usage among women (Adongo et al., 2013). In families where women do not agree that child bearing decision should solely be made by husbands, the odds of using contraceptive among such women will be very low compared to those who allow their husband to make a decision on child bearing. Again, it was found that respondents who were not discouraged by the side effects of FP method were 99% more likely to use contraceptives.

Women who objected to the following statements of using contraceptives: ‘even if her husband does not approve it’, ‘the service provider educates me on contraceptives usage and its choice’, ‘side effects of my family planning method do discourage me from using contraceptive’, ‘Child bearing decision is solely determined by my husband’, ‘I will use contraceptive only if my husband agrees’, ‘People known to be on contraceptives are stigmatized’. These show a greater likelihood of contraceptive use than for women who disagreed to all but the third and sixth statements to use contraceptives. Also, for women who disagreed with the statements like ‘male dominance influences my choice of my family planning’, ‘my husband knows I use contraceptives’, ‘the attitude of my service provider discourages me from family planning services’, ‘my husband encourages me to use contraceptive’, ‘my religion/culture does not permit contraceptive usage’, ‘decision making between the couple should be encouraged’. The odds of women who disagreed with these statements except for the first and last statements were more likely to use contraceptives among the study participant in Specialist Hospital Sokoto.

The above discussions of the study findings have provided pertinent details on the significant factors that influence the choice and usage of contraceptives among women.

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CHAPTER SIX: SUMMARY, IMPLICATION, RECOMMENDATIONS, AND CONCLUSION

6.1 Summary of the Study

Family planning is a method that couples choose for birth control which is a key issue in the reproductive right and health of women. It includes the right of men and women to have access to family planning which includes the decision that occurs between the couple on the intended number of children they should have. A number of factors are believed to influence the choice of contraceptives. The study sought to identify the factors that influence the choice of contraceptives among women accessing care at the FP unit of specialist hospital in Sokoto, Nigeria. Convenient sampling technique was used to study participants and to collect data from participants. After meeting all the study requirements and the necessary protocols, a structured close-ended questionnaire administered given to 352 respondents. A response of about 95.5% of an all-item completed questionnaire was received and analyzed. The data analysis was conducted using SPSS version 20.0

The study finding has revealed the highest prevalence rate on choice was Implanon of about 125(35.6%) followed by injectable 90 (30.6%). Again both pills and male condoms recorded the same number of respondents 17(5.8%). The usage of male and female sterilization 1(0.3%) and 2(0.7%) respectively were found to be less among the understudied respondents. The findings also revealed that almost all the respondents have knowledge of one or all of the methods but the highest percentage was implant with 228 (76.0%) while injectable recorded the second highest with 180 (60.0%) and pills with 169(56.3%). The factors that influence the choice of contraceptives are personal, socio-cultural, economic, and literacy with frequencies 158 (46.7%), 25(7.4%), 57(16.9%), 32(9.5%), 66(19.5%) respectively. The highest percentage

related to personal grounds followed by literacy level of the respondents. Cultural norm and decision-making process of respondents were found to significantly have an influence on the choice of contraceptives. Finally, the finding has revealed a significant relationship between demographic factors of the respondents and choice of family planning.

6.2 Implications

The outcome of this study has a lot of implications for Nursing practice, Nursing Education, Nursing Administration and Nursing Research.

6.2.1 For Nursing Education

The result of this finding has shown a positive response from women who access FP unit choose and use the FP method they know and desire with prevalence rate of (35.5%) for implant, (30.6%) for injectable and the least goes to male and female sterilization of 0.3% and (0.7%). This finding reveals that low prevalence and low knowledge is a big challenge to contraceptive usage and choice in Sokoto Specialist Hospital.

Therefore, there is a need to institute measures to ensure that the populace have a higher knowledge of all categories of contraceptives. Hence,

- i. Important knowledge on reproductive health should be highly intensified in Nursing schools.
- ii. Adequate enlightenment should be intensified by the health educators to the client accessing the facility about the importance of sterilization and other methods that participant have low knowledge on.
- iii. Service providers should be trained and made proficient in managing the side effects of FP drugs.

- iv. Regular update courses for service providers on the improvement in FP methods as well as side effects.
- v. Giving healthcare providers promotions in their working environment thereby serving as an encouragement to do more in their work to enhance productivity and motivate others.
- vi. Management needs to educate nurses on contraceptive usages and choices.

6.2.2 Implication for Nursing Practice.

Even though knowledge on various types of FP methods have been found to have a significant influence among the clients that are accessing the FP unit of specialist hospital in Sokoto, choice and utilization of modern contraceptives in the study reveal service providers' effort on educating the clients on the importance of family planning is known. This significantly improved the client's choice of contraceptives or the accessibility and availability of the contraceptive at the study area. Therefore, it is very important for the service providers of the facility to be highly encouraged in applauding their services to the faculty and the profession at large. This can be done by:

- i. Giving the service providers a letter of recommendation for commendable services rendered to the client assessing the facility.
- ii. Giving the health service providers promotions in their working environment thereby serving as an encouragement to work positively to enhance productivity as well as serve motivation to others.
- iii. Motivating service providers in the facility will potentially have a positive impact on Nursing and Midwifery practice at large and the output of other service providers will likely increase.

6.2.3 Implication for Nursing Research

The finding of this study has revealed gaps where some of the respondents has little or less knowledge on contraceptives. Therefore, there is the need for nurse researchers to further their research on the importance of family planning to the society and the nation with a focus on the lapses to generate lasting solutions to the identified problems in the area. In addition, further studies should be done to investigate the correlation between the use of contraceptives and choices among women.

6.2.4 Implication for Policy Makers

The result of the study has shown a low level of education on certain FP methods as evident in the low knowledge on male sterilization and female sterilization which is 18% and 21% of the study participants respectively. Therefore, the outcome of this study findings serves as a guide for policy makers in Sokoto state to establish modalities to implement supportive measures that can positively influence women's contraceptive uptake thereby reducing maternal mortality and particularly educating the populace on the importance of FP including male and female sterilization (permanent method of contraception) in Nigeria.

6.3 Limitation of the Study

This study is limited to the FP unit of specialist hospital in the Sokoto state of Nigeria and does not cover other FP units in Sokoto State generally. Due to limited time frame and limited resources for the researcher, the study was restricted to 352 respondents as sample size. To make a general judgment on the whole state a larger sample size is required due to the fact that there are about five hospitals within the metropolis with the exception of teaching hospitals

and private clinics and local government clinics all within the state metropolis, therefore, the finding of this study cannot be generalized to the whole state.

6.4 Recommendation

Based on the study finding, the stated recommendations were made to the Sokoto state Ministry of Health, Specialist Hospital Sokoto, Nursing & Midwifery Council of Nigeria (NMC),

6.4.1 To Sokoto State Government

- i. The Sokoto State Government should adopt a positive attitude to the usage and uptake on FP among the populace.
- ii. Ensure that conducive environment is ensured such that clients will appreciate that they are protected and privacy would be given in contraceptive services.
- iii. Sponsor and encourage the service providers to update their knowledge.
- iv. Enlighten the populace on various types of FP methods on social media platforms.

6.4.2 To Specialist Hospital, Sokoto

1. The Specialist Hospital in Sokoto should create a friendly relationship between the staff and the clients accessing the facility.
2. The Hospital should award hard working staff with to enhance the performance of other staff.
3. The hospital should encourage the staff on continued education and provide such professional development services with motivation that is sustainable.

6.4.3. To Nursing and Midwifery Council of Nigeria

- i. The Nursing and Midwifery Council of Nigeria should introduce a policy for Nurses and Midwife for knowledge update.
- ii. The council should introduce reproductive health education to all cadre of Nursing training in the country

6.5. Recommendations to Stakeholders

The finding of this study has revealed low prevalence and low knowledge on some FP methods in the Specialist Hospital in Sokoto therefore, it is very needful for the stakeholders to partner with the state policy makers and the management of specialist hospital in achieving sustainable benefits of on contraceptive that have low or least prevalence in the hospital and the state at large. The stakeholders should link with the FP unit for necessary assistance in terms of adequate provision of FP drugs and in the creation of a conducive atmosphere for the service providers and clients.

It was also recommended that the Sokoto State and Nigeria at large should enlighten the populace on the importance of family planning methods using social media platforms as it is the common means of communication in contemporary times.

6.6 Conclusion

This study focused on factors that influence the choice of contraceptives among women in Specialist Hospital in Sokoto. The study findings have revealed that majority of the study participants have knowledge on at least one method of contraceptives with a greater number of the participants having knowledge on the implant with evidence of a higher prevalence rate as compared to the other methods such as injectable and pills. The finding also revealed that respondents chose contraceptives that suited them based on convenience, affordability, privacy, and accessibility.

REFERENCES

- Abdulai, M. (2015). University of Ghana <http://ugspace.ug.edu.gh> School of public health collage of health sciences, factors influencing cotraceptives uptake among reproductive women in Tamale metropolis by the award of masters of phylosophy in applied science, (1023912).
- Adegbola, O., Murtazha, F., & Adeyemi, H. (2016). The influence of male partners on contraceptive usage in sub - Saharan Africa - Lagos experience.
- <https://doi.org/10.4103/2468-6859.185247>
- Adongo, P. B., Tapsoba, P., Phillips, J. F., Tabong, P. T., Stone, A., Kuffour, E., ... Akweongo, P. (2013). The role of community-based health planning and services strategy in involving males in the provision of family planning services : a qualitative study in Southern Ghana. *Reproductive Health*, 10(1), 1. <https://doi.org/10.1186/1742-4755-10-36>
- Alfred Adewuyi & Peter Ogunjuyigbe. (2003). The role of men in family planning: An Examination of Men's Knowledge and Attitude to Contraceptive Use among the Yorubas. *African Population Studies*, 18, 35–49. Retrieved from <http://www.bioline.org.br/request?ep03003>
- Amin, R. (2012). Choice of contraceptive method among females attending family planning center in Hayat Abad Medical Complex , Peshawar.
- Anyanwu, J. I., Ezegebe, B. N., & Eskay, M. (2013). Family Planning in Nigeria : a Myth or Reality ? Implications for Education. *Journal of Education and Practice*, 4(15), 108–114.
- Asekun-Olarinmoye, E. O., Adebimpe, W. O., Bamidele, J. O., Odu, O. O., Asekun-Olarinmoye, I. O., & Ojofeitimi, E. O. (2013). Barriers to use of modern contraceptives among women in an inner city area of Osogbo metropolis, Osun State, Nigeria. *International Journal of Women's Health*, 5(1), 647–655. <https://doi.org/10.2147/IJWH.S47604>

- Atuahene, M. D., Afari, E. O., Adjuik, M., & Obed, S. (2016). Health knowledge , attitudes and practices of family planning service providers and clients in Akwapim North District of Ghana. *Contraception and Reproductive Medicine*, 1–8. <https://doi.org/10.1186/s40834-016-0016-3>
- Ayo, A., Ph, S., Martin, P., & Ph, E. (2014). Modern Contraceptive use , sex Refusal and Spousal Difference in Level of Education among married women in Nigeria : Are they interrelated ? , 4(6), 217–230.
- Babbie, E. R. (2010). *The Practice of Social Research*. 12th ed. Belmont, CA: Wadsworth
- Cengage, 2010; Muijs, Daniel. *Doing Quantitative Research in Education with SPSS*. 2nd edition. London: SAGE Publications, 2010.
- Barber, S. L. (2007). Family planning advice and postpartum contraceptive use among low-income women in Mexico. *International Family Planning Perspectives*, 33(1), 6–12. <https://doi.org/10.1363/3300607>
- Bhandari, N., Shrestha, G. K., & Thakuri, P. C. (2013). Study of factors affecting contraceptive use among married women of reproductive Age, (4), 24–29.
- Bowling, A. (2009). *Research methods in health: investigating health and health and health services*. Retrieved from <https://www.vlebooks.com/vleweb/Product/Index/427182?page=0%5CnC:%5CUsers%5CAnja%5CAppData%5CRoaming%5CMozilla%5CFirefox%5CProfiles%5C7pwucdpg.default%5Czotero%5Cstorage%5CIUZ73KJM%5C427182.html>
- Bremner, J., & Graff, M. (2014). *A Practical Guide to Population and Development*, (June), 22. Retrieved from www.prb.org/pdf14/guide-population-development.pdf%5Cn
- Canning, D., Karra, M., & Wilde, J. (2014). A Macrosimulation Model of the Effect of Fertility on Economic Growth : Evidence from Nigeria, (2013), 1–32.
- Christopher, N., & Ph, N. (2014). Awareness and Attitude of Family Planning among Rural

- Women of Nsukka Local Government Area : Implications for Social Work Intervention, 5(27), 1404–1410. <https://doi.org/10.5901/mjss.2014.v5n27p1404>
- Cox, S., Posner, S. F., & Sangi-Haghpeykar, H. (2010). Who's responsible? Correlates of partner involvement in contraceptive decision making. *Women's Health Issues, 20*(4), 254–259. <https://doi.org/10.1016/j.whi.2010.03.006>
- Creanga, A. a, Gillespie, D., Karklins, S., & Tsui, A. O. (2011). Low use of contraception among poor women in Africa: an equity issue. *Bulletin of the World Health Organization*. <https://doi.org/10.2471/BLT.10.083329>
- Deb, R. (2010). Knowledge , Attitude and Practices Related to Family Planning Methods among the Khasi Tribes of East Khasi hills Meghalaya, *12*(1), 41–45.
- Duze, M. C., & Mohammed, I. Z. (2007). Male knowledge, attitude, and family planning practices in Northern Nigeria. *African Journal of Reproductive Health*.
- Dynes, M., Stephenson, R., Rubardt, M., & Bartel, D. (2012). The influence of perceptions of community norms on current contraceptive use among men and women in Ethiopia and Kenya. *Health and Place*. <https://doi.org/10.1016/j.healthplace.2012.04.006>
- Ejembi, C. L. (2015). Contextual Factors Influencing Modern Contraceptive Use in Nigeria, (September).
- Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reproductive Health, 10*(1), 34. <https://doi.org/10.1186/1742-4755-10-34>
- Ellis, P. (2013). Understanding Research for Nursing Students, 154. <https://doi.org/10.1017/CBO9781107415324.004>
- Emmanuel, A., Achema, G., & Omale, P. O. (2014). Contraceptive choices of married market women in a north central state of Nigeria. *International Journal for Nursing and Health*

- Science*, 1(6), 41–45.
- Ezeh, A. C., Bongaarts, J., & Mberu, B. (2012). Global population trends and policy options. *The Lancet*, 380(9837), 142–148.
- Garg, R., Shyamsunder, D., Singh, T., & Avtar, P. (2010). Health and population : perspectives and issues [incorporating nihae bulletin (ESTD . 1968). *The Journal of Population Research* (ESTD . 1974)] Volume 33 Editorial : Role of medical personnel in promoting. *Health and Population: Perspectives and Issues*, 33(1), 1–64.
- Gendy, S. D. arwis. E.-, 1, Dawah, A. Y., 1, Afify, R. H. M., 1, ... -elmoniem, O. A. (2012). Epidemiological study of the unmet need for contraception In Benha City. *Journal for American Science*, 8(5), 125–134.
- Haffiz, N., Haffiz, R., Chhugani, M., & Akhtar, S. (2016). Assessment of the Knowledge of Women regarding Prevention and Management of Complications of Cu-T insertion and decision making rural families in choosing family planning methods in Kashmir Valley. *Asian Journal of Nursing Education and Research*, 6(3), 315. <https://doi.org/10.5958/2349-2996.2016.00059.8>
- Haider, S., Todd, C., Ahmadzai, M., Rahimi, S., Azfar, P., Morris, J. L., & Miller, S. (2009). Childbearing and contraceptive decision making amongst Afghan men and women: a qualitative analysis. *Health Care for Women International*, 30(10), 935–53. <https://doi.org/10.1080/07399330903052129>
- Hussain N. (2011). Demographic , Socio-Economic and Cultural Factors Affecting Knowledge and Use of Contraception Differentials in Malda District , West Bengal. *J Community Med Heath Edu*, 1(1), 1–9. <https://doi.org/10.4172/jcmhe.1000102>
- Ibisomi, L. (2014). Is age difference between partners associated with contraceptive use among married couples in Nigeria? *International Perspectives on Sexual and Reproductive Health*. <https://doi.org/10.1363/4003914>

- Ijadunola, M. Y., Abiona, T. C., Ijadunola, K. T., Afolabi, O. T., Esimai, O. a, & OlaOlorun, F. M. (2010). Male involvement in family planning decision making in Ile-Ife, Osun State, Nigeria. *African Journal of Reproductive Health*, 14(4 Spec no.), 43–50.
<https://doi.org/10.2307/41329753>
- Izale, K., Govender, I., Fina, J. P. L., & Tumbo, J. (2014). Factors that influence contraceptive use amongst women in Vanga health district, Democratic Republic of Congo. *African Journal of Primary Health Care and Family Medicine*.
<https://doi.org/10.4102/phcfm.v6i1.599>
- Jacobson, J. L. (2000). Transforming family planning programmes: Towards a framework for advancing the reproductive rights agenda. *Reproductive Health Matters*, 8(15), 21–32.
[https://doi.org/10.1016/S0968-8080\(00\)90003-X](https://doi.org/10.1016/S0968-8080(00)90003-X)
- Kishore, H. I. K. (2014). A Study to evaluate the factors influencing on Family planning practices among urban married women in Bangalore ., 13(11), 25–33.
- Lanre, O. (2011). Factors influencing the choice of family planning among couples in Southwest Nigeria. *International Journal of Medicine and Medical Sciences*, 3(7), 227–232. Retrieved from <http://www.academicjournals.org/ijmms>
- Lasee, A., & Becker, S. (1997). Husband-Wife Communication About Family Planning and Contraceptive Use in Kenya. *International Family Planning Perspectives*, 23(1), 15.
<https://doi.org/10.2307/2950781>
- Lee, T., Lee, H., Ahn, H. M., Jang, Y., Shin, H., & Kim, M. S. (2014). Perceptions about family planning and contraceptive practice in a marital dyad. *Journal of Clinical Nursing*, 23(7–8), 1086–1094. <https://doi.org/10.1111/jocn.12348>
- Mayaki, F., & Kouabenan, D. R. (2015). Social norms in promoting family planning: a study in Niger. *South African Journal of Psychology*, 45(2), 249–259.

<https://doi.org/10.1177/0081246315570356>

- MI, T. M. (2017). Assess the Knowledge on Lactational Amenorrhea As a Contraceptive Method Among Mothers of Infants Aged 0-6 Months Receiving Mch Services in a Selected Urban Health Centre At Chennai. *International Journal of Pharma and Bio Science*, 8(1), 177–179. <https://doi.org/10.22376/ijpbs.2017.8.1.b177-179>
- Michael, E. J. (2012). Stable Marital Relations Attending Health Stable Marital Relations Attending Health.
- Michaels-igbokwe, C., Terris-prestholt, F., Lagarde, M., & Chipeta, E. (2015). Young People ' s Preferences for Family Planning Service Providers in Rural Malawi : A Discrete Choice Experiment, 1–18. <https://doi.org/10.1371/journal.pone.0143287>
- Mishra, A., Nanda, P., Speizer, I. S., Calhoun, L. M., Zimmerman, A., & Bhardwaj, R. (2014). Men ' s attitudes on gender equality and their contraceptive use in Uttar Pradesh India, 11(1), 1–13. <https://doi.org/10.1186/1742-4755-11-41>
- Mohammed, A., Woldeyohannes, D., Feleke, A., & Megabiaw, B. (2014). Determinants of modern contraceptive utilization among married women of reproductive age group in North Shoa Zone, Amhara Region, Ethiopia. *Reproductive Health*, 11(1), 13. <https://doi.org/10.1186/1742-4755-11-13>
- Mosha, I., Ruben, R., & Kakoko, D. (2013). Family planning decisions, perceptions and gender dynamics among couples in Mwanza, Tanzania: a qualitative study. *BMC Public Health*, 13(1), 523. <https://doi.org/10.1186/1471-2458-13-523>
- Mulatu, K., & Mekonnen, W. (2016). Men ' s Involvement in Long Acting and Permanent Contraceptive Use in Mizan-Aman District Southwestern Ethiopia : A Community Based Cross-Sectional Study. *Health Science Journal*, 10(2:2), 1–9.
- Musarrat, J., Fouzia, G., Farmanullah, W., & Javed, N. (2011). Original article knowledge , attitude and practices of contraception in women, 9(2), 5–7.

- N Ameh, S. T. S. (2007). contraceptive choice among women in Zaria,Nigeria.
- Nalwadda, G., Mirembe, F., Byamugisha, J., & Faxelid, E. (2010). Persistent high fertility in Uganda: young people recount obstacles and enabling factors to use of contraceptives. *BMC Public Health*, *10*, 530. <https://doi.org/10.1186/1471-2458-10-530>
- National Population Commission (NPC) [Nigeria] and ICF International. (2013). Nigeria Demographic and Health Survey 2013 National Population Commission Federal Republic of Nigeria, 538.
- Objectives, L. (2016). *Hypothesis Testing*. SAGE Publications, Inc.
- Okech, T. C., Wawire, N. W., & Mburu, T. K. (2011). Contraceptive Use among Women of Reproductive Age in Kenya ' s City Slums. *International Journal of Business and Social Science*, *2*(1), 22–43.
- Oladeji, David,and o,Folaranmi Olufunmilayo, olabiisi onibanjo, A. (2007). socio.pdf.
- Oluwole, E. O., Kuyinu, Y. A., Goodman, O. O., Odugbemi, B. A., & Akinyinka, M. R. (2016). Factors Influencing the Uptake of Modern Family Planning Methods among Women of Reproductive Age in A Rural Community in Lagos State. *International Journal of Tropical Disease & Health* , *11*(323), 1–11. <https://doi.org/10.9734/IJTDH/2016/20373>
- Osmani, A. K., Reyer, J. A., Osmani, A. R., & Hamajima, N. (2015). Factors influencing contraceptive use among women in Afghanistan : secondary analysis of Afghanistan Health Survey 2012, 551–561.
- Polit, D., & Beck, C. (2013). *Essentials of Nursing Reserarch: Methods, appraisal, and utilization*. 2013. United States: Philadelphia : Lippincott Williams & Wilkins, c2006. Retrieved from <http://journals.rcni.com/doi/abs/10.7748/nr.13.4.91.s11>
- Radulovi, O., Šagri, Č., Višnji, A., Tasi, A., & Markovi, R. (2006). Method of the Study. *Series: Medicine and Biology*, *13*(1), 58–64.

- Rahman, M. M., & Kabir, M. (2005). Knowledge of adolescents on contraception and dynamics of its use M.M. Rahman* and M. Kabir**, 28(4), 164–177.
- Ross, J., Hardee, K., Mumford, E., Eid, S., International, S., Planning, F., ... Mumford, E. (2016). Contraceptive Method Choice in Developing Countries Stable URL : <http://www.jstor.org/stable/3088273> Linked references are available on JSTOR for this article : Contraceptive method choice in developing countries, 28(1), 32–40.
- Rustagi, N., Taneja, D. K., Kaur, R., & Ingle, G. K. (2010). Factors affecting contraception among women in a minority community in delhi : a qualitative study, (1), 10–15.
- Salami, I. C., & Oladosu, M. (2016). Socio-Demographic factors, contraceptive use and fertility preference among married women in South- South Region of Nigeria. *3rd International Conference on African Development Issues (CU-ICADI 2016)*, 504–510.
- Schuler, S. R., Rottach, E., & Mukiri, P. (2011). Gender norms and family planning decision-making in Tanzania: A qualitative study. *Journal of Public Health in Africa*, 2(2), 102–107. <https://doi.org/10.4081/jphia.2011.e25>
- Shaikh, S., & Dwivedi, S. (2014). Predictors to use of family planning method among women of Allahabad Distric , Uttah Pradesh,37,118-127., 37, 118–127.
- Sharan, M., Soucat, A., May, J., & Ahmed, S. (2009). Family Planning Trends in Sub - Saharan Africa: Progress, Prospects, and Lessons Learned. *World Bank*, 445–469.
- Shehu, C., & Burodo, A. (2013). Contraceptive choices among women attending the fertility research unit of Usmanu Danfodiyo University Teaching Hospital, Sokoto. *Sahel Medical Journal*, 16(3), 93. <https://doi.org/10.4103/1118-8561.121906>
- Singh, S., Darroch, J., Ashford, L., & Vlassoff, M. (2009). Adding it up: the costs and benefits of investing in family planning and maternal and newborn health.. *Popline.Org*, 44. <https://doi.org/978-1-934387-04-7>.

- Snow, J. (2016). Determinants of reproductive health commodity security : clients and healthcare system perspectives determinants of reproductive health commodity security : clients and healthcare system perspectives. *Health Science Journal*, 10(2:9), 1–7.
- Solanke, B. L. (2017). Factors influencing contraceptive use and non-use among women of advanced reproductive age in Nigeria. *Journal of Health, Population and Nutrition*, 1–14. <https://doi.org/10.1186/s41043-016-0077-6>
- Susan Babirye Kayongo. (2013). Uptake of modern contraception among youths (15-24) at community level in Busia District, Uganda, 1–133.
- Tawiah, E. O. (2017). Factors affecting contraceptive use in Ghana, (1997), 141–149.
- Tobergte, D. R., & Curtis, S. (2013). *Program of Action Adopted at the International Conference on Population and Development, Cairo 1994. Journal of Chemical Information and Modeling* (Vol. 53). <https://doi.org/10.1017/CBO9781107415324.004>
- UNFPA - United Nations Population Fund. (2016). Family planning | UNFPA - United Nations Population Fund. Retrieved from <http://www.unfpa.org/family-planning>
- United Nations. (2013). World Population Prospects: The 2012 Revision. Highlights and Advance Tables. *Population and Development Review*, 36, 775–801. <https://doi.org/10.1111/j.1728-4457.2010.00357.x>
- United Nations / Department of Economic and Social Affairs. (2009). World Population Prospects : The 2008 Revision. *Population Newsletter*, 87, 1–20. <https://doi.org/21>
February 2014
- Wanjiku, J. (2013). Factors influencing contraceptive preference and choice among women of reproductive age in Msambweni constituency, Kwale county, Kenya.
- Wekesa, E., & Coast, E. (2015). Contraceptive need and use among individuals with HIV/AIDS living in the slums of Nairobi, Kenya. *International Journal of Gynecology and Obstetrics*,

130, E31–E36. <https://doi.org/10.1016/j.ijgo.2015.05.001>

Witt, J., McEvers, K., & Kelly, P. J. (2013). Knowledge and experiences of low-income patients with natural family planning. *Journal for Nurse Practitioners*, 9(2), 99–104.

<https://doi.org/10.1016/j.nurpra.2012.06.010>

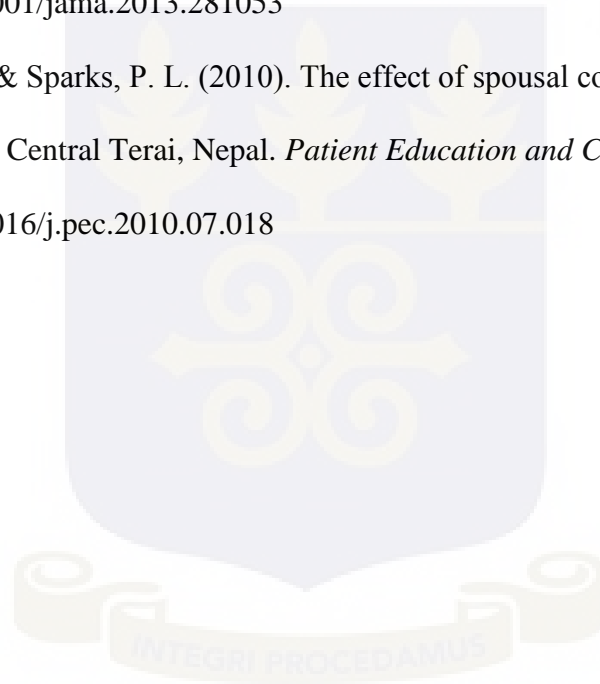
World Health Organisation. (2013). Declaration of Helsinki world medical association declaration of Helsinki ethical principles for medical research involving human subjects.

The Journal of the American Medical Association, 310(20), 2191–2194.

<https://doi.org/10.1001/jama.2013.281053>

Yue, K., O'Donnell, C., & Sparks, P. L. (2010). The effect of spousal communication on contraceptive use in Central Terai, Nepal. *Patient Education and Counseling*.

<https://doi.org/10.1016/j.pec.2010.07.018>



APPENDIX A

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Your Ref. No:

3rd May, 2017

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824 **IRB 00001276**

NMIMR-IRB CPN 097/16-17 **IORG 0000908**

On 3rd May, 2017, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : Factors influencing the choice of contraceptives among women at a specialist hospital, Sokoto-Nigeria

PRINCIPAL INVESTIGATOR : Sabo Aliyu Sokoto, MSc cand.

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 2nd May, 2018. You are to submit annual reports for continuing review.

Signature of Chair:
Mrs. Chris Dadzie
(NMIMR – IRB, Chair)

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APPENDIX B: CONSENT FORM

Title: Factors Influencing Choice of Contraceptives among Women at a Specialist Hospital, Sokoto - Nigeria

Principal Investigator:

Sabo Aliyu Sokoto (MSc. Nursing Student)

Address: School of Nursing & Midwifery, College of Health Sciences, University of Ghana.

Telephone number: 0238548453. Email: Saboalyu2014@gmail.com

General Information about Research

This study aims to investigate and describe **factors that influence choice of contraceptives among women at a Specialist Hospital, Sokoto**. You are invited to voluntarily participate in or join this study if you are between 18-49 years, can speak Hausa, Fulani or English and are accessing family planning services at the Sokoto Specialist hospital. The information gathered in this study will help policy makers, health care administrators and community organisations to establish collaborative efforts to support women's reproductive health towards the reduction of maternal deaths. Once you agree to participate in this study, you will be guided to sign a consent form to confirm your willingness to participate in this study. It will take you approximately 45 minutes to one hour to fill this questionnaire.

Possible Risks and Discomforts

There is no known risk or discomfort associated with your participation in this research

Possible Benefits

You will not directly benefit from participating in this study; however your participation will help reduce maternal mortality and infant deaths. The study findings will also guide policy makers in formulating and implementing supportive reproductive health policies to improve women's health. In addition, it is expected that this study's findings will establish a basis for family planning stakeholders to design effective strategies to address the problem of unmet needs of contraception, low uptake of contraceptives usage, and limited family planning choices.

NMIMR-IRB Form A (Students Only)
Version Date: May, 2016



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Confidentiality

If you agree to take part, your name will not be recorded on the questionnaires and the information you provide will not be disclosed to other parties. Your responses to the questions will be used for the purpose of this project only. The data obtained in this study will be kept securely locked and password protected, access to which will be restricted to the researcher, his research assistants and research supervisors only. The data will be kept for five years after which it will be destroyed. To maintain confidentiality, your responses in this questionnaire will be coded and your name will not appear anywhere in the dissemination of the study findings. When this research is published, your name will not be included in the publication. The consent form will be kept away from the completed questionnaires and only the researcher, research supervisor and the research assistants will be allowed access to the consent forms and research data. To maintain anonymity, do not write your name on this questionnaire. Keep a copy of the signed consent form for your safe personal records.

Compensation

You will be given snack as appreciation for the time spent in participating in this study.

Additional Cost

You will not incur any additional cost in this study

Voluntary Participation and Right to Leave the Research

Your participation in this study is entirely voluntary, and you are not obliged to take part in this research. You have been approached because you are among one of the women who are accessing health care service at Sokoto state Specialist hospital with a view that you might be interested in taking part in this study. If you do not wish to take part, you do not have to give a reason and you will not be penalized. You may voluntarily decide to join this study or not, and it will not affect your right to health care service here at this hospital or anywhere else. You have the right to participate or withdraw from this study at any time without any fear or harm. You are free to withdraw at any time during the study if you change your mind.

NMIMR-IRB Form A (Students Only)
Version Date: May, 2016



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Notification of Significant New Findings

Significant new findings on this study will be communicated in the form of a research report to the nursing and medical administration of the Special hospital, Sokoto.

Contacts for Additional Information

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Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh



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VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title *Factors Influencing Choice of Contraceptives among Women at a Specialist Hospital, Sokoto - Nigeria* has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Date

Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

Date

Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Date

Name Signature of Person Who Obtained Consent





**NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH (NMIMR)
COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON**

INSTITUTIONAL REVIEW BOARD

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title *Factors Influencing Choice of Contraceptives among Women at a Specialist Hospital, Sokoto - Nigeria* has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

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_____ Date

_____ Name Signature of Person Who Obtained Consent



APPENDIX B

**SCHOOL OF NURSING
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA
LEGON**

Telephone: 0302-513255 (Dean)
Ext. 6206
0302-513250 } Secretary
028 9531213 }
Fax: 513255
E-mail: nursing@ug.edu.gh



P. O. Box LG 43
LEGON, GHANA

Our Ref:.....
Your Ref:.....

12th May, 2017

The Chief Medical Director
Sokoto Specialist Hospital
Sokoto – Nigeria.

Dear Sir/Madam,

INTRODUCTORY LETTER


I write to introduce to you Mr. Sabo Aliyu Sokoto, an MSc. Nursing student under my supervision at the School of Nursing and Midwifery, College of Health Sciences, University of Ghana, Legon - Accra. Since the commencement of the programme, Sabo Aliyu Sokoto has demonstrated diligence and commitment in all aspects of his work. We have had regular supervisory meetings with him and are happy with his progress.

His thesis research is entitled 'Factors Influencing the Choice of Contraceptives Among Women at a Specialist Hospital, Sokoto - Nigeria'. He would like to conduct the study at the Sokoto State.

I would be very grateful if you could grant him permission to recruit participants for his study. Please feel free to contact me if you need further information. I can be reached via email at: mani-amponsah@ug.edu.gh; Telephone Number: 00233.244.368205.

Thank you.

Yours Sincerely,


Dr. (Mrs.) Mary Ani-Amponsah
Lecturer/Research Supervisor

APPENDIX C

SPECIALIST HOSPITAL SOKOTO

SULTAN ABUBAKAR ROAD
P.M.B 2133, Sokoto, Nigeria



HOSPITAL ETHICS AND RESEARCH COMMITTEE

CHAIRMAN
DR. BELLO U. TAMBUWAL
Chairman Medical Advisory
Committee

MEMBER
DR. NASIRU ABDULLAHI
HOD Obs & Gyn.

MEMBER
DR. ALI A. YAROKO
Deputy CMAC/HOD ENT.

MEMBER
HAJIYA TALATU MUHAMMED
A.D.D.N.S

MEMBER
BALA SAIDU
HOD Operating Theater

SECRETARY
MUHAMMED ISAH
Secretary Clinical Services

SHS/SUB/133/VOL 1
22nd May, 2017

Mr. Sabo Aliyu Sokoto,
School of Health Sciences,
University of Ghana,
Legon.

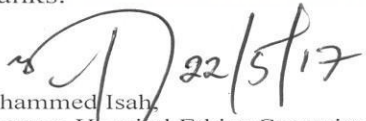
Re; - Ethical Clearance

I am directed to refer to your proposal dated 12th April, 2017 and to inform you that, the Hospital Ethics committee has approved your request to carry out a research on **“FACTORS INFLUENCING THE CHOICE OF CONTRACEPTIVES AMONG WOMEN AT A SPECIALIST HOSPITAL, SOKOTO-NIGERIA.”**

2. All research programs should be carried out in line with the hospital regulations.

3. The Hospital should have the copy of research work upon completion.

Thanks.


Muhammed Isah,
Secretary Hospital Ethics Committee,
For; - Chairman Hospital Ethics Committee,
Specialist Hospital Sokoto.

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APPENDIX C: QUESTIONNAIRE

**RESEARCH TITLE: FACTORS INFLUENCING CHOICE OF CONTRACEPTIVES
AMONG WOMEN AT SPECIALIST HOSPITAL, SOKOTO - NIGERIA**

DATE _____ Form No./Code _____

Instructions: - Respondents Are Requested To Tick the Suitable Option and Write In the Boxes Where A Number Is Required

SECTION ONE: DEMOGRAPHIC DATA

1. How old are you? _____

2. What is your level of education? **Tick your response**

None	<input type="checkbox"/>	Senior Secondary	<input type="checkbox"/>
Primary	<input type="checkbox"/>	Post Sec/ Higher	<input type="checkbox"/>
JSS	<input type="checkbox"/>	Others (specify)	<input type="checkbox"/>

.....

3. What do you do for a living?

Student	<input type="checkbox"/>	farmer	<input type="checkbox"/>
Unemployed	<input type="checkbox"/>	other informal employment	<input type="checkbox"/>
Home keeper	<input type="checkbox"/>	public servant	<input type="checkbox"/>
Trader	<input type="checkbox"/>	Other Formal Employment	<input type="checkbox"/>

4. What is your religious affiliation?

Islam Christianity Traditional Other (specify).....

5. What is your marital status?

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Single Divorced
 Married Separated
 Co-habiting Widowed

6. If married, does your husband have another wife?

Yes
 No

7. How many living children do you currently have?

a. (if none, write 00 in the box)

SECTION TWO: KNOWLEDGE LEVEL AND CHOICES OF FAMILY PLANNING METHODS

b. If yes, fill this section with the ages of your children				SECTION TWO CONTRACEPTIVE KNOWLEDGE AND UTILIZATION	
2.	1	Do you know ways/methods to delay or avoid pregnancy (contraceptives)?		Yes <input type="checkbox"/>	
				No <input type="checkbox"/>	
AGE OF CHILDREN		2.2 Do you know any of these family planning methods? (PROMPT)		IF NO SKIP TO SECTION THREE	
		Yes	No	TICK	
				-YES	
1.		A.	Female sterilization		
2.		B.	Male sterilization		
3.		C.	Implants		
4.		D.	IUD		
5.		E.	Injectables		
6.		F.	Pill		
7.		G.	Female condom		
8.		H.	Male condom		
9.		I.	Diaphragm		
10.		J.	Form or jelly		
11.		K.	Calendar method		
12.		L.	Withdrawal		

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13		M	Lactation Amenorrhea Method		
14		N	Emergency contraception		
15			Other (specify)		

a. What factors influence your choice (s) of family palnning method? (tick as many as applicable)

- i. Personal
- ii. Social
- iii. Cultural
- iv. Econominc/financial
- v. Geographic
- vi. Education/ information literacy on family planning

2.3 Have you or your partner ever used any of these methods to delay or avoid pregnancy?

- Yes if yes please specify (from A to O)
- No

2.4 How many living children did you have at that time you first used contraception, if any?

2.5 **IF EVER USED ANY METHOD**, have you in the past 12 months used any of these methods?

- Yes if yes please specify (from A to O)
- No

2.6 **IF YES, FOR AT LEAST ONE METHOD EXCEPT (K/L/M)**, where did you mainly obtain the method?

- Public hospital/clinic Pharmacy/drug store
- Private hospital/clinic Other(specify)

2.7 Are you currently using any contraceptive? Yes No No

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2.8 IF CURRENTLY USING, which method are you using to delay or avoid pregnancy?

- A Female sterilization
- B Male sterilization
- C Implants
- D IUD
- E Injectables
- F Pill
- G Female condom
- H Male condom
- I Diaphragm
- J Foam or jelly
- K Calendar method
- L Withdrawal
- M Lactation Amenorrhea Method
- N Emergency contraception
- O Other (specify)

2.9 Where did you mainly obtain the method?

- Public hospital/clinic Pharmacy/drug store
- Private hospital/clinic Other(specify)

2.10 What informed your choice of that method?

- Affordability Easy access/availability

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Privacy <input type="checkbox"/>	Side effect of other methods <input type="checkbox"/>
Long term protection <input type="checkbox"/>	Convenience <input type="checkbox"/>
Short term protection <input type="checkbox"/>	Other (specify) <input type="checkbox"/>

2.11 **IF NO IN 2.5 AND 2.8**, why are you not using any method to delay or avoid pregnancy?

Religious beliefs <input type="checkbox"/>	Abstinence/partner travelled <input type="checkbox"/>
Traditional beliefs <input type="checkbox"/>	Amenorrhea <input type="checkbox"/>
Partner refuses <input type="checkbox"/>	Do not wish to avoid pregnancy <input type="checkbox"/>
Expensive <input type="checkbox"/>	Currently pregnant <input type="checkbox"/>
Side effects <input type="checkbox"/>	Other (specify) <input type="checkbox"/>

2.12 Would you consider using family planning in future to delay or prevent pregnancy?

YES NO I DON'T KNOW

IF YES OR DON'T KNOW IN 2.12

2.13 Which of these methods would you consider using in future to delay or prevent pregnancy?
(from A to O).....

SECTION THREE: BARRIERS / DECISION MAKING ON CONTRACEPTIVE CHOICE/UPTAKE

1. Did you discuss family planning with your husband?

Yes <input type="checkbox"/>	Hardly <input type="checkbox"/>
Yes occasionally <input type="checkbox"/>	Never <input type="checkbox"/>

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2. Within your cultural context, indicate the level of influence the following people have on your choice of family planning method

Num.	Relation	Most Influence	Average influence	Minimal influence	No influence
1.	Spouse/partner/husband				
2.	Mother in-law				
3.	Father in-law				
4.	Mother				
5.	Father				
6.	Friends				
7.	Sister				
8.	Brother				
9.	Others family members (Specify).....				
10.	Others (Specify).....				

3. PLEASE INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS

Num.	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Male dominance influences my choice of family planning method					
2.	My husband/partner knows that I use contraceptives					
3.	My husband/partner encourages me to use contraceptive and make a choice					
4.	Other family members have to know that I use contraceptives					
5.	My service provider educates me on the different contraceptive methods					
6.	The attitude of my service provider discourages me from					

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	accessing family planning services					
7.	I will use contraceptives even if my partner does not approve it					
8.	The side effects of my family planning method discourages me from using contraceptives					
9.	The side effects of family planning method discourages me from using contraceptives					
10.	Child bearing decision is solely determined by my husband/ partner/ spouse					
11.	I will use contraceptives only if my husband/ spouse/partner agrees					
12.	My culture/tradition frowns on contraceptive usage and uptake					
13.	My culture/tradition does not permit contraceptive usage and uptake					
14.	My religion does not permit contraceptive usage and uptake					
15.	People known to be on contraceptives are stigmatized					
16.	In my opinion, decision making between the couple should be encouraged					

END OF QUESTIONNAIRE – THANK YOU VERY MUCH