SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

FACTORS INFLUENCING UPTAKE OF CONTRACEPTIVES AMONG LACTATING MOTHERS IN THE HOHOE MUNICIPALITY OF THE VOLTA REGION OF GHANA

BY

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THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FORTHE AWARD OF MASTER OF PUBLIC HEALTH DEGREE.

JULY 2017

DECLARATION

I Perfect Titiati of School of Public Health, University of Ghana, do hereby declare that excluding precise references which have been duly acknowledged, this submission is my own work towards my MPH degree and that, to the best of my knowledge, it contains no material which has been accepted for the award of any degree of University or elsewhere.

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DEDICATION

This project work is dedicated to my dear Husband Mawuli, for his unwavering support, love and care, my children, Ewoenam, Eyram and Elikplim for their love, endurance and inner strength against all odds and inspiring me to be a better mother and still achieve my dreams.

ACKNOWLEDGEMENT

I would like to first of all thank the Lord Almighty for His mercies and abundant grace during my one year study period. Even though it was a tough journey, the Lord has been faithful.

My deepest gratitude goes to my husband for his love, sacrifices and support for me and the children during the period of my study.

I would like to thank my parents especially my Mum for taking care of my home every weekend during the period of my study. I also appreciate my younger sister Fafali and her husband, for their unwavering support for me during the course of my studies.

My heartfelt gratitude goes to my supervisor, Dr John Ganle for his extensive guidance and support throughout this project. His supervision has really helped me to have a better understanding of how to conduct research.

I also appreciate the Municipal Director of Health Services, Dr Felix Doe, Hohoe Municipal Health Directorate, facility in-charges and the nurses for granting me the permission and providing me with the necessary assistance to conduct the study.

Simon, Charles and Clement, you are deeply appreciated for all your invaluable contributions to making this work a success.

My sincere gratitude goes to all the women who made this study possible through their participation.

I appreciate the dean of School of Public Health, Professor Richard Adanu and all lecturers of the School of Public Health for offering me the opportunity to study in the school of Public Health and guiding me to acquire all the knowledge and skills I needed to do this work. I am definitely a better person than I came to the school.

ABSTRACT

Background: Unintended pregnancies following child birth are associated with high risk of maternal mortality, morbidity and poor pregnancy outcomes. Use of contraception in the extended post-partum period is a cost effective way that could reduce maternal and child mortality by 75%. Few studies in Ghana have however examined the factors that influence the use of contraceptives among lactating mothers within 6 – 24months post-partum. The purpose of this study was to determine the factors that influence the uptake of contraceptives among lactating mothers (6- 24 months) postpartum in the Hohoe Municipality.

Methods: A population based cross sectional study was carried out among a randomly selected sample of 367 lactating mothers. Quantitative data was collected using structured questionnaires and data was analyzed with STATA version 14.1. Descriptive, bivariate and logistic regression analysis techniques were used to analyze the data.

Results: Awareness of contraceptives among lactating mothers was 98.4% whiles Contraceptive prevalence rate (CPR) was low (46.5%) among respondents. Significant factors that had negative influence contraceptive use among lactating mothers were the believe that using contraceptives is a woman"s business (AOR=0.49; 95% C.I=0.30-0.80) and partner communication about family planning (AOR=0.35; 95% CI =0.17-0.73).

Conclusion: The study revealed that even though awareness on contraceptives was high among respondents, tailored messages that focus on male involvement in family planning can have a great influence on contraceptive use among lactating mothers in the Hohoe municipality.

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ABBREVIATION	MEANING
ANC	Antenatal Clinic
CWC	Child Welfare Clinic
CPR	Contraceptive Prevalence Rate
DFID	Department for International Development
FP	Family Planning
GDHS	Ghana Demographic and Health Survey
IEC	Information, Education and Communication
IUD	Intrauterine Device
LAM	Lactational Amenorrhoea Method
MICS	Multiple Indicator Cluster Survey
MDGs	Millennium Development Goals
PMTCT	Prevention of Mother To Child Transmission of HIV/AIDS
PNC	Postnatal Clinic
PPFP	Postpartum Family Planning

CHAPTER ONE

INTRODUCTION

1.1 Background

Maternal and child mortality remains a global public health concern. Globally, maternal mortality rate was estimated at 303/100,000 live births in 2015, with Africa and sub-Saharan Africa contributing 99% and 66% of the deaths respectively (WHO, 2015a). Despite the gains made by the Millennium Development Goals (MDGS) in reducing child and maternal mortality by 54% and 43% respectively in 2015, there still exist a huge gap in reducing deaths attributable to pregnancy and child birth in sub-Saharan Africa (WHO, 2016).

According to World Population estimates (2016), fertility rates in sub-Saharan Africa are high with a mean of 5 births per woman. This is twice that of Asia and about three times the fertility rate of Europe and above the world average of 2.5 (Population Reference Bureau, 2016). With the current birth rates, Africa"s 2016 population of 974 million is expected to increase to 1.3 billion by 2030 (Population Reference Bureau, 2016).

It is estimated that over 120 million women throughout the world have the desire to avoid pregnancy, but unfortunately, they are not using any effective form of contraception (Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, 2011). The global modern contraceptive use among married women between ages 15 – 49 years is estimated at 56%, with sub–Saharan Africa recording the least of 26% (Population Reference Bureau, 2016). Even though Ghana achieved its fertility target of 4 by 2008, there was an increase of 0.2 in 2014, which may slow progress toward achieving the target of 3 by 2020 (GSS, GHS, & ICF Macro, 2014).

In 2012, contraceptive use averted 218 million unintended pregnancies, 55 million unplanned births, 138 million abortions, 25 million miscarriages and 118,000 maternal deaths in developing countries (WHO, 2012). Providing couples with contraceptives to limit the number and plan the timing of their children could improve the health of millions of families throughout sub-Saharan Africa (Smith, Ashford, Gribble, & Clifton, 2009). Several studies have shown that modern contraceptive use within the first year of birth can indeed reduce child and maternal mortality (Stover & Ross, 2010; WHO, 2012; Gonçalves & Moultrie, 2012; Saha & van Soest, 2013). Consequently, addressing the unmet need for contraceptive use during the postpartum period is critical to improving maternal and child health, and ultimately achieving the objectives of Sustainable Development Goal 3, which seeks to reduce global maternal mortality ratio to less than 70 per 100,000 live births by 2030 (WHO, 2016).

Despite numerous benefits that could be derived from modern contraceptive use, a recent report by the World Health Organization (2013) estimated that Post-partum women were among those with the greatest unmet need for contraception. This unmet need notwithstanding, post-partum women do not usually have access to contraceptive services needed to enhance longer birth intervals or reduce unwanted pregnancies with its adverse effects (WHO, 2013). Analyses of Demographic Surveys from 72 countries by Rustein (2011), showed that about a quarter of women desire to use contraception to space their next birth. The analysis further suggested that close to half (43.7%) of the women who need contraception for spacing births have that need unsatisfied (Rutstein, 2011).

In Ghana, the 2014 Ghana Demographic and Health Survey (GDHS) report showed that 40% of women between the age of 15 to 49 years had unmet need for contraception (GSS et al., 2014). While many studies in Ghana have focused on contraceptive use among women in their reproductive age in general, very few studies have examined use of contraceptive during the post - partum period though contraceptive use has significant advantage in improving maternal and child health. It is for this reason that this study sought to identify the factors that influence the uptake of contraceptives among postpartum mothers in the Hohoe Municipality.

1.2 Problem Statement

Globally, it was estimated in 2012 that about 4 in 10 of all pregnancies were not planned, out of which 50% ended in abortion with 38% ended in unplanned birth, with sub-Saharan Africa having the highest rate of unintended pregnancy of 80% (Sedgh et al., 2016). The use of contraceptives could greatly reduce maternal mortality and morbidity by 75%, reduce unintended and mistimed pregnancies by two thirds, and reduce the risks of abortion by 73% (Singh & Darroch, 2012). The purpose of post-partum family planning (PPFP) is to guide women to freely decide on the contraceptive they intend to use, to initiate the use of the contraceptive, and to continue to use it for a minimum of 2 years or longer, based on the reproductive goals of the woman or couple.

Globally, modern contraceptive use has increased from 48% in 1990 to 56% in 2016, with sub-Saharan Africa having the lowest of 26% among all the sub regions; 61% in Europe, 59% in Asia, 68% in America and 58% in Oceana (Population Reference Bureau, 2016). A birth interval of at least 24 month is recommended by WHO to ensure favourable maternal and child health outcomes (WHO, 2014). However, about 222 million women have an unmet need for Family Planning (FP), with majority of them in low- and middle-income countries (WHO, 2014). The cumulative effect of this high unmet need especially by mothers in the post postpartum period usually results in poor spacing of children (WHO, 2014). Studies have shown that short birth intervals and too many births are associated with high risk of death for the women and their babies, especially when the birth interval is not up to 24 months (Kozuki et al., 2013; Sedgh, Singh, & Hussain, 2014, Perin & Walker, 2015).

In Ghana, the GDHS report show that Ghanaian women remain amenorrhoeic after a recent birth for 8.4 months; abstain from sex for 5.9 months; and are not at risk for pregnancy for 10.4 months (GSS et al., 2014). This certainly places the woman in the post-partum period of six months and above at risk of getting pregnant when they are not ready (WHO, 2013). Yet, results from the GDHS show that though knowledge on contraceptives is universal (99%), the use of modern contraceptives among married couples is low (22%), while 24 % of all births were mistimed and 7% being unwanted births (GSS et al., 2014). The report also indicated that 13% of subsequent births occurred below 24 months after the last birth. The need therefore to encourage postpartum women to take up modern contraceptive methods for spacing and limiting child birth with its consequent benefit of protecting the mother and the new born cannot be overemphasized. Unmet need for contraceptives is high during the first year postpartum period than any other period for most women who intend to use contraceptives (Ayiasi, Muhumuza, Bukenya, & Orach, 2015).

The Volta region of Ghana has the highest contraceptive prevalence of 32% and the highest (30%) unmet need for contraceptives with over 60% of women in their reproductive age at risk of pregnancy, some of which may be unplanned (GSS et al., 2014). The 2015 annual health report of the Hohoe municipality shows that 19.7% of women in the reproductive age are currently using a modern contraceptive method (Hohoe Municipal Health Directorate/GHS, 2015). This is far below the national and regional rates of 22% and 32% respectively. However, these prevalence rates are for women in reproductive age in general. Very few related studies have been identified in literature. One of the related studies was conducted in Volta Region comparing maternal health services in three districts and it reported contraceptive knowledge and use among nursing mothers with children 0-5 years (Nam, Zakariah, Adams, Jun, & Adanu, 2016). Few studies done in Ghana and Nigeria have also focused on factors that influence women"s intention to adopt postpartum contraceptives

(Eliason et al., 2013; Idowu, Deji, Ogunlaja, & Olajide, 2015). While these related studies are useful, literature on contraceptive use among lactating mothers within 6 –24months post-partum in Ghana more generally and in the Volta Region and Hohoe in particular is currently limited. Coupled with the fact that postpartum contraceptive use has consistently been low in sub-Saharan Africa and the fact that not much is known about contraceptive use among lactating women in Ghana, there is urgent need for empirical research in this area (Nam et al., 2016). This study therefore sought to fill the current knowledge gaps by identifying modern contraceptive prevalence among post-partum women, and examining the factors that influence the uptake of contraceptives among nursing mothers within 6 to 24 months in the Hohoe Municipality.

1.3 Study Objectives

1.3.1 General objective

The main objective of the study was to determine the factors that influence the uptake of contraceptives among lactating mothers (6- 24 months) postpartum in the Hohoe Municipality.

1.3.1 Specific objectives

The specific objectives were to:

1. Estimate the proportion of lactating mothers who are currently using any contraceptive method.
2. Characterize the types of contraceptives used by the lactating mothers.
3. Assess contraceptive knowledge on contraceptives
4. To identify the sources of information on contraceptives among lactating mothers.
5. Examine the factors that are associated with uptake of contraceptives among lactating mothers.

1.4 Research questions

1. What is the proportion of lactating mothers within 6 – 24 months postpartum who are currently using any contraceptive method?
2. What are the types of contraceptives used by lactating mothers?
3. What is/are the level of knowledge and sources of information on contraceptives among lactating mothers?
4. What are the factors associated with the uptake of contraceptives among lactating mothers?

1.5 Justification

Unplanned pregnancies can result in negative maternal and child health outcomes. Contraceptive use in the first year after birth can reduce some of the unintended pregnancies (Borda, Winfrey, & McKaig, 2010). The GDHS reports that, the Volta Region has the highest (36%) unmet need for contraceptives in Ghana (GSS et al, 2014). Also, the Hohoe Municipal has very low maternal and Child Health indicators including the contraceptive prevalence rate. Since the contraceptive prevalence among lactating mothers in the Hohoe municipality is not currently known, the result of this study could inform the design of new strategies to improve on the uptake of contraceptive use among lactating mothers in the Hohoe Municipality. In particular, results from this study could help the Volta Regional Health Directorate and Hohoe Municipal Health Directorate in designing strategic interventions aimed at closing the unmet needs gap in the region. Also, since literature on contraceptive use among lactating mothers in Ghana and in the Volta Region is limited, this research when published could be useful to future researchers. The findings could also potentially form the basis for future research in this subject area in both the region and district.

1.6 Chapter Summary and Dissertation Outline

Contraceptive use in the extended post-partum period has a potential to reduce unplanned pregnancies, mistimed births, abortions and maternal and child morbidity and mortality. Yet, the current contraceptive prevalence among postpartum mothers is low. This chapter provided a background to the study and outlined study aims and research questions. The rest of the dissertation is organized as follows. The next chapter (i.e. chapter two) reviews related literature on contraceptive uptake and articulates a conceptual framework used in the study. Chapter three discusses the methods, while chapter four presents the results of the study. Chapter five discusses the results while chapter six presents the summary of findings, conclusion and policy implications as well as recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature on what has been done in the area of postpartum contraceptive uptake. The review critically examined both qualitative and quantitative research done in both developed and developing countries wth particular focus on the concept of contraception, types of contraceptives, awareness and knowledge of contraceptives among postpartum women, modern contraceptive use among postpartum women, and factors associated with modern contraceptive use among postpartum women. The chapter also conceptualized all the variables identified in literature that could potentially influence post-partum contraceptive uptake.

2.2 The Concept of contraception

Contraception is a process of preventing pregnancy by interrupting the natural process of ovulation, fertilization, and implantation (WHO, 2014). Improvement has been made in the past 25 years in women's sexual and reproductive health, including contraceptive use, driven by the 1994 International Conference on Population and Development (ICPD) and the Millennium Development Goals (MDGs) (WHO, 2015c). Even though the use of contraceptives to prevent conception received considerable criticisms from some religious and cultural organizations in the mid-twenties, it has become one of the most effective ways of fertility regulation and population control (Seltzer, 2002). The use of contraceptives is meant to achieve three main goals , namely demographic reasons aimed at regulating rapid population growth; health reasons aimed at improving the maternal child and health outcomes of countries; and human rights reasons aimed at ensuring that individuals achieve their reproductive health goals (Seltzer, 2002).

Contraceptive use has numerous benefits to women, men, children, families, communities and the nation as a whole. According to the WHO (2012), promotion of family planning would enable women to access their preferred contraceptives which are critical to safeguarding their health and independence.

In an analysis of data from 172 countries to measure the influence of use of contraceptives on maternal mortality in 2012, it was reported that maternal deaths reduced by 43% through the use of contraceptives and closing the contraception need gap has the potential to prevent maternal mortality by 29% (Ahmed et al., 2012). Some studies have reported that babies who were born within two years after a recent birth have a high risk of dying in the first year, compared to children born after three years interval (Van Soest & Saha, 2012; Perin & Walker, 2015).

Adolescent pregnancies expose health risks for both babies and their young mothers, especially those below the age of 18. Contraceptive use could benefit most young women to delay child birth and consequently avoid the burden of starting childbearing early (Smith et al., 2009).

2.3 Types of contraceptives

There are several types of contraceptives which work at specific times in the reproductive process. Generally contraceptives have been classified into traditional and modern contraceptives (Adebowale et al., 2014) . Traditional contraceptive methods are all client-dependent and their effectiveness depends largely on the client and they have been identified to have high failure rate and so are usually not recommended. Example is the withdrawal method. (Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, 2011).

Modern contraceptives have been classified into permanent, long acting and short acting contraceptives (Hubacher & Trussell, 2015). Bilateral tubal ligation for women and vasectomy for men are permanent methods of contraception and could be used by women and men who have no desire for childbearing again (Hubacher & Trussell, 2015). Long acting reversible contraceptives includes intrauterine devices which offer protection for 5-10 years and subdermal implants which provide protection for 3 – 5 years (Hubacher & Trussell, 2015). These methods are provider-dependent and are recommended for women who have long term family planning goals (Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, 2011). Short acting contraceptives includes oral hormonal contraceptives, hormonal injectables and patches. Barrier methods includes condoms (male and female), and is the only method that offer dual protection against STIs and pregnancy. Diaphragms, cervical caps and spermicidal agents (gels, foams, creams, suppositories) are all methods that are also client-dependent so that their effectiveness is dependent on adherence to correct and consistent use (Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, 2011).

Hormonal methods generally have three main mechanism of action: they thicken the cervical mucus thereby reducing sperm motility, prevent ovulation, and make the endometrium atrophic and unrecptive to implantation (Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, 2011).

Other forms of modern contraception includes fertility awareness methods such as methods that involve keeping track of when the fertile time of the menstrual cycle starts and ends (the Standard Days Method); and symptoms-based methods, which depend on observing signs of fertility (cervical secre- tions, basal body temperature); lactational amenorrhea method (LAM) and periodic abstinence (Smith et al., 2009).

Generally, all women can have their contraceptive choices, provided they are eligible according to the WHO medical eligibilty criteria which is supposed to guide providers to help clients make informed choices (World Health Organization, 2015a). However, oestrogen-containing methods are not recommended for breastfeeding women below six months due to the fact that they could suppress lactation (WHO, 2015). The WHO (2013) recommends that women who give birth should start exclusive breastfeeding immediately after and continue up to 6 months to be able to use the lactational amenorrhea methods (LAM) in addition to other methods safely. However, there is a criteria for LAM and the woman must satisfy all the conditions or otherwise shift to other safer methods. The woman who chooses LAM should be able to switch from LAM to other modern contraceptive method if LAM criteria are not met at any point within the six months (WHO, 2013).

Emergency contraception, which is also known as post-coital contraception, is another form of contraception and refers to methods that can prevent pregnancy within first 5 days after accidental coital intercourse (Radhakrishnan, 2008). The indications includes unprotected intercourse, contraceptive failure or misuse (forgotten pills, or breakage or slippage of condoms), rape or coerced unprotected sex (Hubacher & Trussell, 2015). There are 4 main methods of available, namely ulipristal acetate ECPs (UPA-ECPs), levonorgestrel-only ECPs (LNG-ECPs), combined estrogen-progestogen ECPs (combined ECPs)., and copper-bearing intrauterine device (Cu-IUD) (WHO, 2016).

2.4 Awareness and knowledge of modern contraceptives among postpartum women

Globally, use of contraceptives is one of the most effective life-saving intervention for mothers and their children (Smith et al., 2009). Receiving adequate knowledge about contraceptive methods is a key factor in influencing intention to use and actual use of contraceptives.

Knowledge on modern contraceptives is almost universal (99%) in Ghana and in the Volta Region (98%) (GSS et al., 2014). This is also true in many low-income settings. For example, a study by Malawi, Maluwa, Chimwaza, & Pindani (2014) found that almost all (94.3%) postpartum women had knowledge on postpartum contraceptive methods that were available. A study conducted by Nam et al. (2016) in the Volta Region also reported that, 96% of the respondents knew of a contraceptive method. Again another study in Nkwanta District of the Volta Region found that awareness and knowledge of modern contraceptive methods among women in reproductive age was high (90%). Also, Vishnu Prasad, Venkatachalam, & Singh, (2016) found that Government health facilities constituted the major source of contraceptive knowledge and methods. On the other hand, Rao & Veerendrakumar (2016) reported that contraceptive awareness among lactating mothers was 46% and that the key reason for non-use of contraceptives was lack of awareness. In a cross sectional study in Bareilly district in Northern India on postpartum contraceptive use, 32.5% of respondents reported that they were not aware of contraceptives and so were not using any method (Mahmood, Srivastava, Shrotriya, Shaifali, & Mishra, 2011).

Regarding awareness on specific methods in Ghana, the GDHS report suggests that awareness of the male condom (96%) was high followed by injectable (92%), the pill (91%) and female condoms (87%) (GSS et al., 2014). Lactational amenorrhea method was known by a relatively small (16%) number of women. Although about 7 in 10 women were aware of female sterilization, just about one-third knew of male sterilization (GSS et al., 2014). These findings are similar to those found in others studies elsewhere where respondents reported knowledge on almost all modern methods (Yilmazel & Balci, 2013; Rossier & Hellen, 2013).

2.5 Contraceptive use patterns

Contraceptive use has been recognized as one of the most successful public health programmes, with increased acceptance worldwide (Tsui, McDonald-Mosley, & Burke, 2010). However, several countries have challenges with uptake of modern contraceptives due to poor access and weak health systems (Tsui et al., 2010). These challenges notwithstanding, the world has recorded increases in contraceptive use, especially in Asia and Latin America, with slow increases in sub-Saharan Africa. For example, modern contraceptive use has increased from 54.8% in 1990 to 56% in 2016 worldwide, with sub – Saharan Africa having the least of 26% (Population Reference Bureau, 2016).

Globally in 2010, unmet needs for contraception for women aged 15–49 years who were married or in a union was 146 million (Alkema, 2013). It was also estimated in 2012 that the unmet need for contraception in developing countries increased from 54% in 2003 to 57% in 2012, and the proportion of women with unmet need for modern methods decreased from 29% in 2003, to 26% in 2012 (Darroch et al., 2013). However, unmet need for modern contraceptives still remained high (60%) in sub – Saharan Africa compared to other sub regions (Darroch et al., 2013).

Globally, abortion rates have declined significantly since 1990 in the developed world but not in the developing world. The annual number of abortions increased by 5.9 million from 50.4 million in the 1990s to 56.3 million in 2014 (Sedgh et al., 2016). Again 25% of all pregnancies ended in abortion in 2014. Ensuring access to sexual and reproductive health care with particular emphasis on contraceptive use could help millions of women avoid unintended pregnancies and subsequent abortions (Sedgh et al., 2016).

In summary, even though the trends in contraceptive use has improved generally across the globe, contraceptive prevalence in developing countries including Ghana remains low and this suggests the need for continuous research to understand the factors that influence contraceptive use, especially in special populations, including postpartum women.

2.6 Contraceptive use among postpartum women

As noted earlier contraceptive use has increased in many parts of the world, especially in Asia and Latin America, but continues to be low in sub-Saharan Africa, and among specific populations (WHO, 2012). Among postpartum women, use of contraceptive is relatively low. In a study in East and Central Africa, only 20% of women choosing postpartum IUD had it inserted immediately after birth (Pleah eta al., 2016). Similarly, Winfrey & Rakesh (2014) reported that postpartum women were more likely to use injectables than currently married women. A similar study in Senegal indicated that, 63% of women within postpartum period of 2 years were willing to wait till at least 2 years before having another child but only 36% of those within 18 to 23 months of postpartum period were on contraceptives (Speizer et al., 2013). Mahmood et (2011) in Rural Bareilly in India found that of the 123 women who had delivered within the previous year, only 17(13.8%) used postpartum contraception. In a population based survey in Uganda by Rutaremwa et al (2015), it was reported that 28% of women used modern contraceptives in the post-partum period.

The effectiveness of family planning programmes are measured using acceptor and uptake rate in population based surveys such as the Demographic and Health Surveys. However, specific information on postpartum contraceptive prevalence is not included. Smaller unpublished studies including one conducted by Wuni (2015) in the Sunyani municipality, reported that contraceptive use among postpartum married women aged 15 to 49 was 57.6%, even though the study was limited to married postpartum mothers. Haruna (2014) also reported uptake of postpartum contraceptives use of 67.7% in the Wa Municipality, representing the highest reported contraceptive prevalence among postpartum women in

Ghana. This finding is comparable to what was reported by Bwazi et al. (2014) in Malawi where 75% of the women use contraceptives within the first year after delivery.

2.7 Factors determining use of modern contraceptives among postpartum women

Several factors have been identified in the literature to influence an individual‟s decision to actually use contraceptives. Some of these factors include individual socio-demograhic factors, health system factors, community level factors, and family level factors. These factors are reviewed below.

2.7.1 Individual Level Factors (Socio-demographic factors)

The use of contraceptives has been significantly associated with certain demograghic characteristics of the individual. Several studies have identified age, educational level, and marital status to have strong association with cntraceptive use among women in general and postpartum women in particular (Gordon, 2011; Idowu et al., 2015 & Kiene, 2015).

In Ghana, higher educational level and wealth were found to influence acceptance and uptake of contraceptive methods (GSS et al., 2014). The 2011 Ghana Multiple Indicator Cluster Survey (MICS) reported that women‟s educational level was strongly associated with contraceptive use: a higher percentage of women who were using any method of contraception were more educated than those who were not educated. (Ghana Statistical Service, 2011). In a study by Awoonor-williams et al. (2014) in the Nkwanta district of the Volta region, education was identified to have a positive association with contraceptive use. Education was also found to influence contraceptive use according to one study in Ethiopia. (Gordon, 2011). Use of postpartum contraceptive is positively related to urban location, wealth, education level, achievement of desired family size, and current fertility desires. Women who are more educated and wealthier are more likely to use contraception compared with illiterate and less wealthy women (Asiimwe, Ndugga, & Mushomi, 2013). Vishnu

Prasad et al. (2016) found that the use of contraceptives was more for younger age groups and women with small family size.

Demographic factors found to influence uptake of contraceptives in Uganda were women‟s primary or higher education level, higher wealth status, protestant religion and younger age (Rutaremwa et al., 2015). Other factors including skilled birth attendance, later timing of post-delivery checkup, and higher number of surviving children have been found to be associated with contraceptive use (Rutaremwa et al., 2015). Marriage is an indication for regular exposure of women to risk of pregnancy. This is because married women have high incidences of sexual activity. A study done in Malawi showed that unmarried women were at risk of unplanned and unwanted pregnancies due to less utilization of contraceptive services (Bwazi et al., 2014). As the parity of a woman increases, they are more likely to use contraceptives. Generally, contraceptive use is more in women whose parity is greater than three (GSS et al., 2014).

2.7.2 Health System Factors

The health system contributes significantly to the intention and actual uptake of contraceptives in the post partum period. The health system offers a great opportunity for contacts for postpartum women through the continuum of care approach; antenatal care, intrapartum, postnatal care and immunization clinic sessions (WHO, 2013).

A study in Uganda to measure the effect of prenatal counseling on post partum contraceptive use identified the prenatal period as an opportune period that increases provider-patient interaction and offers multiple opportunities for discussion and education on contraceptives (Ayiasi et al., 2015). The same study also reported that women who attend antenatal clinic (ANC) are likely to initiate contraceptive use than those who do not. This is indicative that women‟s access to information about contraception and birth spacing during pregnancy is beneficial to improving on intention and actual use of contraceptives. Speizer et al. (2013b) in Senegal found that half of postpartum women who were not on contraceptives indicated that they would have taken it if they were offered information and counseling by the service provider. Again in the same study, 84.9% of respondents would have preferred to assess contraceptive services as an intergrated service during immunization sessions.

In Ghana, the 2014 GDHS report indicated that the major source of contraceptive methodsin Ghana is the government sector which provides methods to about 64% of current users (GSS et al., 2014). The government hospitals or polyclinics (29%) and government health centres or clinics (25%) are the main sources (GSS et al., 2014). This is consistent with an unpublished study carried out in the Hohoe municipality by Brightson, (2009), who reported that the Government facilities provide 74% of contraceptives while the pharmacy shops provide 26% to women who have had an induced abortion.

A qualitative study in Tanzania on the perspectives of respondents on side effects of hormonal contraceptives revealed that women and their partners either not to use contraceptives, discontinue methods, switch methods or use methods in irregularly due to side effects (Chebet et al., 2015). Some of the side effects reported in the study included excessive menstrual bleeding, missed menses, weight gain and fatigue. In Ghana, it has been reported that 21.6% discontinuation of methods is due to side effects (GSS et al., 2014). In a cross sectional study by Haruna in Suyani, nearly three out of 10 (28.6%) postpartum mothers reported side effects as their reason for not using contraception (Haruna, 2014).

The cost of contraceptives could also have a negative influence on the uptake of contraceptives especially among women in the lowest wealth percentile. A study in Malawi to measure the differential effect of wealth quintile on modern contraceptive use and fertility reported that contraceptive use was higher (58.5%) among women who were richer than those who were poor. (Adebowale et al., 2014). Availability of range of commodities in the health facilities could increase women‟s trust in the health system that leads to an overall satisfaction of the services (WHO, 2015a). Commodity insecurity have been found to be associated with high unmet need for contraceptives in a study in South Central Ethiopia (Mekonnen & Worku, 2011). Short distance to health facilities and favourable opening hours have also been significantly associated with contraceptive uptake (Eliason et al., 2014).

2.7.3 Community Level Factors

Decision making in families in sub – Saharan Africa are influenced largely by community values and norms in communities in which individuals and families operate. Socio- cultural beliefs influence myths and misconceptions surrounding the use of contraceptives. Eliason et al. (2013) reported that, use of contraceptives was low in women who believed that the use of modern contraceptives promoted promiscuity compared to women who did not have that belief. Similarly, Ankomah et al. (2011) also reported that myths and misinformation about family planning influenced contraceptive use negatively.

2.7.4 Family Level Factors

Certain factors can influence a woman‟s decision to use, or not to use or discontinue a contraceptive method. Some of these factors includes, concerns about how side effects perceived risk of pregnancy and the effect of particular methods on their relationships with partners or other family members (Sileo, Wanyenze, Lule, & Kiene, 2015). A study in Ethiopia and Kenya by Dynes, Stephenson, Rubardt & Bartel (2012), showed that partner opposition and spousal communication had very significant influence on the use of contraceptives. Yilmazel & Balci (2013) did a study in Turkey and observed that husbands" attitude towards contraception impacts on the choice and use of contraceptives among postpartum women. This is because women had no full control over their reproductive and sexual lives.

Studies by Shattuck et al. (2011) in Malawi identified a relationship between attitudes of male partners" and family planning. The study also suggests that women"s perceived need for contraceptives is likely to be a influenced by that of their partners. There is a need to include males in family planning services. This may only be achieved by encouraging couples to talk about reproductive health. It was also reported that some male partners do not approve of their wives practicing family planning because of perceived belief that they would become promiscuous or their authority as heads of the household will be undermined (Mekonnen & Worku, 2011). Ease and frequency of communication among partners has been identified as strongly associated with contraceptive use as shown in a case-control study in Malawi (Shattuck et al., 2011). In another similar study in the Sunyani municipality of Ghana, about 16% of postnatal mothers identified non-approval by spouses as a reason of their inability to use modern contraceptive methods (Wuni, 2015) . This belief was confirmed in a case control study on contraceptive use where spousal disapproval was identified as a major barrier to modern contraceptive use in the district (Eliason et al., 2013). Another case control study in Nkwanta District of the Volta Region by Awoonor-williams et al. (2014) also identified partner communication as having great influence on contraceptive uptake.

2.8 Conceptual Framework

Figure 1 below shows a conceptual framework illustrating factors that may influence modern contraceptive use among lactating mothers. A number of factors have been identified in literature to have an influence on use of modern contraceptive methods among lactating mothers. They include but not limited to socio-demographic variables such as age, marital status, religion, educational level, employment status and residence type. Findings in previous research suggest that there are variations in the contraceptive needs of the different age groups of women (Asiimwe et al., 2014). Women in their early reproductive years who are married are likely not to use contraceptive methods due to the desire to bear children. However, older women (forty-five years or more) are most likely to use contraceptives because they are usually among those who want to limit childbirth. Furthermore, the educational level of women could have an influence on contraceptive use. The higher a woman is educated; the likelihood for her to be better informed and increased autonomy to decide to use contraceptives as opposed to women with lower education. In addition, employment status could have an influence on the use of contraceptives, as a result of greater economic empowerment and also sometimes due to job requirements. Additionally, the interaction between socio-demographic, personal, community and health provider factors could have a direct or indirect effect on the decision to use modern contraceptives among lactating mothers.

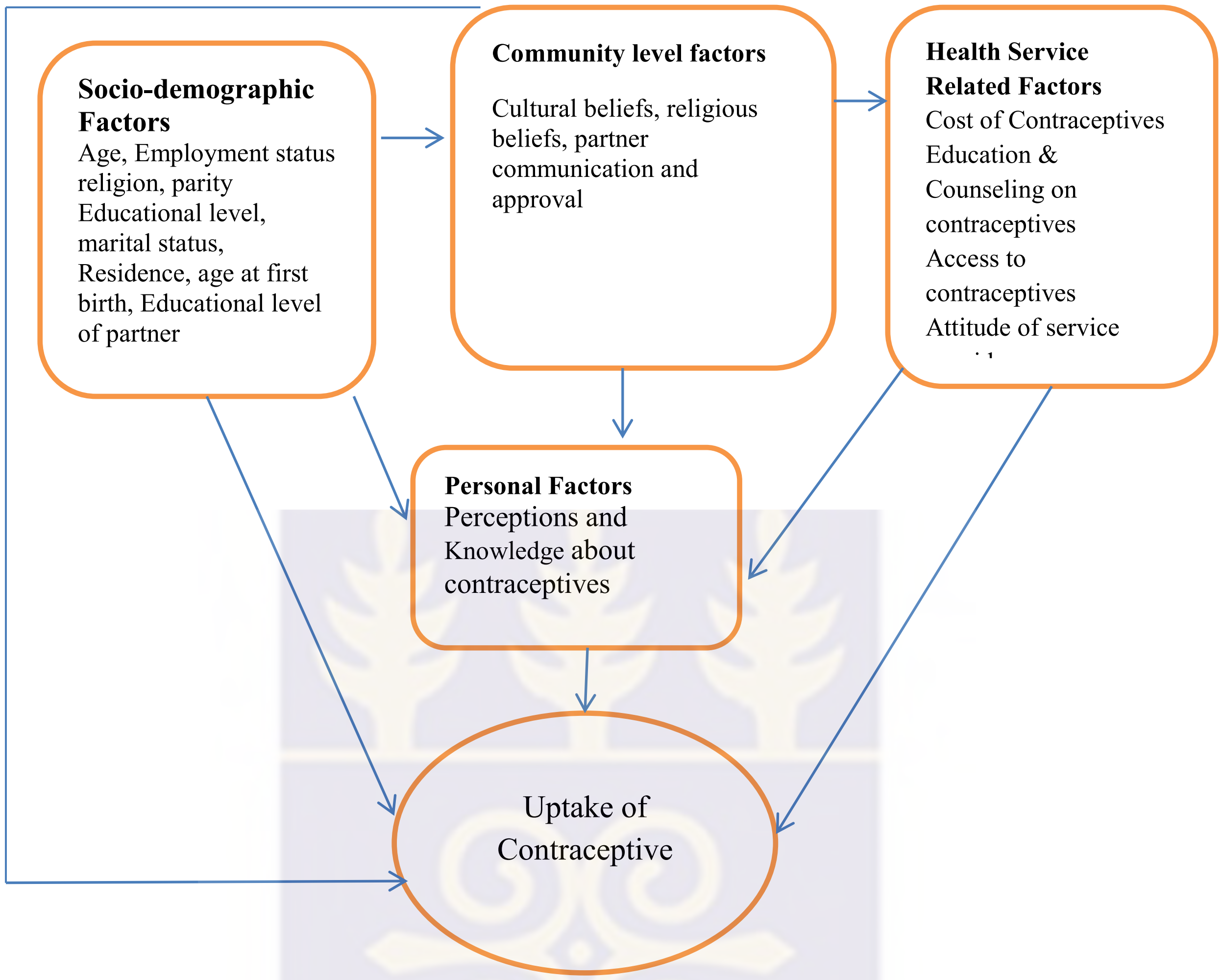

Figure 1: Conceptual framework depicting factors that may influence contraceptive uptake among lactating mothers.

Authors own construct

2.9 Chapter Summary

Contraceptive use in the extended postpartum period is influenced by socio-demographic characteristics such as age, and educational level, (the higher the education, the more likely women will adopt contraceptive method). The number of children also strongly influenced contraceptive uptake in the post - partum period. Other independent variables that are likely to influence mothers to use contraception include their knowledge on contraception which can also be influenced by spousal communication, beliefs and perceptions on myths and misconceptions. Health service factors such as availability of the commodities and services, counseling and education on contraceptives are also likely to influence the knowledge and ultimately uptake of contraceptives. The literature reviewed provided evidence for contraceptive use within 1 year postpartum as well as among married women in general. Very little evidence was found on the contraceptive needs of married and unmarried women within 6 – 24 months postpartum in Ghana, Volta Region and the Hohoe municipality which this study seeks to explore.

CHAPTER THREE

METHODS

3.1 Introduction

This chapter outlines the methods that were used in this study. The chapter is divided into twelve main sections that describe the study design, study area, study population, inclusion and exclusion criteria, sample size determination, sampling methods and procedures, data collection methods and tools, pre-test of study instrument, quality control and data management, data analysis, including definition of variables, and ethical considerations.

3.2 Study Design

This study employed a quantitative cross-sectional survey design. Apart from the fact that this design was appropriate for the study, it has also been widely used in similar previous studies (Eliason et al., 2013; Bwazi et al., 2014). This design was also appropriate because the research was not intended to be carried out over a long period of time for respondents to be followed up due to the limited time for the study.

3.3 Study Area

The study was carried out in the Hohoe Municipality of the Volta Region. The Municipality is one of the 25 administrative districts of the Volta Region of Ghana. It has a total land surface area of 1,172 square kilometres, which is about 5.6% of the regional land surface area and 0.05% of the national land surface area (Ghana Statistical Service, 2014).The Municipality lies almost in the heart of the region, and is located within longitude 0º15'E and 0º45'E and latitude 6º45'N and 7º15'N (Ghana Statistical Service, 2014). It shares borders with the Republic of Togo on the East; on the southeast and south with Afadjato South

District; on the southwest with South Dayi District; on the North with Jasikan District; and on the Northwest with Kpando and Biakoye Districts (see figure 2).

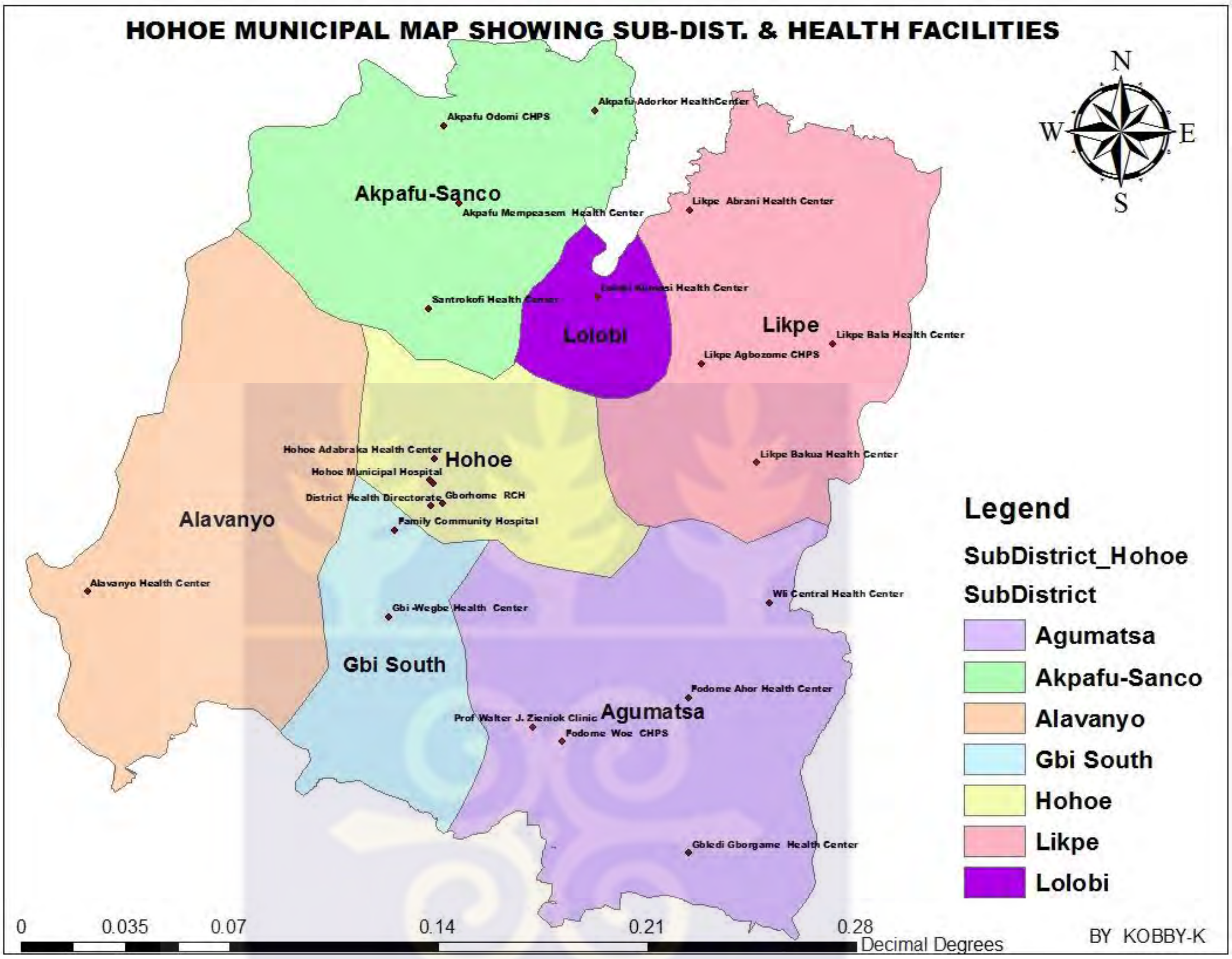

Figure 2: Map of Hohoe Municipality showing sub – districts and health facilities

The municipality has 102 communities with a projected 2016 population of 193,687 and a population growth rate of 1.9% (Ghana Statistical Service, 2014) The population comprises 52.1% females and 47.9% males. The Women in Reproductive Age (WRA) population is 46,485 with a TFR of 3.3 and a married couples" population of 43% (GSS, 2014).

About 53% of the population is urban, while 47% live in rural areas (Ghana Statistical Service, 2014). The population of the Municipality is youthful: 35.9% of the population is aged under age 15. Also, about 88.3% of the population is literate (Ghana Statistical Service, 2014). The Municipality has about 70% of its active labour force engaged in agriculture and the major activities are crop farming – yam, maize, cassava, plantain and paddy rice (Ghana Statistical Service, 2014) The remaining 30% are engaged in agro processing and commerce (GSS, 2014). The 2010 Population and Housing Census indicate that Christians are 89.1% of the population, followed by Muslims (7.8%), Traditionalists (1.2%) and other religions (1%) (Ghana Statistical Service, 2014).

In terms of health, the municipality has been divided into seven (7) sub-municipalities, namely Akpafu/Santrokofi, Alavanyo, Agumatsa, Lolobi, Gbi- rural, Hohoe – sub and Likpe. There are 21 health institutions including a hospital and a research centre, which all serve the health needs of the inhabitants. A total of 19 family planning clinics and 70 Child Welfare Outreach Clinics also provide contraceptive services as an integrated service (Hohoe Municipal Health Directorate/GHS, 2015)

The municipality is the second most populous district in the Volta Region and is among the three worst districts in contraceptive uptake in the region. It is also one of the municipalities with very low MNCH performance indicators in the region (Volta Regional Health Directorate, 2015). The 2015 annual report of the Hohoe Municipal Health Directorate reported low skilled delivery rate of 36.5%, postnatal registrants of 41.3%, and contraceptive acceptor rate of 19.5%, with an overall maternal mortality ratio of 293/100,000LB (Hohoe Municipal Health Directorate/GHS, 2015).Comparable regional MNCH indicators were skilled delivery rate of 44%, postnatal registrants of 58.2%, contraceptive acceptor rate of 26.3% and an overall maternal mortality rate of 134.3/100,000LB (Volta Regional Health Directorate, 2015)

3.4 Study Population

The study population included all lactating mothers within the ages 18 – 49 years with children 6 -24 months who attended Child Welfare Clinics (CWCs) within the study period. This group of mothers attends CWCs for immunization, vitamin A supplementation, growth monitoring, family planning services, and counseling services. Mothers with children below the ages of six months were not considered due to their likelihood of using LAM as recommended by WHO provided certain criterion are met which this study did not seek to explore.

3.4.1 Inclusion Criteria

All women aged 18-49 years who delivered within 24 months preceding the survey who were not less than 6 months postpartum and not more than 24 months postpartum were included in the study. Eligible mothers also had to consent before participating in the study.

3.5 Sample Size Determination

The sample size for the study was calculated using Cochran‟s formula

$$n = \frac{z^2.pq}{d^2}$$

Where n = sample size

z = is the standard normal deviation at the required confidence interval set at 95 % (1.96)

p= is the estimated proportion of the target population that had the characteristics being measured. The contraceptive prevalence rate (CPR) is usually defined as the percentage of currently married women who are currently using a method of contraception. A contraceptive prevalence rate of 32% representing the contraceptive prevalence rate in Volta Region was used (GSS et al., 2014).

$q = (1\text{-}p) = 1\text{-}\ 0.32 = 0.68$, d is the level of precision set at 5% (0.05)

$$n = \frac{(1.96)^2\,(0.32)(0.68)}{(0.05)^2} = 334 .$$

A 10% non-response effect was added; 10/100×334 = 33; 334+33=367. The total number of respondents recruited for the study was 367.

3.6 Sampling methods and procedures

A multistage sampling technique was used in this study. As noted earlier, the district has 70 child welfare outreach clinics. These CWCs are located in all seven sub municipalities. Almost all the clinics are run monthly with some weekly depending on the client load especially those located in Hohoe sub municipality. All women with children 6 weeks to 59 months are encouraged to attend the CWCs for various services as mentioned earlier. Usually mothers with children below 24 months attend the clinics regularly than those beyond 24 months due to the community infant and young child feeding program running in the municipality. Out of the 70 CWCs, 15 were selected using a simple random sampling technique. This was done by numbering the clinics (i.e. 1-70), writing the numbers on pieces of folded paper, mixing the numbers up in a bowl, and asking a blind folded person to select 15. After the selection was completed, the total sample size of 367 was divided equally among the randomly 15 selected clinics. This gave an average of 24 respondents per CWC.

After the selection, each of the selected CWC was visited. A simple random sampling method was used to select individual mothers who were aged 18-49years, and who were not less than 6months post–partum and not more than 24 months postpartum. All the CWCs maintain current registers, which have the names of mothers who attend the clinic to receive child welfare services. The register for each of the 15 selected CWCs was obtained and all mothers aged 18-49years, and who were not less than 6months post–partum and also not more than 24 months postpartum listed and given numbers (e.g. W1, W2 …Wn). Using this information, a computer-based number generator was then used to randomly select the required number of respondents (i.e. 24 for each CWC). Following this, a visit was made to the CWCs to interview the randomly selected mothers individually on the days that such women attended the CWC. Before interviews, the sampling procedures were thoroughly explained to each of the selected women. All selected respondents attended CWCs on their scheduled days due to the collaborative efforts of the PI, research assistants and the Community Health Nurses responsible for those selected communities. All randomly selected mothers agreed to take part in the study. The selected community outreach clinics were as follows:

No	Name of Outreach Clinic	Sub municipality
1	Wli Dzogbega	Agumatsa
2	Gbledi Gborgame	Agumatsa
3	Satrokofi Bume	Akpafu/Santrokofi
4	Alavanyo Agorhoe	Alavanyo
5	Gbi Akplamafu	Gbi-rural
6	Fodome Agbetsido	Hohoe
7	Gbi Akplamafu	Gbi-rural
8	Gbi Godenu	Gbi-rural
9	Agorhoe Alavanyo	Alavanyo
10	Hohoe RCH	Hohoe

11	Adabraka	Hohoe
12	Likpe Koforidua	Likpe
13	Kodzefe	Agumatsa
14	Likpe Nkwanta	Likpe
15	Lolobi Ashiambi	Lolobi

3.7 Data Collection Methods and Tools

A survey of all the selected mothers was undertaken and data on contraceptive knowledge, use and behaviour using structured questionnaires were collected. The questionnaires were administered to selected mothers during CWCs within the month of June from 5th to 30 June 2017. Each mother responded to questions individually at locations within the CWC setting where privacy was maintained. Seven research assistants were recruited from the Hohoe Municipal Health Directorate. They were subsequently trained for one day on the administration of the questionnaire to ensure common understanding of the questions using English and translating into Ewe. The tools were reviewed thoroughly section by section and in addition, the assistants were oriented on the purpose of the study, data collection, and data handling procedures.

Mothers were interviewed using face-to-face technique. This technique afforded the data collectors the opportunity to clarify issues for the respondents to provide appropriate responses to the questions. The face to face approach was also appropriate for the lactating mothers because they did not have the time to complete a self-administered questionnaire. Each interview lasted for a maximum of 20 minutes.

The questionnaire (see appendix A) used was adapted from previously validated questionnaire (GSS et al., 2014). The questionnaire had both closed and open-ended questions, and covered such issues as the socio demographic characteristics of the respondents, awareness and knowledge of contraceptives, contraceptive use, and factors that hinder or promote contraceptive use.

3.8 Pre-testing of the study instrument

Pretesting of the questionnaire was done in Gbi sub – district which was not part of the study. This was aimed at assessing the reliability of the questionnaire. The Pretesting was also done to permit an assessment of the relevance and completeness of the research questions. Appropriate amendment of the questionnaire was done to reflect the research interest.

3.9 Quality control, data management and storage

The following measures were taken to ensure data quality and storage:

1. Questionnaires for the study were brief and easy to understand.

2. Pre-testing of the questionnaire was carried out in an area which has similar characteristics with the study area to check for consistency of variables and identification of errors.

3. Training of data collection/entry assistants was done to assist the Principal Investigator.

4. Field supervision was carried out to provide support to data collectors

5. Data collected on each respondent was cross-checked after each day‟s field work by the PI to ensure that the questionnaires were complete and appropriately filled and all information accurately collected. Incomplete questionnaires were sorted and research assistants allowed to interview different respondents to replace the incomplete ones.

6. Completed questionnaires were kept by the PI under lock and key for safety whiles processed data was stored on a computer with a password which is only accessible to the PI.

3.10 Data Analysis

3.10.1 Variables

3.10.1.1 Outcome/dependent Variable

The outcome variable in this study is contraceptive uptake.

3.10.1.2 Independent Variables

The study considered several independent variables. These included socio-demographic characteristics of the respondent such as age, educational level, marital status, religion, parity, desire for more children, head of household and educational level of head of household; health facility factors such as availability of preferred contraceptives, counseling and education on contraceptives; individual level and community level factors such as knowledge of contraceptives, perceptions on contraceptives, cultural beliefs and partner communication and approval for the use of contraceptives.

3.10.2 Analysis

All filled questionnaires were checked for completeness and correctness and entered in excel. Data were then imported into STATA version 14.1 (StataCorp LP) for analysis. The unit of analysis was at the individual level. Both preliminary and further analysis was employed at this stage. The preliminary analysis included frequencies which were presented as tables on all variables in the following sections: socio- demographic characteristics of the respondents, awareness and knowledge on contraceptives, perceptions about contraceptives, contraceptive use and behaviour. Further analysis was done using bivariate and logistic regression analysis to determine the factors that were associated with the outcome variable (use of contraceptives) among lactating women in the Hohoe Municipality. Statistical significance was considered at 95% confidence interval and p-values less than 0.05 ($p<0.05$).

3.11 Ethical consideration

Approval for the study was obtained from the Ghana Health Service Ethics Review Committee (GHS-ERC:91/02/17). Further approval was obtained from the Hohoe Municipal Director of Health Services and health facility heads. Written informed consent was sought from every participant before embarking on the interviews. Participants were also informed of their right to leave the study any time with no resultant consequence. Respect was accorded to respondents whether they had consented or declined to participate in the study. Confidentiality was maintained on any information obtained from the participants. Names were not included in the questionnaires; instead codes were used for identification. Data collected were treated as confidential and stored data were secured using passwords. A detailed participant information sheet and informed consent form is attached as appendix A.

3.12 Chapter Summary

This chapter has detailed the methods that were employed in this study. A cross sectional study was carried out among lactating women within 6 – 24months post-partum in the Hohoe Municipality. The study site was selected due to the low contraceptive prevalence rate. A multi-stage sampling approach was used to recruit the study participants. Data was collected using a questionnaire. The variables of interest included contraceptive use (outcome/dependent), awareness and knowledge on contraceptives, prevalence of contraceptives, family and community factors that influence contraceptive uptake. Data were analyzed quantitatively using STATA version 14.1. Descriptive statistical and regression analysis methods were used. The procedures that were followed yielded data that was helpful to adequately address the research questions raised in chapter one. In the next chapter, results are presented.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the results of the study. The results focus on the socio-demographic characteristics of respondents, awareness and knowledge of modern contraceptives, use of modern contraceptives and factors influencing use of modern contraceptives.

4.2. Socio-demographic characteristics of respondents

The total number of respondents recruited was 374, out of which 367 respondents who were expected to participate completed the questionnaire, giving a response rate of 100%. Table 4.1 below depicts the socio-demographic characteristics of respondents. The majority of respondents (31.6%) were between 18 to 24 years while the least (5.7%) were 40 years and above. The mean age of respondents was 28.6 with a standard deviation of 6 years.

With regard to marital status of respondents, 30.9% were co-habiting, while 56.2% were married. Majority of the respondents were JSS/JHS School leavers (59.7%). Only 4.8% had no formal education. Christianity is the commonest (89.2%) religion among respondents. Furthermore,; respondents were rural dwellers (73.7%). Also, majority (71.5%) had between 1 to 3 children with a mean number of children of 2.7. The majority of respondents (42.5%) had their first child during the teenage years of 15-19 years while 63.4% wanted additional 1-3 children. About a third (30.2%) had no desire for more children. Most of the respondents (37.3%) had a birth interval of 36 – 60 months. More than half of the respondents had children whose ages were within 1-2 years.

Table 4.1: ***Socio-demographic characteristics of respondents***

Characteristics	Frequency (N=367)	Percentage
Age		
Mean Age (SD)	28.6(6.4)	
18-24	116	31.6
25-29	88	24.0
30-34	86	23.4
35-39	56	15.3
40+	21	5.7
Marital Status		
Co-habiting	113	30.8
Married	208	56.7
Not Married	40	10.9
Separated	6	1.6
Educational Level		
JSS/JHS	219	59.7
SSS/SHS	56	15.3
Primary	47	12.8
Tertiary	28	7.6
No Education	17	4.6
Residence Type		
Rural	272	74.1
Urban	95	25.9
Employment Status		
Employed	35	9.5
Self-employed	242	65.9
Unemployed	90	24.5
Religion		
Christian	327	89.1
Islam	37	10.1
Traditional	3	0.8

Parity		
Mean Parity (SD)	**2.7(1.6)**	
1-3	270	73.6
4-6	89	24.2
7+	8	2.2
Age at 1st Child		
15-19	156	42.5
20-24	152	41.4
25-29	41	11.2
30-34	16	4.4
35-39	2	0.5
Number of children expected in future		
0	111	30.2
1-3	233	63.5
4-6	23	6.3
Age of current child		
6 Months-11 Months	177	48.2
1yr-2Yrs	190	51.8
Age of elder sibling of current child (n=268)		
12-23 Months	10	3.7
24-35 Months	86	32.1
36-60 Months	100	37.3
5 Years or More	72	26.9

4.2 Awareness, Knowledge and Perceptions about Modern Contraceptives

Table 4.2 summarises awareness and knowledge of respondents on various modern contraceptive methods. Awareness of modern contraceptives was almost universal among the 361 respondents (98.4%), and the most common method known is the injectable (93.2%) followed by pills (84.3%), condoms (83.7%) and implants (74.5%) with the least known method being the diaphragm (4.6%). Out of the 361 respondents that were aware of modern contraceptives, almost 9 in 10 of the respondents indicated that they heard about the methods in the Hospitals/Clinics with just 1.4% of them reading it from the dailies. Almost all the 361 respondents (98.0%) knew where to get modern contraceptive methods. The Hospital/clinic was cited by majority (91.1%) of respondents as the place to get modern contraceptives while only 1.7% indicated they could get it from friends.

Most of the 361 respondents (67.5%) believed that modern contraceptives provide 100% protection to the user while 69.5% of them were of the view that modern contraceptive use is women‟s business. More than half (55.6%) of the respondents were also of the view that women who use modern contraceptives may become promiscuous.

*Table 4.2: **Awareness, knowledge and perceptions about Modern contraceptives***

Characteristics	**Frequency**	**Percentage**
Ever heard about Modern contraceptives (n=367)		
Yes	361	98.4
No	6	1.6
Modern Contraceptive methods known* (n=361)		
Pills	305	84.5
Injectable	336	93.1
Intrauterine Devices	66	18.3
Condoms	302	83.7
Diaphragm	16	4.4
Implants	269	74.5
Sterilization	22	6.1
LAM	60	16.6
Emergency	22	6.1
Withdrawal	57	15.8
Periodic Abstinence	93	25.8

Source of Information on Modern contraceptives *(n=361)		
Television/Radio	229	63.4
Dailies	5	1.4
Hospital/Clinic	329	91.1
Books/School	20	5.5
Friends	155	42.9
Knows where to get Modern contraceptives (n=361)		
Yes	354	98.0
No	7	1.9
Specific place to get Modern Contraceptives* (n=354)		
Hospital/Clinic	329	91.1
Pharmacy/Drugs Store	144	39.9
Health Provider/FP	190	52.6
Friends	6	1.7
Modern Contraceptives provides 100% protection (n=361)		
Yes	248	68.7
No	100	27.7
Don‟t Know	13	3.6
Modern Contraceptives is a woman's business (n=361)		
Yes	251	69.5
No	110	30.5
Modern Contraceptives lead to promiscuity (n=361)		
Yes	201	55.7
No	160	44.3

* Multiple responses allowed

4.3 Modern Contraceptive use among Lactating Mothers

4.3.1 Modern Contraceptive Prevalence and Preference

Among the 361 respondents who have heard of modern contraceptives, 257 representing 71.2% indicated that they had ever used a method (see table 4). Among the 257 who had ever used modern contraceptives, majority (51.5%) used injectable, followed by condoms (31.5%), pills (26.8%) and implants (21%). The least methods used by the respondents were sterilization and diaphragm (0.4%). With regard to how respondents would like to space their next childbirth, majority 226 (62.6%) indicated they would use modern contraceptive methods while 127 (35.2%) would use traditional methods.

Even though majority (62.6%) of respondents indicated they would like to use modern contraceptive methods to space their next childbirth, less than half of the respondents (168) representing 46.5% were currently using modern contraceptives to postpone their next childbirth.

Among those using modern methods (168), the majority (42.9%) were using injectable, followed by implants (33.9%) and the least being emergency contraceptive (0.6%). The commonest reasons that were cited by most respondents for using modern contraceptives was to space childbirth (86.9%), to delay childbirth (43.4%), and to avoid teenage pregnancy (13.1%). Furthermore, 6 out of 10 women who used modern contraceptives indicated that they used the current method due to convenience and safety while 1.2% said they were using it because of health providers" choice and privacy.

Regarding the source of contraceptives, 126 representing 75% of the 168 respondents indicated that they acquired the modern contraceptives from Hospital/clinic while the least (2.2%) from friends. A significant proportion of the 193 (53.5%) respondents currently not using contraceptives cited fear of side effects (97.4%) and partner opposition (53.4%) as the commonest reasons for non-usage.

Table 4.3: Contraceptive use, prevalence and preference

Characteristics	Frequency	Percentage
Ever used modern contraceptive before (n=361)		
Yes	257	71.2
No	104	28.8
Modern contraceptive ever used *(n=257)		
Injectable	134	51.1
Condoms	81	31.5
Pills	69	26.8
Implant	54	21.0
Periodic Abstinence	13	5.1
Withdrawal	10	3.9
LAM	7	2.7
Emergency Contraceptive	4	1.6
Sterilization	4	1.6
Intrauterine Devices	2	0.8
Diaphragm	1	0.4
Method to be used to space next childbirth n=361)		
Modern Contraceptive Methods	226	62.6
Traditional Methods	127	35.2
None	8	2.2
Current use of any modern method (n=361)		
Yes	168	46.5
No	193	53.5
Modern method currently being used (n=168)		
Injectable	72	42.9
Implant	57	33.9
Condoms	16	9.5
Pills	11	6.5
Intrauterine Devices	2	1.2
Sterilization	4	2.4
Emergency Contraceptive	1	0.6
Reasons for using modern contraceptives* (n=168)		
Space Childbirth	146	86.9

Delay Childbirth	73	43.4
Limit Childbirth	50	29.8
Prevent STI	38	22.6
Avoid Teenage Pregnancy	22	13.1
Reasons for method selection* (n=168)		
Convenience	117	69.6
Safe	107	63.7
Effective	78	46.4
Affordable	37	22.0
No/Low Side Effect	27	16.1
Only Method Available	3	1.8
Health Provider"s Choice	2	1.2
Privacy	2	1.2
Source of modern contraceptive* (n=168)		
Hospital/Clinic	126	75.0
Health Provider/FP	55	32.7
Pharmacy/Drugs Store	26	15.5
Friends	4	2.4
Reasons for non - use of modern contraceptives* (n=193)		
Perceived Side Effect	188	97.4
Partner/Family Opposition	103	53.4
Lack of knowledge	67	18.6
Counseling received	22	11.4
Religious Beliefs	20	10.4
Infrequent Sex	36	9.8
Distance to acquire contraceptives	16	8.3
Attitude of Contraceptive Providers	5	2.6
Continuous lactation	5	2.6

*multiple responses allowed

4.3.2 Modern Contraceptive use behaviour and intention

Table 4.4 shows modern contraceptive use behaviour and intention to use among respondents. Out of the 168 respondents who were currently using contraceptives, majority (67) representing 39.9% of them have been using contraceptives between 1 to 2 years prior to this study while 19.6% have been using it for more than 6 years. Regarding the frequency of use of modern contraceptives, 64.9% of the 168 respondents said that they use it every time while 35.1% indicated they use it once a while.

Again among the 168 respondents using modern contraceptives, 148 (88.1%) said they were informed about side effects associated with the method they were using, and 20 (11.9%) said they were not informed. Out of those 148 respondents who were informed about the side effects of using the particular method that they had chosen, 143 (85.1%) were told what to do while 25(14.9%) were not informed about what to do in case they experience any side effect or problem.

More than half of the 168 respondents who heard about modern contraceptives, 244 (68.6%) of them indicated that all sexually active persons should use modern contraceptives; 109 (30.2%) indicated that married couples only should use modern contraceptives; while only 8 (2.2%) indicated only adults should use contraceptives.

When respondents were asked of contraceptive use during their last coital act, 158 (94%) of them said they used a method as against 10 (6%) who indicated they did not use any contraceptive. The injectable was mentioned by 65 (41.1%) of respondents as the method used during the last coital act with the least mentioned 2 (1.3%) respondents as intra uterine device. Among the 193 respondents who were currently not using any method, only 73 (37.8%) indicated their intention to use modern contraceptive whiles the majority of 120 (62.2%) declined to use any modern method. Out of the 73 who wanted to use contraceptives, 24 (32.9%) of them said they would have chosen the injectable while the least (19.2%) of them indicated their intention to choose pills.

Table 4.4: Contraceptive use behaviour and intention to use

Characteristic	Frequency	Percentage
Duration of use of modern contraceptive (n=168)		
1Month-11 Month	43	25.6
1-2 Years	67	39.9
3-5 Years	25	14.9
6 Years and above	33	19.6
Frequency of use of method (n=168)		
Every Time	109	64.9
Once a While	59	35.1
Informed about side effect or associated problems with the method (n=168)		
Yes	148	88.1
No	20	11.9
Told what to do in case of side effects or problems (n=168)		
Yes	143	85.1
No	25	14.9
Who should use modern contraceptives (n=361)		
Adults Only	8	2.2
All sexually active persons	244	68.6
Married couples only	109	30.2
Use of contraceptive during the last coital act (n=168)		
Yes	158	94.0
No	10	6.0
Method of contraceptive used during last coital act (n=158)		
Condoms	20	12.6
Emergency Contraceptive	1	0.6
Implants	56	35.4
Injectable	65	41.1
Intrauterine Device	2	1.3

Pills	12	7.6
Sterilization	4	2.6
Intention to use modern contraceptives (n=193)		
Yes	73	37.8
No	120	62.2
Modern methods respondent would have chosen (n=73)		
Injectable	24	32.9
Implants	19	26.0
Condoms	16	21.9
Pills	14	19.2

4. 4 Socio-demographic factors associated with contraceptive use

Table 4.5 below presents information on bivariate analysis investigating the association between contraceptive use and socio-demographic factors. The results indicated that residence (p=0.01), religion (p=0.02), and age at first birth (p=0.01) were significantly associated with contraceptive use. However, age, marital status, educational level, employment status, number of surviving children, and additional number of children expected were not statistically associated with modern contraceptive use.

*Table 4.5: **Bivariate analysis of socio-demographic characteristics associated with contraceptive use***

Characteristics	Contraceptive use, n (%) Yes	No	Chi-square *P*-value
Age			
18-24	58(50.4%)	57(49.6%)	
25-29	40(46.0%)	47(54.0%)	
30-34	41(48.8%)	43(51.2%)	0.660
35-39	22(39.3%)	34(60.7%)	
40+	7(35.0%)	13(65.0%)	
Marital Status			
Cohabiting	57(49.1%)	57(50.9%)	
Married	85(41.7%)	119(58.3%)	
Not Married	24(60.0%)	16(40%)	0.243
Separated	2 (33.3%)	4 (66.7%)	
Educational Level			
JSS/JHS	101(47.0%)	114(53.0%	
No education	6(40.0%)	9(60.0%)	
Primary	19(40.4%)	28 (59.6%)	0.066
SSS/SHS	29(51.8%)	27 (48.2%)	
Tertiary	13 (46.4%)	15(53.6%)	
Residence Type			
Rural	134(49.4%)	137 (50.6%)	
Urban	34 (35.8%)	61 (64.2%)	0.001*
Employment Status			
Employed	13 (38.2%)	21 (61.8%)	
Self-Employed	118 (49.2%)	122 (50.8%)	0.129
Unemployed	37(42.5%)	50(57.5%)	
Religion			
Christian	157 (48.5%)	167 (51.5%)	
Islam	9(74.3%)	26(25.7%)	0.002*
Traditional	2(66.7%)	1 (33.3%)	
Age at 1st childbirth			
15-19	83 (53.5%)	72(46.5%)	
20-24	64 (43.0%)	85 (57.0%)	
25-29	14 (34.1%)	27 (65.9%)	0.000*
30-34	7(46.7%)	8 (53.3%)	
35-39	0 (0.0%)	1 (100%)	
Number of surviving children			
Less than 3	126 (47.4%)	140 (52.6%)	0.702
3 and Above	42(43.8%)	54(56.3%)	
Number of additional children expected			

Less than 3	156 (46.2%)	182(53.8%)	0.695
3 or More	12 (52.2%)	11(47.8%)	

*p<0.05

4.5 Other factors associated with uptake of contraceptives among lactating mothers.

With regard to other possible factors likely to influence the uptake of contraceptives by respondents, table 4.6 shows that respondents knowledge about where to get modern contraceptives in the community had an influence on the use of contraceptives (p=0.001). Also perception of respondent that using modern contraceptives provides 100% protection had an influence on the use of contraceptives (p=0.001). Respondents who reported that there were cultural beliefs and practices in their communities that oppose contraceptive use also had an influence on contraceptive use (p=0.001).

More than half (59.3%) of respondents who cited religious beliefs and practices that oppose contraceptive use were not using contraceptives. Again 59.1% of the respondents who said contraception is a woman"s business were using contraceptives (p=0.001) and lastly 54.7% of respondents who believed that contraceptive use promotes promiscuity were not using contraceptives (p=0.001).

Table 4.6: Bivariate analysis of other factors associated with contraceptive use

Characteristics	Contraceptive use = n (%)		Chi-Square
	Yes	No	P-Values
Knowledge about where to get a modern contraceptive community			
Yes	166 (46.8%)	189(53.2%)	0.000*
No	1 (20.0%)	4 (80.0%)	
Using modern contraceptive during sex provides 100% protection from pregnancy			
Yes	115 (46.6%)	132 (53.4%)	
No	51 (50.0%)	51 (50.0%)	0.000*
Don"t Know	2 (16.7%)	7 (83.3%)	
Presence of cultural beliefs and practices in community that oppose contraceptive use			
Yes	1 (20.0%)	4 (80.0%)	
No	165(48.0%)	179 (52.0%)	0.000*
Don"t Know	2 (18.2%)	9 (81.8%)	
Presence of cultural religious and practices in community that oppose contraceptive use			
Yes	11 (40.7%)	16 (59.3%)	
No	155(47.4%)	172 (52.6%)	0.000*
Don"t Know	2 (28.6%)	5(71.4%)	
Contraception is a woman's business			
Yes	65(59.1%)	45 (40.9%)	
No	103(41.2%)	147(58.8%)	0.000*
Contraceptive use promote promiscuity			
Yes	73(45.3%)	88 (54.7%)	
No	95(47.5%)	105(52.5%)	0.000*
Communicates with partner about family planning			
Yes	121(53.5%)	105(46.5%)	
No	47(34.8%)	88(65.2%)	0.000*

*p<0.005

4.6. Logistic regression of factors that influence contraceptive use

Table 4.7 presents findings from the logistic regression of 10 variables that were identified to have an association with contraceptive use in the bivariate analysis to investigate the strength of those associations..

Respondents who believed that contraception is a woman‟s business had a reduced odds of using contraceptives compared to those who did not believe it was a woman‟s business (AOR= 0.49; 95% CI=0.30-0.80).

Again the odds of contraceptive use was 0.35 less among women who discussed family planning with their partners than those who did not (AOR=0.35; 95% CI=0.17-0.73).

*Table 4.7: **Logistics regression of the factors associated with contraceptive use among lactating mothers***

Characteristics	Unadjusted OR (95% CI)	P Value	Adjusted OR (95% CI)	P Value
Residence Type				
Rural *(ref)*	1		1	
Urban	1.61(0.99-2.63)	0.056	1.06(0.59-1.90)	0.201
Religion				
Christian (ref)	1		1	
Islam	0.47(0.04-5.24)	0.539	0.52(0.04-6.35)	0.998
Traditional	0.18(0.02-2.23)	0.182	0.22(0.02-3.01)	0.998
Age at 1st Childbirth				
15-19 *(ref)*	1		1	
20-24	0.0(0.0)	1	0.0(0.0)	1
25-29	0.0(0.0)	1	0.0(0.0)	1
30-34	0.0(0.0)	1	0.0(0.0)	1
35-39	0.0(0.0)	1	0.0(0.0)	1
Knowledge about where to get Contraceptive				
No *(ref)*	1		1	
Yes	0.29(0.03-2.57)	0.263	0.44(0.41-4.78)	0.129
Cultural beliefs and practices				
No (ref)	1		1	
Yes	0.89(0.06-12.89)	0.931	0.79(0.05-12.82)	0.944
Don't Know	3.69(0.41-33.33)	0.245	4.40(0.43-44.59)	0.301
Religious beliefs and practices				
No *(ref)*	1		1	
Yes	0.58(0.10-3.56)	0.558	0.78(0.10-6.2	0.995
Don't Know	1.31(0.59-2.91)	0.506	0.75(0.30-1.90)	0.481
Contraceptive use promotes promiscuity				
No *(ref)*	1		1	
Yes	1.09(0.72-1.65)	0.683	1.23(0.78-1.94)	0.438

Using Modern Contraceptive is 100% Protection				
Don‟t know *(ref)*	1			
No	0.23(0.05-1.07)	0.061	0.27(0.04-1.34)	0.081
Yes	1.15(0.72-1.82)	0.558	1.34(0.82-2.20)	0.362
Using Contraceptive is Women Business				
No *(ref)*	1		1	
Yes	0.49(0.31-0.77)*	0.002	0.49(0.30-0.80)*	0.002
Communication about Family Planning with Partner				
No *(ref)*	1		1	
Yes	0.46(0.3-0.72)*	0.001	0.35(0.17-0.73)*	0.005

*p<0.05; OR= odds ratio; CI=confidence interval; *ref*=reference categories

4.7 Chapter summary

This Chapter presented the results of the study. Findings showed that awareness of contraceptives is high but actual usage is low. While a number of factors were statistically associated with contraceptive use in the bivariate analysis, when other variables were controlled for in logistic regression analysis, only „believe that using contraceptive is a woman‟s business‟ and „partner communication on contraceptives‟ were significantly associated with use of modern contraceptives. In the next chapter, these results are discussed.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the results of the study in relation to the key objectives and key variables of interest. The chapter has been organised into the following sections: summary of the main findings, consistency of the major findings with existing research explanation of findings and its implications for policy and research, as well as the strengths and limitations of the study.

5.2 Summary of Findings

The study found awareness about contraceptives to be almost universal (98.4%) with most of the respondents knowing about the pills and condoms. The hospital/clinic served as the major source of information for respondents. As much as 71.2% of respondents had ever used a contraceptive, with 46.5% currently using a method. Most of the respondents were using the injectable and implants which were mostly acquired from the hospital. The common reason why lactating mothers used contraceptives was to space births while most of them selected the specific methods they were using due to convenience. About 6 out of 10 of the respondents indicated their intention to use modern contraceptives in the future.

Additionally, about 6 in 10 of the respondents believed that contraceptive use was a woman‟s business whiles more than half of the respondents believed that the use of contraceptives makes women promiscuous. The main factors that were identified to have an influence on contraceptive uptake among the lactating mothers were, perception that contraception is a woman‟s business, (AOR=0.49; CI= 0.30-0.80) and partner communication about family planning. (AOR= 0.35; CI=0.17-0.73).

5.3 Consistency with previous research

The mean age of respondents was 28.6% with about half of the women between 18-29 years of age group. This corresponds with the peak reproductive age group in which most pregnancies occur. Similar studies by Rao & Veerendrakumar (2016) and Awoonor-williams et al. (2014), and Musa, Assefa, Weldegebreal, Mitiku, & Teklemariam (2016) have reported the peak reproductive age group to be between 20-29 years.

A greater (89.1%) proportion of respondents were Christians. This finding is consistent with the report of the Ghana Statistical Service in the 2010 Population and Housing Census for Hohoe, which indicated that 89.1% of residents were Christians whiles the Islamic religion formed only 7.8% of the population (Ghana Statistical Service, 2014).

The study found knowledge on contraceptives to be almost universal (98.4%) among respondents. This is consistent with the findings from several studies where knowledge has been found to be almost universal (Bwazi et al., 2014; Haruna, 2014; Nam et al., 2016; Wuni, 2015). The 2014 Ghana Demographic and Health Survey also reported awareness of at least a contraceptive method among married women of 99% and 100% in Ghana and Volta Region respectively (GSS et al., 2014).

Even though awareness of contraceptives among respondents is almost universal, less than half (46.5%) of the respondents were currently using a modern contraceptive method. This is above what has been reported in similar studies conducted in North West Ethiopia (10.3%), Uganda (28%, 25.2%) and Rural Bareilly (13.8%) (Mengesha et al., 2015, Rutaremwa et al., 2015). Kiene, 2015, Mahmood et al., 2011)

In this study apart from injectable and implant, use of all the other methods was low with just a few of the women currently using pills, condoms, intrauterine device, and sterilization. This is similar to the findings by GDHS (2014) where contraceptive use among currently married women was generally low.

This study also identified knowledge of where to get contraceptive in the community as a significant factor that influence contraceptive uptake. This finding is consistent with a study by Adjei, Sarfo, Asiedu, & Sarfo (2014), which examined the psychosocial factors affecting contraceptive usage in Ghana.

The study also found that the majority of women who thought that contraceptives did not provide 100% protection, and that contraceptive use promoted promiscuity were less likely to use contraceptives than those who did not have these beliefs. This finding was also reported by Ankomah et al., (2011) in a study in Nigeria that examined myths and misconceptions and contraceptive use.

Lastly the study found that, respondents who discuss family planning with their partners were more likely to use contraceptives. This finding has been identified in related literature (Ankomah et al., 2011; Shattuck et al., 2011; Awoonor-williams et al., 2014).These findings emphasise the importance of men involvement in family planning programming to achieve an improvement in the CPR in the municipality.

5.4 Explanation of findings and implications

The main findings from this study indicate that awareness of contraceptives is almost universal with most respondents knowing at least a method. However this high awareness did not translate into high CPR. The CPR found in this study is still higher than what has been widely reported in the Volta Region. Most of the respondents reported receiving information regarding contraceptives from health facilities and health workers. This can be a possible window of opportunity for the women to accept a method. Despite the CPR reported, there is still the need to improve on awareness to close the unmet need gap.

Even though the hospital/clinic was the major source of contraceptives, knowledge on sterilization and emergency contraceptives was low. It is possible that information regarding these types of contraception may not be well known by health workers and so the women are not adequately informed. It is also possible that the infrastructure and expertise to perform sterilization procedure may not be available because the municipality has only one hospital which is situated only in the municipal capital. This suggests the need for health facilities to have all the range of contraceptives that women may need as well as trained staff to provide the services.

The study also suggested that many women believed that using modern contraceptives provides 100% protection against pregnancy. This perception has implications for education and sensitization programmes because no contraceptive provide 100% protection against pregnancy. This perception if not dealt with can have effect on the outcomes of contraceptive use when there is a method failure.

Again perceived side effects were mentioned by almost all respondents who are currently not using any method as the major reason for non-use of contraceptives. This is worrying because most respondents reported that they heard about contraceptives from health facilities. This perception must be dealt with through education and awareness programmes since this is critical in influencing intention and actual use of contraceptive methods.

Findings from this study also suggested that knowledge of where to get contraceptives had an influence on contraceptive uptake. This finding suggests the need to include information on the availability of the range of methods and where to find them during awareness programmes.

This study also identified that condom use was not common among respondents as reported in a similar study in Northwest Ethiopia where condom use was only 0.1% and in Ghana

(1.2%) (Mengesha et al., 2015; GSS et al., 2014) Condoms have been identified as the only method that offer dual benefit of protection against pregnancy and sexually transmitted infections. The low usage level implies that sexually active women are not getting this dual benefit that condom offers and so more advocacy should be targeted at promoting condom use.

The two major factors that had a strong influence on contraceptive use were believe that using contraceptives is a woman‟s business and partner communication on family planning. This finding implies that male involvement in family planning programming will have a great bearing on women‟s intention to use and actual use of contraceptives. Opportunities must be created in the communities to engage men and women to discuss these issues so as to get support for women to use contraceptives. The ability of women to communicate to their partners may be influenced by cultural beliefs and lack of women autonomy. This has a big implication for gender advocacy and mainstreaming so that the decision makers in the community can take responsibility for their families.

Taken together, the findings in this study are partly supported by the conceptual framework that was developed to hypothesize the factors that are likely to influence contraceptive uptake is explained. While almost all the demographic variables such as age, marital status, educational level, occupation, number of children, educational level of partner, parity and desire for more children that were expected to have some influence on contraceptive use, they were found not to have any influence. However, community level factors such as beliefs that contraception is a woman‟s business and partner communication were identified to have some influence on contraceptive uptake.

5.5 Strengths and Limitations

The multistage sampling procedure used in this study made it possible to eliminate sampling bias which could have affected the outcome of the results. This study was the first to be conducted in this municipality and the finding could provide useful information that could guide policy implementation in the municipality.

These strengths notwithstanding, the study has limitations. A major limitation is the cross-sectional survey design that was used which did not offer opportunities for probing into reasons that could help understand some of the concepts. Future research could therefore explore the use of qualitative study design to gain a better understanding. Also, there could be recall bias as respondents were made to recall events that had happened in the past such as how long they have been using contraceptives.

5.6 Chapter summary

This chapter discussed the results of the study. The discussion illustrated that knowledge on contraceptives was high but the CPR was low. The major factors that were identified to significantly influence contraceptive use were „belief that using contraceptive is a woman‟s business‟ and „partner communication on contraceptives‟. The discussion brought to the fore, strategies that need to be put in place to sustain and improve CPR in the municipality. The next chapter presents specific recommendations in this regard.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study aimed to examine the factors influencing the uptake of modern contraceptives among lactating mothers in the Hohoe Municipality of the Volta Region. A cross-sectional survey was conducted among 367 randomly sampled lactating mothers using a multi-stage sampling approach. Data were collected using structured questionnaires. Data were analyzed using descriptive and bivariate analysis techniques. Findings suggest that although **c**ontraceptive awareness among respondents was almost universal, contraceptive use was low. It could therefore be concluded that high levels of awareness of contraceptive methods may be necessary but not sufficient to result in actual use. The main factors that were identified as having a negative influence on contraceptive use among respondents were believe that contraceptives is a woman"s business and partner communication about family planning. In this regard, specific recommendations are made in the next section of this chapter.

6.2 Recommendations

In view of the above findings of this study, the following recommendations are made.

First, the Municipal Health Directorate (MHD) should identify opportunities in the communities to improve on access to variety of contraceptives so that more women who intend to use contraceptives could have easy access to them to improve on the CPR in the municipality which will ultimately reduce unintended pregnancies.

Second, the Municipal Health Directorate should put in strategies to improve on the awareness and uptake of other contraceptive methods like the IUDs, pills, sterilization and condoms since the uptake of these devices were found to be low in the study.

Third, the MHD and its service providers should engage in continuous education programmes in the communities with emphasis on dealing with perceptions about contraceptives that is a woman‟s business which had a negative influence on contraceptive use in the municipality. The health education should target various women and mens‟ groups to dispel the perception that the use of contraceptives is a woman‟s business.

Fourthly, service providers should identify opportunities to promote male involvement to deal with the negative influence they exert over their partners on the decision to use contraceptives. This is important because the study identified that women who discussed family planning with their partners were less likely to use contraceptive.

Finally, further research (both quantitative and qualitative) should be conducted in the municipality and other districts of the Volta region to help generate more evidence on contraceptive use patterns and behaviours among lactating mothers and the reasons underlying such patterns and behaviors.

REFERENCES

Adebowale, S. A., Adedini, S. A., Ibisomi, L. D., Palamuleni, M. E., Bongaarts, J., Cleland, J., … Fisher, W. (2014). Differential effect of wealth quintile on modern contraceptive use and fertility: evidence from Malawian women. *BMC Women's Health*, *14*(1), 40. https://doi.org/10.1186/1472-6874-14-40

Adjei, D., Sarfo, J. O., Asiedu, M., & Sarfo, I. A. (2014). Psychosocial Factors Affecting Contraceptive Usage: a Case of Unmet Needs in Ghana. *European Scientific Journal*, *10*(15), 1857–7881. Retrieved from https://www.researchgate.net/publication/268505784

Ahmed, S., Li, Q., Liu, L., Tsui, A. O., Singh, S., Darroch, J., … Potts, M. (2012). Maternal deaths averted by contraceptive use: an analysis of 172 countries. *Lancet*, *380*(9837), 111–25. https://doi.org/10.1016/S0140-6736(12)60478-4

Ankomah, A., Oladosu, & Anyanti, J. (2011). Myths, misinformation, and communication about family planning and contraceptive use in Nigeria. *Journal of Contraception*, *Volume 2*, 95. https://doi.org/10.2147/OAJC.S20921

Asiimwe, J. B., Ndugga, P., & Mushomi, J. (2013). *Socio-Demographic Factors Associated with Contraceptive Use among Young Women in Comparison with Older Women in Uganda*. Retrieved from https://dhsprogram.com/pubs/pdf/WP95/WP95

Asiimwe, J. B., Ndugga, P., Mushomi, J., Manyenye Ntozi, J. P., Cleland, J., Bernstein, S., … Mabryc, R. (2014). Factors associated with modern contraceptive use among young and older women in Uganda; a comparative analysis. *BMC Public Health*, *14*(1), 926. https://doi.org/10.1186/1471-2458-14-926

Ayiasi, R. M., Muhumuza, C., Bukenya, J., & Orach, C. G. (2015). The effect of prenatal counselling on postpartum family planning use among early postpartum women in Masindi and Kiryandongo districts, Uganda. *Pan African Medical Journal*, *21*. https://doi.org/10.11604/pamj.2015.21.138.7026

Borda, M. R., Winfrey, W., & McKaig, C. (2010). Return to sexual activity and modern family planning use in the extended postpartum period: an analysis of findings from seventeen countries. *African Journal of Reproductive Health*, *14*(4 Spec no.), 72–79.

Brightson, K. T. C. (2009). *Induced Abortion and Contraceptive Use in the Hohoe Municipality of Ghana*. MPH dissertation, University of Ghana, unpublished. Retrieved from http://ugspace.ug.edu.gh/handle/123456789/8823

Bwazi, C., Maluwa, A., Chimwaza, A., & 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. https://doi.org/10.4236/health.2014.614205

Chebet, J. J., McMahon, S. A., Greenspan, J. A., Mosha, I. H., Callaghan-Koru, J. A., Killewo, J., … Winch, P. J. (2015). "Every method seems to have its problems"- Perspectives on side effects of hormonal contraceptives in Morogoro Region, Tanzania. *BMC Women's Health*, *15*(1), 97. https://doi.org/10.1186/s12905-015-0255-5

Dynes, M., Stephenson, R., Rubardt, M., & Bartel, D. (2012). The influence of perceptions of community norms on current contraceptive use among men and women in Ethiopia and Kenya. *Health and Place*, *18*(4), 766–773. https://doi.org/10.1016/j.healthplace.2012.04.006

Eliason, S., Awoonor-williams, J. K., Eliason, C., Novignon, J., & Nonvignon, J. (2014). Determinants of modern family planning use among women of reproductive age in the Nkwanta district of Ghana : a case-control study. *Reproductive Health*, *11*(1), 1–10. https://doi.org/10.1186/1742-4755-11-65

Eliason, S., Baiden, F., Quansah-Asare, G., Graham-Hayfron, Y., Bonsu, D., Phillips, J., & Awusabo-Asare, K. (2013). Factors influencing the intention of women in rural Ghana to adopt postpartum family planning. *Reproductive Health*, *10*(1), 34. https://doi.org/10.1186/1742-4755-10-34

Ghana Statistical Service. (2011). Ghana Multiple Indicator Cluster Survey, 157–160.

Ghana Statistical Service. (2014). *District Analytical Report Hohoe Municipality*. Retrieved from www.statsghana.gov.gh/docfiles/2010_District_Report/Volta/Hohoe Mun.pdf

Gonçalves, S. D., & Moultrie, T. a. (2012). Short preceding birth intervals and child mortality in Mozambique. *African Journal of Reproductive Health*, *16*(4), 29–42. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23444541

Gordon, C. (2011). Women "s Education and Modern Contraceptive Use in Ethiopia. *International Journal of Education*, *3*(1), 1–23. https://doi.org/https://doi.org/10.5296/ije.v3i1.622

GSS, GHS, & ICF Macro. (2014). Ghana Demographic and Health Survey, 79–97.

Haruna, T. (2014). *Predictors of Postpartum family planning uptake: understanding provider and potential family planning user behaviour in the Wa Municipality of the Upper West region, Ghana*. MPH Dissertation, Kwame Nkrumah University of Science and Technology, unpublished.

Hohoe Municipal Health Directorate/GHS. (2015). *Annual Report*.

Hubacher, D., & Trussell, J. (2015). A definition of modern contraceptive methods. *Contraception*, *92*, 420–421. https://doi.org/10.1016/j.contraception.2015.08.008

Idowu, A., Deji, S. A., Ogunlaja, O., & Olajide, S. O. (2015). Determinants of Intention to Use Post Partum Family Planning among Women Attending Immunization Clinic of a Tertiary Hospital in Nigeria. *American Journal of Public Health Research*, *3*(4), 122–127. https://doi.org/10.12691/AJPHR-3-4-1

Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, W. H. O. (2011). *Family Planning. A global handbook for providers*. https://doi.org/10.1080/01443610802242957

K. M.Sileo, Wanyenze, R. K, Lule, H, Kiene, S. . (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *International Journal of Public Health Gynecology and Obstetrics*, 12. https://doi.org/10.1007/s00038-015-0683-x

Mahmood, S. E., Srivastava, A., Shrotriya, V. P., Shaifali, I., & Mishra, P. (2011). Postpartum contraceptive use in Rural Bareilly. *Indian Journal of Community Health*, *23*(56). Retrieved from http://www.iapsmupuk.org/journal/index.php/IJCH/article/view/52

Mekonnen, W., & Worku, A. (2011). Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia. *Reproductive Health*, *8*(1), 37. https://doi.org/10.1186/1742-4755-8-37

Mengesha, Z. B., Worku, A. G., Feleke, S. A., Conde-Agudeloa, A., Belizan, J., Bremanb, R., … Enqueselassie, F. (2015). Contraceptive adoption in the extended postpartum period is low in Northwest Ethiopia. *BMC Pregnancy and Childbirth*, *15*(1), 160. https://doi.org/10.1186/s12884-015-0598-9

Musa, A., Assefa, N., Weldegebreal, F., Mitiku, H., & Teklemariam, Z. (2016). Factor associated with experience of modern contraceptive use before pregnancy among women who gave birth in Kersa HDSS, Ethiopia. *BMC Public Health*, *16*(1), 614. https://doi.org/10.1186/s12889-016-3292-6

Nam, E. W., Zakariah, A., Adams, F., Jun, Y. S., & Adanu, R. (2016). Comparison of maternal health services and indicators in three districts of the Volta Region, Ghana. *Ghana Medical Journal*, *50*(3), 122–128. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/27752185

Perin, J., & Walker, N. (2015). Potential confounding in the association between short birth intervals and increased neonatal, infant, and child mortality. *Global Health Action*, *8*(1).

https://doi.org/10.3402/gha.v8.29724

Population Reference Bureau. (2016). *2016 World Population Data Sheet with a special focus on human needs and sustainable resources*. Retrieved from www.worldpopdata.org

Rao, B. S., & Veerendrakumar, C. M. (2016). Awareness and determinants of contraceptive use among nursing mothers in Bellary, Karnataka. *Journal of Clinical and Diagnostic Research*, *10*(1), QC15-QC19. https://doi.org/10.7860/JCDR/2016/16022.7120

Rossier, C., & Hellen, J. (2013). *Family Planning during the Postpartum Period in Ouagadougou, Burkina Faso: A Qualitative Supply and Demand Perspective*. Retrieved from http://paa2013.princeton.edu/papers/131993

Rutaremwa, G., Kabagenyi, A., Wandera, S. O., Jhamba, T., Akiror, E., Nviiri, H. L., … Bessinger, R. (2015). Predictors of modern contraceptive use during the postpartum period among women in Uganda: a population-based cross sectional study. *BMC Public Health*, *15*(1), 262. https://doi.org/10.1186/s12889-015-1611-y

Rutstein, S. O. (2011). *Trends in Birth Spacing DHS Comparative Reports*. *Calverton, Maryland, USA: ICF Macro.* (Vol. No. 28). Retrieved from http://www.measuredhs.com/pubs/pdf/CR28/CR28.pdf

Saha, U. R., & van Soest, A. (2013). Contraceptive Use, Birth Spacing, and Child Survival in Matlab, Bangladesh. *Studies in Family Planning*, *44*(1), 45–66. https://doi.org/10.1111/j.1728-4465.2013.00343.x

Sedgh, G., Bearak, J., Singh, S., Bankole, A., Popinchalk, A., Ganatra, B., … Alkema, L. (2016). Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. *Lancet*, *388*(10041), 258–267. https://doi.org/10.1016/S0140-6736(16)30380-4

Seltzer, J. R. (2002). *The Origins and Evolution of Family Planning Programs in Developing Countries*. *J. R. Seltzer (Ed.).* Retrieved from http://www.rand.org/

Shattuck, D., Kerner, B., Gilles, K., Hartmann, M., Ng"ombe, T., & Guest, G. (2011). Encouraging contraceptive uptake by motivating men to communicate about family planning: the Malawi Male Motivator project. *American Journal of Public Health*, *101*(6), 1089–95. https://doi.org/10.2105/AJPH.2010.300091

Sileo, K. M., Wanyenze, R. K., Lule, H., & Kiene, S. M. (2015). Determinants of family planning service uptake and use of contraceptives among postpartum women in rural Uganda. *International Journal of Public Health*, *60*(8), 987–997. https://doi.org/10.1007/s00038-015-0683-x

Smith, R., Ashford, L., Gribble, J., & Clifton, D. (2009). *Family Planning saves lives* (4th Editio). Population Reference Bureau. Retrieved from www.prb.org/Reports/2009/fpsl.aspx

Speizer, I. S., Fotso, J. C., Okigbo, C., Faye, C. M., Seck, C., Singh, S., … Behets, F. (2013). Influence of integrated services on postpartum family planning use: a cross-sectional survey from urban Senegal. *BMC Public Health*, *13*(1), 752. https://doi.org/10.1186/1471-2458-13-752

Stover, J., & Ross, J. (2010). How increased contraceptive use has reduced maternal mortality. *Maternal and Child Health Journal*, *14*(5), 687–695. https://doi.org/10.1007/s10995-009-0505-y

Tsigue Pleah, a Yolande Hyjazi, b Suzanne Austin, b Abdoulaye Diallo, b Blami Dao, a Rachel Waxman, P. K. (2016). Increasing Use of Postpartum Family Planning and the Central Africa. *Global Health: Science and Practice*, *4*, 140–152. Retrieved from www.ghspjournal.org

Van Soest, A., & Saha, U. (2012). Does Family Planning Reduce Infant Mortality? Evidence From Surveillance Data in Matlab, Bangladesh. *Social Science Research Network Working Paper Series*. https://doi.org/10.2139/ssrn.2009853

Vishnu Prasad, R., Venkatachalam, J., & Singh, Z. (2016). Unmet Needs of Family Planning Among Women: A Cross-Sectional Study in a Rural Area of Kanchipuram District, Tamil Nadu, South India. *Journal of Obstetrics and Gynecology of India*, (April), 1–6. Retrieved from http://www.embase.com/search/results?subaction=viewrecord&from=export&id=L609239362%5Cnhttp://dx.doi.org/10.1007/s13224-016-0854-6

Volta Regional Health Directorate. (2015). 2015 Annual Report.

WHO. (2013). Programing Strategies for Postpartum Familly planning, 1–18. Retrieved from http://apps.who.int/iris/bitstream/10665/93680/1/9789241506496_eng.pdf?ua=1

WHO. (2014). Contraception, 4. Retrieved from http://apps.who.int/iris/bitstream/10665/112319/1/WHO_RHR_14.07_eng.pdf

WHO. (2015a). Family planning/Contraception. Retrieved November 26, 2016, from http://www.who.int/mediacentre/factsheets/fs351/en/

WHO. (2015b). Trends in Maternal Mortality : 1990 to 2015. Retrieved from http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/

WHO. (2016). WHO | Emergency contraception. Retrieved from http://www.who.int/mediacentre/factsheets/fs244/en/

World Health Organization. (2012). Contraception fact sheet. Retrieved from http://apps.who.int/iris/bitstream/10665/112319/1/WHO_RHR_14.07_eng.pdf?ua=1

World Health Organization. (2015a). Medical eligibility criteria for contraceptive use Fifth edition, 1–14. https://doi.org/www.who.int/reproductive health/topics/family_planning

World Health Organization. (2015b). *SDG HEALTH AND HEALTH-RELATED TARGETS*.

Wuni, C. (2015). *Contraceptive uptake among PP women in Sunyani municipality*. MPH Dessertation, KNUST, unpublished. Retrieved from http://ir.knust.edu.gh/xmlui/handle/123456789/7967?show=full

Yilmazel, G., & Balci, E. (2013). Preferences and related factors for postpartum contraception in pregnant women. *Iranian Journal of Reproductive Medicine*, *11*(10), 801–6. Retrieved from http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3941343&tool=pmcentrez&rendertype=abstract

APPENDICES

Appendix A: Information Sheet and Informed Consent Form for Lactating Mothers

STUDY TITLE: ***Factors Influencing Contraceptive Uptake Among Lactating Mothers (6 – 24months) in the Hohoe Municipality***

My name is Miss Perfect Titiati and I am from the School of Public Health, University of Ghana, and conducting research to identify the factors influencing the uptake of contraceptive among nursing mothers within 6 – 24 months postpartum in the Hohoe Municipality.

Purpose and Objectives of Research

This research aims to determine the factors influencing the uptake of contraceptives among lactating mothers within 6-24 months in the Hohoe Municipality. The results of this study will inform the design of new and old strategies to increase the uptake of contraceptive use among nursing mothers in the Hohoe Municipality. Specifically, the study has the following specific objectives:

1. Estimate the proportion of nursing mothers who are currently using any contraceptive method.
2. Characterize the types of contraceptives used by the nursing mothers.
3. Assess contraceptive knowledge and sources of information on contraceptives among nursing mothers.
4. Examine the factors that are associated with uptake of contraceptives among nursing mothers.

The research is being conducted by the principal investigator with support from the Hohoe Municipal Health Directorate in the form of research assistants.

Participants Role

Your participation in this study is important to help identify factors that will be useful in achieving the research objectives. In this study, you will be asked questions on your socio demographic characteristics, socio-economic characteristics, factors related to the health facility, knowledge of contraceptives and spousal communication and approval for the use of contraceptives. Some of the information that may be asked of you may be embarrassing to you but they are not aimed at causing any harm to you. The information you provide to the questions will be written. Your identity will remain anonymous. It is acknowledged that this interview will take a bit of your time but will not last more than 40 minutes. There will be no reimbursement for your time spent during this interview.

Confidentiality

Any information discussed will be strictly confidential and used only for this project‟s data analysis. Your answers will be anonymous and only the investigator and research assistants will have access to the information you provide. Your questionnaire will be given a special code that will not be linked to your identity and the responses given in the discussions. The data that will be collected from you will be stored in a secured place with a lock and the soft copy secured with a password known only to the principal investigator.

Possible Benefits/Compensation

There are no direct benefits or compensation that will be derived from participating in this study. However, you will be given some snack for keeping you waiting since you are a nursing mother. Your participation in this study will provide a better understanding of factors affecting contraceptive uptake, which may be beneficial in identifying areas in the health system that can be improved that will ultimately benefit the community at large.

Possible Risks

There is minimal risk that is related to your participation in the study. This may be related to some personal and sensitive questions that may be asked of you. However, if you feel embarrassed by those questions, you are at will to decline answering those questions. However, every effort will be made to ask those questions in a manner that will minimize this effect.

Participant Rights

Participation in this study is completely voluntary. You have the right to decide not to participate in this study. If you choose not to participate, no further action is necessary. If you wish to withdraw your participation at any time, you are free to do so. If you feel uncomfortable by any question asked, you have the right not to answer. Please feel free to ask any questions at any point. If you decide to participate, please provide your signature or thumb print on the consent form on the following page.

Contacts

For any additional questions clarifications, please contact the GHS-ERC Administrator on 0507041223 or Miss Perfect Titiati on 0244666600 from the University of Ghana, School of Public Health

Voluntary Consent

"I have read the foregoing information, or it has been read to me. I had the opportunity to ask questions about it and any question I have asked has been answered to my satisfaction. I consent voluntarily to participate as a subject in this study and understand that I have the right to withdraw from the study at any time without it affecting me in any way."
Signature or Thumb Print of Participant: ___________________________________
Date: __________________________
Signature of Witness in case of an illiterate participant: ______________________________
Date: __________________________
I have adequately informed and answered all related study topics and questions to the best of my ability.
Name of Study Personnel____

Signature______________________Date:________________________________

Appendix B : Questionnaire

TOPIC: FACTORS INFLUENCING CONTRACEPTIVE UPTAKE AMONG LACTATING MOTHERS (6 – 24 MONTHS) IN THE HOHOE MUNICIPALITY OF THE VOLTA REGION OF GHANA

- This questionnaire is part of a research by our student **MISS PERFECT TITIATI** towards the award of Masters in Public Health from the University of Ghana.
- The research is aimed at identifying factors associated with contraceptive uptake among lactating mothers in the Hohoe Municipality of the Volta Region. This study also wants to determine the number using contraceptives and their choice of modern contraceptives

Interview Date:________________ DISTRICT: HOHOE Municipality

Interviewer Name: ____________________ Interviewer Code: _________

(All information in this questionnaire is confidential).

NB: ONLY LACTATING MOTHERS WITHIN 6 – 24 MONTHS POST PARTUM MUST BE INTERVIEWED. PLEASE DO NOT DISCARD THIS QUESTIONNAIRE. GIVE IT BACK TO THE COORDINATOR EVEN IF IT IS DAMAGED.

Community:__________________ Questionnaire [| |] No.

Section 1: Socio - Demographic information (Please tick one)

1	Age (years)	
2	Marital Status	1. Married [ ] 2. Not married [ ] 3. Divorced [ ] 4. Separated [ ] 5. Co-habiting [ ] 6. Other, please specify ……

3	Educational level	1. No Education [ ] 2. Primary [ ] 3. J.S.S/J.H.S [ ] 4. S.S.S/S.H.S [ ] 5. Tertiary [ ]
4	Residence type	1. Rural [ ] 2. Urban [ ]
5	Employment status of respondent	1. Employed [ ] 2. Self-employed [ ] 3. Unemployed [ ]
6	Religion of respondent	1. Christian [ ] 2. Islam [ ] 3. Traditional [ ] 4. Other [ ]
7	Total number of children of respondent (dead and alive)	1. [ ] 2. [ ] 3. [ ] 4. [ ] 5. [ ] 6. [ ]
8	How many children are alive (surviving)	1. [ ] 2. [ ] 3. [ ] 4. [ ] 5. [ ] 6. [ ]
9	At what age did you have your first child?	1. 15 – 19 [ ] 2. 20 – 24 [ ] 3. 25 – 29 [ ] 4. 30 – 34 [ ] 5. 35 – 39 [ ] 6. 40 – 44 [ ] 7. 45 – 49 [ ]
10	How many more children does the respondent want to have? (Tick one)	1. 1 [ ] 2. 2 [ ] 3. 3 [ ] 4. 4 [ ] 5. 5 [ ] 6. 0 [ ]
11	What is the age of your last child?	1. <1 year [ ] 2. < 1½ years [ ] 3. < 2 years [ ] 4. < 2½ years [ ] 5. < 3 years [ ] 6. > 3 years [ ]
12	What is (are) the sex of your surviving child (children)?	Male Female(write number) [ ] [ ]
13	Who is head of your Family?	1. Partner [ ] 2. Respondent [ ] 3. Other [ ]
14	Educational level of head of family (ignore if respondent is the same as the head of family)	1. No Education [ ] 2. Primary [ ] 3. J.S.S/J.H.S [ ] 4. S.S.S/S.H.S [ ] 5. Tertiary [ ]

Section 2: Awareness, Knowledge and Perceptions of Contraceptives

15	Have you ever heard of any modern contraceptive methods before? (if No, move to section 3,. Q23)	1. Yes [ ] 2. No [ ]
16	If yes, mention the methods that you know	1. Pills [ ] 2. Injectable [ ] 3. Intrauterine device [ ] 4. Condoms [ ] 5. Diaphragm [ ] 6. Implant [ ] 7. Sterilization [ ] 8 LAM [ ] 9 Emergency [ ] 10 Withdrawal [ ] 11 Periodic Abstinence [ ] 12 Other [ ]
17	Where did you hear of this modern contraceptive(s) you have mentioned in 19 above?	2. TV/Radio [ ] 3. Dailies [ ] 4. Hospital/clinic [ ] 5. Books/school [ ] 6. Friends [ ] 7. Other [ ]
18	Do you know a place in your community where you can get modern a contraceptive? (if No, move to 22)	1. Yes [ ] 2. No [ ]
19	If yes, where?	1. Hospital/clinic [ ] 2. Pharmacy/Drug store [ ] 3. Health Provider/FP [ ] 4. Friends [ ] 5. Other, specify
20	Do you think that using modern contraceptives during sex provides 100% protection from pregnancy?	1. Yes [ ] 2. No [ ] 3. Don"t know [ ]

21	Overall, do you think contraceptives is a woman"s business and a man should not have to worry about it	1. Yes [ ] 2. No [ ]
22	Do you believe women who use modern contraceptives may become promiscuous?	1. Yes [ ] 2. No [ ]

Section 3: Use of Contraceptives

23	How do you postpone childbirth?	1. Usage of modern contraceptive method [ ] 2. Traditional Methods [ ] 3 Other, specify [ ]
24	How would you like to space your next childbirth?	1. Usage of modern contraceptive method [ ] 2. Traditional Methods [ ] 3 Other, specify [ ]
25	Have you used any modern contraceptives before? (If No, move to Q36)	1. Yes [ ] 2. No [ ]
26	If yes, which of the methods have you ever used?	1. Pills [ ] 2. Injectable [ ] 3. Intrauterine device [ ] 4. Condoms [ ] 5. Diaphragm [ ] 6. Implant [ ] 7. Sterilization [ ] 8 LAM [ ] 9 Emergency [ ] 10 Withdrawal [ ] 11 Periodic Abstinence [ ] 12 Other [ ]
27	Which of the methods are you currently using?	1. Pills [ ] 2. Injectable [ ] 3. Intrauterine device [ ] 4. Condoms [ ] 5. Diaphragm [ ] 6. Implant [ ] 7. Sterilization [ ] 8 LAM [ ] 9 Emergency [ ] 10 Withdrawal [ ] 11 Periodic Abstinence [ ] 12 Other [ ]
28	Why did you choose the current one?	1. safe [ ] 2. effective [ ] 3. low side effect [ ]

		4. only method known [ ] 5. only method available [ ] 6. health provider"s choice[ ] 7. affordable [ ] 8 convenience [ ] 9 privacy [ ] 10 other [ ]
29	Where do you get this modern contraceptive from?	1. Hospital/clinic [ ] 2. Pharmacy/Drug store [ ] 3. Health Provider/FP [ ] 4. Friends [ ] 5. Other, specify
30	How long have you been using modern contraceptives?	1. One month and above [ ] 2. one to two years [ ] 3. three to five years [ ] 4. 6 years and above [ ]
31	How often do you use any of the methods?	1. Every time [ ] 2. Once a while [ ] 3. Not at all [ ] 4. Don"t know [ ]
32	What are your reasons for using modern contraceptives	1. To avoid teenage pregnancy [ ] 2. To prevent STIs [ ] 3. To delay childbirth [ ] 4. To limit childbirth [ ]
33	Who in your opinion should use modern contraceptives?	1. Married couples only [ ] 2. All sexually active persons [ ] 3. Adults only [ ]
34	The last time you had sex did you or your partner use any modern contraceptive? (if No, move to Q36)	1. Yes [ ] 2. No [ ]
35	Which method of modern contraceptive did you use? Which type?	1. Pills [ ] 2. Injectable [ ] 3. Intrauterine device [ ] 4. Condoms [ ] 5. Diaphragm [ ] 6. Implant [ ] 7. Sterilization [ ] 8 LAM [ ] 9 Emergency [ ]

		10 Withdrawal [ ] 11 Periodic Abstinence [ ] 12 Other [ ]
36	If you wanted to, could you choose any modern contraceptives? (if No, move to Section 4, Q38)	1. Yes [ ] 2. No [ ]
37	If yes, which modern contraceptives could you have chosen?	1. Pills [ ] 2. Injectable [ ] 3. Intrauterine device [ ] 4. Condoms [ ] 5. Diaphragm [ ] 6. Implant [ ] 7. Sterilization [ ] 8 LAM [ ] 9 Emergency [ ] 10 Withdrawal [ ]

Section 4: Factors affecting Contraceptive Use

38	The last time you used a modern contraceptive who decided on what to use?	1. You [ ] 2. Partner [ ] 3. Health Provider [ ] 4. Friend [ ] 5. Other, specify
39	Do you and your partner talk about family planning?	1. Yes 2. No
40	Is there any cultural beliefs and practices that prevent the use of modern contraceptives among lactating mothers in your community? (No, skip to Q42)	1. Yes [ ] 2. No [ ] 3. Don"t know [ ]
41	If yes, kindly tell us.	
42	Is there any religious beliefs and practices that prevent the use of modern contraceptives? (No, skip to 44)	1. Yes [ ] 2. No [ ] 3. Don"t know [ ]

43	If yes to above, kindly tell us	
44	What will you say are the reasons why lactating mothers do not use modern contraceptives?	1. Religious beliefs [ ] 2. Distance to acquisition of contraceptives [ ] 3.Attitude of the contraceptive providers [ ] 4.Partner or family members opposed to using [ ] 5. Side effects [ ] 6. Lack of knowledge [ ] 7. Infrequent sex [ ] 8. Hard to get preferred methods [ ] 9.Too costly [ ] 10.Counselling received about contraceptives [ ] 11.Cultural or traditional beliefs [ ] 12. Other, specify……………..

Appendix C: Ethical Clearance