

www.udsspace.uds.edu.gh

UNIVERSITY FOR DEVELOPMENT STUDIES

UNIVERSITY FOR DEVELOPMENT STUDIES

**CONTRACEPTIVE PREFERENCES AMONG REPRODUCTIVE WOMEN
ATTENDING CHILD WELFARE CLINIC IN THE BONGO DISTRICT, UPPER
EAST REGION, GHANA**

RAPHAEL ASUURE



FEBRUARY, 2020

UNIVERSITY FOR DEVELOPMENT STUDIES

**CONTRACEPTIVE PREFERENCES AMONG REPRODUCTIVE WOMEN
ATTENDING CHILD WELFARE CLINIC IN THE BONGO DISTRICT, UPPER
EAST REGION, GHANA**

BY

RAPHAEL ASUURE (BSC. PUBLIC HEALTH AND ALLIED SCIENCES)

(UDS/CHD/0208/15)

**A THESIS SUBMITTED TO THE DEPARTMENT OF PUBLIC HEALTH,
SCHOOL OF ALLIED HEALTH SCIENCES, UNIVERSITY FOR
DEVELOPMENT STUDIES, IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN
COMMUNITY HEALTH AND DEVELOPMENT**

FEBRUARY, 2020



DECLARATION

STUDENT'S DECLARATION

I hereby declare that, except for references to other people's work, which has been duly acknowledged, this thesis is solely my own work and that no part of it has been presented for another academic award in this school or elsewhere.

Mr. Raphael Asuure

.....

Signature

.....

Date

SUPERVISOR'S DECLARATION

I declare that, the preparation and presentation of this academic work was supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

Dr. Shamsu-Deen Ziblim

.....

Signature

.....

Date



ABSTRACT

Introduction; Maternal and child health remain an important component of the health delivery system globally. Contraception plays a pivotal role in enhancing the health of a mother and her child. The patronage of these services in the postpartum period has been very low in the Bongo District of the Upper East Region despite numerous strategies implemented by health authorities. This study was aimed at exploring the contraceptive use and preferences, knowledge on contraceptives and factors that influence contraceptive preferences among postpartum women attending Child Welfare Clinic in Bongo District.

Methodology; The cross-sectional study design and mixed study type were adopted. A sample size of 425 respondents was calculated for the quantitative aspect and 6 respondents were purposefully chosen for the qualitative part. Semi-structured questionnaire and interview guide were used to collect both quantitative and qualitative data. The quantitative data were entered onto Statistical Package for Social Sciences (SPSS) software version 23.0 for analysis. In terms of the qualitative data, the interviews were audio recorded, and transcribed onto Microsoft Word before analysis.

Findings; This study found a significant association between some socio-demographic characteristics such as educational level ($P < 0.001$), religious affiliation of respondent ($P < 0.045$), ($P < 0.001$) and contraceptive preference. About 61.4% of respondents reported using contraceptives at the time of the study.

Conclusion; This study concludes that knowledge and use of contraceptives is appreciably high among respondents in the Bongo district. The most preferred contraceptive is the injectable and fertility preferences among respondents was one of the factors that had a significant relationship with contraceptive preferences.



ACKNOWLEDGEMENT

I wish to thank the almighty God for my health and the strength that he has given me throughout my studies at the University for Development Studies. Despite the numerous challenges I encountered in the field during this study, he has strengthened me abundantly and given me hope to undertake this project.

I also wish to acknowledge the contribution of my supervisor, Dr. Shamsu-Deen Ziblim, for his immense support and patience during the course of this work. You challenged me and encouraged me to press on when things were getting tough for me. I appreciate you Sir.

To Richard Azure and Mathias Justice Asaarik for using your resources to assist me when I most needed it. I am most grateful.

I appreciate the Bongo DHMT for opening your doors to me when I came knocking for advice and assistance. I am grateful.

And finally, to all my friends and family who gave me the emotional support during the course of this work.



DEDICATION

I dedicate this work to my late grandfather Mr. Aduko Asuure and the entire family.



TABLE OF CONTENTS

DECLARATION i

ABSTRACT ii

ACKNOWLEDGEMENT iii

DEDICATION iv

TABLE OF CONTENTS v

LIST OF TABLES viii

LIST OF FIGURES ix

LIST OF ABBREVIATIONS x

CHAPTER ONE (1) 1

 1.0 Background of the Study 1

 1.1 Statement of the Problem 3

 1.2 Research Questions 4

 1.3 Objectives 4

 1.3.1 General Objective 5

 1.3.2 Specific Objectives 5

 1.4 Significance of the Study 5

 1.5 Conceptual Framework 6

 1.5.1 Explanatory variables 7

 1.5.2 Intermediate variables 7

 1.5.3 Dependent variable 8

CHAPTER TWO 10

LITERATURE REVIEW 10

 2.0 Introduction 10

 2.1 Postpartum family planning 10

 2.2 Postpartum contraceptive use 11

 2.3 Contraceptive Preferences among Postpartum Mothers 13

 2.4 Factors influencing postpartum contraceptive preferences 15

 2.4.1 Knowledge of Contraceptives 15

 2.4.2 Use of Maternal Health Services 17

 2.4.3 Fertility Preferences 19



2.4.4 Socio-demographic Factors	20
2.4.5 Availability of Health Staff for Contraceptives Services in the Bongo District ..	21
CHAPTER THREE (3).....	24
STUDY AREA AND RESEARCH METHODOLOGY	24
3.0 Introduction	24
3.1 Study setting	24
3.2 Research Methodology	26
3.2.1 Study design	26
3.3 Variables of the study	26
3.3.1 Outcome variable	26
3.3.2 Explanatory variables	27
3.4 Sampling method/process	27
3.5 Sample size.....	28
3.6 Sampling.....	29
3.7 Study population	30
3.7.1 Inclusion criteria.....	30
3.7.2 Exclusion criteria.....	31
3.8 Data Collection Methods.....	31
3.9 Data Quality Control	32
3.10 Pretesting of Questionnaire	32
3.11 Data Processing/Analysis	32
3.12 Ethical Consideration	33
CHAPTER FOUR (4)	34
PRESENTATION OF RESULTS	34
4.0 Introduction	34
4.1 Socio-Demographic Characteristics of Respondents	34
4.3 Level of Knowledge on Contraceptives by Respondents.....	38
4.3 Contraceptives Use and Preferences among Respondents.....	42
4.4 Factors Influencing Contraceptive Preferences.....	48
4.4.2 Fertility Preferences of Respondents.....	50
4.4.3 Availability of Health Staff that provide contraceptives services.....	53



CHAPTER FIVE (5).....	55
DISCUSSION	55
5.0 Introduction	55
5.1 Contraceptives use and preferences	55
5.2 Levels of Knowledge on Contraceptives	57
5.3 Factors Influencing Contraceptives Preferences among Postpartum Women	58
5.3.1 Use of Maternal Health Services.....	58
5.3.2 Fertility preferences.....	59
5.3.3 Socio demographic characteristics	60
5.3.4. Availability of health staff that provide contraceptives services	62
CHAPTER SIX (6)	63
SUMMARY OF FINDINGS	63
6.0 Introduction	63
6.1 Summary of key findings	63
6.2 Implications for the findings	64
6.3 Conclusion.....	65
6.4 Recommendations	65
REFEENCES	67
APPENDIX A	74
APPENDIX B	78



LIST OF TABLES

Table 3.1: Health facilities in the Bongo District.	26
Table 4.1: Socio-demographic characteristics	35
Table 4.2: Association between socio-demographic factors and contraceptive preferences of respondents	38
Table 4.3: Knowledge on contraceptives	39
Table 4.4: Association between levels of knowledge and contraceptives preferences.....	42
Table 4.5: Perceptions about use of contraceptives	44
Table 4.6: Association between respondents use of contraceptives and their preferences	47
Table 4.8: Fertility preferences	51



LIST OF FIGURES

Figure 1: Conceptual framework, Adopted and modified from (Adofo, 2014).....	9
Figure 2: Map of Bongo District.....	24
Figure 3: sources of contraceptives information.....	40
Figure 4: Levels of contraceptives knowledge	41
Figure 5: Level of contraceptives knowledge.....	42
Figure 6: Respondent current use of contraceptives	43
Figure 7: Most preferred contraceptive methods	45
Figure 8: Reasons for preferred choices	46
Figure 9: Use of maternal health services.....	48
Figure 10: Parity of respondent.....	50
Figure 11: preferred number of children.....	51
Figure 12: Distribution of clinical staff within the Bongo District.....	54



LIST OF ABBREVIATIONS

ANC	.....	Antenatal Clinic
AOR	.....	Adjusted Odds Ratio
BDA	.....	Bongo District Assembly
BDHD	.....	Bongo District Health Directorate
BDHMT	.....	Bongo District Health Management Team
BTL	.....	Bilateral Tubal Ligation
CHO	.....	Community Health Organization
CHAG	.....	Christian Health Association of Ghana
CHPS	.....	Community Health Planning and Services
COP	.....	Combined Oral Contraceptives
CWC	.....	Child Welfare Clinic
FP	.....	Family Planning
GDHS	.....	Ghana Demographic and Health Survey
GHS	.....	Ghana Health Services
IUCD	.....	Intrauterine Contraceptive Device
IUD	.....	Intrauterine Device
LARC	.....	Long Acting Reversible Contraceptives
MDGs	.....	Millennium Development Goals
MoH	.....	Ministry of Health
PPFP	.....	Postpartum Family Planning
SDGs	.....	Sustainable Development Goals
UN	.....	United Nations



USAID..... United States Agency for International Development

WHO World Health Organization

WIFA Women In Fertility Age



CHAPTER ONE (1)

1.0 Background of the Study

Women and child health attracted global attention in the year 2000 and 2015 when the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) were drawn respectively, (UN, 2000; UN, 2015). Many countries including Ghana have since developed and implemented local strategies aimed at improving women and child health. Family planning is very central to women health. It has been described by (Starbird E., Norton M., Marcus R., (2016) as a developmental “best buy” because of the crucial role such services play in the prevention of mistimed pregnancies, abortions, improved women and child health as well as ensuring the overall quality of the health of the mother and child.

Postpartum family planning (PPFP) has been defined as the prevention of unintended pregnancy and closely spaced pregnancy through the first twelve (12) months following child birth (World Health Organisation, 2013). The WHO opined that Family planning in the period of postpartum is very crucial because it allows the mother to regain her normal physiology after nine months of pregnancy. It also helps the mother to have more time to care for her baby and allows for adequate bonding between mother and child. During this period the child gets the opportunity to develop physically, physiologically and psychologically. The cumulative effect of this according to the WHO is reduced maternal and child morbidity, mortality and also reduced fertility.

The main purpose of this study is to explore the factors influencing contraceptive preferences among mothers attending the Child Welfare Clinic (CWC). The level of contraceptive utilization, contraceptive preferences and factors influencing these preferences will also be explored in this study.



Many scholars exploring the level of contraceptive utilization among mothers found that levels have been somewhat low due to a number of factors. The factors that influence postpartum contraceptive utilization can be categorized into demographic and economic characteristics, fertility preferences and use of maternal health services, (USAID, 2014). Scholars like (Hotchkiss & Do, 2013; CF USAID, 2014) found that higher wealth index and education influenced the use of PPF services. Living in an urban area was also reported to have a strong influence on PPF in bivariate analysis but was insignificantly related to PPF use in multivariate analysis.

The Bongo District Assembly (BDA) is made predominantly of rural communities with 52.4% of the population (44,461) being females (BDHD, 2013). The BDA district profile indicates that the district population grows at a rate of 8.6% every 10 years. The health infrastructure of the BDA like other districts seems inadequate. The district is served by only one district hospital, 5 health centers, one clinic and out of the about 35 Community Health Planning Service (CHPS) centers, only 20 have compounds. Apart from the Bongo District Hospital (BDH) and some few health centers that provide comprehensive family planning services, it is shocking to find that the rest do not (BDHD, 2013). Family planning services particularly PPF services are not integrated into other maternal and child health services such as Antenatal care (ANC), CWC, nutrition services etc. Despite the efforts by the district health authorities to promote PPF services utilization, there appear to be little success (BDHD, 2017). While these challenges exist, unplanned pregnancies during the postpartum period seem to be on the rise as anecdotal information suggest. Based on the above, this study seeks to explore factors influencing contraceptive use and preferences as



well as factors that influence such preferences among postpartum women attending CWC in the Bongo District of the Upper East Region of Ghana.

1.1 Statement of the Problem

Postpartum contraception is very crucial for improving women health because it has been proven that some couples resume sex before six weeks after giving birth (GDHS, 2014). The Ghana Demographic and Health Survey (GDHS) reports that there has been a steady decrease in unmet need for family planning from 37% in 1993 to 30% in 2014. This according to the survey is as a result of the improvements in demand satisfied from 18% in 1993 to 39% in 2014 (GDHS, 2014). Though the country was somewhat successful in this direction, there was no much reflection of this success throughout the various regions and district in the country. Total unmet need in the Upper East Region in 2014 was reported by GDHS to be 26.5%. Though the region appeared to have performed better than other regions such as the Volta, Greater Accra, Asante and Eastern Regions, some districts like that of Bongo were lacking behind. The family planning acceptor rate in the district has remained low for the past four years despite several interventions instituted to improve service uptake (BDHD, 2018). For instance, in 2015, family planning acceptor rate was 30.2%, increased phenomenally to 37.1% in 2016 and started experiencing a downward trend of 36.2% in 2017 and 34.6% in 2018. This has led to an increased in adolescent pregnancy within the district as the annual report indicates. Information in the District annual health report of 2017 indicates that adolescent pregnancy in 2015 was 20.1%, decreased to 19.8% in 2016 and rose to 20.8% in 2017. Despite the strategies such as health education through community durbars and mass media, efforts to integrate contraceptives services into ANC and CWC services as well as involvement of partners in sexual and



reproductive health, the district health authorities are implementing, contraceptives acceptor rate appears to be dwindling. Anecdotal information from health authorities suggests that, the low utilization of contraceptives is more pronounced among postpartum women. This has resulted in unplanned pregnancies among women whose children are less than one (1) year some of whom resort to illegal abortions resulting in infections and maternal deaths. This anecdotal information also indicates that most of the postpartum women are dropping out of contraceptives use due to adverse effects, resistance from their partners and sometimes lack of access to contraceptive methods which accounts for unplanned pregnancies with consequences of severe malnutrition and deaths among children under five (5). This has been the motivation to assess the contraceptives preferences and factors influencing contraceptives use among postpartum women in the Bongo District of the Upper East region.

1.2 Research Questions

1. What is the level of knowledge among postpartum mothers attending the Child Welfare Clinic in the Bongo district?
2. What are the contraceptive preferences and use among postpartum mothers attending the Child Welfare Clinic?
3. What factors influence contraceptive preferences among postpartum mothers attending the Child Welfare Clinic?

1.3 Objectives

Below are the objectives that was accomplished by the study.



1.3.1 General Objective

The main objective of this study was to assess the factors that influence contraceptive use and preferences among postpartum women attending the Child Welfare Clinic in the Bongo District of the Upper East Region.

1.3.2 Specific Objectives

1. To assess the level of knowledge among postpartum mothers attending Child Welfare Clinic in the Bongo district
2. To explore the contraceptive use and preferences among postpartum mothers attending Child Welfare Clinic in the Bongo District
3. To determine the factors that influence contraceptive use and preferences among postpartum mothers attending Child Welfare Clinic in the Bongo District.

1.4 Significance of the Study

Findings of this study will provide significant information to the Ministry of Health which is the main body responsible for policy formulation and direction. The outcome of this study will help in the formulation of specific policies to tackle specific issues of postpartum contraceptive use since the factors influencing the problem will be brought to light.

In addition, the GHS and its agencies which are responsible for policy implementation will find this study useful since the findings could be used as strategies to increase postpartum contraceptives use. The findings of the study could also form the basis for the training and retraining of health professionals to equip them with evidence base information. This will facilitate proper delivery of health education and promotion services.



Further, the Bongo District Assembly will be able to integrate the findings of the study into their developmental agenda. Since population growth influence population policy, an understanding of the factors contributing to this growth will provide some solution to local development authorities.

Also, the Bongo District Health Management Team (DHMT) is responsible for the implementation of regional health strategies at the sub-district and the community level. The findings of this study will provide the team with some of the specific challenges confronting postpartum contraceptive use. Once these challenges are brought forward, they will guide the DHMT as to what solutions and strategies to pursue to whip up postpartum contraceptive use.

This study will also provide information for future reference by researchers and professionals in the academia. The findings of this study may also form the basis for future research.

The institutions above will benefit from the findings of this study as it will help in the shaping and modernization of local and national policies.

1.5 Conceptual Framework

The conceptual frame work explained and guide the study. It is an explanation of how the independent variables (Socio-demographic and economic factors) can combine with intermediate factors such as knowledge, religious affiliation, side effects of methods among others to influence the dependent variable (postpartum contraceptive preference). This conceptual framework which was adopted from (Adofo, 2014) was modified to suit this study. Many scholars have found parity, age, level of education, availability of



contraceptives and residential area among others to influence contraceptives use. These interconnected variables influence the use or lack of use of contraceptives.

1.5.1 Explanatory variables

These are variables that are capable of influencing the dependent variable by themselves. Health facility related issues such as health worker attitude and method availability may influence use or non-use of contraceptives. For instance, if attitude of health workers are positive and contraceptives methods are available, it can enhance the use of these services. On the other hand, if attitudes of health workers are bad and scarcity of contraceptives exist, it may lead to non-use of services. Socio-demographic factors such as age, parity of mother, education, religion and employment status among others could also influence contraceptives used. Research indicates that women in their advanced age, those with no child or fewer children, religious affiliation and those with little knowledge on contraceptives may be reluctant to use contraceptives compared to women who are relatively younger, those with many children and those with high level of knowledge. Research has also shown as indicated in the literature review that women who use maternal and child health services such as preconception counseling, education on STIs, Antenatal services and Family planning services may be inclined to using contraceptives compared to women who have never received these services.

1.5.2 Intermediate variables

These are variables which are not capable of influencing the use of contraceptives except other variables like the explanatory variables exist. The wish of a woman to space or limit child birth may not influence contraceptives use unless other explanatory factors such as



method availability exist. Side effects, inadequate knowledge, cost of contraceptives and religious influence are also factors that intermediate the use of contraceptives.

1.5.3 Dependent variable

This is the variable that is influenced by both the explanatory and intermediate variables. The use and preference of contraceptives is the dependent variable in this study. A change in both the explanatory and intermediate variables could lead to use or non-use of contraceptives. These is a summary of the description of the conceptual framework as presented below.



Conceptual framework indicating the relationship between explanatory variables and the dependent variables

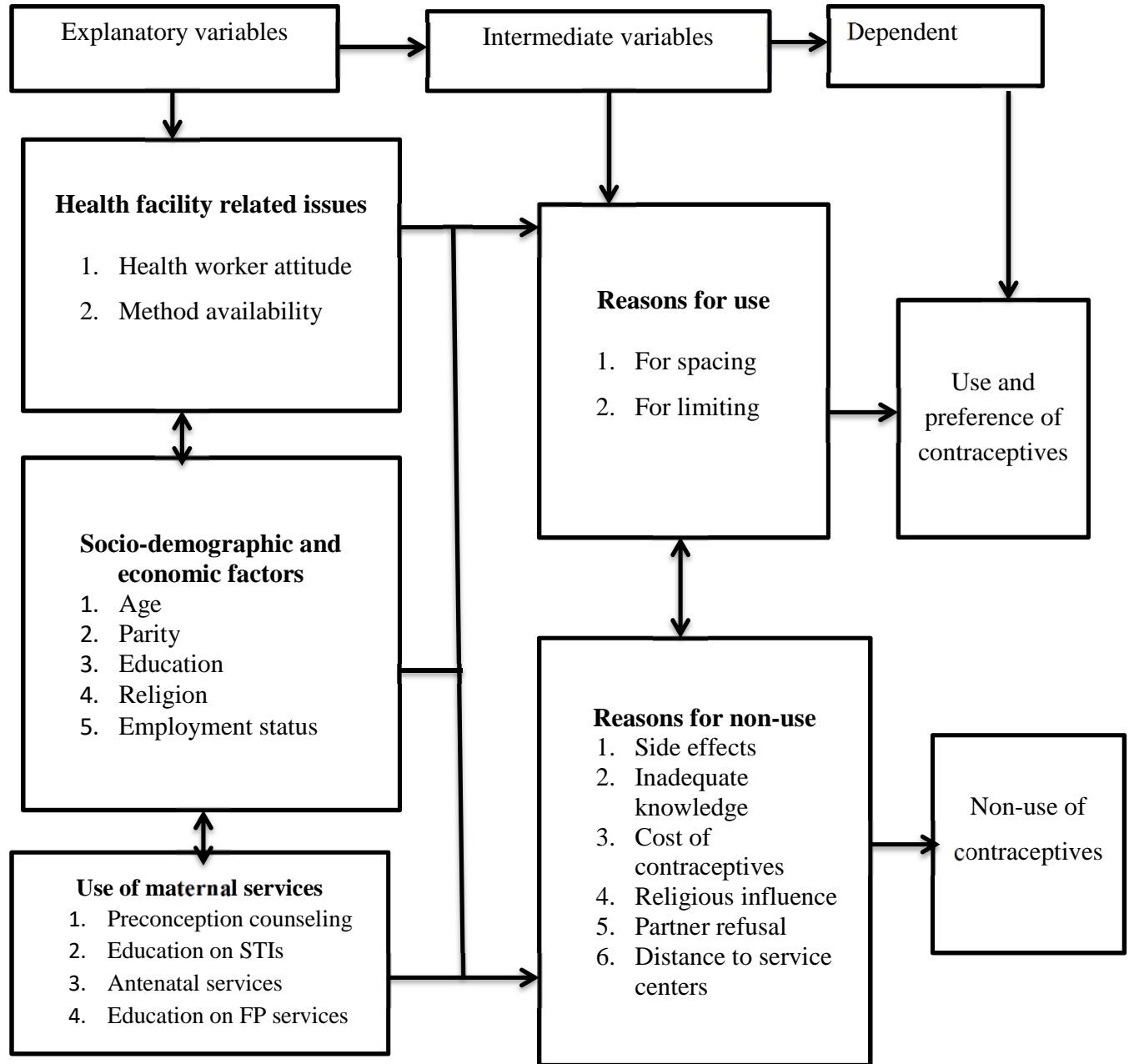


Figure 1: Conceptual framework, Adopted and modified from (Adofo, 2014)



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews already existing information about postpartum contraception so as to identify unresolved gaps. This review covers knowledge and use of contraceptives among postpartum mothers, contraceptive preferences among postpartum mothers, factors such as knowledge levels, use of maternal services, fertility preferences of mothers as well as socio-demographic and socio-economic factors that influence use of contraceptives among postpartum mothers. Sources such as peer reviewed articles, books, reports among others were used for the purposes of the literature review.

2.1 Postpartum family planning

The (WHO, 2013) defined Postpartum Family Planning (PPFP) as the prevention of unintended pregnancy and closely spaced pregnancies through the first twelve (12) months following childbirth. The period from child birth to about twelve (12) months is usually crucial for the mother and baby because it allows the mother to regain normal physiology, have more time for bonding and care for her baby and to engage in some economic activity for self-support. The baby on the other hand develops well, bond with the mother and build resilient immunity. Any truncation of this period by early unintended pregnancy may interrupt the path of normal growth and development. Many scholars have made findings about the circumstances that are likely to influence a mother's decision to use a contraceptive in the postpartum period. Reproductive desires and preference for specific contraceptives, behavior of mothers, levels of knowledge on contraceptives and access to these services were identified as some of the factors that could influence demand and use



of contraceptives (Ramarao et al., 2015). In a comparative study between pregnant women attending antenatal and postnatal women in Nigeria, the antenatal women were less likely to use traditional family planning methods (19.8%) compared with the postpartum women (32.3%) ($P=0.004$) (Blazer and Prata, 2016). These differences were as a result of counseling received by mothers in the postpartum period. Their findings partly corroborate that of (Ramarao et al., 2015) when they identified level of knowledge as a determining factor for the use of postpartum contraceptives.

2.2 Postpartum contraceptive use

“We see postpartum family planning as one of our most important program areas on the continuum of care. Postpartum family planning may be the biggest missed opportunity in front of us” (Radof, 2012). He found that the integration of contraceptives services such as IUD, implants and injectables into services such as immunization and other postnatal services can lead to an increase in demand and use of contraceptives. Postpartum contraception could be one of the most important areas that needs innovative and creative strategies to influence demand and use of the services. This is because at this stage when the mother is unwilling to have a child, it would be very easy for her to accept any interventions that will help her delay her next pregnancy.

Scholars like (Starbird et al., 2016) described family planning as a “developmental best buy” because of the role it plays in ensuring that maternal and neonatal morbidity and mortalities from abortions are reduced. They argued that, unplanned pregnancies, unsafe abortions, most maternal and neonatal mortalities and high population growth which put a lot of pressure on social amenities are somewhat linked to the low or total lack of contraceptives use, this draws back development. Despite these advantages that are



associated with the use of contraceptives, findings by scholars like (Ogechi et al., 2017) in Abeokuta-Nigeria suggest that the use of contraceptives by mothers attending the child welfare clinic (CWC) was low (41.3%) despite the over 94% of awareness of contraceptives among these mothers. The above findings were corroborated by (Mengesha Et Al., 2015) in Ethiopia when they found just a little over 10% utilization of contraceptives by postpartum mothers. In Zimbabwe similar findings were made when there was no evidence to suggest that postpartum women with unintended pregnancy used contraceptives. This trend may be worrying since non-use of contraceptives by these mothers whose children are mostly one year old or less than a year may be predisposed to early unplanned pregnancies which may have adverse effects on the mother and child.

The low utilization of contraceptives among postpartum women in Africa is not however universal as findings by (Bwazy et al., 2014) in Malawi contradicts that of (Ogechi et al., 2017) in Nigeria. Bwazy et al found that, out of the 94.3% of women who had knowledge in contraceptives, 75% of them were using contraceptives. What might have accounted for these differences may be the fact that Ogechi et al carried out their study among Inner city women who were attending CWC. In most occasions the level of education among Inner city women are low and mostly linked with poor utilization of family planning services. Also, while (Bwazy et al., 2014) assessed the level of knowledge on contraceptives, (Ogechi et al., 2017) assessed awareness. This might have also accounted for the difference in the levels of usage in these two studies since people with knowledge are more likely to make informed decisions than those who are just aware of a particular phenomenon. Findings of (Yilmazel & Balci, 2013) also indicates that status of contraceptive use before the



postpartum period and receiving counseling on contraception were significantly related to thoughts about using contraceptives in the postpartum period.

2.3 Contraceptive Preferences among Postpartum Mothers

Preference for contraceptives especially in the postpartum period may be a driving factor for their use. Globally, about 92% to 97% of women do not intend to have their next child before two years. Shockingly however, about 35% of these women have their children spaced two years apart or even less and about 40% of women intending to use contraceptives in their first year postpartum are not using (USAID, 2019). The clear difference between those actually in need of contraception in the postpartum period is very worrying. This according to the USAID could be as a result of preference for particular contraceptives. The absence of the preferred contraceptive or not able to afford the preferred contraceptive could be a serious cause of concern for the potential user of such contraceptives. They opined that counseling or adequate information about contraceptives and their use could be a determining factor of a postpartum woman's preference for contraception. In a study to assess the preferences and related factors for postpartum contraception among pregnant women, (Yilmazel & Balci, 2013) found that, many of the women (35.7%) Preferred Intrauterine Contraceptive Device (IUCD), 24.2% of them preferred their partners use male condoms, 20.4% preferred Combined Oral Pills (COP), 15.9% preferred tubal ligation and 3.8% preferred an injection or a spermicide. Their findings conclude that these choices among the postpartum women were influenced by husbands, health workers friends and the media. These findings were corroborated by findings from Ghana by (Eliason et al., 2013) when they indicated that women with past experiences were more likely to use the injectable contraceptives (OR=2.07, 95% CI 1.50-



2.87). They opined that knowledge and past experiences with contraceptives like the IUCD was a predictor of the choices postpartum women were likely to make. These varied reasons for wanting to use or not though revealing but may form the basis for a more strategic and innovative ways of stimulating demand and use of contraceptives. Findings by (Jalang, 2012) in his study, “Determinants of contraceptives use among postpartum women in Kissii, Kenya” indicates that the most preferred contraceptives among postpartum women were injectables (27.9%), IUCD (24.1%), oral pills (15.1%) and implants (14.2%). The study found that postpartum mothers made these preferences based on some side effects such as weight gain, increased blood pressure, backache, headache and blurred vision among others associated with some contraceptives. This was corroborated (Cleland et al., 2012) in their study titled “Family planning needs during the first two years postpartum in Ghana” they indicated that 31% of the 233 postpartum mothers studied preferred injectables, 23% of them preferred the pills, 14% preferred condoms and only 2% of the mothers preferred female sterilization and implants. About 21% of the mothers preferred the traditional methods (withdrawal and periodic abstinence). Findings from (Anaba et al., 2018) suggest that in Nigeria the most preferred contraceptives were implants and Injectables while the least preferred was the IUCD. This is a confirmation that the preference for a contraceptive method may vary from one geographical location to the other as well as individual differences. The gap that remains however is whether the preference for a particular method leads to an increase use of such method relative to others. Their findings explain that reasons such as effectiveness and safety of the methods, side effects and duration, easy to use, no need for daily use among others were given for their preferences.



The preference for contraceptives in the postpartum period is very critical in determining the level of demand and use of contraceptives. If care providers have information on the most preferred contraceptives in this period, it equips them to understand and appreciate the individualistic demands of postpartum mothers and hence an increased use of contraceptives among such mothers.

2.4 Factors influencing postpartum contraceptive preferences

There are several factors that influence the preferences that postpartum women make. These factors could be the level of knowledge that these women have about contraceptives, using of maternal and child health services, their fertility preferences, socio-demographic and economic factors that influence the choices of these women. Scholars in Ghana and across the globe have explored these factors as below;

2.4.1 Knowledge of Contraceptives

Knowledge has always been one of the factors influencing demand and patronage for health services as found by several scholars across the globe. Knowledge on contraceptives in India appear to be high as found by (Nath, 2017) in his study of knowledge, concepts and practice of postpartum contraception. He found that 72% of participants had heard of contraceptives mostly from Television, doctors and other health workers. Intra Uterine Contraceptive Device and Oral Contraceptives Pills are the most known contraceptives. He opined that, after counseling about 95% of the participants started using contraceptives based on the knowledge they had gained. Condoms, Depot Provera injection and the IUCD were the most used contraceptives among postpartum women in North India (Nath, 2017). The findings by (Nath, 2017) was corroborated by (Thapa et al., 2014) when they indicated that 69% of their study participants had knowledge on contraceptives especially IUCD and



OCP. Only 20% had knowledge on emergency contraceptives pills and 34.4% knew about MTPills. They also opined that most of the respondents also had their information from television and health workers. About 97% of the participants were ready to use contraceptives after they received counseling which increased their level of knowledge. What pertains in India as indicated in the literature above, may not be too different from what exist in Africa and Ghana. These findings in India by different scholars was corroborated by a study in Uganda by (Anguzu et al., 2014) when they found that knowledge on Long Acting Reversible Contraceptives (LARC) administration site was more likely to lead to a use of LARC (adj. PRR=1.83, 95% CI 1.17-2.87). In Ghana, (Asaarik & Adongo, 2018) found that knowledge of family planning among women in fertility age was somewhat high. For instance, out of the 415 participants, about 98.6% of the women had heard of family planning, 70.4% of them had moderate knowledge, 16.9% had high knowledge and only 12.8% had low knowledge. They however opined that the knowledge levels of participants on family planning methods did not translate into higher use of the FP services. This is an indication that knowledge alone is not enough to stimulate use of contraceptives but other innovative and creative strategies. In Nigeria, (Anaba et al., 2018) found that the postpartum women had high knowledge on contraceptives but failed to answer the question on whether knowledge is a determinant of contraceptive use among postpartum women. A study on contraceptives knowledge, perceptions and use among adolescents in selected senior high schools in the Central Region Ghana by (Hagan & Buxton, 2012) revealed that 81% of the respondents indicated that they had knowledge on contraceptives. Most of them said they had their information from TV/Radio (60%), friends (30%) and the rest said their information came from family members. This high knowledge



did not reflect in the use of contraceptives as it was only 20.5% of them that were using contraceptives. This revelation is not different from what exist in other parts of Africa. It will be interesting to find out the situation in the Bongo District of the Upper East Region.

2.4.2 Use of Maternal Health Services

The use of maternal services such as antenatal services (ANC), skilled delivery services, pre-conception and post-delivery counseling on contraception among others have been reported by different scholars to have influenced the use of contraceptives among postpartum women. The use of postpartum intra uterine contraceptive device was deliberately piloted in Edinburg in the United Kingdom by (Cooper & Cameron, 2018) when they piloted the service. They found that when women are given adequate information by way of education during the prenatal stage, it empowers them to make informed decision about their contraceptive choices in the postpartum period. They opined that if there is a deliberate effort by health professionals to integrate contraceptive education and services at the prenatal level, it will engender the use of the methods during the postnatal stage. This according to their findings will reduce or eliminate unplanned pregnancies and abortions in the postnatal period. The findings by (Cooper & Cameron, 2018) corroborates that of (Lauria et al., 2014) in Italy when they studied the use of postpartum contraception among Italian and migrant women. According to their study, about 59% of migrant women and 63% of Italian women were given prenatal counseling on contraception. They concluded that, those who received prenatal counseling were more likely to use contraceptives in the period of postpartum (Italians OR =2.55 95% CI 2.06-3.14, Migrants OR= 4.01 95% CI 2.40-6.70). By this findings, migrant women are more than four (4) times likely to use contraception in the postpartum period if the receive



prenatal counseling. Italian women are however more than two (2) times likely to use contraceptives if given prenatal counseling on contraception. A study by (Heller et al., 2019) found that most women in the postpartum period (96.7%) were not ready to have their next child within a year but very few of them (12.8%) were ready to use long acting reversible contraceptives like implants in the postpartum period. Many of those who delivered in a health facility, {48.2% (n=107)} were however prepared to use a LARC if it will be inserted before they left the hospital ($P < 0.0001$).

A study in India by (Dixit et al., 2017) on “the role of maternal and child care services on postpartum contraceptive adoption” found that Antenatal (ANC) attendance and facility delivery as well as starting postnatal care two weeks after delivery was associated with high postpartum contraceptives use. For instance, they found that pregnant women who made more than two visits to a health facility (ANC; Coefficient =0.28, SE=.02) were more likely to commence the use of modern contraceptives compared with women who have lower than two visits to a health facility (Coefficient =0.16, SE =.02). The explanation of (Dixit et al., 2017) was that the more women receive these services in the prenatal or immediate postnatal period, the more they become aware of the importance of postpartum contraception and they will be more likely to adopt the use of contraceptives within that period. A study in Ghana had some interesting findings on the readiness of pregnant women to use contraceptives in the postpartum period. Geographical location was associated with the use of postpartum contraceptives (Eliason et al., 2018). For instance, they indicated that women resident in Anomabo in the Central Region of Ghana were more likely to have intentions to use postpartum contraceptives compared with those resident in Saltpond



(AOR=1.8, 95% CI 1.0-3.3). This may be due to several factors such as availability, affordability and distance to health facilities as found by (Asaarik & Adongo, 2018).

2.4.3 Fertility Preferences

Fertility preferences among women especially among those in the postpartum period could have an influence on the demand and preference for contraceptives. Findings by (Ogechi et al., 2017) in Abeokuta, Nigeria suggest that about 47.7% of the women were not using modern contraceptives because of their desire to have more children. Some other scholars indicates that in Africa, the more children one has, the more respect one earns from his community and the more power one wills. If this assertion is anything to hold onto, then it is one of the reasons why most of these women would want to have more children and hence, their non-use of modern contraceptives. In a study to assess the “utilization of postpartum family planning services between six and twelve months of delivery at Ntchisi District Hospital, Malawi” (Bwazi et al., 2014) opined that women who had received counseling on fertility choices were more likely to use a contraceptive in the postpartum period compared with those who never received such services. This indicates that, though women may have higher fertility expectations by way of the number of children they want to have, counseling or education on the proper and appropriate choices to make could impact on increased demand and use of modern contraceptives. According to (Gebreselassie, 2010 CF. USAID, 2014) wantedness of a child that was just born was associated with postpartum contraceptive use. What this may imply is that, mothers who did not want or plan the child that was born was more likely to use postpartum family planning than those who planned their recently had child. Preferred number of children ($P <$



0.001) and parity of women ($P < 0.001$) were also found by (Eliason et al., 2018) in Ghana to be predictors of the use of postpartum contraception.

2.4.4 Socio-demographic Factors

Socio-demographic characteristics are reported to be one of the factors that influence the use of postpartum contraception among women as found by many scholars. State of residence, level of education, wealth index and number of other wives and number of children per woman have both influenced postpartum contraceptives directly and indirectly (Iheyinwa & Oladosun, 2017). The implication for these findings as opined by the authors is that the proximity to service centers and the wealth index of families must be considered in the chain of program development and implementation. A study by (Rutaremwa et al., 2015) on “predictors of modern contraceptives use during the postpartum period among women in Uganda.....” found primary or higher education (OR=1.96, 95% CI 1.43-2.68, OR = 2.73; 95% CI 1.88-3.97 respectively), protestant religion (OR= 1.27; 95% CI 1.05-1.54) and age of a woman were associated with the use of postpartum contraception. Other factors were number of surviving children, exposure to media and skill delivery were all found to be determinants of postpartum contraception (Rutaremwa et al., 2015). These are all socio-demographic factors that have proven to have influenced postpartum contraception as found by these scholars. The question as to whether the situation in the Bongo will agree or disagree with this position will be a turning point for maternal and child health services in the District. The findings by (Metcalf et al., 2016) was that, the only socio-demographic factor that was a significant determinant of postpartum contraceptive use was the level of education (OR = 1.7, 95% CI: 1.2-2.4). This corroborates the findings of (Rutaremwa et al., 2015) as indicated above. The level of formal education



as found by literature across the globe appears to be one of the most common determining factors of contraceptives use whether in the period of the postpartum or at any stage of a woman's life. Occupation (likely ratio $P=0.013$) area of residence (likely ratio $P=0.004$), preferred number of children (likely ratio $P<0.001$) and parity ($P<0.001$) were all socio-demographic characteristics that were found to be predictors of postpartum contraceptive use in rural Ghana by (Eliason et al., 2018). The findings by (Eliason et al., 2018) corroborates that of (Parr, 2003) in a study on the "discontinuation of contraceptive use in Ghana" when he found the age and the area of residence of a woman to be significant predictors of postpartum contraceptive use. A Nigerian study by (Akinlo et al., 2013 CF. USAID, 2014) opined that older women were less likely to use modern contraceptives than younger ones but they maintained that there was no clear trend between the younger women and those with Socio-economic factors such as wealth index, levels of education and area of residence were found to be significantly related to the use of postpartum contraceptive use on bivariate analysis (Hotchkiss & Do, 2013 CF. USAID, 2014). Urban residence (AOR=3.1, 95% CI 1.14-8.36) and educational level of women (AOR=4.1 95% CI: 1-1.16) were some socio-economic factors that predicted the use of contraceptives among women in the postpartum period (Gizaw et al., 2017). Findings by (Eliason et al., 2018) in rural Ghana indicates that occupation (likelihood ratio $P=0.003$) and area of residence (likelihood ratio $P=0.004$) were socio-economic factors that were identified to be predictors of postpartum contraception.

2.4.5 Availability of Health Staff for Contraceptives Services in the Bongo District

Availability of well trained staff to deliver contraceptives services is one way of increasing access to contraceptives usage (USAID, 2009). Unfortunately however, the USAID





observed that in many parts of the world especially sub-Saharan Africa, this high level skilled health professional are either not there or are very few. The resultant effect of this is that the access to some services such contraceptives counseling and administration is reduced. The USAID in trying to provide solutions to these shortages are advocating task shifting from high level to low level health professionals who can equally be trained to provide such services. The shifting of some contraceptives services from Doctors to Nurses and Nurse-Midwives and in some cases from Nurses to community health workers is one that appears to benefit the most vulnerable in communities. This task shifting appear to be benefiting most countries including Ghana as most vulnerable populations are now able to benefit from some services that are delivered more closer to them in same quality by lower level health professionals. Scholars like (Scott et al., 2015) also found the role of Community Health Workers (CHW) crucial in the provision of Contraceptive services in low and middle income countries. They opined that the shortage of Doctors and highly trained and skilled Nurses and Midwives in these countries triggered the shifting of these roles to CHW and their review of other scholarly work indicates that they form an integral part of the health delivery system in Low and Middle income countries. The Ghana health service report of 2018 still put the Upper East Region as one of the regions with the lowest number of health workers especially Doctors. Though there has been an improvement in the number of Nurses and Midwives in the region, there is still a huge gap (GHS, 2018). The Bongo District suffers from these shortages in the region as most of the CHPS compounds within the district are without professional Nurses or Midwives (Mid-year report, 2019). According to the 2019 mid-year report of the District, there are only 2 Doctors, 11 physician Assistants, 46 midwives, 147 registered general Nurses and 106

community health Nurses serving 6 Sub-Districts and over 40 CHPS compounds. These limited of staff serves about 24,734 Women in Fertility Age (WIFA) within the district. The only facility in the district that is well resourced in terms of human resource to provide comprehensive contraceptives services is the Bongo district hospital (BDHD annual report, 2018). The report explains that, this limits the choices of women who wish to use contraceptives in communities that are too distant from the District hospital. Though community health Nurses, Health Assistance and community health workers have been trained to provide these services; their competencies are limited and hence are unable to meet the demands of women especially postpartum women who may prefer methods that need higher level staff to provide.



CHAPTER THREE (3)

STUDY AREA AND RESEARCH METHODOLOGY

3.0 Introduction

This chapter is devoted to the study settings and the methodology employed to conduct the study. The chapter is divided into two sections: section (A) dealt with the study area and the section (B) dealt with the methodology employed in carrying out the study.

3.1 Study setting

Bongo is one of the 15 districts in the Upper East Region with Bongo Township as the district capital. It lies between longitude 0.458⁰ west and latitude 10.50N to.09N within the onchocerciasis free zone. It is one of the most densely populated districts country wide (187 inhabitants per kilometer square) with a land area of 459.5 square kilometers. The district which was carved out of Bolgatanga in 1988, shares boundaries with Burkina Faso to the North, Kassena-Nankana Municipal, Kassena-Nankana West to the West and Bolgatanga Municipal to the South.

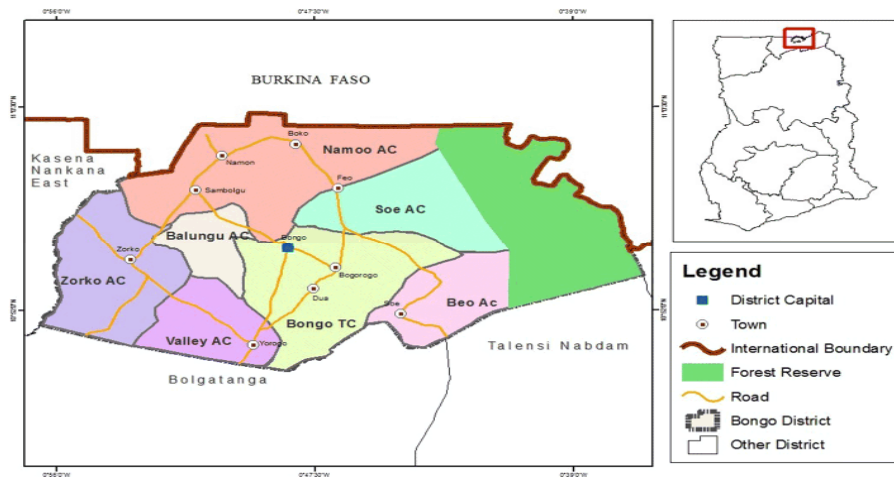


Figure 2: Map of Bongo District; Source: BDHD, 2018



There are 143 communities scattered in small dispersed settlements and the land terrain is mostly rocky, making farm lands inadequate for inhabitants. Water supply is quite adequate with about 70% of the population served with safe water as at 2017. This is hoped to increase as the district assembly have earmarked to drill 42 more boreholes.

Excreta disposal is still a major challenge in the district with only 20% of the population using safe excreta disposal facilities. About 80% of these are in government accommodation facilities while a few have house hold toilet facilities. The district hopes to collaborate with other stakeholders to improve upon this.

The district has a poor road network with many rivers and streams making accessibility very difficult. The people of Bongo are predominantly farmers with a few in the economic sector. The total population is 98,451 based on the 2010 Population and housing. The district has one hospital, five health centers of which one is for Christian Health Association of Ghana (CHAG), thirty-six (36) CHPS Functioning Centre's of which twenty-one (21) have compounds and fourteen using FAC Centre's previously built by Catholic Relief Services (CRS). All CHPS with compounds have resident CHOS including clinical staffs that render clinical services. The district also has two hundred and forty-eight (248) community-based surveillance volunteers, two hundred and fifty-four (254) community based agents that support staff in surveillance and other activities.



Table 3.1: Health facilities in the Bongo District.

Facility	Number
Hospital	1
Health Centers	5- 1 CHAG Health Center
CHPS with compounds	21
CHPS without compounds	15
Nutrition feeding Centre	5
Nutrition Rehabilitation Centre	1
RCH Unit	1
Outreach points	69

CHPS with compound: Those with residential facilities

CHPS without compound: Those without residential facilities

3.2 Research Methodology

3.2.1 Study design

The researcher adopted a quantitative study type and a facility based cross sectional study design. Modified questionnaire was adopted from the 2014 Demographic and health survey and administered face-to-face with respondents.

3.3 Variables of the study

The variables of the study have been outlined below;

3.3.1 Outcome variable

Postpartum contraceptive preference among mothers attending the child welfare clinic shall be the outcome variable for the study.



3.3.2 Explanatory variables

1. Socio-demographic variables including age, sex, occupation, number of children, level of education, number of years in marriage, religious denomination, ethnicity etc.
2. Level of contraceptive knowledge among postpartum mothers
3. Contraceptives preferences among postpartum mothers
4. Factors that determines contraceptives preferences
5. Socio economic factors/characteristics
6. Use of maternal health services
7. Fertility preferences

3.4 Sampling method/process

The Bongo district hospital and the five health centers which were in existence at the time of the study and were providing contraceptives services were purposefully selected because they are the largest facilities that provide a wide range of family planning services. These facilities provided contraceptives such as oral contraceptives pills, the implants, condoms, IUDs, among others. These facilities also have at least a professionally trained midwife who can deliver these services professionally. This informed the purposive selection of these facilities for the study. Five (5) CHPS centers were randomly selected from the 21 CHPS facilities that were in existence. All the 21 CHPS facilities were written on pieces of papers and placed in a bowl. The bowl was covered with a lid and mixed by shaking the bowl thoroughly. After each thorough shaking 1 CHPS facility was selected until the 5th facility was achieved. The CHPS facilities were included to have a fair idea about the preferences of mothers in choosing the facilities for their contraceptive needs. All



postpartum mothers encountered at the CWC whose children were aged from birth to two (2) years in these facilities had questionnaire administered to them until the required sample size is reached. Questionnaires were administered to postpartum mothers after they had gone through all processes with the health care providers at the CWC. Nurses then informed them of the intentions of the research team and introduced them to the research team.

Purposive sampling method was also used to select key informants who were directly responsible for providing contraceptives services to postpartum mothers. Purposive method was used because the researcher needed Key informants who understood the various dimensions of contraceptives demand, use and preferences as well as the challenges that bedevils contraceptives utilization and preferences among postpartum mothers. Those who were trained in contraceptives service provision were selected and in facilities where they are more than one the most senior person was selected.

3.5 Sample size

There is no record of a similar study in the Bongo district and the total number of postpartum women within the district is not known as some women do not go for skilled delivery. In such circumstances according to (Kadam & Bhalerao, 2010), the formula below could be used with the assumption that 50% of postpartum mothers would use contraceptives.

$$N = \frac{(z_{1-\alpha/2})^2 p(1-p)}{d^2}$$

Where;



N = The required sample size

$Z_{1-\alpha/2}$ = confidence level of 95% (standard 1.96)

P = percentage of postpartum mothers assumed to use contraceptives = 50% = 0.5

q = proportion of postpartum mothers not using contraceptives = 1-0.5 = 0.5

d = Margin of error = 0.05

Therefore, $N = 1.96^2 \times 0.5(1-0.5)$

$$0.05^2$$

$$N = 3.8416 \times 0.25$$

$$0.0025$$

$$N = 0.9604$$

$$0.0025$$

$$= 384.16 = \mathbf{384}$$

Adjusting for 10% non-response rate, $N = 10/100 \times 384 = 0.1 \times 384 = 41$

Therefore $N = 384 + 41$ and hence $N = \mathbf{425}$.

Based on the above, the study will use a sample size of 425.

3.6 Sampling

The Bongo District was purposefully selected because the District was one of the poor performing Districts in the utilization of contraceptives. Out of the 49 health facilities in



the district, 11 facilities were randomly selected. The research team then visited the selected facilities one after the other. When the team visits a health facility, every woman attending the CWC with a child age 0 – 1 year has questionnaire administered to her after she had completed all the CWC processes. The research assistants who were trained by the researcher then explains the purpose and importance of the research to the participant. The participant was also assured of her confidentiality and questionnaire then administered. After a participant has completed the questionnaire, the research assistant thanks her and moved to the next participant.

For the qualitative part of the study, purposive sampling was used to select the respondents. The researcher interviewed heads of the family planning units of the various facilities. An appointment was booked with the participant and on the day of the meeting the researcher spends at most 45 minutes interviewing the key informant. Recorders were used to record the interview which was subsequently transcribed and analyzed.

3.7 Study population

The population of this study is postpartum women attending the CWC in health facilities of the Bongo District.

3.7.1 Inclusion criteria

All mothers aged 15-49 years old whether married or unmarried and whose children are aged from birth to two (2) years that are available at the CWC at the time of the study were included in the study.



3.7.2 Exclusion criteria

1. Mothers with any medical conditions that will not permit the use of contraceptives
2. Mothers with hysterectomy (without uterus)
3. Bilateral Tubal Ligation (BTL)

3.8 Data Collection Methods

Closed ended questionnaire adopted from the 2014 Ghana Demographic and health survey (GDHS, 2014) was used to explore the contraceptive preferences among mothers attending the CWC. Questionnaires were administered face-to-face with the respondents. This questionnaire was translated into the local language (frafra) which is predominantly spoken in the study area. The three-female research assistants that were engaged were those who administered the questionnaire. Questionnaire was administered to postpartum mothers after they had gone through all processes with the healthcare providers at the CWC. The healthcare providers introduced the research assistants to a mother after the last service delivery point. The research assistants then introduced themselves to the postpartum participant; by explaining the merits and demerits if any to the participant. The participants were also reassured of their confidentiality and were made to consent verbally or sign on the questionnaire that will be administered to her before proceeding to administer the questionnaire.

For the qualitative part of the study, a Key informant interview guide was designed and used for the data collection. An appointment was booked with the Key informants who were either; midwives, public health nurses or any health professional that was directly responsible for providing contraceptive services. The longest interview lasted for about 45 minutes. Key informants were given ample time to share their views, perceptions and



insights regarding postpartum contraception. Follow up questions were asked for the purposes of clarification.

3.9 Data Quality Control

To ensure that the data that was collected was of high quality, the researcher engaged three female research assistants because of the sensitivity of the topic. These assistants were trained on the questionnaire that were administered and the importance of maintaining the highest level of confidentiality of respondents. While on the field, the researcher was in constant touch with them for further clarifications on the questionnaire. All questionnaires returned were checked for completeness. Every question was coded, entered into SPSS version 23, further data cleaning was done before analyzing the data.

3.10 Pretesting of Questionnaire

Pretesting of questionnaire was done at Bolga-Soe, a suburb of the Bolgatanga Municipality which is very close to the study district and shares the same physical, cultural and behavioral characteristics as the study district. The pretesting afforded the researcher the opportunity to delete irrelevant, sensitive and ambiguous questions.

3.11 Data Processing/Analysis

Data was analyzed using Excel and SPSS version 23. Simple frequency distribution tables were used to analyze socio-demographic and economic characteristics of respondents, a pie chart was used to illustrate the level of contraceptive utilization among postpartum mothers attending the CWC. Chi square analysis was done to assess relationships between the dependent and independent variables. Excel software was used to draw all graphs. The confidence interval for this study was 95% and the margin of error was $P \leq 0.05$.



Composite scoring was done for the knowledge questionnaire where 0-4 was considered low knowledge, 5-6 considered as moderate knowledge, 7-8 considered as good knowledge and 9-10 considered as very good knowledge. The composite scoring was done with the 10 questions that were used to assess knowledge.

Content analysis was used for the qualitative data. The data collected was transcribed, grouped under various themes and content analysis done. The qualitative results has been presented under the various objectives explored under this study in italics.

3.12 Ethical Consideration

Written permission was sought from the department of public health, University for Development Studies, the Upper East Regional Ghana Health Service, the District Health Management Team (DHMT) of the BDA, heads of institutions and participants were made to consent to confirm their readiness to participate in the study. The relevance of the study was explained to every participant and they were given the opportunity to discontinue their participation at any stage of the study if they so wish.



CHAPTER FOUR (4)

PRESENTATION OF RESULTS

4.0 Introduction

This chapter presents the results as obtained from the analysis. The results of the study have been presented according to the objectives of the study. Simple frequency distribution tables and figures were used to present the results and chi square analysis were done and only P-values which were less than 0.05 were presented.

4.1 Socio-Demographic Characteristics of Respondents

The socio-demographic characteristics of respondents have been presented on tables 4.1 below.

From table 4.1 below, many of the respondents 35.3% (150/425) attending the CWC in the Bongo district were within the age group of 20-24, 25.6% (109/425) were within the age group of 25-29 and only 2.6% (11/425) were within the age group of 40-44. About 42.4% (180/425) of the respondents had basic education, 24% (102/425) had no formal education, 21.6% (92/425) had secondary education and only 1.6% (7/425) received vocational training. From table 2a, 27.1% (115/425) of respondents' partners had no formal education, 27.8% (118/425) of the respondents' partners had secondary education, 26.4% (112/425) of respondents' partners had basic education and only 0.7% (3/425) of them had vocational training. An overwhelming 93.9% (399/425) of the respondents were living in rural communities while very few were in urban areas. Majority of the respondents 75.5% (321/425) were Christians, 16% (68/425) were Muslims and the rest were practitioners of the traditional religion.



The table indicates that, 82.6% (351/425) of the respondents were married, 12.9% (55/425) were single and the rest of them were either cohabiting or divorced. Also, 57.2% (243/425) of the respondents were unemployed, 54.6% (232/425) were traders, 34.8% (148/425) were in blue color jobs and the rest were either health workers or teaching. About 75.8% (322/425) described their incomes as low, 15.5% (66/425) described their incomes as high and the rest reported middle level incomes.

Table 4.1: Socio-demographic characteristics

Age of respondent	Frequency	Percent
15-19	53	12.5
20-24	150	35.3
25-29	109	25.6
30-34	68	16
35-39	34	8
40-44	11	2.6
45-49	0	0
Total	425	100
Respondents level of education		
No formal	102	24
Basic	180	42.4
Secondary	92	21.6
Vocational	7	1.6
Tertiary	44	10.4
Total	425	100
Respondents partner's educational level		
No formal	115	27.1
Basic	112	26.4
Secondary	118	27.8
Vocational	3	0.7
Tertiary	77	18.1
Total	425	100
Residential area of respondent		
Rural	399	93.9
Urban	26	6.1
Total	425	100
Religious affiliation of respondent		



Traditional	36	8.5
Christianity	321	75.5
Islam	68	16
Total	425	100
Marital status of respondent		
Single	55	12.9
Cohabiting	13	3.1
Married	351	82.6
Divorced	6	1.4
Total	425	100
Employment status of respondent		
Employed	182	42.8
Unemployed	243	57.2
Total	425	100
Occupation of respondent		
Mason	148	34.8
Teaching	19	4.5
Health	26	6.1
Trader	232	54.6
Total	425	100
Income level of respondent		
High	66	15.5
Middle	37	8.7
Low	322	75.8
Total	425	100

Source: Field work, 2019

Table 4.2 presents socio-demographic factors which were significantly associated with contraceptives preferences. Respondents' partner's level of education, religious affiliation of respondents and income levels of respondents were significantly associated with the contraceptive preferences of respondents. Most of the respondents demonstrated preference for the injectable contraceptives, 65.2% (75/115) of respondents with no formal education reported preference for the injectables, 64.2% (72/112) with basic education, 68.6% (81/118) with secondary education and only 33.3% (1/3) of those with tertiary education reported preference for the injectables. The relationship between level of



respondents' education and their contraceptives preference was significant ($P < 0.001$). Christians {60.4% (194/321)} and Muslims {79.7% (55/69)} also reported preference for injectables compared to other contraceptives. The P-Value for the relationship between religion and contraceptives preference was significant ($P = 0.045$). Most of those with low level of income, 70.5% (227/322) indicated they preferred injectable contraceptives to others. There was a significant relationship between income levels and contraceptives preferences ($P < 0.001$). As income reduces, their preference for injectable contraceptives increases.

“Most of the women who attend the CWC are married and usually young adults. Many of them are from this very community and as you know, the communities here are all rural” (Community health Nurse, Bongo Soe health centre).



Table 4.2: Association between socio-demographic factors and contraceptive preferences of respondents

Respondents partners educational level	Most preferred contraceptive method					P-Value
	Condoms	Pills	Injectables	Implants	Total	
No formal	0	12(10.4%)	75(65.2%)	28(24.3)	115(100)	0.001
Basic	5(4.5%)	5(4.5%)	72(64.3%)	30(26.8%)	112(100)	
Secondary	6(5.1%)	3(2.5%)	81(68.6%)	26(22%)	118(100)	
Vocational	0	2(66.7%)	1(33.3%)	0	3(100)	
Tertiary	6(7.8%)	8(10.4%)	51(66.2%)	12(15.6%)	77(100)	
Total	17(4%)	30(7.1%)	280(65.9%)	96(22.6%)	425(100)	
Religious affiliation of respondent						
Traditional	0	2(5.6%)	31(86.1%)	3(8.3%)	36(100)	0.045
Christianity	15(4.6%)	28(8.7%)	194(60.4%)	82(25.5%)	321(100)	
Islam	2(2.9%)	0	55(79.7%)	11(15.9%)	69(100)	
Total	17(4%)	30(7.1%)	280(65.9%)	96(22.6%)	425(100)	
Income level of respondent						
High	7(10.6%)	7(10.6%)	31(47%)	21(31.8%)	66(100)	0.001
Middle	1(2.7%)	0	22(59.5%)	14(37.8%)	37(100)	
Low	9(2.8%)	23(7.1%)	227(70.5%)	61(18.9%)	322(100)	
Total	17(10%)	30(7.1%)	280(65.9%)	96(22.6%)	425(100)	

Source: Field work, 2019

4.3 Level of Knowledge on Contraceptives by Respondents

The level of knowledge was assessed in this study. First, about ten questions were asked to assess the knowledge of respondents. Composite scoring was done where respondents who scored 0-4 were deemed to have low knowledge, those who score 5-6 were deemed to have moderate knowledge, 7-8 represents high knowledge and 9-10 represents very high knowledge.

Table 4.3 presents the composite scoring of respondents based on their knowledge on contraceptives. About 99.3% (422/425) reported that they have heard of modern



contraceptives, 9.8% (42/425) reported that contraceptives are used for abortion, 11.3% (48/425) reported that injectables are the longest acting methods and more than a quarter of the respondents {25.6% (109/425)} indicated that emergency contraceptives are taken before sex.

Table 4.3: Knowledge on contraceptives

RESPONSES	YES	NO
Heard of contraceptives	99.3% (422/425)	0.7% (3/425)
Contraceptives are used for abortion	9.8% (42/425)	90.1% (383/425)
All contraceptives are short acting	6.1% (26/425)	93.9% (399/425)
All contraceptives are taken orally	2.1% (9/425)	97.9% (416/425)
Implants are permanent methods	6.4% (27/425)	93.6% (398/428)
Pills are taken by both men and women	4.7% (20/425)	95.3% (408/425)
Pills are kept under the skin	2.6% (11/425)	97.4% (414/425)
All implants protect against pregnancy for a week	4.5% (19/425)	95.5% (406/425)
Injectables are the longest acting methods	11.3% (48/425)	88.7% (377/425)
Emergency contraceptives are taken before sex	25.6% (109/425)	74.4% (316/425)

Source: Field work, 2019

An overwhelming majority of the respondents (85.6%) reported that they had their contraceptives information from health workers, only 3.8% from the mass media and either teachers or volunteers provided the rest of the information (figure 3)



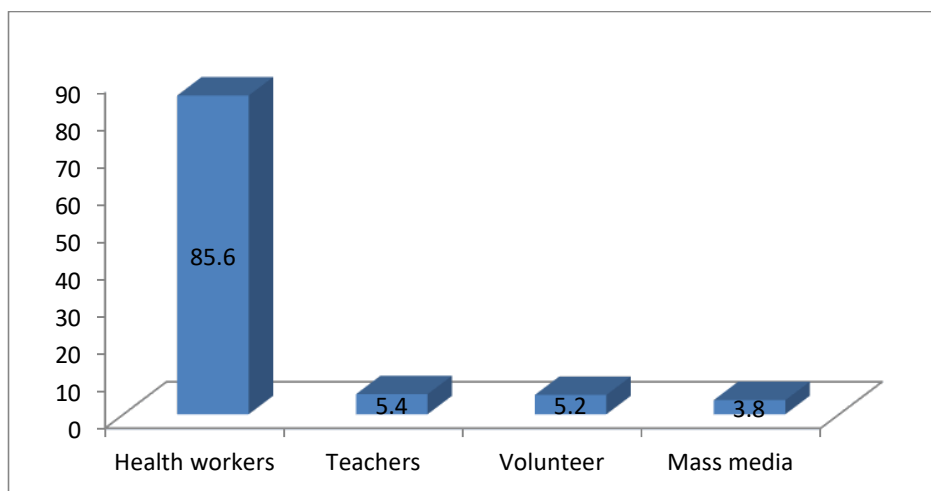


Figure 3: sources of contraceptives information.

Figure 4 illustrates the level of knowledge on contraceptives by respondents. About 56.50% have very high knowledge, 20% have high knowledge, 14.80% have moderate knowledge and only 8.70% of the respondents have low knowledge.

“Oh I can confidently say that many of the women here have good knowledge about contraceptives especially most common ones that we provide here at this facility. This is also because of the activities that we undertake every time. Community durbars, home visiting, actively engaging and encouraging partners among others has also helped in the education of women on contraceptives” (Public health Nurse, Bongo Hospital)



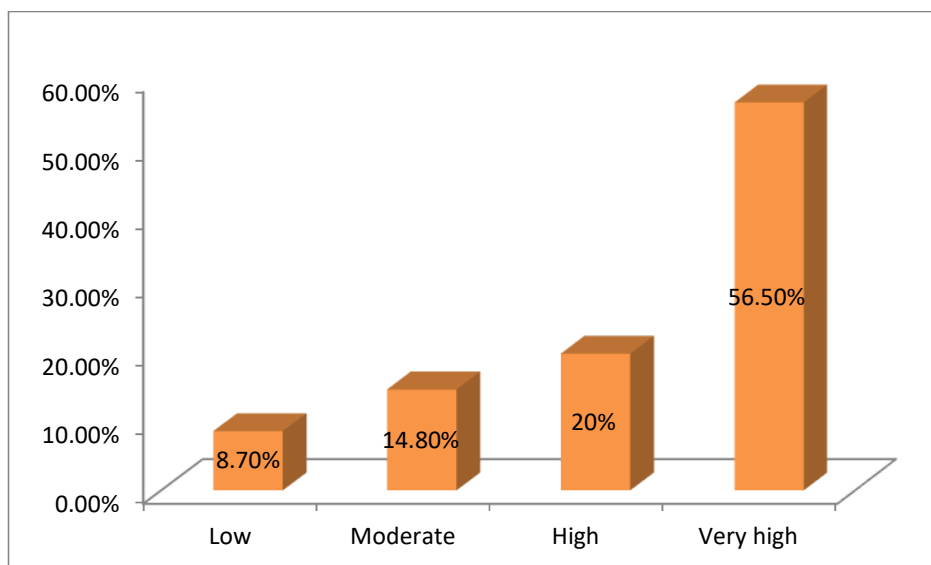


Figure 4: Levels of contraceptives knowledge

Table 4.4 represents an association between level of knowledge and contraceptives preferences. There is no significant association between contraceptive preferences and levels of knowledge ($P = 0.942$). the injectable contraceptive is the most preferred across all the levels of knowledge followed by the implants.

“Oh I can confidently say that many of the women here have good knowledge about contraceptives especially most common ones that we provide here at this facility. This is also because of the activities that we undertake every time. Community durbars, home visiting, actively engaging and encouraging partners among others has also helped in the education of women on contraceptives” (Public health Nurse, Bongo Hospital).



Table 4.4: Association between levels of knowledge and contraceptive preferences.

Knowledge levels	Condoms	Pills	Injectables	Implants	Total	P-Value
Low	2(5.4%)	2(5.4%)	26(70.3%)	7(18.9%)	37(100%)	0.942
Moderate	2(3.2%)	4(6.4%)	41(65.1%)	16(25.4%)	63(100%)	
High	5(5.9%)	4(4.7%)	53(62.4%)	23(27.1%)	85(100%)	
Very high	8(3.3%)	20(8.3%)	160(66.67%)	52(21.67%)	240(100%)	
Total	17(4%)	30(7.1%)	280(65.9%)	98(23.1%)	425(100%)	

Source: Field work, 2019

4.3 Contraceptives Use and Preferences among Respondents

This part of the study presents results on the use and preferences of contraceptives among respondents. Ever used, current use, reasons for use and non-use and respondents' preferences were assessed.

Figure 5 below presents results on respondents who have ever used a modern contraceptive. About 77.9% of the respondents reported that they have ever used a modern contraceptive.

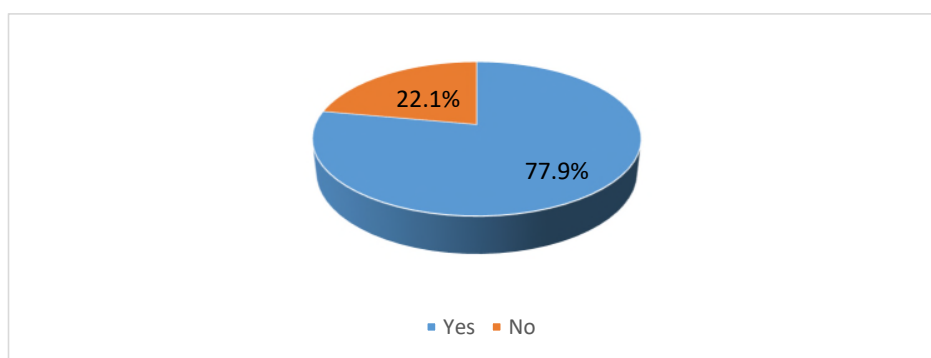


Figure 5: Contraceptives use



Current use of contraceptives among respondents is 61.4% which is about 16.5% drop considering the percentage who reported ever using contraceptives.

“As for use of contraceptives I can say it has improved and continue to do so. Yes some few women are dropping out because of the adverse effects but usually when we educate them that with time they will be fine, some of them go back. So, all in all, we can say 100% are using but those who come to the CWC, I can say many of them are using contraceptives” (Midwife, Anaafubiisi health centre)

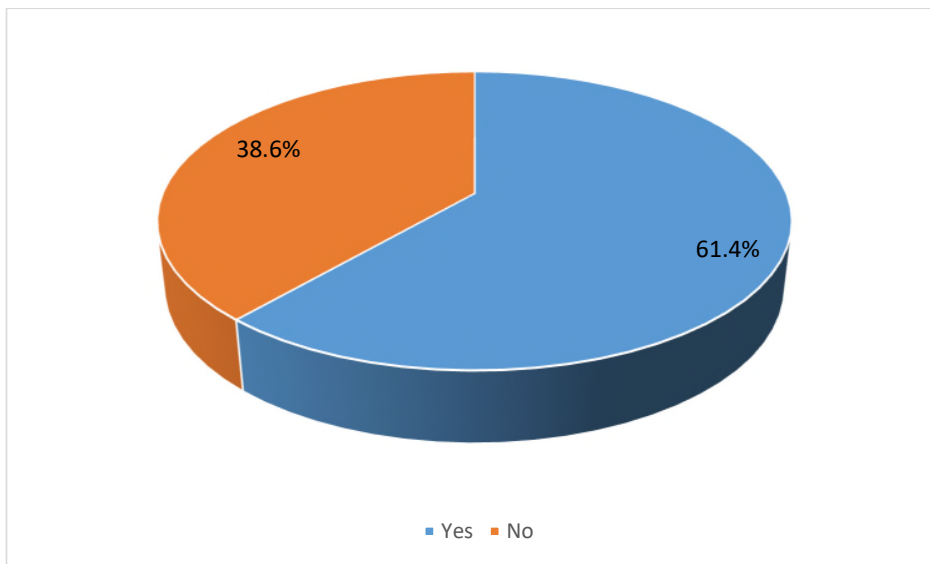


Figure 6: Respondent current use of contraceptives

Many of the respondents, 48.8% (80/164) reported adverse effects of contraceptives as their reason for non-use, 24.4% (40/164) of the respondents indicated that the experiences of friends as their reason for non-use of modern contraceptives and only 3.7% (6/164) of the respondents reported lack of knowledge as their reason for non-use of contraceptives. Also 95.5% (406/425) of the respondents however reported that use of contraceptives is



good. About 50.4% (132/261) of the respondents reported that use of contraceptives is good because it helps them to space, 19.3% (50/261) reported limiting and only 12.5% (32/261) reported improves child's health as reasons why contraceptives use is good. In addition, 89.6% (147/164) reported fear of adverse effects and the rest reported religious disapproval, fear of infertility and cause of sickness as reasons for indicating that the use of contraceptives is not good, (table 4.5).

Table 4.5: Perceptions about use of contraceptives

Respondents reasons for non-use	Frequency	Percent %
Inadequate knowledge	6	3.7
Want of more children	28	17.1
Bad experiences from friends	40	24.4
Use of natural methods	10	6.1
Adverse effects	80	48.8
Total	164	100
Whether contraceptives use good		
Yes	406	95.5
No	19	4.4
Total	425	100
Respondents reason if good		
Help space	132	50.4
Help limit	50	19.3
Improves mother's health	47	17.9
Improves child's health	32	12.5
Total	261	100
Respondents reasons if not good		
Cause sickness	10	6.1
Fear of infertility	3	1.6
Religious disapproval	4	2.6
Fear of adverse effects	147	89.6
Total	164	100

Source: Field work, 2019



Figure 7 illustrates the most preferred contraceptives by respondents. Majority of the respondents (65.9%) reported that injectables were their most preferred contraceptives, 23.1% chose implants and only 4% chose condoms.

“They come for all the methods here but the injectables and the implants are what they use most. For the pills and condoms, the hardly patronize those. Even the pills are better but for the condom I can’t remember the last time someone came for some” (Midwife, Anaafubiisi health centre)

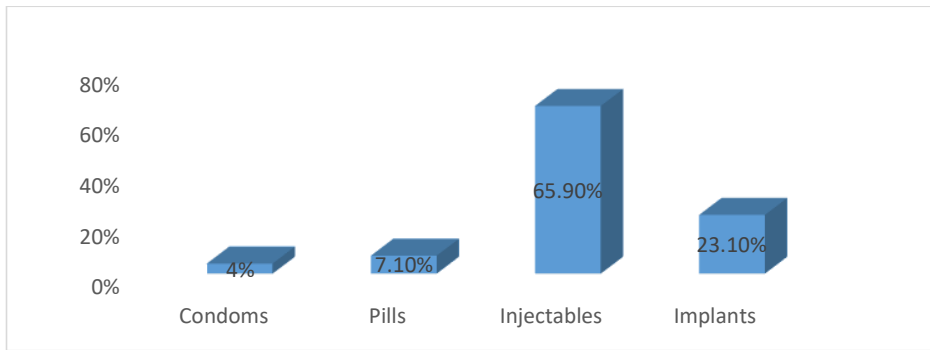


Figure 7: Most preferred contraceptive methods

Many of respondents (49.2%) indicated that the choice of their most preferred contraceptive is because they are easy to use, 21% indicated that its less expensive, 17.5% said because there are no adverse effects and only 12.3% reported availability of the method as their reasons.



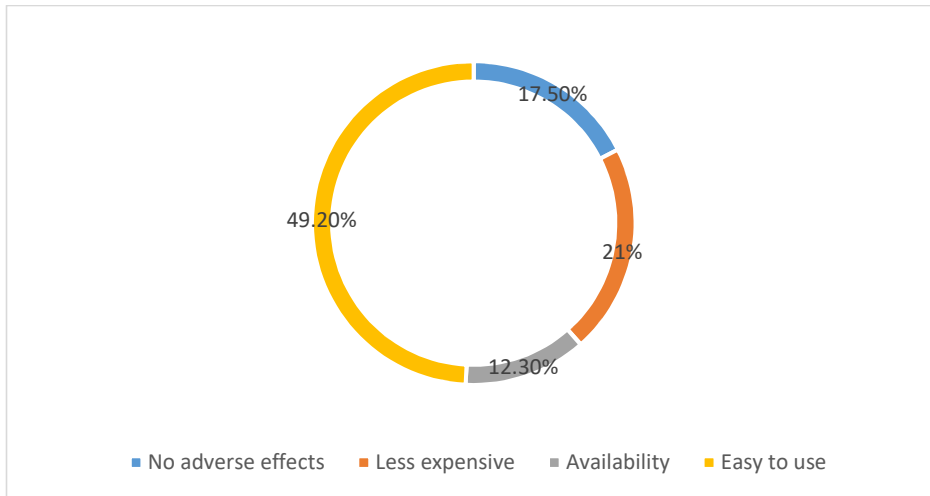


Figure 8: Reasons for preferred choices

The reasons respondents gave for reporting that contraceptives use was good is significantly related to their preferences ($P < 0.000$). Further the respondents reported the injectable contraceptives as their most preferred contraceptive. About 66.4% (142/214) of those who preferred injectables said contraceptives use was good for spacing, 72% (59/82), 71.1% (54/76) and 47.2% (25/53) of respondents reported limiting, improvement in mother's health and improvement in children health as good reasons for use of contraceptives respectively. Cause of sickness, fear of infertility, religious disapproval and fear of adverse effects were reasons why contraceptives use was not good as reported by respondents. The association between reasons if not good and contraceptives preferences was significant ($P < 0.000$). Respondents also gave varied reasons for choosing the different contraceptives methods and this was significantly associated with contraceptives preferences. Majority of the respondents reported injectables as not having adverse effects, less expensive, more available and easier to use, (table 4.6)



“Most of the people, I mean the women who come here to the CWC choose the different methods because they think the adverse effects that comes with them are better than others. Others also think that the injectable is always available and the pay just GHC 1 for it. If you consider all these things then you will understand why they rather prefer the injectable more than the others” (Community Health Nurse, Namoo Health Center).

Table 4.6: Association between respondents use of contraceptives and their preferences

Respondents reason if good	Most preferred contraceptive method					P-Value
	Condoms	Pills	Injectables	Implants	Total	
Help space	13(6.1%)	7(3.3%)	142(66.4%)	52(24.3%)	214(100%)	0.000
Help limit	0	12(14.6%)	59(72%)	9(11%)	82(100%)	
Improves mother's health	3(3.9%)	6(7.9%)	54(71.1%)	13(17.1%)	76(100%)	
Improves child's health	1(1.9%)	5(9.4%)	25(47.2%)	22(41.5%)	53(100%)	
Total	17(4%)	30(7.1%)	280(65.9%)	96(22.6%)	425(100%)	
Respondents reasons if not good						
Cause sickness	3(11.5%)	5(19.2%)	15(57.7%)	3(11.5%)	26(100%)	0.000
Fear of infertility	0	3(42.9%)	2(28.6%)	2(28.6%)	7(100%)	
Religious disapproval	2(18.2%)	0	4(36.4%)	5(45.5%)	11(100%)	
Fear of adverse effects	12(3.1%)	22(5.8%)	259(68%)	86(22.6%)	381(100%)	
Total	17(4%)	30(7.1%)	280(65.9%)	96(22.6%)	425(100%)	
Reasons for choosing that method						
No adverse effects	2(2.7%)	8(10.8%)	52(70.3%)	12(16.2%)	74(100%)	0.009
Less expensive	3(3.4%)	5(5.6%)	62(69.7%)	19(21.3%)	89(100%)	
Availability	5(9.6%)	2(3.8%)	27(51.9%)	16(30.8%)	52(100%)	
Easy to use	7(3.4%)	13(6.3%)	139(66.8%)	49(23.6%)	208(100%)	
Total	17(4%)	28(6.6%)	280(66.2%)	96(22.7%)	423(100%)	

Source: Field work, 2019



4.4 Factors Influencing Contraceptive Preferences

This part of the study presents results on the factors that influence contraceptive preferences among women attending antenatal clinics within the Bongo District of the Upper East Region.

Many of the respondents (39.20%) reported that they have ever used STI services, 35.7% reported ever patronizing family planning services, use of antenatal services (18.2%) and only 6.9% of the respondents indicated ever patronizing preconception counselling. A key informant shared her experiences as follows;

“..... As for STIs, family planning services they will get them when they are pregnant and come for ANC. They will do all the necessary test for STIs and we will tell them the need for contraception when they deliver. All this contributed to the high use of contraception among those women who come for CWC” (Community Health Nurse, Namoo Health Centre).

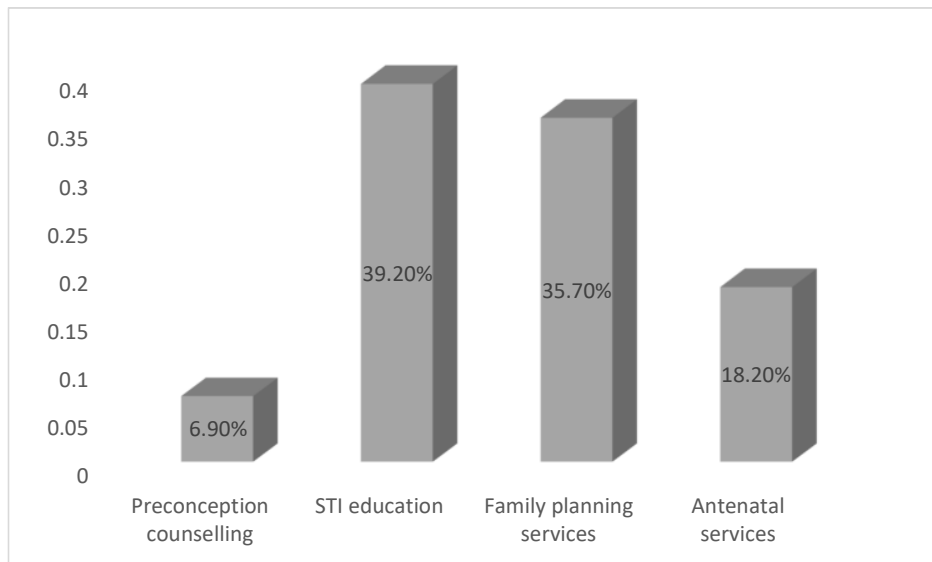


Figure 9: Use of maternal health services



Table 4.7 illustrates the use of maternal health services by respondents. Respondents use of maternal health services is significantly related to their contraceptive preferences ($P < 0.004$). Majority of the respondents who have patronized STI education, 64.5% (107/166) preferred injectables, 66.2% (100/151) of those who patronize family planning services preferred injectables and half of those who patronize preconception counselling {50% (12/24) preferred the injectable contraceptives.

“You know this is a rural area so hardly will you find women coming for preconception counseling. As for STIs, family planning services they will get them when they are pregnant and come for ANC. They will do all the necessary test for STIs and we will tell them the need for contraception when they deliver. All this contributed to the high use of contraception among those women who come for CWC” (Community Health Nurse, Namoo Health Center)

Table 4.7: Association between use of maternal health services and contraceptive preference

Respondents use of maternal health services	Most preferred contraceptive method					P-Value
	Condoms	Pills	Injectables	Implants	Total	
Preconception counselling	0	6(25%)	12(50%)	6(25%)	24(100%)	0.004
STI education	5(3.0%)	14(8.4%)	107(64.5%)	38(22.9%)	166(100%)	
Family planning services	11(7.3%)	6(4%)	100(66.2%)	34(22.5%)	151(100%)	
Antenatal services	1(1.2%)	2(2.4%)	61(74.4%)	18(22%)	82(100%)	
Total	17(4%)	28(6.6%)	280(66.2%)	96(22.7%)	423(100%)	

Source: Field work, 2019



4.4.2 Fertility Preferences of Respondents

This part assesses how fertility preferences of respondents could influence contraceptive preferences among respondents. This includes the parity of respondent's number of children they wish to have, age of respondent's last child and when they wish to have their next child.

Many of the respondents (37.6%) reported of having a child, 33.3% reported of having 2 children and only 13.9% reported of having 4 or more children.

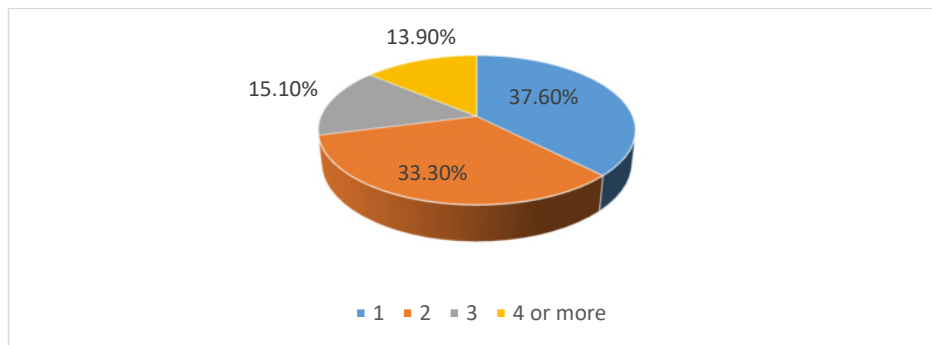


Figure 10: Parity of respondent

The figure 11 below indicates the number of children respondents wish to have. About 42.3% reported that their preferred number of children are 4 or more, 25.9% wish to have 3 children, 22.3% reported that the number of children God gives them and only 3.3% wanted to have just a child. A key informant corroborated this finding as she states;

“I don't know if the fertility decisions of our women here will influence how they use contraceptives..... Women who however have like 4 children or more may want to reduce their births and hence may start using contraceptives”
(Community Health Nurse, Beo Health Center)



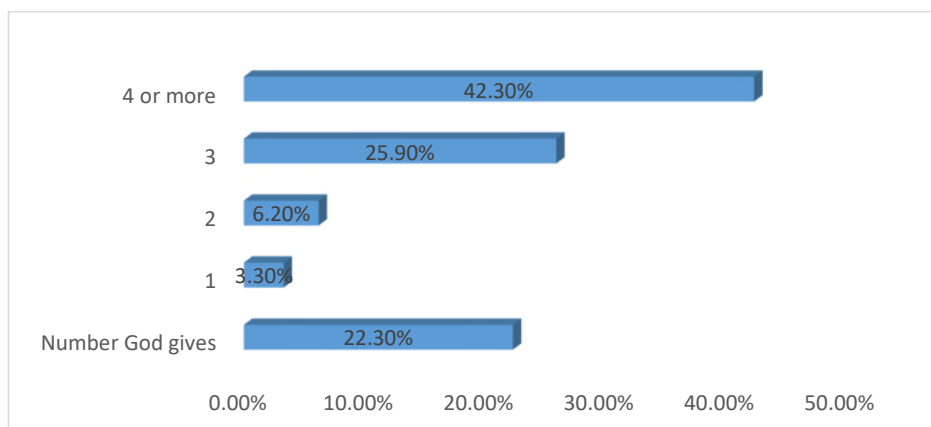


Figure 11: preferred number of children

About 54.6% (231/425) of respondents as indicated in table 4.8 below reported that their last child was aged 1-6months, 31.2% (132/423) reported that their last child was aged 7months – 1 year and only 0.5% (2/423) reported that their last child was 2 years old. Also, 61.7% (261/423) of the respondents indicated that the wish to have their next child in 3 or more years, 20.1% (85/423) said they want to have their next child within 2 years and only 7.6% (32/423) of the respondents did not want any child again.

Table 4.8: Fertility preferences

Age of respondents last child	Frequency	Percent
1-6months	231	54.6
7mnths-1 year	132	31.2
1.5 years	58	13.7
2years	2	0.5
Total	423	100
When respondent want to have her next child		
Not again	32	7.6
Within 1 year	45	10.6
Within 2yreas	85	20.1
Three or more years	261	61.7
Total	423	100

Source: Field work, 2019



The association between fertility preferences of respondents and their contraceptive preferences has been presented in table 4.7. Respondents' parity is strongly associated with their contraceptive's preferences ($P < 0.000$). As their parity increases, their preference for contraceptives reduces. The association between when respondents want to have their next child and their contraceptive preferences also have a strong significant relationship ($P < 0.000$). As the time they want their next child's advances, their preferences for all contraceptives as presented above increases. Further, age of respondents last child is also related significantly with respondents' contraceptive preferences ($P < 0.000$). As age of last child advances preference for contraceptives increases, (Table 4.9)

“I don't know if the fertility decisions of our women here will influence how they use contraceptives, but I say that, you know the newly married women who want to proof their womanhood will not just start using contraceptives when they don't have children. Women who however have like 4 children or more may want to reduce their births and hence may start using contraceptives” (Community Health Nurse, Beo Health Center).



Table 4.9: Association between fertility preferences and contraceptive preference

Fertility preferences	Most preferred contraceptive method					P-Value
	Condoms	Pills	Injectables	Implants	Total	
1	11(6.9%)	12(7.5%)	105(66%)	31(19.5%)	159(100%)	0.000
2	0	7 (5%)	97 (68.8%)	37(26.2%)	141(100%)	
3	4(6.3%)	5(7.8%)	44(68.8%)	9(14.1%)	64(100%)	
4 or more	2(3.4%)	4(6.8%)	34(57.6%)	19(32.2%)	59(100%)	
Total	17(4%)	28(6.8%)	280(66.3%)	96(22.8%)	423(100%)	
When respondent want to have her next child						
Not again	0	2(6.3%)	18(56.3%)	10(31.3%)	32(100%)	0.000
Within 1yr	2(4.4%)	4(8.9%)	34(75.6%)	5(11.1%)	45(100%)	
Within 2yrs	3(3.5%)	7(8.2%)	67(78.8%)	8(9.4%)	85(100%)	
Three or more years	12(0.8%)	15(5.7%)	161(61.7%)	73(28%)	261(100%)	
Total	17(4%)	28(6.8%)	280(66.3%)	96(22.8%)	423(100%)	
Age of respondents last child						
1-6months	13(5.6%)	11(4.8%)	154(66.7%)	53(22.9%)	231(100%)	0.000
7mnths-1yr	2(1.5%)	8(6.1%)	86(65.2%)	34(25.8%)	132(100%)	
2yrs	2(3.3%)	9(15%)	40(66.7%)	9(15%)	60(100%)	
Total	17(4%)	28(6.8%)	280(66.3%)	96(22.8%)	423(100%)	

Source: Field work, 2019

4.4.3 Availability of Health Staff that provide contraceptives services

The figure below illustrates the core staff who are trained to provide family planning services. Eventhough it is the Doctors and Midwives who are mostly trained to provide these services, they can be provided by any clinical staff who is trained to do so.

From figure 12 below, only 14.7% (46/312) of the staff are midwives, 47.1% are General Nurses, 34% are community health nurses, 3.5% are Medical Assistants and only 0.6% are Medical Officers.



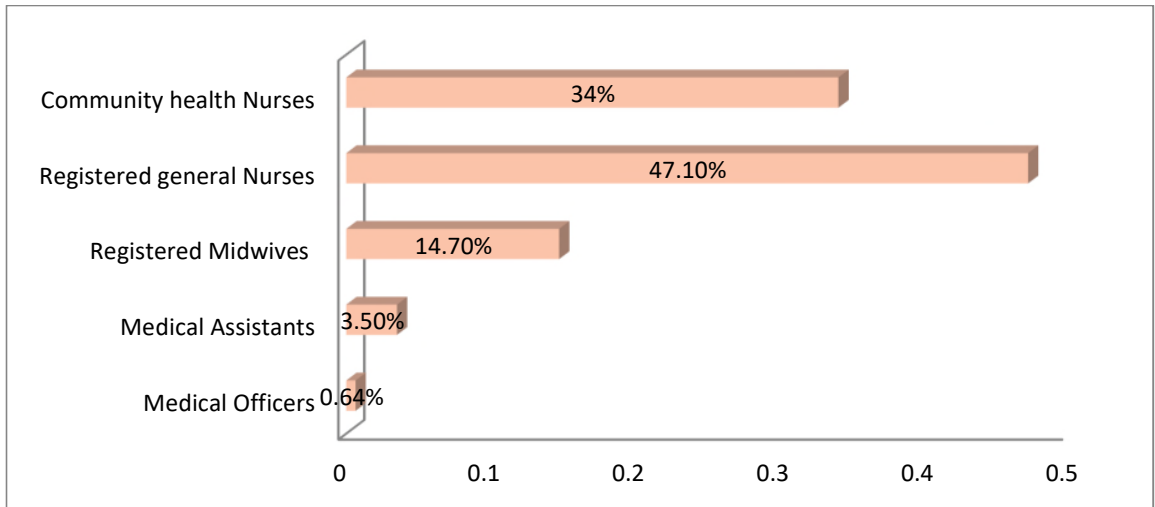


Figure 12: Distribution of clinical staff within the Bongo District



CHAPTER FIVE (5)

DISCUSSION

5.0 Introduction

This chapter of the study throws more light on the results as presented in chapter four (4). This chapter compares the findings of this study to existing literature in the subject area, identifies gaps that have been covered, raise unanswered questions and explains why the results of this study should be accepted for the purpose of influencing contraceptives policy in Ghana and beyond.

5.1 Contraceptives use and preferences

The issue of contraceptives use and preference among women in reproductive health has been copiously researched into in the past few decades. The findings of this study are that of the preferences of post-partum women. Findings of this study suggest that respondents who have used contraceptives were in the majority. Even though not all those who had ever used contraceptives were still using, more than 60% of mothers attending the Child Welfare (CWC) were still using contraceptives at the time of the study. This finding grossly disagrees with findings by (Mengesha et al., 2015) in Ethiopia who found just 10% use of contraceptives among postpartum women and (Ogechi et al., 2017) who found a little over 40% of respondents using contraceptives. The findings of this study however corroborate the findings by (Bwazy et al., 2014) in Malawi when they also found over 70% use of contraceptives among postpartum women which is even above the 61.4% found in this study. The high level of knowledge respondents demonstrated in this study and that of Bwazy et al's may be accounting for the higher use of contraceptives as existing literature suggest an association between knowledge on contraceptives and use of same. On the other



hand, (Mengesha et al., 2015: Ogechi et al., 2017) assessed awareness not necessarily knowledge. Though the reported higher awareness levels, this did not translate into utilization of contraceptives because they may exhibit awareness but lack adequate knowledge and hence the disparities. Activities such as mass education at market centers, local radio stations, community education through durbers, community distribution of contraceptives methods and involvement of partners being undertaken by the Bongo District Assembly (BDA) might have also contributed substantially to the high utilization of contraceptives among respondents. The study also assessed the preferences of respondents for various contraceptives. Findings on this score indicate that majority of the respondents prefers the injectable contraceptives followed by the implants. Many of those who were not even using contraceptives at the time of the study reported that they prefer the injectable contraceptives. This disagrees with (Yilmazel & Baci, 2013) when they reported the IUD as the most preferred contraceptive among postpartum women. The findings by (Eliason et al., 2013) also in Ghana corroborates this current finding from Bongo District. Their finding also indicated a high preference for the injectable. However, while (Eliason et al, 2013) reported knowledge and past experiences as reasons for respondents' preferences, this study found easy to use, less expensive, no adverse effects and availability of the contraceptives as the reasons for their preferences. Arguably, the injectable contraceptives are easier to use, less expensive and almost universally available hence the reasons assigned by respondents are very critical. This explains why the findings of scholars like (Jalanng et al., 2012: Cleland et al., 2012: Anaba et al., 2018) which suggest that the injectable contraceptive is the most preferred followed by the implants. Factors like reasons for choosing a particular contraceptive, reasons for use or non-use of



contraceptives are all significantly associated with the contraceptives preferences among postpartum mothers. These reasons corroborate findings of other scholars as presented above.

5.2 Levels of Knowledge on Contraceptives

Knowledge on contraceptives were explored in this study to determine the extent to which knowledge influences contraceptive preferences among respondents. Findings by this study showed that a level of knowledge was very high among respondents. Over 50% of the respondents have very high knowledge and less than 10% and 15% have low level and moderate levels of knowledge respectively. This finding agrees with that of (Thapa et al., 2014; Narh, 2017) when they also found majority of the respondents had knowledge on contraceptives. Unlike this study which found that most of the respondents had their information on contraceptives from health workers, Thapa et al., and Narh reported that the mass media was the main source of information on contraceptives. This may be so because this current study was conducted in a district where majority of the respondents resides in rural communities and hence may not have access to the mass media such as newspapers, television or even radio. In circumstances like this the mainly relies on health workers. It however refreshing to note that the higher knowledge in contraceptives as found by this study results in increased use and contraceptives preferences among respondents. Even though this study did not find any significant relationship between knowledge and contraceptives preferences, most of those with very high knowledge and high knowledge reported higher preferences for contraceptives than those with low or moderate knowledge. A public health Nurse at the Bongo hospital share her opinion in these words. This finding disagrees with (Asaarik & Adongo, 2018; Anaba et al., 2018 and Hagan & Buxton, 2012)



when they reported higher levels of knowledge on contraceptives but indicated that the higher knowledge did not translate into higher use of contraceptives among respondents in their studies. The difference however is that while this study was conducted among postpartum women attending the CWC who are most likely to use contraceptives so as to prevent unplanned pregnancy at the early stages of their postpartum period, scholars like Asarik and Adongo, Anaba et al., and Hagan and Buxton carried out a community-based study which included mostly women in their reproductive health. Most of the respondents in their studies may be indifferent to getting pregnant or may not have gotten education on the consequences on non-use of contraceptives and hence the low use of contraceptives despite their higher levels of knowledge on contraceptives.

5.3 Factors Influencing Contraceptives Preferences among Postpartum Women

Factors such as use of maternal health services, fertility preferences, socio-demographic characteristics and socio-economic factors were explored in this study to determine the extent to which they are associated with contraceptives preferences among post-partum women attending the CWC clinics in the Bongo District.

5.3.1 Use of Maternal Health Services

Uses of maternal services were also explored in this study to assess their association with postpartum preference for contraceptives among respondents. This study found that majority of the respondents has ever used STI services followed by family planning services. The association between use of maternal health services and contraceptive preferences was significant ($P < 0.004$). This indicates that the use of maternal health services influences the type of contraceptives that respondents prefers most. This finding corroborates (Cooper & Cameron, 2018) in the United Kingdom and (Lauria et al., 2014)



in Italy when they found that use of maternal health services especially in the prenatal period has a strong relationship with contraceptives choices and or preferences in the postnatal period. This is probably because, mothers who seek and use maternal health services such preconception counseling, STI services, Family planning among others are more likely to appreciate use of contraceptives in the postnatal period. This indeed has been the objective of the Community Health Planning and Services (CHPS) which was to send primary health care services such as that of maternal health services to the doorsteps of individuals. Anecdotal information existing in the district indicates that there is a detail implementation of the CHPS concept which has also contributed to the high level of contraceptives use in the district as found by this study. The findings by (Dexit et al., 2017) agrees with this position when they reported that women who visit the health facility at least twice during pregnancy are more likely to use contraceptives than those who never visits during pregnancy. Eventhough (Asaarik & Adongo, 2018) found availability, affordability and area of residence as well as distance to health facilities as impediment to the use of family planning services in the West Mamprusi district of northern Ghana, those who are able to break this barriers to access services have higher propensity for the use of contraceptives services as reported by (Eliason et al., 2018).

This confirms that use of maternal health services at the prenatal level can influence use of contraceptives at the postnatal period.

5.3.2 Fertility preferences

The fertility preferences of postpartum mothers as reported by some scholars have a great influence on the contraceptive preferences of mothers. This is because the fertility choices women and their partners make are critical in defining their contraceptives preferences.



Findings by (Ogechi et al., 2017) indicate that over 40% women were not using any contraceptive because they wanted to have more children. Majority of the respondents in this study wanted 4 or more children and over 60% of the respondents wanted to have their next child in three (3) years' time. There was however a significant relationship between respondents' parity, when they want to have their next child and age of respondents' last child and preference for contraceptives. The findings of this study further explain that the more respondents want to delay their next child the higher their contraceptives preferences. This corroborates the findings by (Eliason et al., 2018) when they reported that parity of mothers and preferred number of children have a significant relation with contraceptives preferences in the postpartum period. This implies that the higher the number of children the more likely mothers are to use contraceptives and when mothers prefer higher number of children their preference for contraceptives may reduce.

5.3.3 Socio demographic characteristics

Socio-demographic characteristics were as assessed by the researcher to assess the extent of their association with contraceptives preferences among postpartum women in the Bongo district. Findings of this study suggest that some socio-demographic characteristics such as respondents' partner's level of education, their religious affiliation and their income levels have a significant association with contraceptive preferences of respondents. For instance, the preference for the injectable contraceptives reduces as their level of education advances except at the secondary level where most respondents preferred the injectables and those with vocational education who were the minority in terms of their preferences. These findings disagree with that of (Rutarimwa et al., 2015) when they found primary and higher education to have significant influence on contraceptives preferences. This



current study rather witnessed a trend whereas respondents advances in their level of education, their preferences for all contraceptives methods reduces except those with secondary school education whose preferences were high. What may account for these differences may be because of the emergence of other methods such as the IUD, cycle beads which some respondents may get to appreciate better as the advance in education and hence their preference for methods like the injectables, implants among others may reduce. These current methods may be difficult to understand and use correctly by respondents with low level education. Findings by (Iheyinwa Oladosun, 2017) however corroborates aspects of this study when they found level of education, wealth index (income levels) to have a significant influence on postpartum contraceptives preferences. Their findings however suggest that higher education and wealth index was associated with increase in the preferences and use of contraceptives which differs from the current findings. This current study found for instance that as income reduces the preference for contraception increases. This contradicts (Iheyinwa & Oladosun, 2017) when they reported that those with higher wealth index have higher preference for contraceptives because they can afford. The reason for this new finding may also be associated with the hardship that accompany many children with low income and hence the lower their income the more interest they develop for contraceptives and hence their high preference as income reduces. Scholars like (Par, 2003; Eliason et al., 2018) found age to have an association with contraceptives use and preferences. This current study did not find age as a significant factor in determining contraceptives preferences. The current findings on the influence of socio-demographic characteristics on contraceptives preferences among post-partum



women attending ANC will have implications for policy formulation, implementation and evaluation.

5.3.4. Availability of health staff that provide contraceptives services

Findings by this study showed that the health staff who has a responsibility for providing contraceptives services were very limited. The District has a total of 2 Doctors who are mainly responsible for providing contraceptives services especially the implants and IUDs. Clearly these doctors cannot provide these services throughout the district. The 2009 USAID task shifting strategy which has been adopted by the Ghana health services is being implemented by the Bongo District Health Authorities where some contraceptives services are being provided by Midwives and General Nurses and to some extent community health nurses. Findings however suggest that despite the task shifting, the number of staff remain limited and hence the trend of contraceptives acceptance in the district continuously decreased since 2017. This finding agrees with the Ghana Health Service 2018 report which indicates that though there has being a phenomenal increase in nurses and midwives, there has not been a commiserate improvement in contraceptives use. This study also disagreed with (USAID, 2009) report which had evidence of improved contraceptives use due to task shifting from Doctors to Nurses and midwives. This study found that though nurses and Midwives were providing these services, there was decrease in contraceptives acceptor rates in some instances.



CHAPTER SIX (6)

SUMMARY OF FINDINGS

6.0 Introduction

This chapter presents a summary of the findings of this study. Components of this chapter include, summary of key findings of the research, Implications of the findings for postpartum contraceptives use and preferences, conclusion and recommendations of the study.

6.1 Summary of key findings

1. Many of the respondents were within the age group of 20-24 and many of them had only basic educational qualification.
2. An overwhelming majority of the respondents were resident in rural communities and more than 70% of them were Christians.
3. Majority of the respondents were married and more than 505 were unemployed.
4. Majority of the respondents were traders and were within the low-income brackets
5. Socio-demographic characteristics such as partner's level of education, religious affiliation and income levels were significantly related to contraceptive preferences.
6. The commonest source of contraceptives information was from health workers.
7. Majority of the respondents were still using contraceptives at the time of the study
8. Majority of the respondents reported that contraceptives use was good but most of them cited fear of adverse effects as a challenge of contraceptives.
9. The most preferred contraceptive was the injectable and easy to use was reported by majority as reasons for their preferences.



10. Reasons cited for why contraceptives use was good, reasons why it was not good and reasons for their preferences were significantly related to their contraceptive's preferences.
11. There was a significant relationship between use of maternal health services and contraceptives preferences. The most used maternal health service was STI services.
12. There was also a significant relationship between age of respondents' last child and when respondent intends to have her next child and contraceptive preferences.

6.2 Implications for the findings

The findings of this study have some implications for postpartum use of contraceptives.

- The significant relationship between use of maternal health services and contraceptives preferences imply that when women are encouraged especially in their prenatal period to use maternal services, they will likely use contraceptives in the period of postpartum.
- Levels of education and incomes as well as religion have been shown to be significantly related to contraceptives preferences and certainly have implications for use of contraceptives.
- The fertility choices of respondents also have implications for use of postpartum contraceptives as found by this study.



6.3 Conclusion

This study concludes that knowledge and use of contraceptives is appreciable high among respondents in the Bongo district. The most preferred contraceptive is the injectable. Fertility preferences among respondents was one of the factors that had a significant relationship with contraceptives preferences.

6.4 Recommendations

The study recommends the following;

- ❖ The Bongo District health authorities should maintain their relationships with other stakeholders such as NGOs to empower health workers to continue their community-based education and advocacy on maternal and child health.
- ❖ The district branch of the Ghana education service must prioritize girl child education as this study has found a relationship between education and contraceptives preferences.
- ❖ The Bongo District Assembly should initiate and train women on income generating activities since levels of income empowers women to afford contraceptives methods.
- ❖ District health authorities should also engage with religious bodies within the district to encourage contraceptives use among members who wish to space or limit their births.
- ❖ The Ghana health service must continue their advocacy for contraceptives method to be provided under the NHIS so that the issue of financial barriers is dealt with. The regional health directorate should ensure that there is



regular stocking of the regional medical stores with especially the injectable contraceptive which is the most preferred.

- ❖ The study recommends a future qualitative study in the area of partners' perception about the use of contraceptives.
- ❖ The district health authorities should increase the training of community health workers to provide contraceptives such as the oral pills and the injectables.



REFEENCES

- Adofo, (2014). Postpartum contraceptive use among young mothers in Kwabibirem district, Ghana. Published thesis. University of Ghana.
- Anaba R., Ugwa E. A., Agbor I. E., Nwali M. I., Orji B., (2018). Knowledge, Attitude and Contraceptive Preferences among Postpartum women in Izzi, Ezza south and Ikwo Local Government Areas of Ebonyi State, Nigeria. Hospital Practices Research. 3(1): 11-15. Doi: 10.15171/hpr.2018.03. <http://www.jhpr.ir>
- Anguzu R., Tweheyo R., Sekandi J. N., Zalwango V., Muhumuza C., Tusiima S. and Serwadda D., (2014). Knowledge and Attitude towards Long Acting Reversible among women of reproductive age in Lubaga Division, Kampala District, Uganda. BMC Research Notes. 7:153. <http://www.biomedcentral.com/1756-0500/7/153>
- Asaarik M. A. J. and Adongo W., (2018). Factors Influencing Unmet Need For Family Planning among Women in Fertility Age (15-49 years old) in West Mamprusi District in the Northern Region of Ghana. International Journal of Caring Sciences. 11(2): 883. www.internationaljournalofcaringsciences.org
- Bawz C. Maluwa A., Chimwaza A., and Pindani M., (2014). Utilization of Postpartum Family Planning Services between six and twelve Months of Delivery at Ntchisi District Hospital. Malawi Health, 6, 1724-1737. <http://dx.doi.org/10.4236/health.2014.614205>.
- Blazer C. and Prata N., (2016). Postpartum Family Planning: current evidence on successful interventions. Open access Journal on Contraceptives. 7: 53-67.



Bongo District (GHS), (2019). Mid-Annual report

Bongo District Annual Health Report, (2017). District annual health report of the Bongo District, Upper East Region.

Bongo District Health Directorate, (2018). District annual health report.

Bongo District Health Directorate, (2013). Bongo District Health profile. District Archives.

Cleland J., Conde-Agudelo A., Peterson H., Ross J., Tsui A., (2012). Family Planning Needs in The First Two Years Postpartum In Ghana. *Contraceptives and Health. The Lancet.* 380(9837): 149-156.

Cooper M. and Cameron S., (2018). Successful implementation of immediate postpartum intrauterine contraception services in Edinburgh and framework for wider dissemination. *International Journal of Gynecology and Obstetrics.* 143(1): 56-61. Doi: 10.1002/ijgo.12606

Dixit P., Dwivedi L. K. and Gupta A., (2017). Role of maternal and child health Care services and Postpartum Contraceptive Adoption in India. *Journals.sagepub.com/home/sgo.*1-12. Doi: 10.1177/2158244017733515.

Eliason S. K., Bockarie A. S., and Eliason C., (2018). Postpartum Fertility behaviors and contraceptives use among women in rural Ghana. *BMC Contraception and Reproductive Medicine.* 3:13. <https://doi.org/10.1186/s40834-018-0066-9>

Eliason S., Baiden F., Quansah-Asare G., Graham-Hayfron Y., Bonsu D., Philips J. and Awusabo-Asare K., (2013). Factors Influencing the Intentions of Women in Rural



Ghana to Adopt Postpartum Family Planning. *Reproductive Health*. 10:34.
<https://www.reproductive-health-journal.com/content/10/1/34>

Eliason S., Baiden F., Tuoyire D. A., and Awusabo-Asare K., (2018). Sex Composition of Living Children in a Matrilineal inheritance system and its association with pregnancy intendedness and postpartum family planning intentions in rural Ghana. *BMC Reproductive Health*. 15:187. <https://doi.org/10.1186/s12978-018-0616-2>.

Ghana Statistical Service (GSS), 2010 Population and Housing Census: Summary Report of Final Results, The GSS, Accra.

Ghana Health Service (GHS), (2018). Annual report.

Gizaw W., Zewdu F., Abuhay M. and Bayu H., (2017). Expanded Postpartum Modern Contraceptive utilization and associated factors among women in Gozamen District, East Gojam Zone, NorthWest Ethiopia. *Insight in reproductive Medicine*. 1(2).

Hagan J. E. and Buxton C., (2012). Contraceptives Knowledge, Perceptions and Use Among Adolescents in Selected Senior High Schools in the Central Region Ghana. *Journal of Sociological Research*. 3(2). ISSN 1948-5468.
<http://dx.doi.org/10.5296/jsr.v3i2.2311>

Heller R., Cameron S., Briggs R., Forson N. and Glasier A., (2019). Postpartum contraception: A missed opportunity to prevent unintended pregnancy and short



inter-pregnancy intervals. J fam plan Reprod Health Care. Doi:
10.1136/jfprhc2014-101165. <http://srh.bmj.com>

Iheyinwa S. and Oladosun M., (2017). Socio-demographic Factors, Contraceptive Use and Fertility Preferences Among Married Women in South-South Region of Nigeria. 3rd International Conference on African Development Issues (CU-ICADI 2016). ISSN: 2449-074X. ResearchGate.
<https://www.researchgate.net/publication/321027778>

Kadam P. & Bhalerao S., (2010). Sample size calculation. International Journal of Ayurveda Research. 1(1): 55-57. <http://doi.org/10.4103/0974-7788.59946>.

Lauria L., Donati S., Spinelli A., Bonciani M. and Grandolfo M. E., (2014). The effect of contraceptives counseling in the pre and post-natal period on contraceptives use at three months after delivery among Italian and Migrant women. Ann Ist Super Sanita. 50(1): 54-61. DOI: 10.4415/ANN-14-01-09.

Mengesha Z. B., Worku A. G. and Feleke S. A., (2015). Contraceptive Adoption in the extended Postpartum period is Low in the North West Ethiopia. BMC Pregnancy and Childbirth 15:160. DOI 10.1186/1512884-015-0598-9

Metcalfe A., Talavlikar R., Du Prey B., and Tough S. C., (2016). Exploring the relationship between socio-economic factors, methods of contraception and unintended pregnancy. BMC Reproductive Health. 13:28. Doi: 10.1186/s12978-016-0151-y

Nance N., Ralph L., Padian N., Cowan F., Buzdugan R., Mushav A., Mahova A., and McCoy S., (2018). Unintended pregnancy and subsequent Postpartum long-acting



reversible Contraceptive use in Zimbabwe. BMC Women Health. 18:193. <http://doi.org/10.1186/12905-018-0668-2>.

Nath J., (2017). Contraception in Postpartum Women in North India: A Study of Knowledge, Concepts and Practice. SciFed Obstetrics and Women Healthcare Journal. 1:1

Ogechi A. C., Akingunola B.O., Owopetu C.A., (2017). Awareness, Use and Barriers to Modern Contraceptives among Inner City Mothers attending Child Welfare Clinic at selected Health Facilities in Abeokuta, Nigeria. International Journal of Research Publication. 7(10): 2250-3153.

Parr N. J., (2003). Discontinuation of contraceptives use in Ghana. J Health POPUL NUTR. Centre for health and population research. ISSN 1606-0997.

Ramarao S., Ishaku S., Liambila W., and Mane B., (2015). Enhancing contraceptive choice for Postpartum Women in Sub-Saharan Africa with the Progesterone Vaginal ring: a review of the evidence. Open Journal of contraception.6:117:123.

Rutaremwaga G., Kabagenyi A., Wandera S. O., Jhamba T., Akiror E. and Nviiri H. L., (2015). Predictors of modern contraceptives during the postpartum period in Uganda: a population-based cross sectional study. BMC public Health. 15:262. Doi: 10.1186/s12889-015-1611-y

Scott V. K., Gottschalk L. B., Wright K. Q., Twose C., Bohren M. A., Schmitt M. E. and Ortayli N., (2015). Community Health Worker's Provision of Family Planning



Services in Low- and Middle-Income Countries: A Systematic Review of Effectiveness. Researchgate. Doi: 10.1111/j.1728-4465.2015.00028.x

Starbird E., Norton M., Marcus R., (2016). Investing in family planning: key to achieving the sustainable development goals. *Glob health sci. pract.* 4(2): 191-210. <http://dx.doi.org/10.9745/GHSP-D-15-00374>.

Thapa S., Rani A. and Mishera C.P, (2014). Knowledge, Attitude and Believe about Contraception in Post-partum and Post Abortal Women in a Tertiary Care Centre. *International Journal of Reproduction, Contraception, Obstetrics and Gyneacology.* 3(3):533-539. DOI: 10.5455/2320-1770.ijrcog20140912. www.ijrcog.org

UN, (2015). World Population Prospects. The 2015 revision: key findings and Advance Tables. Department of Economics and social Affairs. Population division. ESA/P/WP.241

USAID, (2009). Family Health Research. A forum for putting knowledge into practice. 3(2).

USAID, (2012). Postpartum Family Planning. New Research Findings and Program Implications.

USAID, (2014). Use of Family Planning in the Postpartum Period. DHS Comparative Reports 36.

USAID, (2019). Postpartum Contraception: Family Planning Methods and Birth Spacing After Child Birth. <https://www.globalhealthlearning.org> Accessed, 8/3/19.



WHO, (2013). Programmig strategies for Postpartum Family Planning. Department of Reproductive Health and Research. www.who.int/reproductivehealth

WHO, (2013). Programming strategies for Postpartum Family Planning. WHO library cataloguing-in-publication data. NLM classification: W550.ISBN 978924-1506496.

Yilmazel G. and Balci E., (2013). Preferences and Related Factors for Postpartum Contraception in Pregnant Women. Iran Journal of Reproductive Medicine. 11(10):801-806.



APPENDIX A

QUESTIONNAIRE FOR REPRODUCTIVE WOMEN ATTENDING CHILD WELFARE CLINIC IN THE BONGO DISTRICT

I am a student of the University for Development Studies (UDS) undertaking a research project on the topic “Assessing factors influencing contraceptive preferences among reproductive women attending the child welfare clinic in the bongo district, upper east region, Ghana” A written permission has been obtained from the University, the Ghana health service and heads of health facilities that will be involved in the study. I will be very grateful if you could consent and participate in this study. Any information given will be treated with utmost confidentiality. You can withdraw at any stage of the study if you so wish, your full participation is however encouraged since the benefits of this study will contribute to evidence base health care services for reproductive health services.

Date..... Signature/ thumbprint.....

Thank you for consenting to participate.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS	
1. Age	.....
2. Level of education	a. No formal education b. Basic education (primary/JHS) c. Secondary education d. Vocational e. Tertiary
3. Partners level of education.	a. No formal education b. Basic c. Secondary education. d. Vocational e. Tertiary education
4. Residential area	a. Rural





	b. Urban
5. Religious denomination	a. Traditional b. Christianity c. Islam d. Pagan
6. Marital status	a. Single b. Cohabiting c. Married d. Divorce
7. Employment status	a. Employed b. Unemployed
8. Occupation	a. Blue color jobs b. Teaching c. Health worker d. Trader
9. Level of income	.....
SECTION B. KNOWLEDGE AND LEVEL OF CONTRACEPTIVE USE	
10. Have you heard about contraceptives	a. Yes b. No
11. Where did you get your information from?	a. Health workers b. Teacher c. Community volunteer d. Mass media
12. Contraceptives are drugs that are used for abortion	a. True b. False
13. all contraceptives are short term	a. True b. False
14. All contraceptives are taken orally	a. True b. False
15. Implants are permanent contraceptive methods	a. True b. False
16. Pills can be taken by both men and women	a. True b. False
17. The pills are taken under the skin	a. True b. False
18. All implants can protect for only a week	a. True b. False
19. Injectables give the longest protection	a. True b. False

20. Emergency contraceptive pills are taken before sex	a. True b. False
21. Have you ever used any modern contraceptive method?	a. Yes b. No
22. If YES why are you using it?	a. For spacing b. For limiting c. Not applicable
23. Give reasons for why you have never used FP.	a. No adequate knowledge b. I want to have more children c. Bad experience from a friend d. I used natural methods e. Not applicable
24. Are you using any contraceptive method currently?	a. Yes b. No
25. Do you think it is good to use contraceptives?	a. Yes b. No
26. If yes what are your reasons?	a. Helps in spacing b. Helps in limiting c. Improves mothers health d. Improves child's health e. All the above f. Not applicable
27. If no what are your reasons?	a. It will make me sick b. It will make me not to be able to give birth again (Barren) c. It goes against my religious believes d. Not applicable
SECTION C.	
CONTRACEPTIVE PREFERENCES AMONG MOTHERS ATTENDING CWC	
28. Which of these methods is your most preferred method?	A. Condoms B. Pills C. Injectable D. Implants E. Beads F. Lubricants G. Emergency cont. pills H. Permanent method
29. Which of the following is your reason for choosing the above method?	a. No adverse effects b. Less expensive c. It is always available d. Easy to use





SECTION D. FACTORS THAT INFLUENCE CONTRACEPTIVE PREFERENCES AMONG MOTHERS ATTENDING CWC SECTION	
USE OF MATERNAL HEALTH SERVICES	
30. Which of the following maternal health services have you ever used? Choose as many as apply.	a. Preconception counseling b. Education on STIs c. Education on Family planning d. Antenatal services e. None of the above
FERTILITY PREFERENCES	
31. How many children do you have currently?	a. One
	b. Two
	c. Three
	d. Four or more
32. How many children do you plan to have?	a. The number God gives me
	b. One
	c. Two
	d. Three
	e. Four or more
33. What is the age of your last child?	a. 1-6 months
	b. 7 months to 1 year
	c. 2 years
34. When do you want to have your next child?	a. Not again
	b. Within 1 year
	c. Within 2 years
	d. Three or more years
35. Which of the following influence your choice of contraceptives? You can choose more than one option.	a. Knowledge b. Side effects c. Cost of services d. Availability of method e. Distance to service centers f. Acceptance by my partner g. Acceptance by my religion

APPENDIX B

KEY INFORMANT INTERVIEW GUIDE FOR IN-CHARGES OF FAMILY PLANNING UNITS

1. What are the range of family planning services/methods that are available in your facility
2. What is the level of contraceptive use among postpartum mothers in this facility
3. Have you observed any contraceptive preferences among these women? What are their preferences?
4. What accounts for these preferences?
5. Are family planning services integrated into maternal health services?
6. Do you think partners and religion negatively influence contraceptives use among postpartum mothers?
7. Do the mothers have adequate knowledge on contraceptives and their use?
8. Can you share with me challenges you encounter in the delivery of contraceptive services?
9. How do you overcome challenges you encounter in the delivery of contraceptive services?
10. What other factors do you think influence contraceptive preferences among mothers?

