

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF POPULATION, FAMILY AND REPRODUCTIVE HEALTH



**CONTRACEPTIVE USE AND ACCEPTABILITY OF THE PROPOSED THREE
BABIES'
POLICY AMONG WOMEN OF REPRODUCTIVE AGE AT BIBIANI ANHWIASO
BEKWAI MUNICIPALITY**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF GRADUATES STUDIES,
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI
IN PARTIAL FULFILMENT FOR THE AWARD OF MPH IN POPULATION AND
REPRODUCTIVE HEALTH.**

BY

VIVIAN AMETEFE

NOVEMBER, 2019

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NOVEMBER, 2019

DECLARATION

I hereby declare that except for references to other people's work, which have been duly acknowledged, this work is the result of my own original research. I hereby declare that this work has neither in whole nor in part been presented for any degree elsewhere.

VIVIAN AMETEFE

(PG5546918)

Signature

Date

The logo of KNUST (Kwame Nkrumah University of Science and Technology) is a large watermark-like logo in the background. It features the letters "KNUST" in a bold, sans-serif font. Above the letters is a stylized torch or flame icon.

Certified by:

DR. EMMANUEL APPIAH-BREMPONG

(SUPERVISOR)

Signature

Date

Certified by:

PROF. EASMON OTUPIRI

(HEAD OF DEPARTMENT)

Signature

Date



DEDICATION

I dedicate this work to my husband, Rev Eric Asare. You are my inspiration.



ACKNOWLEDGEMENT

I thank God so much for all His mercies and goodness to me. My deepest and sincerest gratitude goes to my supervisor, Dr. Emmanuel Brempong who diligently guided and gave me useful suggestions in the writing of this research work.^[1] My next appreciation goes to Prof. Eastmon Otupiri, head of department and all the lecturers at the department of Public health, KNUST, for expanding my horizon.

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Finally, to my family, friends and loved ones who wished me well in the course of my studies. May God bless you.

ABSTRACT

Background

Contraceptives are used in family planning (FP) to space birth, limit birth and prevent unwanted pregnancies as well as reducing the rate of abortion. For the purpose of this study, contraceptives are categorized into modern and traditional methods. The aim of this study was to assess the proportion, enablers, and challenges of modern contraceptive uptake and determine the acceptability of the proposed three babies' policy among reproductive women in the Bibiani-Anhwiaso-Bekwai municipality

Methods

A descriptive cross-sectional study was adopted for this study in order to assess contraceptive usage and the acceptance of the three babies' policy in recent times. The study adopted a quantitative approach in addressing the set objectives. The study population included reproductive women between the ages of 15 to 49 years who have a history of past or present pregnancy in Bibiani-Anhwiaso-Bekwai municipality (BABM). A sample size of 350 was deduced using Cochran (1977) and a convenient sampling technique was used to select the study participants. Data obtained using a structured questionnaire was organized and entered into STATA 14 software for analysis.

Results

The study found knowledge of the availability of contraception to be high (98.3%) as well as the proportion of ever users (92.3%) of modern contraceptive uptake among women of reproductive age in the municipality. Furthermore, majority of the respondents (92.3%) agreed to the fact that using contraceptives is affordable and effective in limiting birth, effective in birth spacing as well as preventing unwanted pregnancies. Meanwhile, proportion of current modern contraceptive users (35.1%) dropped drastically as compared to that of ever users

(92.3%). There was an association between the proportion of current use of contraceptives and some demographic characteristics such as marital status, religion, and current pregnancy with a P-value of 0.030, 0.001 and 0.001 respectively. However, among those not using modern form of contraception, majority (62.1%) had resorted to traditional method of contraception whiles 31.7% have decided to practise no contraception at all. Factors that were identified to significantly affect contraceptive uptake within the Municipality were; myths about contraception (98.6%), side effect (92.0%), lack of privacy at service delivery points (73.4%), lack of support from partners (64.9%), friends (64.9%) and family members (64.5).

Nevertheless, with respect to the acceptability of the three live birth policy by the Ghana population council, majority (86.6%) knew of the proposal and only 28.3% agrees to the proposal whiles majority (71.7%) disagrees with mean (\pm S.D) number of children they wish to have in lifetime as 3.9(\pm 0.81). Reasons for disagreement include: help in occupation (32.3), against family decisions (26.3%), need for more than three children (18.7%), religious believes (7.2%) and having enough money to care for more than three children (15.5%). Furthermore, there was association between acceptability of three baby policy and some socio-demographic characteristics which include religion, number of children one has, and ever use of contraceptives with a p-value of 0.001, 0.001 and 0.012 respectively.

Conclusion

Myths about modern contraceptives is very common (98.6%) at BABM and have a significant effect on women's' choice and use of various modern contraceptive methods (35.1%). In addition, the low proportion of current contraceptive use (35.1%) coupled with 71.7% who disagrees with the three babies' policy will affect the NPC targeted TFR of 3.0 by the year 2020.

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LIST OF ABBREVIATIONS

ANC.....	Antenatal Care
BABD.....	Bibiani Ahwiaso Bekwai District
BABM	Bibiani Ahwiaso Bekwai Municipality
CHPS.....	Community-Based Health Planning And Services Strategy
FP.....	Family Planning
GDHS.....	Ghana Demographic and Health Survey
IUD.....	Intra-uterine Device
GDHS.....	Ghana Demographic Health Survey
GHS.....	Ghana Health Service
NPC.....	National Population Council
PHC	Population and Housing Census
STI.....	Sexually Transmitted Infection
TFR.....	Total Fertility Rate
UNFPA.....	United Nation Population Fund
WHO.....	World Health Organization

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Chapter one presents a background information on the research scope from the global, regional, and local context. It also outlines the problem of the study, research questions, objectives, significance of the study, scope, and limitations of the study.

1.1 Background Study

Child bearing has evidently become the pride of every married couple across the globe. However, due to several economic and health constraints, reproductive women tend to resort to the use of reliable family planning methods to either reduce the number of children they bear or space their children (Kamhawi *et al.*, 2013; Thang and Anh, 2012). These family planning methods are predominantly artificial in nature and a common example is the use of contraceptives. Geske *et al.* (2015) defined contraceptive as ‘an artificial means of altering the usual process of ovulation, fertilization, and implantation in reproductive women’. In another sense, Darroch *et al.* (2013) defined contraceptives as ‘a deliberate prevention of pregnancy through the use of several means such as sexual practices, surgical procedures, chemicals, various devices, and drugs’. For the purpose of this study contraceptive is considered as the use of reliable methods to reduce the number of pregnancies in reproductive women. In a global sense, the usage of contraceptives among reproductive women has increased from 55% to 63% within 1990 to 2010. However, in recent times, the sub-Saharan region of Africa is challenged with fertility decline irrespective of low rate (31%) of usage of contraceptives by reproductive women (World Health Organisation, 2015). According to den Tonkelaar and Oddens (2001) and European Society of Human Reproduction and Embryology (2005), the choice of

contraceptive method depends on perception of potential physical, psychological, and behavioural impacts accompanying the method.

In contemporary times, methods of contraceptive have been categorized into three, which include: long-acting reversible contraceptives (e.g.s. intrauterine device and hormonal implants), short acting contraceptives (e.g.s. condoms, pills, oral contraceptives, spermicides), and permanent methods (e.g. vasectomy) (Andreea *et al.*, 2011). Long-acting reversible contraceptives methods are considered as efficient, cost-effective, and better tolerated than short-acting contraceptives but the present is mostly patronized than the former (Lipetz *et al.*, 2009; Secura *et al.*, 2010; United Nations, 2003). However, the effectiveness of short-acting method is influenced by user characteristics (Alemayehu and Abebach, 2014). Consequently, the use of contraceptives is associated with factors such as gender, age, social policy, accessibility to family planning units, moral, cultural and religious convictions, and parity (Killick, 2005; Wellings, 2005; van Lunen, 2006).

According to a World Health Organisation report as cited in Cleland *et al.* (2006), the use of contraceptives has a robust and direct influence on Total Fertility Rate (TFR). In recent times, the world population stands at 7 billion where Africa contributes more than 1 billion. Globally, the average total fertility rate ranges from 1.7 children per woman in more developed countries to 4.6 in the least developed countries (Mohammed *et al.*, 2014; World Bank, 2012). Ghana's population is now estimated at 29.6 million, up from the 24.5 million recorded during the 2010 Population and Housing Census. Contraceptive prevalence rate among women within the ages of 15-49 in Ghana was 28.6% as of 2015. Within the past 35 years, the highest contraceptive prevalence rate (28.6%) in Ghana was recorded in 2015 with the lowest recorded in 1988 (5.20%) (National Population Council, 2018). However, the total fertility rate has decreased from 6.43 in 1988 to 4.2 in 2014 (Demographic and Health Survey, 2014; Ghana Statistical

Service, 2015). Irrespective of the various interventional strategies and policies, total fertility rate still remains high at 4.2 while CPR for family planning is estimated at 34.3% (World Bank, 2011).

Ghana is known as one of the developing countries in Sub-Saharan Africa with a high fertility rate during the mid-20th century (Malmberg, 2008; Tabutin & Schoumaker, 2004). In the 1950

to 1955, Ghana recorded 6.4 per woman as the TFR (United Nations. Department of Economic and social Affairs, 2013). The high TFR became a serious burden on the government and this forced the NPC to come out with a population control policy in 1969 since a lot of capital has to be spent on developmental project to meet the population growth trend (Winckler, 1998).

However, instead of a reduction of the TFR, it rather shot up slightly from 6.4 to 6.9 between 1970 to 1975 indicating that the policy is less efficient and not practical since main target was not achieved (NPC, 1994). The failure in achieving the 1969 population policy forced the government of Ghana to revise and introduced another policy in 1994. This next policy was so effective to reduce TFR to 4.0 per woman of reproductive age as at 2008 (GDHS, 2008). TFR calculation is applied in Ghana to give a picture as to how fertility trend is affected by reproductive health programmes on contraception (GSS & Macro, 1999). Meanwhile, this measure does not give a true insight of the childbearing behaviours of these women of reproductive age as compared to the crude birth rate. However, Neyer & Andersson (2008) indicated that none of these rates of measure can measure the effects or non-effects of any population policy if we depend so much on them but rather researchers can make a difference by researching into the effect of the policy on human behaviours with much consideration to family policies alongside their fertility preferences. Nevertheless, researchers who have considered researching into the impact of population policies on individual behaviours in Ghana have made a head way to reducing fertility and demographic differences such as religion, ethnicity and type of residence whether urban or rural. There has been few

reproductive health survey that studied the impact of education on respondents' reproductive behaviours in Ghana and finding indicate a difference in fertility preference based on the level of education of the respondents (Gyima, White & Maxim, 2005; Gyimah, 2003). Meanwhile, the few studies did not seek information on the views of respondents pertaining to the birth policies and this calls for further research since Ghana had made a head way in educating the girl child through free compulsory universal education.

In an interview with the Daily Graphic in Accra on July 25, 2018 at 07:47am, the Executive Director of the National Population Council, Dr. Leticia Adelaide Appiah has proposed a three baby policy per couple as an important measure to control population growth. This policy was proposed to decrease the TFR from 4.2 to 3.0 per woman of reproductive age by 2020. The council is also proposing that severe sanctions be imposed on couples who will exceed the stipulated three babies and therefore, asked the government to review and synchronise the free maternal health policy with the target of the total fertility rate, which advocated three children for every family. In a nut shell, the council is pushing that couples must be made to bear the social cost of every child outside the stipulated three (Suleiman, 2018). However, the policy has received several criticisms from all stakeholders across the country, therefore, there is the question for acceptability and sustainability of this policy in the country.

Bibiani-Anhwiaso-Bekwai (BAB) municipality is part of the Western region of Ghana with a population size of 123,272; thus 5.2% of the region's total number of people during the 2010 census (Ghana Statistical Service, 2010). The TFR for the district is 3.2 with a general fertility rate of 94.6 births per 1000 women of reproductive age and this finding is the third lowest for the region. Crude Birth Rate (CBR) for the district is 23.7 per 1000 population. However, contraceptive usage in the Bibiani-Anwiaso-Bekwai municipality is expected to be low since the municipality is a farming and galamsey community. These farmers and galamseyers pride themselves with the number of children they have since they will use their children in the

respective occupations. Therefore, this study seeks to understand the proportion of contraceptive use and acceptability of three babies' policy at the Bibiani-Anhwiaso-Bekwai municipality.

1.2 Problem Statement

The increasing number of pregnancies recorded in Ghana is highly affecting the economic status of the country. Unplanned pregnancy is a major concept used to analyse the fertility trend and barriers to contraception in a given population. Unplanned pregnancy which constitute 40% of pregnancies in Ghana is a major challenge among women of reproductive age (Nyarko, 2019). This allude to the fact that most reproductive women seek for maternity leave from their respective workplaces therefore reducing productivity. Moreover, some also tend to lose their lives through the process of delivering as evidence by the trend in institutional maternal mortality rate: 216 per 100,000 live births in 1990 to 164 per 100,000 live births in 2010 and 315 per 100,000 in 2015 (GHS 2017).

Interestingly, the population of the country is increasing by the upsurge in fertility rate thereby putting much pressure on the nation's resources. This is evidence by the population growth rate of 2.2% and the current estimated population of Ghana (30.42 million) as compared to the official 2010 census of 24.2 million (World Population Prospects, 2019).

Specifically, to the Bibiani-Anhwiaso-Bekwai municipality, contraceptive prevalence rate compiled in the District Health Information Management System is ranging from 21% in 2016, 22% in 2017, and 31% in 2018. Meanwhile, the total fertility rate (TFR) according to the 2010 census is 3.2% and parents of such areas pride themselves with the number of children they bear since your number of children determines the level of respect in the society and the level of help one receives in future from the children. What then is the current prevalence of contraceptive use and the fate of the N.P.C. target of 3.0% TFR. Several studies have been

conducted on contraceptive usage at different locations in Ghana but none has been linked to the three babies' policy (Cleland *et al.*, 2006; Crissman *et al.*, 2012; Doctor *et al.*, 2009).

Therefore, this study sought to ascertain the contraceptive use and acceptance of the proposed three babies' policy in the Bibiani-Anhwiaso-Bekwai municipality.

1.4 Research Questions

- i. What is the proportion of modern contraception and traditional method of contraception among women of reproductive age?
- ii. What factors enable or serves as hindrances to the use of contraceptives among women of reproductive age?
- iii. Would the proposed three babies' policy be accepted among reproductive women?

1.5 Objectives of the study

The purpose of this study is to assess the proportion of contraception usage, enablers, and challenges to contraceptive usage and acceptability of the proposed three babies' policy among women of reproductive age at Bibiani-Anhwiaso-Bekwai municipality

The specific objectives are to:

- i. determine the proportion of modern and traditional contraceptive usage among women of reproductive age.
- ii. identify enablers and challenges to the uptake of contraception among women of reproductive age.
- iii. determine the acceptability of the proposed three babies' policy among reproductive women.

1.6 Significance of the Study

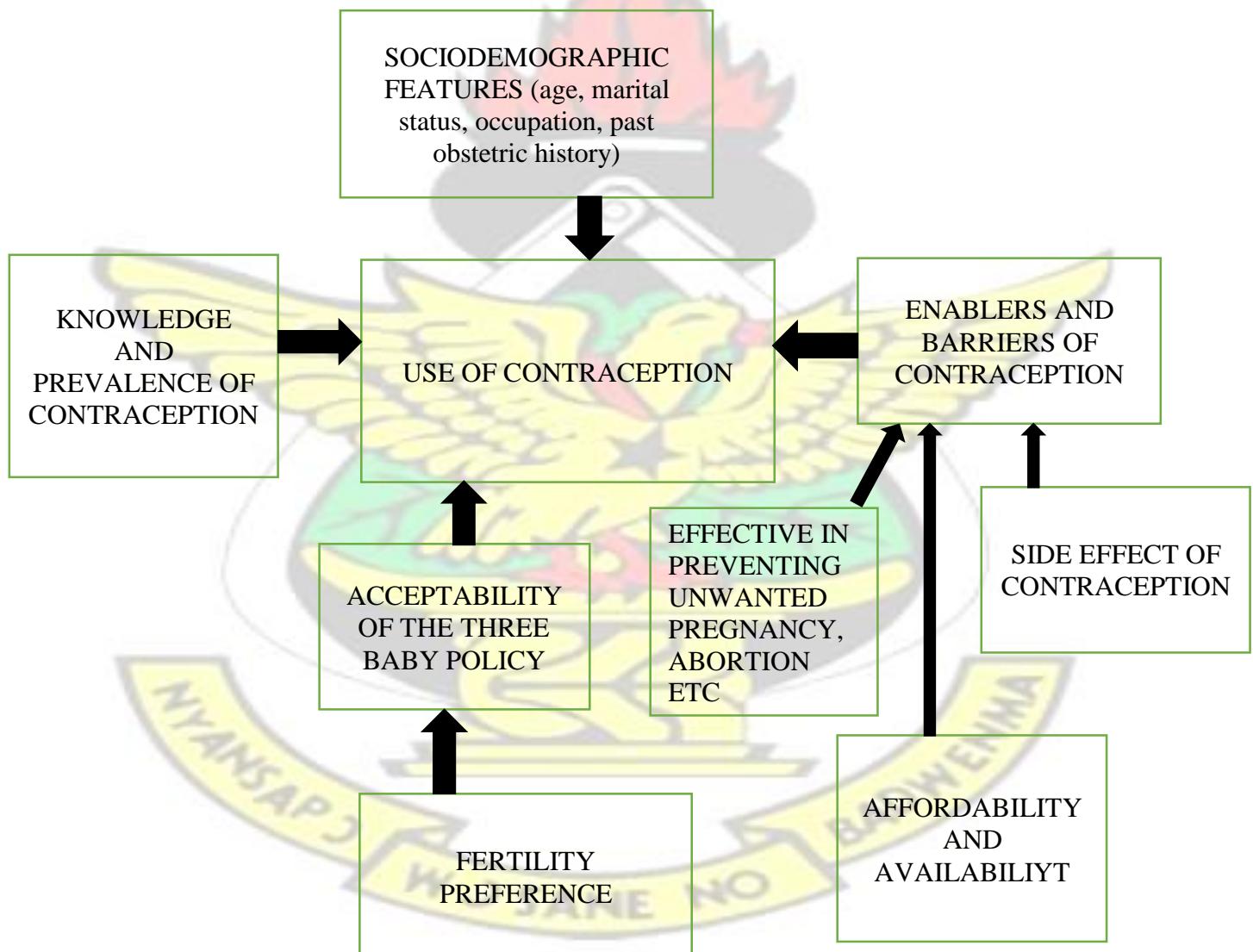
The study aims to come out with culturally sensitive recommendations and very important messages about strategies towards meeting contraceptive needs of women of reproductive age living at Bibiani-Anhwiaso-Bekwai municipality. This would also promote healthy lives and

well-being for all as a nation in the sustainable development goal 3. Moreover, the study intends to provide relevant information for consideration in the proposed TFR of 3.0 by NPC as well as providing information for further related studies.

1.7 Conceptual Framework

Conceptualizing of contraception use among women of reproductive age at Bibiani Anhwiaso Bekwai Municipality and the acceptability of the three babies policy.

Fig 1:1 Conceptual framework



Source: Author's Survey; 2019

1.8 Scope of the Study

This study focused on women of reproductive age (15 to 49 years) in the Bibiani-AnhwiasoBekwai municipality. However, only women of reproductive age who have history of past pregnancy were included in the study. In other words, those who have not been pregnant before were exempted.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This Chapter focused on the review of various studies on the available contraceptive methods and its associated contraindications. The challenges to modern contraception practice by women of reproductive age as reported in various studies were also reviewed in this chapter highlighting on the introduction of the Three Baby Policy as part of the sustainable development goals. Close to half of pregnancies recorded in the United States only are termed as unintended pregnancies (UIP) (Zapata *et al.*, 2015). Unintended pregnancies however have been generally associated with delayed prenatal care, low birth weight, preterm delivery and substance use during pregnancy which places both the mother and unborn baby at a high risk (Apanga and Adam, 2015).

Reproductive health issues have been known to be one of the most important cause of morbidity and mortality worldwide (Butame, 2018). The rapid rates of population growth places a high burden on the economy and the resources of many developing countries including Ghana (Kumar and Ao, 2019). The use of contraceptives however contributes immensely to the reduction of fertility with an accompanied reduction in poverty, improvement in maternal and child health, and enhanced educational system (Pradhan and Dwivedi, 2019).

A nationwide family planning program was introduced by India in the early 1950s to augment the acceptance of various family planning methods as a means of reducing fertility (Pradhan *et al.*, 2019). In the inception of this program, the quality of services that were presented was far below satisfaction and has not improved over time (Alli *et al.*, 2013). The major weakness of this program conducted in India was attributed to limitation in choice of methods available with less information provided to clients, poor technical standards, low levels of follow-up and inflexible approach to service delivery at government facilities (Dehghankhalili *et al.*, 2015). The World Health Organization (WHO) defined family planning as a way of living and

thinking, that is adopted voluntarily upon the basis of attitudes, knowledge, and responsible decision by couples and individuals, in order to promote the health and welfare of family groups, and thus contribute to the social development of a country (Kamath *et al.*, 2019).

Contraception has a major role in promoting maternal and child health in developing countries. The use of contraceptives helps couples to have the desired number of children as well as practice the desired interval of birth between pregnancies. Several unsafe abortions as a result of unintended pregnancies are avoided when couples practice contraception.

2.1 Demographic characteristics

Aviisah et al., (2018) identified type of community and the educational level of a woman as a major predictors of modern contraception in Ghana and women who have gone higher in education to became professionals in a specific job are more likely to use modern contraceptives than their colleagues in less formal occupations (manual, agricultural, sales). However, the demographic characteristics of study population are with reference to the 2010 census. The result of the 2010 PHC Census indicate that, the total population of the BABM is 123,272 and female population constituting 50.6%. The study area is predominantly rural. The rural population constitutes 71.5% whilst the urban only 28.5%. The age structure of the study population has a broad base, meaning the population is youthful and this gradually declines with increasing age. Fertility is a function of a woman's ability to produce offspring despite the social, cultural, economic, and health factors that influence reproductive choices (Ghana Statistical Service, 2014). BABD in 2010 had a TFR of 3.2 meaning a woman who lives through all the reproductive ages and follows the age-specific fertility rates of a given time is likely to have three children in her lifetime. General Fertility Rate (GFR) was 94.6 which means that 12 months prior to the census night, there were about 95 live births per 1000 women age 1549. The study area as at 2010 census also has Crude Birth Rate (CBR) of 23.7, implying there were about 24 live births per 1000 population in the 12 months preceding census night. However,

there are 42,600 female population 12 years and older in the BABD. The 2010 census indicates that 12 months prior to the census 111,463 children were born of the females 12 years and older of which 49.8% were males. The highest number of births occurred in the 60+ (26,872) year age group followed by the 35-39 (14,219) year group with the least number of births occurring in the 12-14 (24) (GSS, 2014).

In considering employment status and its association with knowledge in contraceptive use, over 40% of self employed women used contraceptive as compared to 18% of unemployed women. This means that autonomy of self employed women and educational status could account for this high knowledge of contraceptives (Abdulai, 2015). However, with reference to contraceptive use and its association with educational status, a study conducted in five African countries by Stephenson et al. (2008) found that women with at least secondary education were more likely to use contraceptives than women with no formal education.

Furthermore, an earlier study among southern Ghanaian women found that the educational status of a woman was the most significant predictor of contraceptive use. The study however found 48% illiterate women which had a reduction in the odds of ever having used contraception and a 66% reduction in the odds of currently using contraception (Adanu et al., 2009). In considering fertility preferences, data from DHS for nine (9) Latin American countries was assessed and women who are illiterate have large families of six to seven children, whereas better educated women of reproductive age have family sizes of two to three children which is analogous to women in the developed countries (Martin & Juarez, 1995).

2.2 Knowledge of contraception

The percentage of individual knowledge of a range of contraception provides a rough estimate of the availability of family planning information in the communities. In countries where information technology such as radio and television expose people to family planning messages, people become knowledgeable of more contraceptive choices (Ngom & Binka,

2002). A survey conducted at Ga East district of Ghana to identify community knowledge, ideas, and factors associated with ever use of modern FP indicated that 97% had knowledge of modern contraceptive and 56% had knowledge of more than three methods (Aryeetey, Kotoh, & Hindin, 2010). Increase in education has a corresponding increase in percentage of those knowledgeable about contraception and use of contraception (Rahman & Kabir, 2005). In another study on Prevalence, knowledge and determinants of contraceptive use among Qatari women, a greater percentage [94.6%] had heard of contraception and knowledge of contraception increased as a woman progresses education [$P < 0.001$] (Arbab, Bener and Abdulmalik, 2011). Kara, Benedicto, and Mao, (2019) in their study had the mean ($\pm SD$) age as 27.4 (± 5.7) and majority (96%) of the respondent had knowledge in contraception with knowledge of contraception being significantly associated with age of the woman ($p<0.0001$), marital status ($p<0.00001$), and religious believes of the participants ($p=0.02$).

2.2.1 Contraceptive methods

Contraceptives according to Aviisah et al (2018) can be categorized into modern methods of contraception and traditional methods of contraception. The traditional methods of contraception may include rhythm methods (which may include the use of calendar, basal body temperature, and the use of symptothermal indicators), lactational amenorrhoea method and the withdrawal method.

Modern methods of contraception however has been classified into three subcategories; Longacting reversible contraceptives which may include Intrauterine devices (IUD), and subdermal implants, short acting reversible contraceptive methods which may also include oral contraceptive pills, cervical caps, vaginal rings and diaphragms cap, condoms, emergency contraceptives, patch contraceptives and spermicidal agents, and permanent contraceptive methods for example male and female sterilization (Vouking *et al.*, 2014).

The most common type of contraceptive method used in both developed and developing countries is the oral contraceptive method which is a short term reversible modern method of contraception (Raymond *et al.*, 2019). 26% of women within their reproductive age are estimated to use oral contraceptives with 82% of all women reported to use oral contraceptives at some point in their lives as part of their sexual engagement (Wang *et al.*, 2019). Oral contraceptive pills are a common popular choice due to their ease of use, desirable side effect profile and variety of formulations (Shade *et al.*, 2013).

Due to the effectiveness of modern method family planning in preventing unintended pregnancies, modern contraceptives are the central instrument of public health family planning discourse (Dansereau *et al.*, 2017).

2.2.2 Traditional methods of Contraception

Various traditional methods of contraception include abstinence, withdrawal and calendar method. Calendar method with periodic abstinence is widely practised among a lot of couples. Periodic abstinence is often used in conjunction with withdrawal method and with modern contraception such as condom or foam. Withdrawal method is one of the most used in conjunction with periodic abstinence with the reason that it is not costly, has no side effect and can be used naturally by couples at a convenient time. It is believed that withdrawal as a method of FP demonstrate the power of men in reproductive health decisions (Verzosa *et al.*, 1984).

Traditional methods for spacing of children have been preferred over modern methods of contraception in some parts of India though a larger population of reproductive women dominantly use sterilization. Various family planning programs have promoted the use of modern methods of contraception. The mean prevalence for traditional contraceptive use is 6.7%, which though not high, yet the variation across the States highlights a higher percentage

of non-pregnant women who are married and aged between 15 to 49 to be using traditional methods of contraception (Lohiya *et al.*, 2016).

Traditional methods are mostly considered to be less effective. This statement however has been argued to a larger extent since other literature consider it to be equally effective if used with proper knowledge and education on family planning (Tahvilzadeh *et al.*, 2016). Traditional contraceptives have been reported in several studies to have a high rate of failure that result in unplanned pregnancies, unsafe abortions, coupled with maternal morbidities and mortalities (Wambui *et al.*, 2009; Verran *et al.*, 2015). Aside the dissatisfaction, psychological and sexual disorder it poses, it further predisposes men and women to sexually transmitted infections.

Very few information is made available on the use of traditional family planning methods. Nevertheless, these methods, especially coitus interruptus, play a major role in the fertility transition of Europe. Knowledge about ovulation period is an essential prerequisite for an effective rhythm method of contraception. This information can be acquired from medical professionals yet health care providers have not been found promoting the use of traditional methods as compared to the promotion of the use of modern methods of contraception (Zapata *et al.*, 2015). The National DHS (2013) recorded 55% prevalence of contraception among Philippines women of reproductive age of which majority of these women depend on modern contraception. However, traditional method has established a firm ground over the past decade forming almost one third of contraception practise in the country (Bellizzi *et al.*, 2017).

Similarly, a study in Cameroon found that women of reproductive age preferred periodic abstinence with the reason of having no side effect and been seen as discipline in sexual life (Johnson-Hanks, 2002). Williamson *et al.* (2009) conducted a survey on non-use of modern contraception in developing countries and found out certain factors such as limited awareness level, limited accessibility to service, myths that contraception is for only the married as well

as sexual enjoyments. These factors has lead many young ones who are not married to resort to the natural method such as periodic abstinence alongside calendar method and withdrawal (PSA and ICF International 2014). Furthermore, Ram *et al.* (2014) and Kamal *et al.* (2005) similarly identified that traditional contraception use in India and Bangladesh respectively are high among the better educated group of women, urban communities, those with good employment status and those with at least a child. Better educated women of reproductive age choice of traditional method show they really understand their menstrual cycle and how it works when using the rhythm method. In contrast, traditional method such as withdrawal was identified to be highly prevalent in Turkey among women with poor educational standing living in poor communities with lower socioeconomic status (Cindoglu, Sirkeci & sirkeci 2008)

2.2.3 Modern Methods of Contraception

The invention of modern methods of contraception was influenced by the idea of giving couples the ability to act on natural impulses and desires with reduced risks of pregnancies. Modern contraception are technological advances that are designed purposely to overcome biology. It thus gives couples the chance to have sexual intercourse at any desired time (Vouking *et al.*, 2014).

Modern contraceptive as a term is usually rarely defined. Various researchers in the measurement of the prevalence of contraceptives often differ in how they categorize certain methods as modern or traditional method of contraception. For instance, the United Nations Population Fund (UNFPA) and that of the Guttmacher Institute describe lactational amenorrhea as a traditional method, while the World Health Organization describe the same method as a modern method of contraception (Moffett *et al.*, 2013). There have been numerous studies on challenges to modern contraception and among them are limited knowledge in contraception, myths on side effects, inconvenience in securing some methods such as injection pain and exposing a private part (Abejo *et al.*, 2006; Williamson *et al.*, 2009; PSA and ICF International

2014; Cruz *et al.*, 2016). Furthermore, withdrawal method is found to be very common among urban socioeconomically challenged women in Manila with the reason of partner best choice, safety , easy to use and no side effect (Tahvilzadeh *et al.*, 2016).

2.2.4 Hormonal Contraceptives

2.2.4.1 Oral Contraceptive Pill

The first oral contraceptive pill, which is generally recognized around the globe simply as the pill, was introduced by Gregory Pincus through his scientific research. He was the director of the Worcester Foundation for experimental Biology in Massachusetts (Taniguchi *et al.*, 2015). Prior to the pill, couples in the twentieth century had a limited choice of contraceptive methods, which were on a larger scale, ineffective without great diligence (Chen *et al.*, 2018). With the combined effort of both oestrogen and progestin, oral contraceptives are able to suppress ovulation in reproductive women and thus, serve as a potent short-term contraceptive method.

Oral contraception is a type of female birth control method through hormonal regulation. The synthetic oestrogen and progestin contained in these pills are similar to the oestrogen and progesterone which are made by the ovaries of reproductive women. They are scientifically referred to as ‘combination oral contraceptives’ and have many different kinds (Hall *et al.*, 2017).

The combined hormonal oral contraceptives have been reported as one of the most sensitive health achievements of the twentieth century. The pill has been used largely by hundreds of millions of women world-wide in preventing pregnancies. Reports from UNDP in 2013 stated that 9% women aged 15 to 49 years use oral contraception. Globally, oral contraceptive pills are the second most commonly used form of reversible type of contraception and thus has the widest geographic distribution as compared to all other modern methods of contraception (Short and Becker, 2017).

2.2.4.2 Contraceptive Injections

A Brazilian gynecologist, Elsimar Coutinho was the first to demonstrate injections of 150 mg of synthetic progestin medroxyprogesterone acetate to inhibit ovulation for a duration of three months.

This contraceptive method was approved in the United States in 1993 as it offers high levels of effectiveness in the prevention of unintended pregnancies (Shade *et al.*, 2013). These injections not only prevent pregnancies but also is able to suppress menstruation in reproductive women. These injections unlike the contraceptive pills are not taken daily and as such, women can avoid monthly cramps as well as the need to take pills every day. There have reported cases of reduced risks of endometriosis and uterine fibroids as a result of three monthly administration of the contraceptive injections. However, since these contraceptive injections do not contain estrogen, prolonged use can lead to development of osteoporosis due to the inability to maintain the bone density at normal levels (Kanis *et al.*, 2007). To address this issue, ethinylestradiol which is the estrogen in many oral contraceptives is administered in combination with contraceptive injections like Depo-Provera. With this method, there could be regular monthly menstruation coupled with the maintenance of normal bone density despite the injections (Dansereau *et al.*, 2017).

2.2.4.3 Contraceptive Implants

Sub-dermal implants provide a continuous dose of progesterone and thus contraceptive implants are able to prevent unintended pregnancies (Atuahene *et al.*, 2016). Norplant which was developed by scientists at the Population Council, New York, is the first contraceptive implant. It contains six flexible tubes of Silastic with the progestin levonorgestrel contained in it. With this implant, the contraceptive steroid is then released slowly and at a relatively constant rate for up to about 5 years. Its long-acting property is the major advantage of this method of contraception over other methods. The main mechanism of action of the

contraception implant is the suppression of ovulation. At the first two years of the implant, up to 90% of the cycles is anovulatory which reduces to 50% by the 5th year.

In addition to the suppression of ovulation, there is prevention of sperm from ascending into the female reproductive tract. This further ensures that fertilization does not occur. To achieve this, the implant has an effect on the cervical mucus of the woman. The mucus is less viscous in a normal cycle, and even much more abundant during the mid-cycle. This helps to transport sperms at the onset of ovulation. In the case of the implant, the cervical mucus however remains thick, scanty, and impenetrable to sperm, and thus, pregnancy cannot occur (Masood and Alsonini, 2017).

2.2.4.4 Vaginal ring contraceptive

The Nuva Ring is the first vaginal ring developed for contraception. This ring is inserted and removed by the woman using the method and thus its administration is not clinically dependent. This contraceptive method was approved from contraception in 2001 in the United States and was later made available for sale in the markets. The action of the vaginal ring contraceptive is mainly based on the combined release of low doses of progestin and oestrogen for over a 21 day period of administration (Chen *et al.*, 2018).

There is cessation of ovulation as a result of the steady flow of hormones, mainly etonorgestrel and ethinyl estradiol. The ring is inserted within the fifth day of menstrual period, and kept in place for three weeks. After a week, the ring can be removed and replaced to allow menstrual flow in the next cycle. The exact positioning of the ring is not relevant for its effectiveness since it is not a barrier method (Santanam *et al.*, 2016).

2.2.4.5 Birth control patch

The Food and Drugs Authority (FDA) approved the use of birth control patch as a modern contraceptive method in 2001 (Craig *et al.*, 2019). This method uses a transdermal system to

deliver a combination of progestin and estrogen in a duration of one-time weekly dose. The birth control patch which is thin delivers continuous levels of progestin and estrogen through the skin to the bloodstream. For a 99% effectiveness, a new patch is used weekly consecutively for three weeks with no patch on the fourth day. This is done to allow menstrual-like bleeding to occur. The primary action of the contraceptive patch is the suppression of ovulation just like other hormonal contraceptives (Benitez-Rosario *et al.*, 2004).

2.2.4.6 Progestin-releasing intrauterine system

Mirena is an example of the progestin-releasing intrauterine system of contraception which was developed by the Population Council scientists in Europe in 2000. It has a long-acting mechanism which can last for as long as 5 years (Shade *et al.*, 2013).

In addition to its contraceptive advantage, it can cause shorter and lighter menstrual period in women. After one year of administration, women may experience no menstrual bleeding. The mechanism of action of this contraceptive method is the thickening of the cervical mucus with the prevention of entry of sperm for fertilization. It also acts by inhibiting sperm motility, and suppresses the growth of the endometrium (Cauley, 2003).

2.2.5 Non-hormonal Contraceptives

2.2.5.1 Intrauterine Devices (IUDs)

Intrauterine devices (IUDs) are the most widely used reversible contraceptive by global count in 2001. This device has about 120 million users especially within the developing countries though it is less used in the United States. 30% of contraceptive women in Norway and Sweden use this type of contraception. It has become the choice of several women due to its ease of reversibility, coupled with absence of side effects, high effectiveness and low cost (Atuahene *et al.*, 2016).

During the final stage of research on oral contraceptives, modern IUDs research had also begun. Scientists have not been able to fully agree on how the presence of a foreign device in the uterus can prevent pregnancy, though intensive research have been done on this area. IUDs are pre-fertilization method of preventing pregnancy though the presence of fertilized eggs in IUD users cannot be demonstrated (Hong *et al.*, 2006).

2.2.5.2 Emergency Contraception

Contraceptive methods that prevents pregnancy from becoming established after sexual intercourse has been possible several decades ago. Orally active estrogenic products in the 1960s were shown to cause menstrual-like flow few days following an unprotected intercourse (Guleria *et al.*, 2019).

Sloughing and bleeding of the lining of the uterus is a clear indication that pregnancy cannot take place despite the presence of a fertilized egg (Rothman *et al.*, 2006).

2.3 Proportion of Contraceptive usage

The target contraceptive prevalence rate (CPR) for Ghana, which is define as the percentage of women who are currently married and are currently using a form of a method of contraception, is estimated to be 50% by the year 2020. The Ghana Demographic and Health Survey (GDHS) conducted in 2014, however estimated a rate of 22.8% among all women irrespective of their marital status, and a 26.7% rate among women currently married as at the time of the survey. This estimate was reported to be well below the desired benchmark. Data from family planning researches in low-and middle-income countries that have been conducted over the years have focused on women, mostly with the aim of reducing the burden of unintended pregnancies. In a study to access the contraceptive use and its determinants amongst 221 couples, 144 representing 65.2% of the couples practiced some form of contraception with 77 representing 34.8% who didn't practice any form of contraceptive methods of preventing unintended

pregnancies. The major determinants of practicing one of the forms of family planning was attributed to age, age at marriage, type of family and sex of first child (Hiremath *et al.*, 2017).

Gomez *et al*, conducted a study in 2019 on the use of contraceptives in Latin America and the Caribbean. The survey was conducted on 23 different countries within the Latin America and the Caribbean sampling a total of 212, 573 women. A low modern contraceptive prevalence was reported in Haiti (31.3%) and Bolivia (34.6%). Meanwhile, a higher prevalence of modern contraceptive use (70%) was reported in Brazil, Paraguay, Colombia, Costa Rica, and Cuba (Gomez *et al.*, 2019).

Kalamar *et al* however explored the contraceptive needs of the adolescents within 46 low-and middle-income countries and found out that, 54.4% of the sexually active adolescents have never used any of the modern methods, 13.3% ever use but has discontinued as at the time of the study, and 27.1% using modern contraception with 5.2% using rhythm, withdrawal and periodic abstinence (Kalamar *et al.*, 2018).

2.3.1 Family Planning and Population Growth

Population growth recently has been dramatically rapid as compared to the slow growth seen in previous years (Hawks *et al.*, 2000). About 200 years ago, less than one billion humans lived on earth, but this number has increased over the years as reported by the statistics of UN (Singh *et al.*, 1993).

Two hundred and fourteen women today of reproductive age, according to the WHO, within developing countries who want to prevent unwanted pregnancies are not using any modern method of contraception (Verran *et al.*, 2015).

These modern methods of contraception, such as condoms, not only prevent pregnancies but also helps to prevent the transmission of sexually transmitted infections (STIs). Various forms

of family planning reduce rates of unsafe abortions in youths and even adult women. Consequently, deaths of mothers and infants as a results of UIPs are prevented (Chipman and Morrison, 2015).

2.3.2 Contraindications of Contraceptive use

Globally, 63.3% of women of reproductive age use some form of contraception notwithstanding their marital status. However, some of these women have a contraindication to the use of their preferred method and this can never be overlooked (Serfaty, 2019). The WHO (1996) considered this fact and came out with a model called the WHO Medical Eligibility Criterion (WHO-MEC) to be used by health providers in assisting a client make the right choice of contraception. (Owiredu *et al.*, 2012). During application of the MEC by the health provider, it is required to analyse a detailed history of the client as well as conducting a comprehensive physical examination before assisting the client in making the rightful choice (Pavlov *et al.*, 2014).

Table 2.1: Interpretation and Definitions of the WHO-MEC categories

	Definition of category	Interpretation of the category in practice
Category 1	A situation in which no limitation exist in using the contraceptive method	Method can be use in such situations
Category 2	In a situation in which the therapeutic effect of a method generally overshadow the proven risks	Use the method
Category 3	In a situation in which proven risks overshadow therapeutic effect of using the method	Method usage is not usually encouraged unless there are no better option
Category 4	In times of unacceptable health risk if the contraceptive method is used	Fail to use method

Source: WHO, 1996

2.4 Enablers and challenges to Contraceptive use among reproductive women

2.4.1 Enablers to modern contraceptive use

India, the second most populated country in the world, about seven decades ago adopted family planning to control fertility rate, issues related with reproductive health and unwanted pregnancies (Kumar and Ao, 2019). However, more than 150,000 maternal deaths would be prevented and greater than US\$1 billion saved in addition to avoiding one of every two abortions if challenges to contraception is resolved in the next five years (Goldie *et al* 2010) With regard to modern contraception being affordable and effective in preventing unwanted pregnancies, findings on preferred modern FP among women of high risk unintended pregnancy indicated that 84% agreed that modern contraceptives are effective in preventing unwanted pregnancies and 76% saying it is affordable in every way (Lessard *et al*, 2012). Aryeetey, Kotoh, & Hindin (2010) also found that among ever users, 82% accept contraceptives as effective in birth control. Furthermore, with a survey on Students' perceptions of contraceptives in University of Ghana, participants indicated that the main benefits of modern contraceptives were; ability to protect against STIs, abortions, unwanted pregnancy and psychological trauma (Appiah-Agyekum & Kayi, 2013). Moreover, with regard to accessibility as an enabler of contraceptive use, Adongo *et al* (2013) on the role of community-based health planning and services strategy in involving males in the provision of family planning services in Southern Ghana found that, the CHPS strategy has increased access to FP services but spousal consent was very important in the use of FP services.

2.4.2 Challenges to modern contraceptive use

Nevertheless, there exist a great disparity across the states and the socioeconomic strata with regards to the percentage of use of contraceptives by women (Whittaker, 1996). Several studies conducted in Northeast India reports that women are less aware of the side effects of the

adoption of modern methods of contraceptive and contraceptive morbidities (Wambui *et al.*, 2009; Owiredu *et al.*, 2012; Frost *et al.*, 2014). Sexual behaviours and the use of contraceptive is known to be influenced by experiences gained at first sexual intercourse (FSI) (Guleria *et al.*, 2019). Individuals who used condoms at first sexual intercourse according to studies in the US were more likely to continue the use of condom in later sexual intercourse.

Moreover, studies conducted in the French and Danish have reported that women who did not adopt contraception at first sexual intercourse had increased rate of non use of contraceptive at their subsequent sexual intercourse (Amaya-Guio *et al.*, 2016). Therefore, experiences gained at FSI may serve as a major barrier to contraceptive use by women of sexual age. Hindin, McGough and Adanu (2014) in their study: misconceptions on the use of modern contraceptive in Ghana; found that, women are more concerned about the menstrual irregularities caused by hormonal methods as a serious side effect. Cox, Posner, and Sangi-Haghpeykar (2010) on “Who's responsible?” also found a barrier to contraception that some male partners do not encourage contraceptive use: 45% of women reported no support from their partners and 55% reported partners support throughout the practise.

In a survey among female Undergraduates in Dodoma, lightly less than half (47.4%) of the respondents reported past use of a method but 64.6% of the total respondent feels embarrassed to get the product from service delivery points because of lack of privacy (Kara, Benedicto and Mao, 2019).

With respect to misconceptions as a challenge, Biney (2011) conducted a study in Greater Accra Region of Ghana and found that women seeking abortion service lack knowledge on contraceptive use, while others had the knowledge but failed to use for variety of reasons ranging from side effects, rumours on personal negative experiences with modern contraceptive methods and contraceptive failure to a few which lead to unwanted pregnancy

and later aborted. In a survey on “Demographic and sociocultural factors influencing contraceptive use in Uganda”, it was discovered that contraceptive prevalence is very low in comparison with knowledge and individual behaviours. However, they explained that education above primary level, area of residence, type of ethnic group, living with partner in the same house and male involvement were strong predictors of knowledge and favourable individual behaviour towards contraception.

Satisfaction with contraceptive use is an important reason for initiation, change, or discontinuation of a type of contraception by women. In the United states alone, nearly half of the women reported in a survey had previously discontinued a contraceptive method due to dissatisfaction. However, in a study with adolescent and young women between the ages of 15 and 24 years, the major reason for discontinuing a hormonal contraceptive method was the side effects associated with contraceptives.



2.5 Three Baby's Policy

As part of the Sustainable Development Goals, finding solution to a number of challenges in low-and-middle income countries has led to the promotion of Family planning policies. Such challenges may include high population growth which is often associated with poverty, hunger, migration and degradation of the environment, poor maternal and child health outcomes.

Population growth and its associated burden on developing countries have led to the creation of certain policies that may serve as a check on the fertility of individual couples and the number of children a couple can have (Esbati *et al.*, 2018). Ghana's population has grown by more than 23 million people since the country attained independence in 1957 when its population was about six million. The data compiled from the 2010 Census questionnaires yielded a population of 24,658,823. The figure represents an increase of 30.4 percent over the 2000 census population of 18,912,079. Ghana's population is now estimated at 29.6 million, up from the 24.5 million recorded during the 2010 Population and Housing Census. Ghana now need to balance between reproduction and production because some of our policies are at variance with the population. The National Population Council (NPC) is pushing for the enforcement of a policy that will enjoin couples to give birth to a maximum of three babies as a resolute measure to control population growth. According to the National Population Policy, the main targets for the population policy were to reduce the total fertility rate (that is, the number of children a woman is likely to have during her reproductive years) from 5.5 to 5.0 by 2000; 4.0 by 2010 and 3.0 by 2020 (May, 2019).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This Chapter seeks to describe the research design and approach, study area, study population and sample size, data collection and management, data analysis, and ethical considerations that were used in achieving the objectives of this study.

3.1 Research Design and Approach

A descriptive cross-sectional study was adopted for this study. According to Thomas *et al.* (2005) a descriptive cross sectional design has the capability of testing large number of sample within limited time and cost. the study adopted a quantitative approach in addressing the objectives of this study. A quantitative approach is characterized by objectivity and reliability which can be used to make predictions and generalizations of the situation (Bryman, 2004; Creswell, 2013).

3.2 The Study Area

The study was conducted in the Bibiani-Anhwiaso-Bekwai (BAB) municipality. The municipality is located in the Western region of Ghana with a population size of 123,272 representing 5.2 percent of the region's total population 2010 (Ghana Statistical Service, 2010). The primary occupations of inhabitants of the municipality are farming and mining. The Total Fertility Rate for the district is 3.2 with a general fertility rate of 94.6 births per 1000 women aged 15-49 years which is the third lowest for the region, and a Crude Birth Rate (CBR) of 23.7 per 1000 population.

3.3 Study Population

The study population included reproductive women between the ages of 15 to 49 years in the Bibiani-Anwiaso-Bekwai municipality. According to the census report produced by the Ghana Statistical Service (2014), the municipality has a total number of reproductive women between 15 to 49 years to be 30,844 (Ghana Statistical Service, 2014).

3.4 Sample Size Estimation

The sample size of this study was deduced from the entire population using Cochran (1977) single proportion population formula. The formula is:

$$n = \frac{Z^2 pq}{d^2}$$

Where n is the sample size

Z is a constant of 1.96 representing 95% confidence interval

p is the probability of contraceptive usage occurring, in the municipality there is 25% chances for CPR.

q is the chance of contraceptive usage not occurring, which is 1-p (i.e. $1 - 0.25 = 0.75$)

d is the margin of error (i.e. 0.5)

Therefore, in computing the figures into the equation, we have:

$$n = \frac{(1.96)^2 (0.25)(1-0.25)}{(0.05)^2}$$

$$n = 288$$

Therefore, in correcting for expected refusals and unavailability of participants in responding to the questionnaires, a 10% adjustment was done.

Hence, the minimum sample size was 320 but a total number of 350 respondents was used for the study in order to make the estimate at the municipal level meaningful.

3.5 Sampling Method / Technique

A convenient sampling technique was used to select both respondents and the study area. This technique was adopted due to its convenient nature in saving time and money. Four

communities were conveniently selected with regard to the findings of the 2010 census which indicated that the district is predominantly rural. Thus the rural population constitutes 71.5 percent whiles the urban only 28.5 percent. As a result; one urban community (Bibiani) was selected as against three rural (Sefwi Bekwai, Subri and Dominibo). However, the sample size from each community was conveniently selected by considering the number of reproductive women in the community according to the 2010 census. The sample allocation is outlined in Table 3.1 below

Table 3.1 Distribution of Sample Size by considering results from 2010 census.

Community	Reproductive women (15 – 49 years) according to 2010 census	Sample Size
Bibiani	7,022	204
Sefwi Bekwai	3,697	107
Subri	705	21
Dominibo	619	18
Total	12,043	350

Source: Author's own construct, 2019

3.6 Data Collection Method

Data was solely obtained from participants through the administration of a structured questionnaire. The questionnaire was designed in fulfilment of the specific objectives of the study and it consists of both open and closed ended questions. The questionnaire has four sections, including: socio-demographic characteristics, knowledge and prevalence of, enablers and challenges to contraceptive usage, acceptability of the three babies' policy. However, in order to enhance validity and reliability of the data, a pilot study was conducted among twenty (20) reproductive women at Sefwi Wiawso Municipality who have similar characteristics as the study population. Responses from the pilot study were addressed accordingly to iron out the discrepancies identified in the administration of the questionnaire.

3.7 Data Management / Handling

Data was obtained without capturing the names and house numbers of respondents. Moreover, health professionals were selected to administer the questionnaire and obtained data from participants of the study. Data has been stored in a locked cupboard for five years and only the supervisor and the principal investigator has access to the stored data.

3.8 Data Analysis

Data obtained was organized and entered into STATA 14 software for analysis. Descriptive statistics such as frequency and percentage were carried out on the socio-demographic characteristics of participants. Moreover, frequencies and percentages was conducted on the specific objective 1, 2, and 3. Subsequently, inferential statistics such as chi-square and logistic regression analysis was carried out to establish the association between socio-demographic characteristics, contraceptive usage and acceptability of the three babies' policy. All statistical tests were tested at 95% significance level and results are represented in tables and figures.

3.9 Ethical Considerations

Ethical clearance (Ref: CHRPE/AP/319/19) was sought from the ethics committee of Kwame Nkrumah University of Science and Technology and the permission to conduct the study was also sought form the Director of Health Services of the Bibiani-Anhwiaso-Bekwai municipality.

The objective of the study was explained to the participants to seek their consents before questionnaires were administered. Information gathered was treated with much confidentiality.

CHAPTER FOUR

RESULTS

4.1 Participant Demographic Data

Table 4.1.1: Participant Demography

Age (Mean±S.D)	25.38 (± 6.329)	
	Frequency (n=350)	Percentage (%)
Educational Background		
Basic	226	64.5
Secondary/vocational	100	28.6
Tertiary	21	6.0
No formal education	3	0.9
Marital Status		
Single	28	8.0
Married	176	50.3
Relationship/cohabiting union	131	37.5
Widow	6	1.7
Divorce	5	2.5
Separated	4	
Number of children	mean \pm SD = 1.81(± 1.41)	
Current Pregnancy		
Yes	14	4.0
No	322	92.0
Not Sure	14	4.0
Lifetime pregnancies	mean \pm SD = 2.82(± 1.47)	
Religion		
Christianity	325	92.9
Islam	25	7.1
Employment Status		
Employed	29	8.3
Self employed	285	81.4
Unemployed	36	10.3

Occupation		
Farming	156	49.6
Mining	3	0.9
Trading	102	32.5
Public Service	37	9.4
Hairdresser/Seamstress	16	5.1
Apprentice	8	2.5

Source: Author's Field Survey; 2019

The demographical characteristics of the reproductive women involved in this study have been presented as seen in Table 4.1.1. From this table, the mean age of the study participants was 25.38 (± 6.329) years. A substantial majority of the participants were educated though 64.5% had completed up to the basic level, 24.6% had completed their secondary or vocational level of education, with only 6.0% who were in their tertiary level of education. Meanwhile, only 0.9% of the reproductive women involved in this study are illiterate. Moreover, most (50.3%) of the respondents were married, followed by 37.5% who were in a relationship/cohabiting union. The least percentage of the women were either single (8.0%), widowed (1.7%) or divorced/separated (2.5%). However; all participants (100%) have a history of past pregnancy and the mean ($\pm SD$) number of past pregnancies was 2.82(± 1.47) whiles that of the number of children of the participants was 1.81(± 1.41). Furthermore, 92.0% of them were sure they are not pregnant as at the time of the study whilst 4.0 % were not so sure whether they are pregnant or not and the remaining 4.0% said they've been confirmed pregnant. Apparently, a high percentage (92.9%) of them were Christians and 7.1% were Muslims. Concerning their occupational status, only 8.3% were government- employed and a maximum of 81.4% were self-employed but 10.3% were unemployed. With regards to the specific occupation of the employed, majority (49.6%) of them were farmers, followed by Traders (32.5%), public service (9.4%), seamstress/ hairdressers (5.1%) and apprentices (2.5%).

4.2 Knowledge and Proportion of Contraceptive Usage among Women

The study assessed the knowledge of the study group about contraceptives and the proportion of contraceptive use among women of reproductive age. Table 4.2.1 to 4.2.2 below presents results on the knowledge and proportion of contraceptive use.

Table 4.2.1: Knowledge of the Reproductive women on contraceptive methods

Heard of contraceptives	Frequency (n=350)	Percentages(%)
Yes	344	98.3
No	6	1.7
Sources of information on methods		
Health provider	233	66.6
Friend	37	10.6
Media	36	10.3
Partner	38	10.9
Relatives	6	1.7

Source: Author's Field Survey; 2019

Among these women of reproductive age, 98.3% had some information on contraceptive methods with 1.7% being ignorant about it.

A greater percentage (66.6%) of these women of reproductive age heard about contraceptive methods from their health care providers, followed by 10.9% who were informed by their own partners about the various methods of contraceptives. The least, 10.6% and 10.3 however had their source of information from their friends and from the media respectively with only 1.7% whose source of information on the various contraceptive methods was from their relatives.

Table 4.2.2 Proportion of modern contraceptive use among the women of reproductive age

Ever use of modern contraceptives	Frequency(n=350)	Prevalence (%)
Yes	323	92.3
No	27	7.7

Current use of modern contraceptive method		
Yes	123	35.1
No	227	64.9
Last preferred method of ever users		
Pills	119	34.0
Condoms	21	6.0
IUD	13	3.7
Implant	46	13.1
Injectables	124	35.4
None of the above	27	7.7

Source: Author's Field Survey; 2019

Table 4.2.2 presents the proportion of ever use of contraceptives, proportion of current users and the last method used. With regard to the ever use of modern contraceptives, 92.3% used the various contraceptives in their reproductive stage and therefore gives a higher proportion whilst 7.7% have never used contraceptive before. However, majority (64.9%) of the respondents were currently not on any contraceptive method and the remaining 35.1% were presently using contraceptives. Moreover, with regard to the last preferred method of choice by these ever users; majority used injectable (35.4%) and pills (34%). Meanwhile 6.0% used condoms as a method of contraception whiles 13.1% used implant and only 3.7% of the participants used IUD. However, 7.7% of these reproductive women still claimed they have not used any modern contraception before.

Table 4.2.3: Information on current method using.

	Frequency (n=123)	Percentage (%)
Method of contraceptive currently in use		
Condom	41	33.3
I U D	5	4.1
Implant	17	13.8
Injectables	43	35
Pills	17	13.8
How long contraceptive have been used		

Less than 24 hours	12	9.8
Less than a month	24	19.5
Less than a week	13	10.6
Less than a year	32	26.0
More than a year	42	34.1
Why contraceptive is used		
birth spacing	34	27.6
limiting birth	35	28.5
unwanted pregnancy	54	43.9
Source of current modern contraceptive using		
Care provider on home visit	5	4.1
Friend	1	0.8
Health facility	52	59.4
Partner	12	9.7
Peer educator	1	0.8
Pharmacy	31	25.2

Source: Author's Field Survey; 2019

From Table 4.2.3, out of the 35.1% currently practising modern contraception as at the time of the study, majority (35.0%) were on injectables whiles 33.3% uses condoms as a method of contraception. In addition, 13.8% of these reproductive women uses oral pills and implants respectively as a method of contraception and only 4.1% of the participants are using IUD.

However, among those who were currently using contraceptives, 34.1% had used their current method for more than a year whiles 26.0% had used it for less than a year and 19.5% for less than a month. Few, 10.6% and 9.8% had also been on their respective contraceptives for less than a week and less than 24hrs.

The reasons why these women were on the various contraceptives were because of birth spacing, limiting birth and preventing unwanted pregnancy. Majority (43.9%) of these women

take in contraceptives to prevent unwanted pregnancy whiles 28.5% and 27.6% respectively practise contraception with the aim of limiting birth or spacing up birth.

Moreover, among the women who were currently using modern contraceptives, majority (59.4%) of the women had their source of contraception from a health facility such as hospitals, clinics, health centres and CHPS whiles 4.1% had it from care providers during home visit. Others (25.2%) purchased it from pharmacy shops and 9.7% had it from their partners whiles the least (1.6%) had theirs from friends or peer educator

Table 4.2.4: Participants response on non-use of modern contraceptive methods

	Frequency (n=227)	Percentage (%)
Reason for not using modern contraceptive		
Divorced and not yet having a sexual partner	5	2.2
Financial problem	13	5.7
Need for more children	32	14.1
Partner disapproval	11	4.8
Pregnant	14	6.2
In a relationship and want to marry before use	2	0.9
Religion	26	11.5
Separated from sexual partners	4	1.8
Side effect	86	37.9
Single with no sex partner	28	12.3
Widow with no sexual partners	6	2.6
Last time of sex		
Less than 24 hours	38	16.7
Less than a month	55	24.2
Less than a week	79	34.8
Less than a year	17	7.5
More than a year	5	2.2

None	33	14.5
If no, current method practicing or other things doing to prevent pregnancy		
Abstinence	31	13.7
Calendar	80	35.2
withdrawal	24	10.6
Doing nothing	72	31.7
Currently Pregnant	14	6.2
Herbal	6	2.6

Source: Author's Field Survey; 2019

From table 4.2.4, there are numerous reasons why 64.9% of the respondents are not using modern contraceptives. The reasons ranked from side effect of modern contraceptives (37.9%), need for more children (14.1%), single with no sexual partner (12.3%), religion (11.5%), currently pregnant (6.2%), financial problem (5.7%), partner disapproval (4.8%), widow with no sexual partner (2.6%), divorced and not yet having a sex partner (2.2%), separated from sexual partner (1.8%) and in a relationship and want to marry before using modern contraceptives (0.9%). Meanwhile, majority (34.8%) had had sex less than a week, followed by 24.2% who had sex less than a month and 16.7% who had sex less than 24 hours. Few, 7.5% and 2.2% respectively had sex less than a year and more than a year. However, 14.5% insisted they have not had sex for several years and cannot even remember the last time of sex. Nevertheless, with regard to what they do to prevent pregnancy; 35.2% claim they use the calendar method, followed by 13.7% and 10.6% who practise abstinence and withdrawal method respectively. The least (2.6%) uses herbal concoctions. In a nut shell, 62.1% of respondents are currently practicing some form of traditional method of contraception whiles 31.7% are doing nothing and 2.6% are currently pregnant.

4.3 Enablers and challenges to the uptake of modern Contraceptives among Reproductive Women.

The study assessed the various factors that hinder or enhance the use of contraceptives among reproductive women. Results on the enablers of contraceptive use among women of reproductive age are presented in table 4.3.1 and 4.3.2 present the challenges.

Table 4.3.1: Enablers of contraceptive use among reproductive women

Characteristic	YES Frequency (%)	NO Frequency (%)	DON'T KNOW
Effectiveness in limiting birth	323 (92.3%)	21 (6.0%)	6(1.7%)
Effectiveness in birth spacing	323 (92.3%)	21 (6.0%)	6(1.7%)
Effectiveness in preventing unwanted pregnancy	323 (92.3%)	21 (6.0%)	6(1.7%)
Affordable and ease of availability	323 (92.3%)	27 (6.0%)	6(1.7%)
Comfortability with method	121 (34.6%)	223 (63.7%)	6(1.7%)
Encouragement from husband	123 (35.1%)	221 (63.1%)	6(1.7%)
Encouragement from friends	117 (33.4%)	227 (64.9%)	6(1.7%)
Encouragement from family members	108 (30.8%)	226 (64.5%)	6(1.7%)

Source: Author's Field Survey; 2019

Table 4.3.1 present results on the various enablers to contraceptive usage as described by the women of reproductive age. Among them, 92.3% suggested that using contraceptives is effective in limiting birth whilst 6.0% answered 'no' to that enablement of limiting birth. Moreover, the same percentage of 92.3% also stated that contraceptives is effective in birth spacing though 6.0% of the women disagreed to this notion. Concerning contraceptives in preventing unwanted pregnancies, majority of the study participants (92.3%) agreed to this as an enabler to contraceptive use. Likewise, with regard to the affordability and how easily available contraceptives are, a larger percentage (92.3%) said they are able to easily access the

contraceptives and thus this facilitated the use of contraceptives whereas the rest of the 6.0% of them disagreed to this.

With regards to the comfortability of the various methods of contraception, more than half (63.7%) of them were not comfortable with the known methods even though 34.6% agreed that they were comfortable with the various methods of contraception. Moreover, 35.1% received encouragement from their husbands but majority (63.1%) of them responded to have received no encouragement from their husbands. Encouragement from friends (33.4%) and families (30.8) enabled some women in this study to use contraceptives though a greater percentage (64.9 and 64.5 respectively) disagree that encouragement from friends and families enabled them to use contraceptives.

Table 4.3.2: challenges to modern contraceptive uptake among women of reproductive age

Characteristic	YES Frequency (%)	NO Frequency (%)	DON'T KNOW
Numerous side effects of contraceptives	322 (92.0%)	22 (6.3%)	6(1.7%)
Lack of confidence	12 (3.4%)	332 (94.8%)	6(1.7%)
Lack of privacy at service delivery	257 (73.4%)	87 (24.9%)	6(1.7%)
Information on misconception	345 (98.6%)	5 (1.4%)	0
Disapproval from husband	227 (64.9%)	111 (31.7%)	6(1.7%)
Poor health provider attitude	94 (26.9%)	250 (71.4%)	6(1.7%)

Not Comfortable with the process involved	228 (65.1%)	116 (33.1%)	6(1.7%)
Financial constrains	13 (3.7%)	331 (94.5%)	6(1.7%)

Source: Author's Field Survey; 2019

From table 4.3.2, some challenges to the use of contraceptives were assessed in these reproductive women and majority (92.0%) of them were afraid of the numerous side effects that comes with its usage where as only 6.3% disagreed to this and 1.7% claimed they don't know. Meanwhile, very few of the women (3.4%) responded that lack of confidence prevented them from using contraceptives. During delivery of contraceptives at their delivery points, 73.4% responded that there was no privacy and thus this hindered them from using contraceptives.

Moreover, 98.6% of the women harboured certain misconceptions about contraceptives and this prevented them from using any of the methods of contraception. Moreover, 64.9% responded that their husbands did not support them in the use of contraceptives and thus expressed disapproval for its usage. Furthermore, more than half of the reproductive women (65.1%) said they were not comfortable with their method of choice and this was a major barrier for them in the use of contraceptives. Meanwhile, only 3.7%, and 26.9% of the reproductive women responded that financial constraints and poor attitude of health care providers hindered them from using contraceptives.

4.4 Acceptability of the Proposed Three Baby Policy among Reproductive Women

The study assessed the acceptability of the proposed three-baby policy and the factors that may influence the acceptability of the three-baby policy among the reproductive women.

Table 4.4.1: Acceptability of the three-baby policy

Characteristic	Frequency (n=350)	Percent (%)
Lifetime children they wish to birth	(Mean \pm S.D) =3.9(\pm 0.81)	
1	0	0.0
2	4	1.1
3	103	29.4
4	184	52.6
5+	59	16.9
Wish of having 1-3 babies in lifetime?		
No	249	71.1
Not sure	11	3.1
Yes	90	25.7
Partner wish 1-3 babies in lifetime?		
No	231	66.0
Not sure	43	12.3
Yes	76	21.7
If yes... why?	n=90	
Occupational demand	35	38.9
Financial demand	39	43.3
Health demand	14	15.6
Family demand	2	2.2
If no...why?	n=260	
Occupational demand	97	37.3
Religious demand	18	6.9
Family demand	142	54.6
Others: Not sure	3	1.2
Heard of the Proposal on 3babies policy by NPC	n=350	
No	47	13.4
Yes	303	86.6
Acceptance of policy?	n=350	
No	251	71.7
Yes	99	28.3
If yes...why?	n=99	

National concern	38	38.4
Family decision	15	15.2
Minimize birth	33	33.3
Health concern	13	13.1
If no...why?	n=251	
Against family decision	66	26.3
To have more children	47	18.7
Help in my occupation	81	32.3
Religious believes	18	7.2
Have money to take care of them	39	15.5

Source: Author's Field Survey; 2019

Table 4.4.1 describes how the study participants agree to the three babies' policy and their acceptance to it. Majority of the women (52.6%) wished to have 4 children in their lifetime followed by 29.4% of the women who wished to have 3 children in their lifetime and 16.9% of the women however wished to have more than 5 children in their lifetime. Therefore, the mean (\pm S.D) number of children one wish to have in lifetime was $3.9(\pm 0.81)$. However, more than half (71.1%) did not wish to have 1-3 babies in their lifetime where as 25.7% wanted to have 1-3 babies in their lifetime though 3.1% were not sure of the number of children they would want to have. Furthermore, 66.0% of the reproductive women said their partners did not wish for 1-3 babies, whereas 21.7% opted for the 1-3 babies for their partners. The least (12.3) were not sure of their partner's decision. Out of the 25.7% who have the wish of having 1-3 babies; a percentage of 43.3% of the women gave their reason as that there was a demand in terms of their finances, whereas only 38.9% and 15.6% of the women gave a reason that their occupational and health demand respectively encouraged them to accept the 3-babies' policy. The least (2.2%) gave a reason of family demand for more babies.

Among those who suggested they don't want to give birth to 1-3 children in their lifetime, 54.6% were pressed by their family demand, 37.3% were pushed in to making that choice by their occupational demand. Moreover, the least (6.9%) were constrained by religious demand where as 1.2% were not sure as to why they did not accept the 3-babies' policy. Nevertheless,

86.6% of these reproductive women knew of the proposal on three babies' policy by NPC unlike the 13.4% who were ignorant about the proposal. Meanwhile, only 28.3% agreed to the proposal on three babies' policy whilst majority of them (71.7) rejected the proposal.

However, 38.4% of those who agreed gave a reason that, it is a national concern and 33.3% said it was because it could minimise birth unlike the 13.1% of the women who responded that it was because of their health concern that's why they accepted that proposal. Furthermore, 26.3% of those who rejected the proposal gave a reason that it was against their family decision whereas 18.7% of the women who rejected the policy said they need to have more children. In addition, 32.3% explained that their decision helps them in their occupation and only 15.5% of the women who rejected the proposal responded that they have the financial means to cater for any number of children they wish to have.



Table 4.5 Association between knowledge of contraceptives and socio-demographic characteristics

Characteristics	Knowledge of Contraceptives		p-value
	Yes	No	
Marital Status			0.007
Married	173 (98.30)	3 (1.70)	
Single	25 (89.29)	3 (10.71)	
Widow	6 (100.00)	0 (0.00)	
Separated	4 (100.00)	0 (0.00)	
Divorce	5 (100.00)	0 (0.00)	
Relationship	131 (100.00)	0 (0.00)	
Educational Status			0.341
Basic	220 (97.35)	6 (2.65)	
Secondary/vocational	100 (100.00)	0 (0.00)	
Tertiary	21 (100.00)	0 (0.00)	
No formal education	3 (100.00)	0 (0.00)	
Employment Status			0.000
Employed	29 (100.0)	0 (0.00)	
Self employed	283 (99.30)	2 (0.70)	
Unemployed	32 (88.89)	4 (11.11)	
Occupation			0.000
Farming	154 (98.72)	2 (1.28)	
Mining	3 (100.00)	0 (0.00)	
Trading	102 (100.00)	0 (0.00)	
Unemployed	25 (86.21)	4 (13.79)	
Public Service	41 (100.00)	0 (0.00)	
Hairdresser	11 (100.00)	0 (0.00)	
Apprentice	8 (100.00)	0 (0.00)	
Religion			0.000
Christianity	322 (99.08)	3 (0.92)	
Islam	22 (88.00)	3 (12.00)	
No. of Pregnancy			0.450
1	54 (94.74)	3 (5.26)	
2	114 (97.44)	3 (2.56)	
3	86 (100.00)	0 (0.00)	
4	43 (100.00)	0 (0.00)	
5	28 (100.00)	0 (0.00)	
6	12 (100.00)	0 (0.00)	

7	3 (100.00)	0 (0.00)	
8	3 (100.00)	0 (0.00)	
9	1 (100.00)	0 (0.00)	
No. of Children			0.631
0	65 (98.48)	1 (1.52)	
1	93 (95.88)	4 (4.12)	
2	90 (98.90)	1 (1.10)	
3	54 (100.00)	0 (0.00)	
4	24 (100.00)	0 (0.00)	
5	14 (100.00)	0 (0.00)	
6	3 (100.00)	0 (0.00)	
7	1 (100.00)	0 (0.00)	
Currently Pregnant			0.767
Yes	19 (100.00)	0 (0.00)	
No	316 (98.14)	6 (1.86)	
Not Sure	9 (100.00)	0 (0.00)	

Among these reproductive women, 98.3% had some information on contraceptive methods and nearly all married women (98.30%) have heard about some contraceptives. In addition, 100% of participants who are not yet married but in a relationship with the opposite sex have heard of contraceptives and 89.29% of others who are single have also heard of contraceptive use. The results showed that marital status, employment status or occupation and religion were significantly associated with knowledge in contraceptive use with p-values of 0.007, 0.001 and 0.001 respectively.



Table 4.6 Association between ever use of contraceptives and socio-demographic characteristics

Characteristics	Ever Use of Contraceptives		p-value
	Yes	No	
Marital Status			0.054
Married	157 (89.20)	19 (10.80)	
Single	24 (85.71)	4 (14.29)	
Widow	5 (83.33)	1 (16.67)	
Separated	4 (100.00)	0 (0.00)	
Divorce	5 (100.00)	0 (0.00)	
Relationship	128 (97.71)	3 (2.29)	
Educational Status			0.118
Basic	203 (89.82)	23 (10.18)	
Secondary/vocational	96 (96.00)	4 (4.00)	
Tertiary	21 (100.00)	0 (0.00)	
No formal education	3 (100.00)	0 (0.00)	
Employment Status			0.038
Employed	29 (100.0)	0 (0.00)	
Self employed	264 (92.63)	21 (7.37)	
Unemployed	30 (83.33)	6 (16.67)	
Occupation			0.084
Farming	142 (91.03)	14 (8.97)	

Mining	3 (100.00)	0 (0.00)	
Trading	96 (94.12)	6 (5.88)	
Unemployed	23 (79.31)	6 (20.69)	
Public Service	40 (97.56)	1 (2.44)	
Hairdresser	11 (100.00)	0 (0.00)	
Apprentise	8 (100.00)	0 (0.00)	
Religion			0.000
Christianity	322 (99.08)	3 (0.92)	
Islam	1 (4.00)	24 (96.00)	
No. of Pregnancy			0.817
1	53 (92.98)	4 (7.02)	
2	105 (89.74)	12 (10.26)	
3	82 (95.35)	4 (4.65)	
4	38 (88.37)	5 (11.63)	
5	27 (96.43)	1 (3.57)	
6	11 (91.67)	1 (8.33)	
7	3 (100.00)	0 (0.00)	
8	3 (100.00)	0 (0.00)	
9	1 (100.00)	0 (0.00)	
No. of Children			0.763
0	64 (96.97)	2 (3.03)	
1	89 (91.75)	8 (8.25)	
2	84 (92.31)	7 (7.69)	
3	48 (88.89)	6 (11.11)	
4	22 (91.67)	2 (8.33)	
5	12 (85.71)	2 (14.29)	
6	3 (100.00)	0 (0.00)	
7	1 (100.00)	0 (0.00)	
Currently Pregnant			0.362
Yes	16 (84.21)	3 (15.79)	
No	299 (92.86)	23 (7.14)	
Not Sure	8 (88.89)	1 (11.11)	

From the table above, 100% of employed respondents have ever used contraception and majority (92.63) of self employed respondents have also used contraceptives before as well as the unemployed (83.33). Furthermore, 91.03% of farmers and 94.12% of respondents trading have also used contraceptives before. However, result from this table indicate that

there is a significant association between employment status, occupation, religion and ever use of contraception with p- value of 0.038, 0.001 and 0.001 respectively.



Table 4.7 Association between current use of contraceptives and socio-demographic characteristics

Characteristics	Current Use of Contraceptives		p-value
	Yes	No	

Marital Status		0.030
Married	62(35.23)	114(64.77)
Single	3(10.71)	25 (89.29)
Widow	1(16.67)	5 (83.33)
Separated	3(75.00)	1(25.00)
Divorce	1(20.00)	4(80.00)
Relationship	51(38.93)	80(61.07)
Educational Status		0.314
Basic	73(32.30)	153(67.70)
Secondary/vocational	36 (36.00)	64 (64.00)
Tertiary	10 (47.62)	11(52.38)
No formal education	2 (66.67)	1(33.33)
Employment Status		0.100
Employed	15(51.72)	14(48.28)
Self employed	96 (33.68)	189 (66.32)
Unemployed	10 (27.78)	26 (72.22)
Occupation		0.105
Farming	54(34.62)	102(65.38)
Mining	3(100.00)	0 (0.00)
Trading	31(30.39)	71 (69.61)
Unemployed	9 (31.03)	20(68.97)
Public Service	18 (43.90)	23 (56.10)
Hairdresser	5 (45.45)	6 (54.55)
Apprentice	1(12.50)	7 (87.50)
Religion		0.000
Christianity	121 (37.23)	204 (62.77)
Islam	0 (0.00)	25 (100.00)
No. of Pregnancy		0.339
1	18 (31.58)	39 (68.42)
2	42 (35.90)	75 (64.10)
3	29 (33.72)	57 (66.28)
4	13 (30.23)	30 (69.77)
5	11 (39.29)	17 (60.71)
6	5 (41.67)	7 (58.33)
7	0 (0.00)	3 (100.00)
8	3 (100.00)	0 (0.00)
9	0 (0.00)	1 (100.00)
No. of Children		0.819

Source: Author's Field Survey; 2019

0	25 (37.88)	41 (62.12)	
1	29 (29.90)	68 (70.10)	
2	33 (36.26)	58 (63.74)	
3	20 (37.04)	34 (62.96)	
4	8 (33.33)	16 (66.67)	
5	4 (28.57)	10 (71.43)	
6	1 (33.33)	2(66.67)	
7	1 (100.00)	0 (0.00)	
Currently Pregnant			0.001
Yes	1 (5.26)	18 (94.74)	
No	120 (37.27)	202 (62.73)	
Not Sure	0 (0.00)	9 (100.00)	

From the the table above, minority (35.23%) of married women of reproductive age are currently using contraceptives. Moreover, a smaller number of respondent in relationship (38.93) and 10.71 singles are currently using contraceptives. Furthermore, 37.23% of Christians are currently using contraception. However, results on this table shows as association between marital status, religion and current contraceptive use with a p-value of 0.030, 0.001 and 0.001 respectively.

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Source: Author's Field Survey; 2019

Table 4.8: Association between knowledge of three baby policy and socio-demographic characteristics

Characteristics	Knowledge of Three Baby Policy		p-value
	Yes	No	
Marital Status			0.751
Married	152 (86.36)	24 (13.64)	
Single	23 (82.14)	5 (17.86)	
Widow	6 (100.00)	0 (0.00)	
separated	3 (75.00)	1 (25.00)	
Divorce	5 (100.00)	0 (0.00)	
Relationship	114 (87.02)	17 (12.98)	
Educational Status			0.562
Basic	195 (86.28)	31 (13.72)	
Secondary/vocational	85 (85.00)	15 (15.00)	
Tertiary	20 (95.25)	1 (4.76)	
No formal education	3 (100.00)	0 (0.00)	
Employment Status			0.235
Employed	28 (96.55)	1 (3.45)	
Self employed	245 (85.96)	40 (14.04)	
Unemployed	30 (83.33)	6 (16.67)	
Occupation			0.892
Farming	137 (87.82)	19 (12.18)	
Mining	3 (100.00)	0 (0.00)	
Trading	85 (85.00)	15 (15.00)	
Unemployed	25 (86.21)	4 (13.79)	
Public Service	36 (87.80)	5 (12.20)	
Hairdresser	10 (90.91)	1 (9.09)	
Apprentice	6 (75.00)	2 (25.00)	
Religion			0.317
Christianity	283 (87.08)	42 (12.92)	
Islam	20 (80.00)	5 (20.00)	
No. of Children			0.638
0	60 (90.91)	6 (9.09)	
1	83 (85.57)	14 (14.43)	
2	75 (82.42)	16 (17.58)	
3	49 (90.74)	5 (9.26)	
4	20 (83.33)	4 (16.67)	
5	13 (92.86)	1 (7.14)	
6	2 (66.67)	1 (33.33)	
7	1 (100.00)	0 (0.00)	
Currently Pregnant			0.362
Yes	18 (94.74)	1 (5.26)	
No	277 (86.02)	45 (13.98)	
Not Sure	8 (88.89)	1 (11.11)	

Source: Author's Field Survey; 2019

Table 4.9: Association between acceptability of three baby policy and sociodemographic characteristics and some other characteristics

Characteristics	Acceptability of Three Baby Policy		p-value
	Yes	No	
Marital Status			0.220
Married	42 (23.86)	134(76.14)	
Single	11 (39.29)	17 (60.71)	
Widow	1 (16.67)	5 (83.33)	
Separated	0(0.00)	4 (100.00)	
Divorce	2 (40.00)	3(60.00)	
Relationship	43 (32.82)	88 (67.18)	
Educational Status			0.185
Basic	58 (25.66)	168 (74.34)	
Secondary/vocational	32 (32.00)	68 (68.00)	
Tertiary	9 (42.86)	12 (57.14)	
No formal education	0 (0.00)	3 (100.00)	
Employment Status			0.103
Employed	13 (44.83)	16(55.17)	
Self employed	75 (26.32)	210 (73.68)	
Unemployed	11 (30.56)	25 (69.44)	
Occupation			0.169
Farming	35 (22.44)	121 (77.56)	
Mining	2 (66.67)	1 (33.33)	
Trading	30 (29.41)	72 (70.59)	
unemployed	8 (27.59)	21 (72.41)	
Public Service	17 (41.46)	24 (58.54)	
Hairdresser	4 (36.36)	7 (63.64)	
Apprentice	3 (37.50)	5 (62.50)	
Religion			0.001
Christianity	99 (30.46)	226 (69.54)	
Islam	0 (0.00)	25 (100.00)	
No. of Children			0.001
0	26 (39.39)	40 (60.61)	
1	29 (29.90)	68 (70.10)	
2	33 (36.26)	58 (63.74)	
3	11 (20.37)	43 (79.63)	

4	0 (0.00)	24 (100.00)	
5	0 (0.00)	14 (100.00)	
6	0 (0.00)	3 (100.00)	
7	0 (0.00)	1 (100.00)	
Currently Pregnant			0.120
Yes	7 (36.84)	12 (63.16)	
No	87 (27.02)	235 (72.98)	
Not Sure	5 (55.56)	4 (44.44)	
Knowledge of Contraceptives			0.782
Yes	97 (28.20)	247 (71.80)	
No	2 (33.33)	4 (66.67)	
Ever Use of Contraceptives			0.012
Yes	97 (30.03)	226 (69.97)	
No	2 (7.41)	25 (92.59)	
Current Use of Contraceptives			0.847
Yes	35 (28.93)	86 (71.07)	
No	64 (27.95)	165 (72.05)	

Source: Author's Field Survey; 2019

This table indicate an association between religion, number of children one have, ever use of contraceptives and acceptability of the proposed three babies' policy with a p-value of 0.001, 0.001 and 0.012 respectively.

4.10 Socio-demographic Predictor of Current Usage of Contraceptives

Table 4.10 clearly depicts that within the marital status circles of the respondents, women who are single and married were significantly different ($P < 0.05$) associated with current use of contraceptive. Moreover, these variables were significantly different ($P < 0.05$) when adjusted as well. For single women their adjusted odd ratio ($aOR = 0.331$, CI. 0.193 – 0.364) was three times higher than the unadjusted odd ratio ($OR = 0.118$, CI 0.097 – 0.230). For married women, the adjusted odd ratio ($aOR = 0.210$, CI. 0.153 – 0.232) was slightly higher than the unadjusted odd ratio ($OR = 0.194$, CI. 0.114 – 0.201).

With reference to no formal education among the women used for the study, women who have basic and secondary or vocational education were significantly different ($P < 0.05$) associated with current use of contraceptive. Moreover, these variables were significantly different ($P < 0.05$) when adjusted as well. For women with basic education, their unadjusted odd ratio (OR

= 0.648, CI. 0.332 – 0.720) is slightly lower than adjusted odd ratio (aOR = 0.697, CI. 0.153 – 0.232). Similar trend was observed among women with secondary or vocational education with an unadjusted odd ratio (aOR = 0.792 CI. 0.413 – 0.818) and adjusted odd ratio (OR = 0.817, CI. 0.319 – 0.619).



Table 4.10 Socio-demographic Predictor of Current Usage of Contraceptives

Characteristic	Current Use of Contraceptives			
	Unadjusted Odds Ratio, OR (95% CI)	p-value	Adjusted Odds Ratio, aOR (95% CI)	p-value
Marital Status				
Single	0.118 (0.097 – 0.230)	0.01	0.331 (0.193 – 0.364)	0.01
Married	0.194 (0.114 – 0.201)	0.02	0.210 (0.153 – 0.232)	0.03
Relationship	0.564 (0.109 – 0.694)	0.19	0.572 (0.319 – 0.619)	0.23
Widow	0.329 (0.144 – 0.419)	0.17	0.344 (0.291 – 0.339)	0.09
Divorce	Reference		Reference	
Educational Background				
Basic	0.648 (0.332 – 0.720)	0.03	0.697 (0.153 – 0.232)	0.03
Secondary/vocational	0.792 (0.413 – 0.818)	0.01	0.817 (0.319 – 0.619)	0.00
Tertiary	0.448 (0.291 – 0.523)	0.11	0.369 (0.297 – 0.380)	0.13
No formal education	Reference		Reference	
Employment Status				
Employed	Reference		Reference	
Self employed	2.119 (1.951 – 2.363)	0.54	2.483 (1.973 – 2.697)	0.36
Unemployed	3.12 (1.445 – 3.457)	0.78	3.09 (1.338 – 3.302)	0.68
Religion				
Christianity	Reference		Reference	
Islam	0.447 (0.104 – 0.789)	0.44	0.591 (0.286 – 0.712)	0.21

Current Pregnancy					
Yes	4.912 (1.951 – 2.363)	0.28	5.833 (2.563 – 7.497)	0.28	
No	3.144 (1.835 – 3.557)	0.11	3.507 (2.338 – 3.902)	0.07	
Not Sure		Reference		Reference	

Source: Author's Field Survey; 2019

* $p < 0.05$; OR significant at 95% CI; OR (95% CI), unadjusted odds ratio from simple logistic regression with accompanying 95% confidence interval; aOR adjusted odds ratio determined using multiple regression. $-n^2 \log \text{likelihood} = 298.149$; Cox & Snell $R^2 = 0.129$; Nagelkerke $R^2 = 0.207$

4.11: Socio-demographic Predictor of Acceptability of Three Baby Policy

Table 4.19 clearly depicts that within the marital status of the respondents, women who are single and married were significantly different ($P < 0.05$) as associated with acceptability of three baby policy. Moreover, these variables were significantly different ($P < 0.05$) when adjusted as well. For single women their adjusted odd ratio (aOR = 5.943, CI. 3.229 – 6.048) was slightly higher than the unadjusted odd ratio (OR = 6.021, CI. 2.998 – 6.587). For married women, the adjusted odd ratio (aOR = 7.845, CI. 3.147 – 8.146) was slightly higher than the unadjusted odd ratio (OR = 7.121, CI. 4.121 – 7.388).

With reference to no formal education among the women used for the study, women who have secondary or vocational education were significantly different ($P < 0.05$) as associated with the acceptability of the three baby policy. Moreover, this variable were significantly different ($P < 0.05$) when adjusted as well. The unadjusted odd ratio (OR = 2.866, CI. 0.913 – 3.818) is slightly higher than the adjusted odd ratio (aOR = 2.817, CI. 0.510 – 3.619).

With reference to the women not knowing whether they are pregnant, those who were pregnant was significantly different ($P < 0.05$) as associated with the acceptability of the three baby

policy at both adjusted and unadjusted levels of the variables. The unadjusted odd ratio (OR = 4.845, CI. 1.973 – 4.990) is slightly lower than the adjusted odd ratio (aOR = 4.931, CI. 2.448 – 5.037).



Table 4.11. Socio-demographic Predictor of Acceptability of Three Baby Policy

Characteristic	Acceptability of Three Baby Policy			
	Unadjusted Odds Ratio, OR (95% CI)	p-value	Adjusted Odds Ratio, aOR (95% CI)	p-value
Marital Status				
Single	5.943 (3.229 – 6.048)*	0.00	6.021 (2.998 – 6.587)	0.00
Married	7.121 (4.121 – 7.388)	0.00	7.845 (3.147 – 8.146)	0.01
Relationship	3.219 (2.918 – 3.603)	0.11	3.915 (1.118 – 4.295)	0.14
Widow	4.022 (3.041 – 5.117)	0.23	4.036 (1.420 – 4.304)	0.23
Divorce	Reference		Reference	
Educational Background				
Basic	1.645 (0.332 – 1.702)	0.19	1.697 (0.991 – 2.453)	0.36
Secondary/vocational	2.866 (0.913 – 3.818)	0.04	2.817 (0.510 – 3.619)	0.03
Tertiary	1.394 (0.991 – 4.323)	0.09	1.369 (0.697 – 2.385)	0.09
No formal education	Reference		Reference	
Employment Status				
Employed	Reference		Reference	
Self employed	2.453 (1.963 – 2.703)	0.07	2.653 (1.453 – 2.697)	0.10
Unemployed	3.403 (1.042 – 3.457)	0.21	3.569 (2.338 – 3.702)	0.18
Religion				
Christianity	Reference		Reference	

Islam	1.918 (0.137 – 2.064)	0.24	2.481 (0.986 – 2.412)	0.20
Current Pregnancy				
Yes	4.845 (1.973 – 4.990)	0.02	4.931 (2.448 – 5.037)	0.02
No	3.268 (1.305 – 3.677)	0.09	3.309 (1.318 – 3.508)	0.12
Not Sure	Reference		Reference	

Source: Author's Field Survey; 2019

*p < 0.05; OR significant at 95% CI; OR (95% CI), unadjusted odds ratio from simple logistic regression with accompanying 95% confidence interval; aOR adjusted odds ratio determined using multiple regression. -n2 log likelihood = 345.006; Cox & Snell R² = 0.147; Nagelkerke R² = 0.198

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter provides detailed discussion on results obtained from the field study relating to the specific objectives. The study results were compared to prevailing literature and past researches on family planning to establish linkages between the study and existing literature.

It also relates the findings to the study's conceptual framework and research hypothesis.

5.1 Background characteristics of respondents

Fertility is a function of a woman's fecundity (her physiological ability to conceive and bear children) and of social, cultural, economic, and health factors that influence reproductive choices (Ghana Statistical Service, 2014). Therefore, the study results obtained on the respondents' background information are: community, age, marital status, highest level of education, employment status, occupation, religious affiliation, number of pregnancies,

number of children and current pregnancy. The study selected four communities conveniently with the following sample size: Bibiani(urban)- 204, sefwi Bekwai(urban)-107, subri(rural)-21 and Dominibo(rural)-18.

The mean (\pm SD) age of the study participants was 25.38 (\pm 6.329) years. This is not surprising because the broad base of the population pyramid for BAB Municipal indicates that the population of the district is youthful (GSS, 2014). The age structure of the district is not much of a departure from the national pattern which is a characteristic of most developing countries.

A substantial majority of the participants were educated though 64.5% had completed up to the basic level, 24.6% had completed their secondary or vocational level of education, with only 6.0% who were in their tertiary level of education. Meanwhile, only 0.9% of the reproductive women involved in this study had no formal education. This information registers an improvement on the number attaining basic education and those with no formal education as compared to that of GSS (2014) that 59.8% have attained basic education, 23.1% have no formal education and only 0.8 have attained tertiary levels.

Moreover, most (50.3%) of the respondents were married, followed by 37.5% who were single but in a sexual relationship with a male partner (cohabiting unions). The least percentage of the women were either single (8.0), widowed (1.7) or divorced/separated (2.5). The 50.3% married and the 37.5% cohabiting unions indicate that marriage is a highly valued institution in the district and the country as a whole as captured by the district 2010 census that 45.5 percent of population 12 years and older are married, 41.1 percent have never married, and 3.1 percent are in informal union.

Furthermore; all participants (100%) have a history of past pregnancy and the mean (\pm SD) number of past pregnancies was 2.82(\pm 1.47) whiles that of the number of children of the participants was 1.81(\pm 1.41). This is similar to findings in the data from Demographic and

Health Surveys for nine Latin American countries, where women with no formal education have large families of 6-7 children, whereas better educated women have family sizes of 2-3 children; analogous to those of women in the developed world (Martin & Juarez, 1995). Meanwhile, 92.0% of the respondents studied were sure they are not pregnant as at the time of the study whilst 4.0 % were not so sure whether they are pregnant or not and the remaining 4.0% said they've been confirmed pregnant. In considering the mean (\pm SD) age (25.38 ± 6.329) and mean (\pm SD) number of children (1.81 ± 1.41), the Ghana Statistical Service (2014) statement that a woman in the district who lives through all the reproductive ages and follows the age-specific fertility rates of a given time is likely to have three children in her lifetime might be challenged in 2020 census. This means that the achievement of the targeted 3.0 TFR by Ghana population council might not be successful.

Apparently, a high percentage (92.9%) of them were Christians and 7.1% were Muslims. This implied that Christian's values were dominant in the study results. This also implies that information on family planning services could be disseminated to women in the church. This finding also confers that of GSS (2014) highlighting that the predominant religion of the people in the Sefwi Bibiani-Anhwiaso-Bekwai District is Christianity. The population who profess to be Christians is high (83.6%) followed by population not affiliated to any religion (8.5%) and 5.8% Islam (Ghana Statistical Service, 2014). Concerning their occupational status, only 8.3% were government - employed but a maximum of 81.4% were self-employed and 10.3% were unemployed. With regards to the women who were employed, majority (49.6%) of them were farmers, followed by Traders (32.5%), public service (9.4%), seamstress/ hairdressers (5.1%) and apprentices (2.5%). This means that most of the respondents are economically empowered to be able to make reproductive health choices and only few (10.3%) which include some adolescents might have a financial problem.

5.2 Knowledge and proportion of contraception use

Knowledge of contraceptive methods in both urban and rural participants was high (98.3%) and only 1.7% are ignorant or could not mention a method. However, a greater percentage (66.6%) of these reproductive women heard about contraceptive methods from their health care providers, followed by only 10.9% who were informed by their own partners and 10.3% from the media. This level of awareness of a range of contraceptive methods provides a rough measure of the availability of family planning information in the district. Nevertheless, the study findings on the high knowledge (98.3%) and media (10.3%) as sources of information contradict that of Ngom & Binka, (2002) which state that people are aware of more methods in countries with only information technology such as radio and television which exposes people to family planning messages. A similar study was carried out in the Ga East district of Ghana to identify community knowledge, perceptions, and factors associated with ever using modern family planning (FP) of which Knowledge of modern contraceptive was high (97%) (Aryeetey, Kotoh, & Hindin, 2010). Moreover, the greater percentage (66.6%) who heard about contraceptive methods from their health care providers may be due to their contact with the health provider during times of pregnancy. This is because there is confirmatory study that women using a method consistent with their reason were more likely to have discussed contraception with a health care provider ($RR=1.59$, 95% CI 1.13–2.25) even after adjusting for source of contraceptive method or source of contraceptive information ($RR=1.57$, 95% CI 1.10–2.23) (Lamvu et al., 2006).

Results from chi-square analysis on the association between knowledge of contraceptives and socio-demographic characteristics showed that only marital status, employment status and religion were significantly associated with knowledge in contraceptive use with p-values of 0.007, 0.001 and 0.001 respectively. This is similar to a study by Kara, Benedicto, and Mao, (2019) which had the mean ($\pm SD$) age of participants as 27.4 (± 5.7) and majority (96%) of the

participants being aware of contraception with awareness of contraception being significantly associated with the age ($p<0.0001$), marital status ($p<0.00001$), and religion of the participants ($p=0.02$). It was however surprising that educational status was significantly different in association with knowledge of contraceptive method with a p-value of 0.341.

Meaning, the high knowledge cannot be explained by the fact that substantial majority were formally educated (64.5% had completed up to the basic level) and therefore could understand information better. This contradict the study that; increase in education has a corresponding increase in knowledge and use of contraceptives (Rahman & Kabir, 2005) as well as that of the findings from the reason for the high knowledge in Qatari women: the vast majority (94.6%) knew about contraception and knowledge of contraception increased with increasing level of education ($P < 0.001$) (Arbab, Bener and Abdulmalik, 2011).

In addition, the higher number (81.4%) of respondent being self employed also accounted for employment status being closely associated with the high knowledge ($p<0.001$). However, this confirms the study of Abdulai (2015) that over 40% of self employed women used contraceptive, compared to 18% of unemployed women and indicated that autonomy of self employed women could account for this high knowledge of contraceptives.

Proportion of contraceptive use

Proportion of ever use of modern contraception was high (92.3%) as compared to the low rate of current users (35.1%). This means that most of the respondents have ever used modern contraception but had a challenge that lead to discontinuation. This differ in characteristics with the study carried out by Somba et al. (2014) which showed that majority (70.4%) of the respondents have had sexual intercourse and all participants had knowledge of contraception but more than half (58.5%) of the sexually active women reported ever used contraception before while 41.5% were current contraceptive users.

However, result from the chi-square analysis on the association between ever use of contraceptives and socio-demographic characteristics indicate that there is a significant association between employment status, occupation, religion and ever use of contraception with p- value of 0.038, 0.001 and 0.001 respectively. Surprisingly, educational status was still not associated with ever use and current use ($p>0.118$, & $p>0.314$ respectively). Therefore, the findings contradict that of Lakew et al., (2013) which indicate that women with higher education had a better odd of using modern contraceptives. This further dispute a study conducted in five African countries where results showed that women with at least secondary education were more likely to use contraceptives than women with no education (Stephenson et al., 2008).

Furthermore, the current modern contraceptive usage of 35.1% in this study however register an improvement as compared to the three-year contraceptive usage in the municipality from 2016 to 2018 (21%, 22% and 31% respectively) retrieved from DHIMS 2019 as well as that of Aviisah et al., (2018) study which analysed trends of determinants of modern contraceptives use among women of reproductive age in Ghana using secondary data from the 2003, 2008, and 2014 Ghana Demographic Health Surveys (GDHS). Aviisah et al., result indicate that 18.75%, 15.75% and 21.53% were modern contraceptives users for 2003, 2008 and 2014 respectively.

In a similar study using data on contraceptive use from the Demographic and Health Surveys (DHS) for 17 sub-Saharan Africa countries (Angola, Benin, Burkina Faso, Burundi, Cameroon, Congo, Gambia, Ghana, Guinea, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Togo, and Uganda), the overall prevalence of current contraceptive use among women of

reproductive age was only 17%, with rates ranging from 7% in Gambia to 29% in Uganda. This further register an improvement in the current contraceptive usage (35.1%) in this study and this could be explained by the fact that more than half (50.3%) of the respondents are married and 37.5% being single but in a relationship with the opposite sex. However, results from chi-square analysis on the association between current use of contraceptives and sociodemographic characteristics explains that there is association between marital status, religion and current contraceptive use with a p-value of 0.030 and 0.001 respectively. Meaning the 50.3% married in addition to the 37.5% cohabitation union and the 92.9% being Christians attest to the improvement in current use of contraception.

A multivariate analysis on the predicting value of socio-demographic characteristics on the current usage of contraceptives shows that the marital status of respondents influences the current usage of contraceptives. Among single and married women, their current usage of contraceptives was significant recording an OR = 0.118, CI 0.097– 0.230 for single women and OR = 0.194, CI. 0.114 – 0.201 for married women. Similar finding was identified in the study carried out by Adanu et al. (2009) within the province of Accra. A study conducted in the US found that married women were more likely to use contraceptives with reasons of being able to take good care of their children than unmarried women (Parnell & National Research Council, 2013). This trend can be attributed to the fact that both married and single women have the tendency of using contraceptives so as to prevent an unwanted pregnancy or space their child birth. This has also been explained according to period of usage by Osei et al (2014) that women who are not in a stabilized union (singles) have a higher prevalence of modern contraceptive usage then later abandon contraception right after stabilized marriage with the fear of delayed fertility as side effect and return to practising contraception again after first birth with the reason of birth spacing.

However, educational qualification of respondents was a significant predictor of current usage of contraceptives. Women who have basic and secondary or vocational education were significantly different ($P < 0.05$) associated with current use of contraceptive recording an OR = 0.648, CI. 0.332 – 0.720 and OR = 0.817, CI. 0.319 – 0.619 for those with basic education qualification and secondary education qualifications, respectively. The findings of this study confirms one that was done in Pakistan by Farid-ul-Hasnain et al. (2013), Sahu & Hutter, (2012), which indicated that educational status of individuals is an important influence on the current usage of contraceptives.

On the contrary, a study conducted in Ghana showed that educational status of individuals does not directly influence the usage of contraceptives among married individuals (Tawiaah, 1997; Adanu et al., 2009).

With regard to the last preferred method of choice by ever users, majority used injectable (35.4%) and pills (34.0%). However, in terms of the prevalence of the preferred method among the current users Injectable and condoms are the most preferred method representing 35.0% and 33.3.0% respectively. Meanwhile, 34.1% had used their current mode of contraceptives for more than a year and 26.0% had been using it for less than a year. This is contrary to the study of Eliason et al (2013) with a preferred method being injectables (31.5%) and oral contraceptive pills (14.8%). The difference can be explained with the fact that Eliason et al study was limited to only pregnant women attending ANC in a predominantly rural part of Ghana while this study is vice versa. Those using condoms currently instead of pills may be explained with the fear of STIs and unwanted pregnancy since 37.5% are not married but in cohabiting unions. However, the least percentage who claim they don't have a sexual partner and are single (8.0), widowed (1.7), divorced/separated (2.5) might also think of STIs and unwanted pregnancy prevention in case of any sexual intercourse. Condoms has the ability to protect against STIs, abortions, unwanted pregnancy and psychological trauma (Appiah-

Agyekum & Kayi, 2013).

Furthermore, out of the 64.9% not using modern contraceptives; 62.1% are using a method of traditional contraception such as calendar, withdrawal, herbs and abstinence whilsts 31.7% are practicing no contraception even though majority (34.8%) have had sex less than a week as at the time of the study. This has been explained by Osei et al (2014) that as women get married or see themselves in a stabilized relationship they intend abandon condom use and resort to traditional methods out of the fear that modern contraceptive could affect their fertility. Osei et al further highlighted that these women after first birth resume modern contraceptive use to space births but the side effect compel them to switch method or discontinue use and either practise traditional method or decide to do nothing.

The study further assessed how these reproductive women who are not using the modern contraceptives prevent unwanted pregnancies and it was obvious that majority (35.2%) depends on the calendar method to prevent pregnancies, followed by 13.7% and 10.6% who practise abstinence and withdrawal method respectively. The least (2.6%) uses herbal concoctions whilsts 31.7% are practising nothing. This means that a high level of knowledge in modern contraception does not guarantee its use. This finding is in agreement with a study on Contraceptive use and associated factors among sexually active female adolescents in Atwima Kwanwoma District, Ashanti Region-Ghana that 95% of the respondents exhibited some knowledge about contraceptives, but this high knowledge did not translate into its use as the prevalence rate was 18%. Condom was the most widely used contraceptive (33%) and perceived side effects of contraceptives was found to be the main reason for not using the contraceptives (53.66%) (Agyemang et al., 2019). Moreover, the 62.1% practising traditional method in this study also confirms the findings in a similar study among women in Upper

Egypt that there is a higher odd for usage of traditional FP including withdrawal, calendar and breastfeeding methods (Eshak, 2019).

5.3 Enablers to contraceptive usage

Most of the respondents (92.3%) agreed to the fact that using contraceptives is effective in limiting birth, effective in birth spacing, prevent unwanted pregnancies and affordable. This means that modern contraception work effectively in preventing unwanted pregnancies that could have lead to several abortion or unintended births. This result is better as compared to findings on preferred modern FP among women of high risk unintended pregnancy where 84% agreed that modern contraceptives are effective in preventing unwanted pregnancies and 76% saying it is affordable in every way (Lessard et al, 2012). The same applies to a similar study by Aryeetey, Kotoh, & Hindin (2010) which explained that among ever users, 82% accepted that contraceptives were effective for birth control. Therefore, abortion incidence reduces as prevalence of modern FP use increases (Marston & Cleland, 2003). Hence, there may be a great possibility of high incidence of abortion in the district since 64.9% are not on modern contraception and 31.7% are practicing no contraception in a sexually active age.

Furthermore, the finding on Students' perception of contraceptives in University of Ghana, threw more light on the enablers of contraception that; it has the ability to protect against STIs, abortions, unwanted pregnancy and psychological trauma (Appiah-Agyekum & Kayi, 2013). For this reason, increasing family planning was the most effective individual intervention to reduce pregnancy-related mortality and this is in agreement with Goldie et al (2010) that state that if over the next 5 years the unmet need for spacing and limiting births was met, greater than 150,000 maternal deaths would be avoided; more than US\$1 billion saved; and at least one of every two abortion-related deaths averted.

Likewise, with regard to affordability and how easily available contraceptives are, a larger percentage (92.3%) said it is affordable and easily accessible whereas the least (6.0%) disagreed to this. In terms of affordability the study agrees with Lessard et al (2012) as well as Gakidou, and Vayena (2007) study which concluded that the secular trend of increasing rates of modern contraceptive use has not resulted in a decrease of the gap in use for those living in absolute poverty. Meaning that poor socioeconomic status of the respondents does not affect the choice of modern contraception since they are cheap and affordable. However, in terms of accessibility the study also is in agreement with the conclusion made by Adongo et al (2013) on the role of community-based health planning and services strategy in Southern Ghana that; the CHPS strategy has increased access to FP services but spousal consent was very important in the use of FP services.

Furthermore, out of the 35.1% current users of modern contraception, most (59.4%) obtain contraceptives from health facilities and others (25.2%) from shops run by licensed chemical sellers. Meanwhile, such shops are not legally permitted to sell the injectables which is the most widely used method. This means that allowing shops to sell the injectable could increase access to and use of the method. In a trial survey on as to whether chemical seller can provide complete services on injectables, it was proved that 97% of shop operators sold the injectable, and 94% felt sufficiently trained to provide complete family planning methods and services (Lebetkin et al, 2014). Yet still, availability of a commodity from the lowest level of health facility (CHPS) to the highest and even chemical sellers remain an enabler to contraceptive use.

Nevertheless, with regards to how comfortable the various methods of contraception are, more than half (63.7%) of them were not comfortable with the known methods even though 34.6% agreed that they were comfortable with the various methods of contraception. This means that

the use of modern contraception is not comfortable to most women and is therefore seen as a challenge instead of an enabler of contraception. The reason for not being comfortable with method could be explained by Hindin, McGough and Adanu (2014) whose findings indicate that, women were not comfortable with their contraceptive method of choice because they were most concerned with the menstrual irregularities caused by hormonal methods as a serious side effect and also believed that the hospital was the only best place to get contraception as blood tests are done to match with the appropriate method.

Moreover, only 35.1% received encouragement from their husbands but majority (63.1%) of them responded to have received no encouragement from their husbands to enable them practice contraception. Encouragement from friends (33.4%) and families (30.8) enabled some women in this study to use contraceptives though a greater percentage (64.9 and 64.5 respectively) disagree that encouragement from friends and families enabled them to use contraceptives. This means that support on a whole from partner, friends and family members is more of a challenge to majority instead of an enabler to modern contraception. Male participation in this study is very low (35.1%) as compared to Hodgson et al (2013) as well as Cox, Posner, and Sangi-Haghpeykar (2010) that some male partners do not encouraging contraceptive use: 45% of women reported sole responsibility for contraceptive use and 55% reported joint responsibility with their partners. This means that if all partners, friends and family members unite to encourage women of reproductive age to use modern contraception from a household level, contraceptive uptake would increase despite the side effects. OsayiOsemwenkha (2004) concluded on this partner support that there should be male involvement in all health programmes on contraception and the role of men as to how to provide support to their partners should be spelt out.

5.4 challenges to the use of contraceptives some challenges to the use of contraceptives were assessed in these reproductive women and majority (92.0%) of them were afraid of the numerous side effects that comes with its usage where as only 6.3% disagreed to this and 1.7% claimed they don't know. Meanwhile, very few of the women (3.4%) responded that lack of confidence prevented them from using contraceptives. The reasons for the side effect and lack of confidence as a challenge is explained by Hodgson et al. (2013) that modern FP knowledge was limited with formal contraceptive education often occurring after sexual debut and attitudes about modern FP were overtly negative with method effectiveness being judged by the presence of side effects. Hodgson et al (2013) further stated that even though family and friends strongly influence contraceptive decisions; male partners are primarily seen as a challenge to modern contraceptive use.

Moreover, with regard to service delivery of contraceptives at their delivery points, 73.4% responded that there was no privacy and thus this hindered them from using contraceptives. This response was very common among the young ones who are not married, adolescent and people who are hiding to practise contraception despite contraindication from their religious believes. In a similar survey on knowledge, attitude, and practice of contraception methods among female undergraduates in Dodoma, lightly less than half (47.4%) of the respondents reported past use of a method but 64.6% of the total respondent feels embarrassed to buy or ask for contraception because of lack of privacy (Kara, Benedicto and Mao, 2019).

Meanwhile, a greater percentage (98.6%) of the women harboured certain misconceptions about contraceptives and this suggest a major challenge which is contributing to the low uptake of modern contraception. This means most of the misconception on contraception is now a fixed delusion notwithstanding majority having their source of information from health providers. This is similar to a study by Eshak (2019) which found that 88.7% of respondents

had ≥ 1 misconceptions about contraceptives and the most prevalent misconceptions were that birth control pills cause cancer or the intrauterine device (IUD) can travel up to the heart by penetrating the uterus. In addition, the study findings on misconceptions and other challenges to contraception confirms a qualitative study by Biney (2011) which indicate that some women seeking abortion services lack knowledge on modern contraception, whiles other had the knowledge but decided not to use for several reasons ranging from myths, side effects to personal negative experiences as well as few contraception failure leading to unwanted pregnancy and abortion.

Furthermore, 64.9% responded that their partners did not support them in the use of contraceptives when they were experiencing the side effect and thus expressed disapproval for its usage. This is similar to the study by Aryeetey, Kotoh, & Hindin (2010) that about 20% reported lack of male involvement creating a challenge, and 65% discontinued the method because of a side effect of which their partners did not encourage them. The large number of male partner not supporting women may be due to lack of male involvement when the women are patronizing the service. The education on the methods is given to the woman along whiles the man sit at home to just watch the outcome. Moreover, limited contraceptives for males could also make them think that contraception is for women only. Agyei and Migadde (1995) also had the same result in their study indicating that contraceptive prevalence is very low in comparism with knowledge and individual behaviours. However, they explained that high above primary education, type of ethnic group, community of residence, living with spouse in the same house and male involvement were strong predictors of knowledge and favourable individual behaviour during contraception.

However, only 3.7%, and 26.9% of the women of reproductive age responded that financial constraints and poor attitude of health care providers hindered them from using contraceptives.

The problem of financial constraint was faced by the few adolescents who form part of the unemployed group in this study. This is similar to the study on trends in contraceptive use among female adolescents in Ghana where findings indicate a lot of unmet need for modern contraception among the adolescent due to challenges such as limited access, rumours on side effect and cost of service (Abdul-Rahman, Marrone & Johansson, 2011).

5.5 Acceptability of the Proposed Three Baby Policy among Reproductive Women

The study assessed the acceptability of the proposed three-baby policy and the factors that may influence the acceptability of the three-baby policy among the reproductive women. The mean (\pm S.D) number of children one wish to have in lifetime was $3.9(\pm 0.81)$. More than half (71.1%) did not wish to have 1-3 babies in their lifetime where as 25.7% wanted to have 1-3 babies in their lifetime though 3.1% were not sure of the number of children they would want to have. This is higher as compared to the main targets of the Ghana National Population Council's policy to reduce the total fertility rate (TFR) to 3.0 by 2020. Furthermore, it means that more than half (50.6%) of the participants are still in support of the 4.0 TFR in 2010 whiles 16.9% preferred 5.5 to 5 TFR in 2000.

Kodzi, Casterline, and Aglobitse (2010) in their time dynamics of individual fertility preferences among rural Ghanaian women found that 20% of the sample changed their fertility preference from one interview to the next but women who had attained or exceeded their ideal family size show considerable stability in their desire to stop childbearing even over multiple interviews. This means that the attainment of ideal family size appears to be an important correlate of fertility preference stability.

Furthermore, 66.0% of the reproductive women said their partners did not wish for 1-3 babies, whereas 21.7% opted for the 1-3 babies for their partners. A least (12.3%) of the participants were not sure of their partner's decision. Out of the 25.7% who have the wish of having 1-3

babies; a percentage of 43.3% of the women gave their reason as that there was a demand in terms of their finances, whereas only 38.9% and 15.6% of the women gave a reason that their occupational and health demand respectively encouraged them to accept the 3-babies' policy. The least (2.2%) gave a reason of family demand for more babies. However, with respect to the mean age (25.38 (\pm 6.329), marital status, occupation and number of children of respondents in this study, it is possible that life circumstances would cause a change in their fertility preference. This is because there was a variation in the responses as to those having lifetime desire for 3 births (29.4%) and those in support of the three babies' policy (25.7%). The wish of having 3 children in life time was used to confirm how sure respondents are in their choice on the previous question and 3.7% had a change of mind to have just 3 children within that few minute. A similar incidence was demonstrated by young women in Malawi in each four-month period of assessing their fertility preference; thus more than half of the women reported changes in the desired timing of their next birth and kept on post ponding the next birth due to several life events, including having a child already, entering a serious relationship and changes in socioeconomic status (Sennott & Yeatman, 2012). This means that if couples are made to bear the social cost of every child outside the stipulated three as proposed by National Population Council (NPC), most respondents would change their fertility preference to suit the set target of 3.0 in 2020.

Among those who disagreed to giving birth to 1-3 children in their lifetime, 54.6% were pressed by their family demand, whiles 37.3% were pushed in to making that choice by their occupational demand (farming). Moreover, the least (6.9%) were constrained by religious demand where as 1.2% were not sure as to why they are not in support of the 3-babies' policy. Nevertheless, 86.6% of these reproductive women knew of the proposal on three babies' policy by NPC and only 28.3% are in support of the policy whilst majority of them (71.7) are in objection of the proposal. These findings on fertility preference of respondents are explained

by Bawah et al. (1999) which state that payment of bride wealth signifies a woman's requirement to bear children in this society and there are deeply ingrained expectations about women's reproductive obligations. Bawah et al. (1999) further explained that physical abuse and reprisals from the extended family pose substantial threats to women; men are anxious that women who practice contraception might be unfaithful.

However, 38.4% of those who agreed gave a reason that, it is a national concern and 33.3% said it was because it could minimise birth unlike the 13.1% of the women who responded that it was because of their health concern that's why they accepted that proposal. Furthermore, 26.3% of those who rejected the proposal gave a reason that it was against their family decision whereas 18.7% of the women who rejected the policy said they need to have more children. In addition, 32.3% explained that their decision helps them in their occupation and only 15.5% of the women who rejected the proposal responded that they have the financial means to cater for any number of children they wish to have. In considering the percentage for more children (18.7) and specifically having more children for occupational demand (32.3%) the study agrees with the study by Bhasin *et al* (2005) which indicate that amongst the subjects who were not using contraceptives, the most common reason for not doing so was the desire for more children (36.4%). However, a comprehensive population policy does not guarantee a successful implementation to effect TFR (Benneh *et al*; 1989)

A positive association was found to exist between religion, total number of live birth, past use of contraceptives and acceptability of the proposed three babies' policy with a p-value of 0.001, 0.001 and 0.012 respectively. This means that plans in the approval and implementation of the policy should consider the associated characteristics especially religious beliefs that does not approve contraceptive use and those that allow polygamous marriage.

Marriages in the sub-Saharan region of the African continent always have the notion of having as many babies they desire to have. Therefore, the marital status of respondents was a predictor

on the acceptability of three baby policy where significant association was realised among single ($OR = 6.021$, CI. 2.998 – 6.587) and married ($OR = 7.121$, CI. 4.121 – 7.388) women. Education was found to play a role in the acceptability of the three baby policy. Women who have secondary or vocational education ($OR = 2.866$, CI. 0.913 – 3.818) have significant association with the acceptability of the three baby policy. However, this is the first study carried out on the predicting factors associated with the acceptability of the three baby policy in Ghana. In a nut shell, the success of the three baby policy implementation to resolve developmental challenges in Ghana is so critical and would depend largely on individual behaviours on fertility preference. Enang and Ushie (2012), Kwankye and Cofie (2015) however found socio cultural and political influence as a major barrier to the successful implementation to Nigeria and Ghana's population policies respectively.



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Conclusion

The study found knowledge (98.3%) in the availability of contraception to be high as well as ever use (92.3%) of modern contraceptive uptake among women in reproductive age in the municipality. Meanwhile, proportion of current users (35.1%) dropped drastically. Factors that were identified to significantly affect contraceptive uptake within the Municipality were; myths about contraception, side effect, lack of privacy at service delivery points and lack of support from partners, friends and family members when experiencing the side effect. These factors however, affected many (62.1%) to resort to traditional method of contraception such as calendar, abstinence, herbs, and withdrawal whiles others (31.7%) got frustrated and decided not to practise any form of contraception. However, with respect to the acceptability of the three live birth policy by the Ghana population council majority (71.7%) disagree with reasons pertaining to the need for more than three children and the study found an association between religion, number of children one have, ever use of contraceptives with acceptability of the proposed three babies' policy with a p-value of 0.001, 0.001 and 0.012 respectively. Findings from this study therefore provide insights into existing opportunities that can help improve contraceptive uptake in the metropolis as well as the region and nation in general.

6.1 Recommendations

Myths about modern contraceptives appear to be common at BABM and may have a significant effect on women's' choice and use of various contraceptive methods which would intend affect the success of the proposed three baby policy. As a results of the above findings, the following recommendations have been suggested and targeted at the following units:

6.1.1 Ghana Education service

Peer and reproductive health education as well as importance of limiting and spacing births must be reinforced in the curriculum to delay the adolescents in engaging in early sex and challenge the numerous misconceptions associated with contraception in the municipality. They should also collaborate with the Ministry of Health to establish reproductive/adolescent health unit at every school to ensure privacy for the youth, correct myths on contraceptive use and assist the youth in their reproductive health challenges. They should also advocate for support from government and non governmental organizations to have at post contraceptive dispensers at all tertiary institutions to help solve the problem of feeling embarrassed in securing a method due to lack of privacy.

6.1.2 Bibiani Anhwiaso Bekwai Municipal Health Directorate

I recommend that the Municipal Health Directorate conduct a survey on the side effects experienced from contraceptive use and maintain a constant update or feedback to manufacturers to enhance reproductive health services in terms of appropriate methods with limited side effects for both men and women of reproductive age.

Another survey is recommended on the kind of myths circulating in the community. Door to door empowerment on contraception should be done to defeat the numerous misconceptions by using Community Health Officers and Midwives to go into communities on regular basis e.g. weekly or monthly to educate community members on contraception.

The Municipal Health Directorate must establish male social groups on male involvement in family planning to keep them informed to support the women.

The Municipal Health Directorate must also determine the contraceptive prevalence rate for the Muslim community and involve Religious and opinion leaders to educate community

members on the need for contraceptive uptake since religion is significantly associated with contraceptive use.

The Municipal Health Directorate should again appraise community-based family planning programmes in the district to find out whether the right information is given by health providers to correct misconceptions as well as staff attitude during service delivery.

The Municipal Health Directorate should collaborate with the ministry of health and NGOs to ensure that every community within the municipality have easy access to contraceptives through the use of commodity dispensers for pills and condoms to solve the problem of not having privacy at service delivery points and clients resorting to condoms instead of pills. Licensed chemical chops should be trained and allowed to administer the most widely used method (injectables) to enhance accessibility.



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APPENDIX

This questionnaire has been developed to assess the prevalence, enablers, and challenges of contraceptive uptake and determine the acceptability of the proposed three babies' policy among reproductive women in the Bibiani-Anhwiaso-Bekwai municipality. Please be informed that this study is purely academic and that all information obtained shall be kept with utmost confidentiality. The outcome of this research may be used for academic and general purposes such as research reports, conference papers or books. Please tick/state where appropriate. Thank you for your acceptance

INSTRUCTION: Please fill the spaces provided. Mark (✓) where applicable and specify where necessary.

SECTION A. Socio-demographic Characteristics

1. Community:
2. Age:
3. Marital Status: a. Married [] b. Single but in a relationship [] c. Widow [] d. Divorced [] e. Separated [] f. others.....
4. What is your highest level of education? Please select the most appropriate.
a. Basic [] b. Secondary / Vocational [] c. Tertiary [] d. No formal education []
5. What is your employment status?
a. Employed [] b. Self-employed [] c. Unemployed [] 6.
- What is your occupation?
a. Farming [] b. Mining [] c. Public Service worker [] d. trading[] e. Other (specify).....
7. Which religion do you belong to?
a. Christianity [] b. Islamic [] c. Traditionalism [] d. Other (specify).....
8. Have you ever been pregnant before in your lifetime? (Include miscarriages, abortions and stillbirth? a. Yes [] b. No []
9. How many pregnancies have you had?
10. How many children do you have?
11. Are you currently pregnant? A. Yes [] b. No [] c. Not sure []

SECTION B. Knowledge and Proportion of Contraceptive Uptake

12. Have you heard of any contraceptive method before? a. Yes [] b. No [] c. Never []

If YES in Q.12 answer 13 to 21

13. where did you hear about it? a. My Partner [] b. Friend [] c. Relative [] d. Media []
e. health care provider []

14. Have you ever used any of the contraceptive methods before? a. Yes [] b. No []

15. If Yes in Q.14, then which of them? **TICK ONE THAT APPLY**

(1) Oral pill (2) Emergency pill (3) Condom (4) IUD (5) Implant (6) Injectable (7)

Sterilization/permanent

16. Are you currently on any contraceptive? a. Yes [] b. No []

17. if 'yes' which one are you currently using? **TICK ONE THAT APPLY.**

(1) Oral pill (2) Emergency pill (3) Condom (4) IUD (5) Implant (6) Injectable (7)

Sterilization/permanent

18. How long have you used the current family planning method?^[SEP] (1) Less than 24 hours (2)

Less than 1 week (3) Less than 1 month (4) Less than a year (5) more than a year

19. Why did you use the contraceptive? a. Birth spacing [] b. Limiting birth [] c.

Preventing unwanted pregnancy [] d. others.....

20. Where did you get your recent contraceptive from? A. Hospital / Clinic [] b. Outreach [] c. Pharmacy [] d. Peer educator [] e. Friend/Relative [] f. Partner []

21. What contraceptive do you prefer? a. Condom [] b. Pill [] c. IUD [] d. Implant []
e. Injectable [].

If No to Q.12 answer Q22 to 24

22. Why are you not using a contraceptive? a. Side effects [] b. Husband's disapproval []
c. Financial problem [] d. religious believes[] e. family pressure for more children[] f.
others.....

23. when was the last time you had sex with your male partner?

(1) Less than 24 hours (2) Less than 1 week (3) Less than 1 month (4) Less than a year (5) more
than a year

24.what are you currently doing to prevent unwanted pregnancies?

a. abstinence [] b. calendar [] c. withdrawal[] d. herbal concoctions [] e.
others.....

SECTION C. Enablers and Barriers to Contraceptive Usage (TICK ALL THAT APPLY).

Enablers	Yes	No	Don't know
25. It is effective in limiting birth			
26. It is effective in birth spacing			
27. It is effective in preventing unwanted pregnancy			
28. It is affordable and easily available			
29. feels comfortable with method			
30. My husband encourages me to use contraceptives			
31. My friends encourage me to use contraceptives			
32. My family member encourage me to use contraceptives			

Barriers			
33. Contraceptives have numerous side effects			
34. I lack confidence in using contraceptives			
35. lack of privacy at service delivery point			
36. Have heard a lot of misconceptions on contraceptives			
37. My husband disapproves the use of contraceptives			
38. Poor health provider attitudes or service personnel attitude			
39. Not comfortable with the processes involved			
40. Financial Constraints			

SECTION D: Acceptability of Three Babies' Policy

41. How many children do you want to have in your lifetime?

- a. 1[] b. 2[] c. 3[] d. 4[] e. 5 and above

42. Have you ever had the wish of having 1-3 babies in your lifetime if all things being equal?

- a. Yes [] b. No [] c. Not sure []

43. Has your partner ever wished for having 1-3 babies in your lifetime?

- a. Yes [] b. No [] c. Not sure []

44. If Yes in Q.42, why would you wish to have 1-3 babies in your lifetime? a. Occupational demands [] b. Financial demands [] c. Health demands [] d. Family demands []

45. If No in Q42, why would you wish to have more than 3 babies in your lifetime? a. Family demands [] b. Occupational demands [] religious demand[] d.

Other(specify).....

46. Have you heard of the proposal on the three babies' policy by the National Population Council? A. Yes [] b. No []

47. Will you accept this policy if implemented? a. Yes [] b. No []

48. If Yes in Q47, why would you accept the policy? a. National concern/ burding [] b. Family decision [] c. Minimize births [] d. Health concern [] e. Others

(specify).....

49. If No in Q.47, why would you not accept the policy? **TICK THE ONE THAT APPLY.**

- a. Against family decision [] b. Want to have more children [] c. I want my children to help me in my occupation [] d. against my religious believes[] e. have the money to take good care of them without assistance[] d. Others(specify).....

Thank you for your cooperation