KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY - AFRICA INSTITUTE OF SANITATION AND WASTE MANAGEMENT (K-AISWAM) ACCRA, GHANA

MSc. ENVIRONMENT AND PUBLIC HEALTH

KNOWLEDGE AND PRACTICE OF FAMILY PLANNING AMONG WOMEN OF REPRODUCTIVE AGE GROUP IN AWUTU SENYA EAST MUNICIPALITY IN THE CENTRAL REGION OF GHANA

BY

WILLIAM ASAMOAH (ID: 20388568)

THIS DISSERTATION IS SUBMITTED TO KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF MASTER OF SCIENCE DEGREE IN ENVIRONMENTAND PUBLIC HEALTH

SEPTEMBER, 2019

DECLARATION

I declare that except for the references to other people's investigations which have been duly acknowledged, this thesis is the result of my own research undertaken under the supervision of DR. FELIX ADDO-YOBO. This work has not been submitted for award of any other degree elsewhere.

KNUST

SIGNATURE……..……..DATE: ……/……/……

WILLIAM ASAMOAH

(STUDENT)

SIGNATURE……..…….. DATE: ……/……/……

DR. FELIX ADDO- YOBO

(SUPERVISOR)

NYANSAPƆ WƆ SANE NO BADWENMA

DEDICATION

I dedicate this project work to God Almighty, for His protection that I am able to pursue this project work.It is also dedicated to my entire family for their significant contribution towards the realization of my academic success. Lastly to all the team from the MSc Environment and Public Health class, 2016/17.

KNUST

ACKNOWLEDGEMENT

My first and foremost gratitude goes to the Almighty God for His abundant mercy, grace, wisdom and good health to the pursuit of this project work.

I also wish to express my appreciation to Dr Felix Addo-Yobo, my supervisor for his thorough explanation and all the necessary directives and indeed, he has made me to have insight into research work. May the Good Lord grant him prosperity.

I wish to extend my heart-felt gratitude to my beloved wife Mrs. Sophia AsamoahLartey and children for their spiritual and physical support at all times needed.

Finally, I want to acknowledge my siblings and friends for their support and prayer given to me.

KNUST

TABLE OF CONTENTS

DECLARATION i
DEDICATION ii
ACKNOWLEDGEMENT iii
TABLE OF CONTENTS iv
LIST OF TABLES vii
LIST OF FIGURES viii
LIST OF ABBREVIATIONS ix
ABSTRACT x

CHAPTER ONE 1
INTRODUCTION 1
1.1 Background of the study 1
1.2 Problem statement 3
1.3 Conceptual Framework 5
1.3.1 Narrative of Conceptual framework 5
1.4 Justification 6
1.5 Research questions 6
1.6 Objectives of the study 6
1.7 Hypothesis 7

CHAPTER TWO 8
LITERATURE REVIEW 8
2.0. Introduction 8
2.1 Contraceptive Methods 9
2.1.1. Hormonal Contraceptives 10
2.1.2. Long-Acting Reversible Contraceptives (LARC) 11
2.1.3. Lactational Amenorrhea Method (LAM) 12
2.1.4. Condoms 12
2.1.5. Emergency Contraceptives 12
2.2 Utilization of modern contraceptive methods 13

2.3 Factors associated with utilization of contraceptives 13
2.3.1 Individual Factors Influencing Contraceptive use Among Women 14
CHAPTER THREE 17
METHODOLOGY 17
3.1 Study design 17
3.2 Study Area 17
3.3 Study Population 17
3.4 Variables 17
3.4.1 Independent variables: 17
3.4.2 Dependent Variables: 18
3.5. Sample size calculation 18
3.6 Sampling procedure 19
3.7 Data collection tools 19
3.8 Stakeholder meetings 19
3.9 Measurement of variables 19
3.9.1 Measurement of knowledge 19
3.9.2 Measurement of Practice 20
3.10 Ethical Consideration 20
3.11 Quality Assurance 20
3.12 Data processing and Analysis 21
CHAPTER FOUR 22
RESULTS 22
4.1. Demographic characteristics of respondents 22
4.2 knowledge of contraceptives use among women 24
4.3 Proportion of women usingcontraceptives 26
4.4 Association between demographic characteristics and Family planning Knowledge 28
4.5 Logistic regression analysis of factors associated with knowledge of family palnning 30
4.6 Association between demographic characteristics and practice 32
4.7 Logistic regression analysis of factors associated with Use of family palnning 33

KNUST

4.8 Correlation between knowledge and Practice of family planning 34
CHAPTER FIVE 35
SUMMARY, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS 35
5.1 Introduction 35
5.2 Summary of Major Findings 35
5.3 Discussions 35
5.4 Conclusion 38
5.5 Recommendations 38

REFERENCES 40

APPENDIX: QUESTIONNAIRE 43

KNUST

LIST OF TABLES

Table 4.1: Demographic characteristics of respondents (N=316) 23

Table 4. 2: Background characteristics influencing knowledge and practice in Family planning (N=316) 24

Table 4. 3: Awareness and knowledge of Family planning among women 25

Table 4. 4: Practice of contraceptive among women 27

Table 4. 5: Association between demographic characteristics and Knowledge of FP 29

Table 4. 6: Multiple Logistics regression of the factors associated with family plannning knowedge 31

Table 4. 7: Association between demographic characteristics and practice of FP 32

Table 4. 8: Multiple Logistics regression of the factors associated with family plannning practice 33

KNUST

LIST OF FIGURES

Figure 4.1:Awareness and knowledge of family plannings among women 26

Figure 4.2: Proportion of women practicing contraceptives 27

KNUST

LIST OF ABBREVIATIONS

CI	Confidence Interval
CPR	Contraceptive prevalence rate
DMPA	Depot medroxyprogesterone acetate
ECP	Emergency Contraceptive pill
FDA	Food and Drug authority
GDHS	Ghana Demographic and Health survey
GHS	Ghana demographic Health Survey
GSS	Ghana Statistical Service
IUD	Intrauterine Device
IUS	Intrauterine Contraceptive Systems
LAM	LactationalAmmenorrhea Methods
LARC	Long Active reversible contraceptive
LNG	Levonorgestrel
MOH	Ministry of Health
PHC	Population and Housing census
SPSS	Statistcal Package for social sciences
UPA	Unipristal acetate
WHO	World Health organization

KNUST

ABSTRACT

Introduction:The effective use of contraceptive methods in the population would help reduce significantly unwanted pregnancy rates, maternal, perinatal and infant mortality rate, unsafe abortion, adolescent pregnancy rate and control population growth. This can be achieved when people have much knowledge and practice of family planning.

Objective: The study was conducted to assess the knowledge and practice of current family planning among women in their reproductive age in the Awutu Senya East Municipality.

Methods: The study was community-based quantitative cross-sectional study. A multistage sampling method was used to select 316 women in various groups of the municipality using cluster sampling technique. A structured administered questionnaire was used as the data collection tool. SPSS software version 23 was used to analyze the data collected. Univariate analysis was used to describe the variables. Bivariate analysis using Chi-square was performed to test the associations between independent variables and knowledge and practice. Multivariate binary logistic regression analysis was used to determine factors associated with knowledge and practice of family planning.

Results: The results show that the proportion of women with adequate knowledge on family planning was 88.6%. The proportion that practice was 67.4%. Educational level (AOR= 1.23; 95% CI=1.03-6.43), marrital status (AOR= 3.21; 95% CI=1.563.78), number of children (AOR= 2.17; 95% CI=1.32-8.54) were the demographic factors found to be significantly associated with family planning knowledge.Marrital status and number of children also significantly influenced practice.There was however a strong positive correlation between knowledge score and practice score with correlation coefficient of 0.692.

Conclusion: This study has revealed that the proportion of women who currently use contraceptive is good. Knowledge level on family planning was very high and knowledge correlates positively into practice as a strong positive correlation was observed between knowledeg and practice.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Family planning can be defined as the use of modern contraceptives or natural techniques for either restraining or spacing pregnancies. Intrauterine Device (IUDs), injectable, implants, male and female condoms, Pills, male and female sterilization, diaphragm and emergency contraception are modern methods of contraception. Similarly, other may also include periodic abstinence, and withdrawal method. Most individuals and couples due to economic social and other reasons anticipate and attain their preferred number of children and also for spacing and timing of their births (WHO, 2012).

Population growth or increase comes about because of the interplay of the three main demographic variables namely fertility, mortality and migration. This growth can be high, low, stable and all these have socio-economic development implications on the country's and owing to the above the standard of living of the people Ghana is a country which can be said to have high population growth demographically with nearly five (4.4) being its current Total Fertility Rate.(Ghana Statistical Service 2010).

This current rate is an improvement upon that of the previous years as given by the Ghana Demographic and Health survey, researchers and stakeholders are still convinced that the country has the potential to grow higher because of its large-based population. A look at the age structure of Ghana's population reveals that there is about 35 percent of the population within the ages of 0-14 years, 58.3 percent within the ages 15-64 years and 3.7 percent in the age of 64 and over. (Ghana Statistical Service, 2010).

The use of contraceptive is one of the main determinants of fertility levels. Since 1970, there has been an increase use of contraceptives and its use is widespread globally. Despite this enormous improvement, differences exist in its progress across geographical localities and some challenges linger in terms of increasing its level of usage and knowledge about contraceptive use to meet existing demands in areas and in terms of making available an adequate variety of contraceptive methods to increase the ability of couples wishing to use contraception to do so in a consistent and efficient manner.

A number of sub-Sahara African countries have a constant high rate of unmet demand for family planning. The increase rate of fertility in Ghana and other Sub-Sahara African countries together with a decline in mortality has given rise to unprecedented rapid population growth contributing to poverty, low quality of life and increased levels of population. Data gathered from 2010 population and housing census questionnaires gave Ghanaian population to be 24,658,823. This figure represents an increase of 30.4 percent over the 2000 census population of 18,912,079 (Ghana Statistical Service, 2010 Population and Housing Census). The relative high fertility in Ghana is largely attributed to a low level of contraceptive use (Ghana Statistical Service, 2010). Contraceptive is defined as the practices of methods intended to prevent or space future pregnancy. There has been a projection in the overall contraceptive prevalence at the global levels demands to increase from 63% to 67% between the year 2000 and 2025 so as to make possible reduction of Total Fertility Rate from 2.8 children per woman to 2.3 children per woman as projected in the medium variant of the 2002 revision of the United Nations population projection (united nation, 2002).

The Ghanaian government has made conscious effort to increase the knowledge on contraceptives and its use since 1975. A lot of efforts have made to support family planning programmes and the distribution of contraceptives, either directly through government facilities by the Ministry of Health (MOH), or indirectly through support of the activities of nongovernmental organizations such as family planning associations. A national contraceptive use of 33% has been estimated even though

43% of married women in the country desired to space their children and an additional 24% percent need to limit births. The disparity of use of family planning methods among urban and rural, the rich and poor put many women in the most deprived area at a disadvantage (Ghana Statistical Service, 2003). According to the 2008 demographic and Health Survey indicates that women in Ghana have an average of 4 children and the average children per women ranges from 3 in the urban areas to 5 in the rural areas. A major factor underlying the high fertility rate in Ghana is the low patronage of modern contraceptive (Ghana Health Service). Unfortunately, in Ghana, only 25% of current married women are currently using contraceptive (Ghana

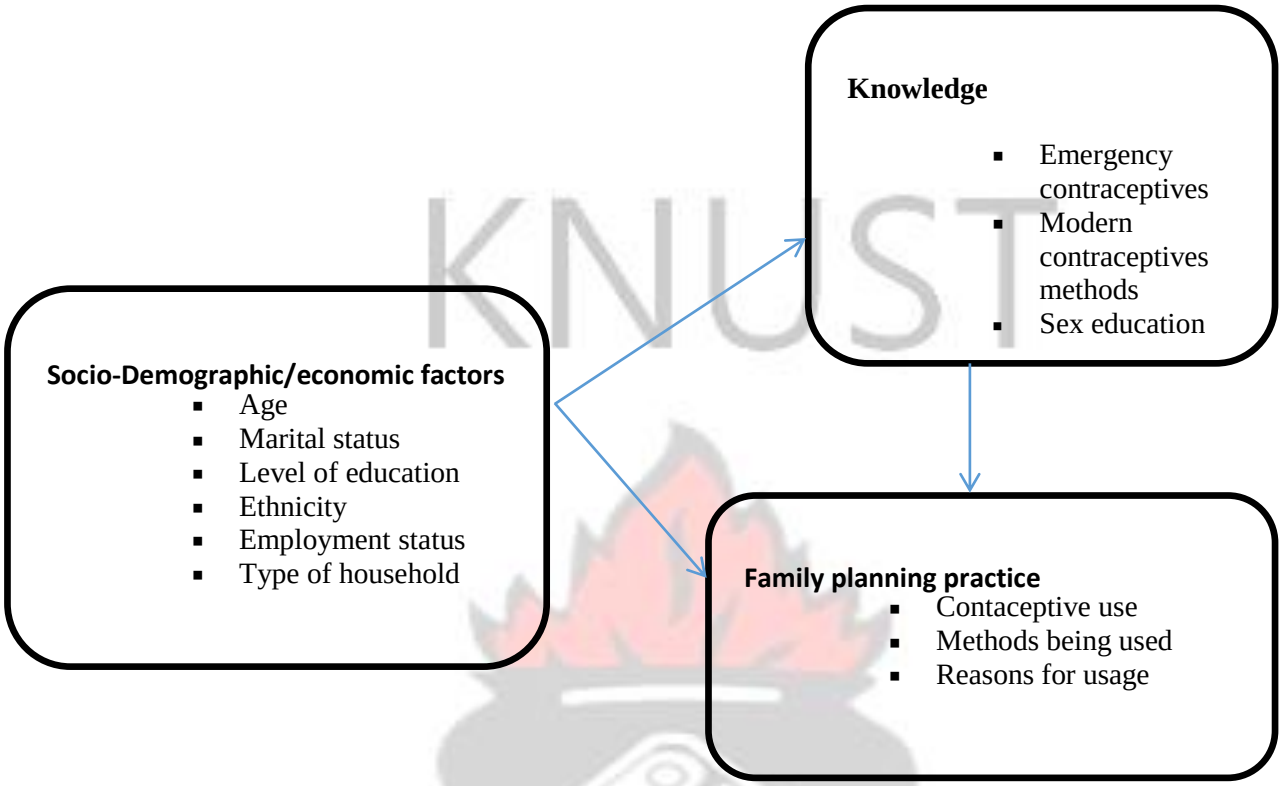
statistical service, 2008).

1.2 Problem statement

Contraceptive use and availability help to prevent unwanted pregnancies, space births and thus help couples to plan for the number of children they wish to have. The use of contraception by a woman can improve her reproductive health as well as the health of her children because she can space her births well. Ghana like many other African countries is faced with the problem of high population growth rate. A decline in population can result when there is a substantial fall in both mortality and fertility rates.

Demographers, health professionals and family planning experts are of the view that one major way by which the country can reduce its fertility is through the use of contraception. According to the 2010 Population and Housing Census (PHC, 2010), the total population in the Municipal stood at 86,884. This is about 3.9 percent of the Central region's population of which 47.1 are males and 52.9 are females (GSS, 2012). This is a clear indication of high fertility rate due to low level of family planning knowledge and contraceptive use and it consequences on the social and economic development of the inhabitants most especially mothers and children are of great concern. The problem of unwanted pregnancies among women is most severe aspect of the complex of negative factors associated with under development. The lack of knowledge and access to contraceptive information and service could be relatively low hence the need to research into the knowledge and practice of family planning among reproductive age groups in Awutu Senya East Municipality of the Central Region of Ghana where the information is not readily available.

1.3 Conceptual Framework



1.3.1 Narrative of Conceptual framework

The study adapts the Healthcare Utilization Model as the conceptual framework. This model has aspects which are peculiar to the study and well-suited with the objectives of this study;demographic characteristics such as age, marital status, educational level, ethnicity and parity are potential factors that could influence knowledge about family planning(Akilimali et al., 2018). Knowledge about family planning can in turn leads to practice thus there is a positive relationship between knowledge and practice in family plnning(Enewold et al., 2010).

1.4 Justification

The study is being undertaken to consider the knowledge and exercise of modern family planning methods among women in their fertility age in the Awutu Senya East Municipality of the Central Region. Women in this geographical site are of different

ages, cultural, religious and socio-economic backgrounds; hence the reasonfor this study is to pursue their perception of contraceptive usage and Family Planning Practices. Furthermore, the findings of this researchwould serve as a beneficial guide for program planning, formulation, and execution for government policies for the district with respect to itsaims towards Family Planning. Finally, it woouldsubsidize existing academic knowledge and research for forthcoming related studies.

1.5 Research questions

1.What is the proportionwomen who currentlyuse contraceptive in their reproductive age in the Awutu Senya East Municipality?

2.What is the level of knowledge of the use of contraceptive among women in their reproductive age in the Awutu Senya East Municipality?

3.What is the association between demographic factors, knowledge and practice of family planning among women in their reproductive age in the Awutu Senya East Municipality?

1.6 Objectives of the study

The main aim of the study is to assess the knowledge and practice of current family planning procedures among women in their productiveness age in the Awutu Senya East Municipality. The specific objectives would be:

1.To determine the prevalence of contraceptive methods among women in reproductive age in the Awutu Senya East Municipality.

2.To determinethe level of knowledge of contraceptive methods among women in reproductive age inAwutu Senya East Municipality.

3.To determine the association between demographic factors, knowledge and practice of family planning among women in their reproductive age in the Awutu Senya East

Municipality.

1.7 Hypothesis

Null (Ho): There is no association between the socio-demographic factors and the knowledge of the use of Family planning among women in Awutu Senya East Municipality.

Alternate (H1): Socio-demographic factors influences both the knolwege and the use of family planning among women in Awutu Senya East Municipality.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter reviews various studies done in relation to the variables under study. This chapter reviews existing studies on contraceptive use and its associated inhibiting and enabling factors globally, in Africa and Ghana. It is discussed under the sub-headings contraceptive methods, utilization of contraceptive methods, Health Utilization Model and Factors associated with utilization.

According to the Department of Reproductive Health and Research of the World Health Organization, Contraception is the intentional prevention of pregnancy by artificial or

natural means. Contraceptives are broadly classified into Traditional and Modern Contraceptives. Examples of traditional methods are Periodic Abstinence, breastfeeding and Withdrawal. About 12 modern methods of contraceptives, namely female and male sterilization, the pill, the intrauterine device (IUD), injectables, implants, male and female condoms, diaphragm, foam tablets and jelly, lactational amenorrhea method (LAM) and emergency contraception have been reported(GDHS, 2014). Modern contraceptives are classified into three main groups: short acting (the pill, injectables, male and female condoms, diaphragm, foam tablets and jelly, LAM and emergency contraceptives), long acting reversible (IUD and Implants) and permanent/irreversible (male and female sterilization). The long-acting reversible contraceptives (LARC) are very effective with failure rate less than 1% and yet reversible with no negative impact on fertility. They are user-independent and the typical and perfect use failure rates are the same.

Over the past five decades, the use of contraceptive methods has markedly increased such that nearlytwo in three married or in-union women globally in 2015 were using some form of contraception (United Nations, 2015). The contraceptive use prevalence increased rapidly in Asia, Latin America and the Caribbean but very slowly in several regions of sub-Saharan Africa. A decrease in unmet need for family planning accompanied this rapid increase in the use of contraception, such that 12 per cent of married or in-union women globally had an unmet need for family planning in 2015 (United Nations, 2015).

2.1 Contraceptive Methods

Contraceptive methods are classified into Traditional and Modern Methods. The traditional methods are Coitus Interruptus (Withdrawal), Breastfeeding and Abstinence.

It is widely practiced in the developing world and is usually referred to by the patient as 'being careful'. Perfect use failure rate is 4% and typical use failure rate is 22% during the first year of use. Apart from the frustration it may cause, it is exceedingly unreliable and moreover may give rise to psychosexual troubles in both partners. In the woman it may also result in chronic pelvic congestion and menstrual disorders eventually (Margaret & Hospital, 2001).

The 'Natural Family Planning' has been and still is the only approved method of birth control for Roman Catholics. This method involves periodic abstinence with couples attempting to avoid intercourse during a woman's fertile period. Techniques to determine the fertile period include the calendar method, cervical mucus method, or the symptom-thermal method. The failure rate in typical use is estimated to be approximately 25%(Margaret & Hospital, 2001).

Modern contraceptives are classified into three main groups: short acting (the pill, Injectable, male and female condoms, diaphragm, foam tablets and jelly, Lactational Amenorrhea Method/LAM and emergency contraceptives), long acting reversible (Intra-Uterine Device/IUD and Subdermal Implants) and permanent/irreversible (male and female sterilization).

2.1.1. Hormonal Contraceptives

The first steroidal oral contraceptive pill was approved for use in the 1960s. It became popular because of its ease of use and the sense of empowerment and freedom it gives users. Concerns over its adverse effects in older females, particularly the cardiovascular and neoplastic effects, led to a significant decline in its use. This occasioned considerable changes in the type and dose of both estrogen and progesterone. The

estrogen changed from mestranol to ethinylestradiol with initial dose of 150mcg which has been progressively reduced to the current dose of 20mcg. Hence, the cardiovascular and neoplastic adverse effects are very limited in currently marketed oral contraceptive pills(United Nations, 2015).

KNUST

The progestins used in the first- and second-generation oral contraceptives caused undesirable androgenic side effects such as acne, oily skin, hair growth and negative effects on high-density lipoproteins. New progestins have been developed to avoid these adverse effects and improve the safety profile. The modes of administration of hormonal contraceptives are orally, vaginally, intramuscular, subdermal and transdermal(Enewold et al., 2010).

2.1.2. Long-Acting Reversible Contraceptives (LARC)

These are classified into two main types: intrauterine contraceptive devices/systems and the subdermal implants.

2.1.2.1. Intrauterine Contraceptive Devices/Systems (IUDs and IUS)

The initial attempt to use an IUD dates back to about 100 years when an inert device in the form of the Graefenberg ring was used. Medicated devices containing copper or progestin were introduced half a century later. Today, the intrauterine system (IUS) that releases levonorgestrel (LNG) at a slow steady rate of 20mcg per day is widely used and has demonstrated high efficacy for duration of 5 years. It is marketed as Mirena and has additional non-contraceptive benefits in the treatment of heavy menstrual bleeding(Sitruk et al., 2014).

2.1.2.2. The injectables

The available progestin-only injectables included in the current methods of contraception are norethisteroneenanthate (NET-EN) and DMPA (depot medroxyprogesterone acetate) or Depo-Provera® which has been approved by the Food and Drug Authority (FDA) since 1992 and is the most commonly used injectable in the United States"(Sitruk-ware et al., 2014). The major concern with DMPA is lowering of bone mineral density especially when used in young women. It is widely available in most family planning clinics in Ghana(Enewold et al., 2010).

2.1.3. Lactational Amenorrhea Method (LAM)

This method can be used immediately after childbirth. It is effective when the woman exclusively breastfeeds with persistent amenorrhea within the first six months after birth. The method requires breastfeeding the baby every 4 hours during the day and every 6 hours at night. The perfect use failure rate is 0.5% and the typical use failure rate is 2% (Sitruk-ware et al., 2014).

2.1.4. Condoms

There are two main types: the male and female condoms. It prevents pregnancy by acting as a barrier to the passage of semen into the vagina. It also provides protection against sexually transmitted infections. The perfect use failure rate is 3% and the typical use failure rate is 14%. The diaphragm, cervical cap, spermicides and sponges are other barrier methods but are not commonly used(Sitruk-ware et al., 2014)..

2.1.5. Emergency Contraceptives

Emergency contraception is indicated in instances of unprotected sexual intercourse, including reproductive coercion, sexual assault, and contraceptive failure. It plays a role in averting unintended pregnancies due to inconsistent use or non-use of contraception. Examples include levonorgestrel, ulipristal acetate and copper intrauterine device (IUD). Levonorgestrel (LNG) is a progestin-only emergency contraceptive pill (ECP) that should be taken orally as soon as possible, within a 72hour window following sexual intercourse. The primary mechanism of action of LNG is suppression of luteinizing hormone, which delays or inhibits ovulation.Ulipristal acetate (UPA) is an antiprogestin. It should be taken as soon as possible post-coitus and remains effective for 120 h following intercourse. It delays ovulation as with LNG. A meta-analysis of two randomized trials directly found UPA to be more effective than LNG (Haeger et al.,2018).

The most effective form of emergency contraception is the copper intrauterine device (IUD). The copper IUD is effective for emergency contraception at any point in the menstrual cycle, as long as pregnancy has been ruled out. The T-shaped device is wrapped in copper coil that releases copper ions. The copper ions reduce sperm motility in passing through cervical mucus and create a hostile environment for the sperm (Haegeret al.,2018). Copper can also alter the uterine and tubal environment (Haeger et al., 2018).

2.2 Utilization of modern contraceptive methods

Family planning is considered an essential human right by the United Nations Population Fund. Family planning can reduce deaths, improve health, and facilitate economic

development. Efforts to improve health and quality of life by increasing uptake of modern contraceptive services in any nation or among a group of people such as the military must start with an understanding of the problem. Hence, understanding the factors that influence the use of modern contraceptives in women can inform strategies for improving access and utilization (Omland et al., 2014)

2.3 Factors associated with utilization of contraceptives

This section highlights factors that influence the utilization of contraceptive among women in general as well as emphasis on military women from existing literature. Identifying these inhibiting and enabling factors forms the basis for planning to reduce unmet needs for contraception. These have been divided into individual factors, social factors (perceptions, beliefs and attitudes), and health service factors.

2.3.1 Individual Factors Influencing Contraceptive use Among Women

2.3.1.1 Age

Contraceptive utilization varies in the various age groups. Extremes of maternal age (15 – 24 and 40 – 49 years) are associated with low contraceptive utilization compared to women aged 25 – 35 years in most studies (Solanke, 2017). Contraceptive use is lower among the young and older women than those in the intermediate age groups in many studies. Participants aged 25 to 34 years were more likely to use modern contraceptives than other age groups(Tekelab et al., 2015).

2.3.1.2 Educational level

Educational level has some correlation with contraceptive utilization. The higher the educational level, the greater the likelihood of contraceptive utilization (Solanke,

2017). Women's education, particularly secondary and tertiary education, contribute to women's empowerment and decision-making regarding fertility related issues and can help them to exercise reproductive health rights (Tekelab et al., 2015).

KNUST

2.3.1.4 Religion

In some religions, it is believed that children are blessings and gifts from Almighty (God/Allah) and it is sinful to prevent pregnancies. In these religions, each sexual act needs to be open to the possibility of conceiving a child. Contraception is believed to be contrary to Almighty's Will for marriage because it separates the act of conception from sexual union (Tigabu, et al., 2018). Some religions permit contraception in the context of birth spacing while others permit only natural family planning. These ideologies are channeled to communities by religious leaders which influence decisions on contraceptive utilization.

2.3.1.5 Marital status

In some studies, women who report living with their partners had higher contraceptive use prevalence. This was noted in a study in 5 regions of Brazil (Urruth, et al., 2016). Additionally, a study among adolescents using the 2014 Ghana Demographic Health Survey found higher contraceptive prevalence in the married (Nyarko, 2015). In other studies, it is the opposite. For instance, in the 2017 Ghana Maternal Health Survey, contraceptive prevalence rate (CPR) among all women age 15-49 is 25%, with 20% using modern methods. Twenty-five percent of currently married women age 15-49 and 31% of sexually active unmarried women age 15-49 use a modern method of contraception (Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF. 2018. *Ghana Maternal Health Surve2017.* Accra, Ghana: GSS, GHS, and ICF.)

2.3.1.6 Parity

The relationship between parity and non-use of contraceptive was negative. With exclusion of women with low parity, proportions of non-users increased with parity level. Grand multiparous women had higher proportion of non-users of contraceptive (Solanke, 2017).

2.3.1.7 Knowledge

Contraceptive awareness does not necessarily translate into behavioral change that leads to increased contraceptive utilization. Knowledge, but not awareness, is the prime catalyst for contraceptive uptake. Knowledge on natural contraceptive methods is equally important to help religious people make informed decisions about family planning in accordance with their faith (Tigabu et al., 2018). Knowledge of ovulatory cycle has a significant relationship with female adolescents' use of contraceptives" (Nyarko, 2015).

The levels of knowledge of family planning methods as well as communication betweenspouses regarding family planning issues were significantly associated with contraceptive use (Kessy and Rwanbudongo, 2006). The long-lasting forms of African social organization including the high value attached to the perpetuation of the lineage, the importance of children as a means of gaining access to resources (particularly land), the use of kingship networks to share the costs and benefits of children (primarily through child fostering) and the weak nature of conjugal bonds clearly inhibit contraceptive adoption and fertility decline. In the empirical examination of the factors

affecting modern contraceptive use, female education emerges as an important determinant of prevalence at the individual, regional, and national levels (Kessy and Rwabudongo, 2006).

KNUST

CHAPTER THREE

METHODOLOGY

3.1 Study design

This study is quantitative, descriptive and cross-sectional in nature.

3.2 Study Area

The Awutu-Senya District is located in the Central Region of Ghana. It covers a surface area of 244.473sq.km. The Gomoa East District has dotted enclaves within the district. The Southern part of the district is bounded by the Gulf of Guinea, to the East by Awutu Senya Municipal, to the West by Gomoa East and Agona East Districts, and the North-Eastern part by West Akim District (GSS, 2010).

3.3 Study Population

Three hundred and sixteen (316) women within the study population, who were between 15 to 45 years of age living in the Municipality, were used for the studyby using cluster sampling technique. The municipality was divided into towns, and further into markets,

schools, hospitals and other offices like banks and so on to get women in all sectors of the society to form a true representative of the population under study.

KNUST

3.4 Variables

3.4.1 Independent variables:

The independent variables were demographic characteristics such as; age, ethnic background, highest level of education attained, marital status, employment status and number of children.

3.4.2 Dependent Variables:

The dependent variable was knowledge and practice of family planning

3.5. Sample size calculation

Sample size calculation was done by using the estimate of sample sizeby Cochranas shown below:

$$n= \frac{Z^2pq}{e^2}$$ (Cochran, 1977)

Where:

- n= required sample size
- Z^2 = standard normal deviate for two tailed-test based on 95% confidence level = 1.96
- p= prevalence of contraceptive use among women in Ghana, 23.5%= 0.235 (GMHS, 2017)
- q = 1 – p = proportion of women not using contraception = 1-0.235 = 0.765
- e= margin of error = 5% = 0.05
- Therefore, the sample size was calculated as follows:

- N = $\frac{1.96^2 \times 0.235\ (1-0.235)}{0.05^2}$ ⇨ N= $^3\frac{8416 \times 0.235 \times 0.765}{0.0025}$.
- N= $\frac{0.6906}{0.0025}$
- N= 276.25= 276 participants

  20% non responses were allowed bringing the total sample size to 330 respondents.

KNUST

3.6 Sampling procedure

Proportionate cluster sampling technique was used in selecting participants for this study. The proportion of respondents were sampled from each cluster were based on total population of respondents in various clusters such as into markets, schools, hospitals and other offices like banks and so on to get women in all sectors of the society. In each cluster, simple random sampling was employed by balloting across until the total sample size is attained. The women selected were then approached and consent was sought to be included in the study.

3.7 Data collection tools

Data was collected by administering structured questionnaires to the sampled population in the above- mentioned Municipality using face to face interviews. Two reaserch assistants were recruited and trained to assist the principal investigator in data collection.

3.8 Stakeholder meetings

Stakeholder meetings was held between the District Assembly, District Health Directorate and the Lead researcher to know and establish the modalities for the research before and after the distribution of questionnaires to gather the information needed.

3.9 Measurement of variables

3.9.1 Measurement of knowledge

Thirteen questions were asked on knowledge about family planning. Knowledge questions were scored by giving 1 for a correct answer and 0 for a wrong answer. Depending on the summative score of the questions designed to assess knowledge, respondents with a summation score above the median 7/13 (53.8%) and above were classified as having adequate knowledge whilst those with mean score below 7/13(<53.8%) were classified as having inadequate knowledge (Ministry of Health. Ethiopia, 2011).

3.9.2 Measurement of Practice

Three questions (3) were asked based on practices of conraceptives. These were: current use of any modern contraceptives, method of contraceptives used, reasons for non use. The individual were classified as good practice if he/she uses contraceptives and classified as bad if he or she does not use any contraceptive method.

3.10 Ethical Consideration

Permission was obtained from the Ghana Health Service (GHS) and the Awutu Senya East Municipal Assembly before commencing the research. Consent was sought from each respondent before they participated in the research.Information given out by each respondent was treated as personal and confidential.

3.11 Quality Assurance

Each member of the research team was assigned a role and responsibility.Time schedule was strictly adhered to, to avoid delays.Any other information given by respondents was well documented. Research records were kept in triplicates.

KNUST

3.12 Data processing and Analysis

Data was entered into Microsoft Excel (Microsoft Office 2016). The data was cleaned and exported into SPSS version 23 for statistical analysis.Univariate analysis such as percentages, tables and frequencies were carried out to describe the variables. Bivariate analysis using Pearson Chi-square test statistics was conducted to determine associations between dependent (Family planning knowledge and practice) and independent variables (Age, ethnicity, educational level, marital staus,employment status, number of children). Multivariate binary logistic regression analysis was conducted to assess factors associated with knowledge and practice of family planning. Crude odds(cOR) ratio and Adjusted odds ratio (AOR) were reported and statistical significance was set at $p<0.05$.Pearson's Correlation analysis was done to determine the correlation between knowledge and practice.

CHAPTER FOUR

RESULTS

4.1. Demographic characteristics of respondents

A total of 330 women of reproductive age group between 15-45 years were approached and used for the study. However, only 316 responded to the questionairetherefore given a response rate of 95.8%.The analysis is therefore based on a sample size of 316±12.56 SD.Most respondents (83.2%) were between the ages of 20-30 years with mean age of 31.9 years. Majority (75%) were married. Regarding educational background of respondents, most respondents (61.7%) had attained secondary education. 86.7% of the women had a monogamic type of household. In terms of employment status, majority were employed representing 75.6%. Concerning the number of children or parity, most respondents (56.9%) had between 1-2 children (Table 4.1).The results showed that, 66.1% had ever had sex education at school. Few respondents representing 21.8% purported to have used contraceptives (Table 4.2).

Table 4.1: Demographic characteristics of respondents (N=316)

Variable	Frequency	Percentage
Age (Yrs.)		
15-19	13	4.1
20-30	181	57.3
31-45	122	38.6
Mean ± SD31.4 ± 0.25		
Marital status		
Ummarried	77	24.4
Married	237	75.0
Divorced	2	0.6
Educational level		
No formal education	29	9.2

Primary	48	15.2
Scecondary	195	61.7
Tertiary	44	13.9
Type of Household		
Single parent	35	11.1
Monogamic	274	86.7
Polygamic	7	2.2
Ethnicity		
Akan	145	45.9
Ga	20	6.3
Ewe	51	16.1
Northerner	49	15.5
Others	51	16.2
Employment status		
Unemployed	77	24.4
Employed	239	75.6
Number of children		
None	29	9.2
1-2	180	56.9
3 or more	107	33.9

SD represents stanadard deviation

Table 4. 2: Background characteristics influencing knowledge and practice in Family planning (N=316)

Variable	Frequency	Percentage
Ever had sex education at school		
Yes	209	66.1
No	107	33.9
Use of contraceptive after marriage		
Yes	91	28.8
No	225	71.2
Current use of contraceptive method (N=213)		
Ever had abortion (N=316)		
Yes	136	43.0
No	180	57.0
If Yes, causes of abortion (N=136) I am a student	18	13.2

Unplanned preganacy	35	25.7
Too young for having 1st child	37	27.2
Econmoic reasons	21	15.4
Too little birth space	25	18.5

KNUST

4.2 knowledge of contraceptives use among women

Table 4.3 summarizes the results of respondent's knowledge on family planning.The results show that the proportion of women with adequate knowledge on family planning is 280/316(88.6%) (Fig 4.1) (see 3.9.1 for how knowledge was measured). Majority (90.8%) of women had ever heard of modern contraceptives and 67.7% had ever heard of emergency contraceptives. With regards to knowledge on male and female sterilization as a contraceptive method, majority (59.2%) gave a wrong description. About69.6% of respondent's gave correct description of IUD as a contraceptive method. Moreso, 81.0%, 87.0% and 97.5% of respondents also gave correct description to injectable, contraceptive pills and male condoms respectively

(Table 4.3).

Table 4. 3: Awareness and knowledge of Family planningamong women

Variable	Frequency	Percentage
Ever heard of modern contraceptives Yes		
	287	90.8
No	29	9.2
Ever heard of emergency contraceptives(N=316) Yes		
	214	67.7
No	102	32.3
If yes source of information (N=214) Family member	18	8.4
Health care provider	145	67.7
Media	51	23.9
Description of Female and male sterilization Correct		
	129	40.8

Wrong	187	59.2
Description of IUD Correct		
	220	69.6
Wrong	96	30.4
Description of Injectable Correct		
	256	81.0
Wrong	60	19.0
Description of Implants Correct		
	188	40.5
Wrong	128	59.5
Description of contraceptive pills Correct		
	275	87.0
Wrong	41	23.0
Description of male condom Correct		
	308	97.5
Wrong	8	2.5
Description of female condom Correct		
	297	93.9
Wrong	19	6.1
Description of Lactational Amenorrhea Method		
Correct	180	56.9
Wrong	136	43.1
Description of Rhythm/Calendar Method		
Correct	242	76.6
Wrong	74	23.4

IUD: Intrauterine Device

Table 4.3 cont'd: Awareness and knowledge of family plannings among women

Variable	Frequency	Percentage
Description of Withdrawal method		
Correct	300	94.9
Wrong	16	5.1
Description of emergency contraception method		
Correct	192	60.8
Wrong	124	39.2
Overall knowledge score: Adequate: 280 (88.6%) Inadequate: 36 (11.4%)		

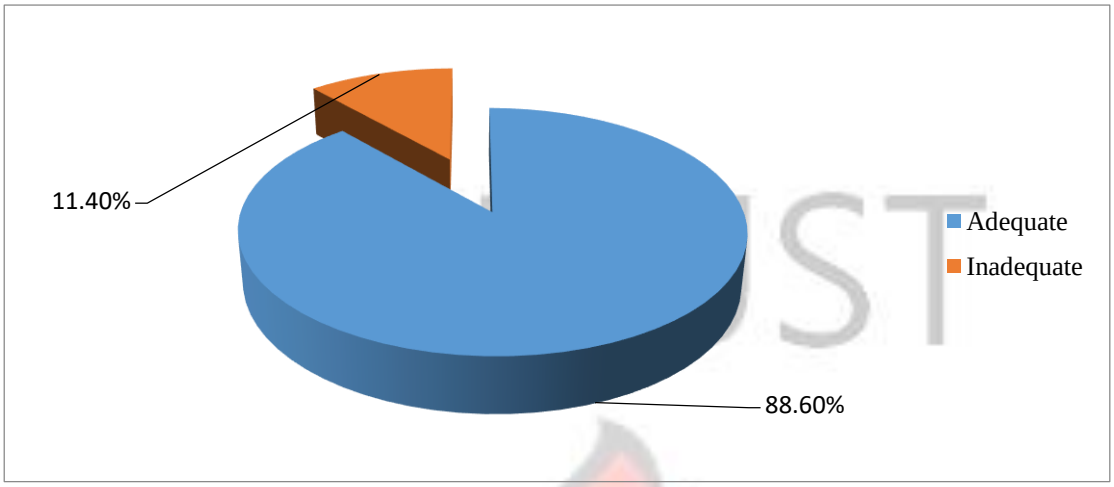


Figure 4.1:Awareness and knowledge of family plannings among women

4.3 Proportion of women usingcontraceptives

The results of this study shows that the proportion of women who use contraceptives is 213/316 (67.4%) (Fig 4.2). Those that were not using cited the desire to have more children and fear of side effects as major reasons for non use of modern contrceptives (Table 4.4).

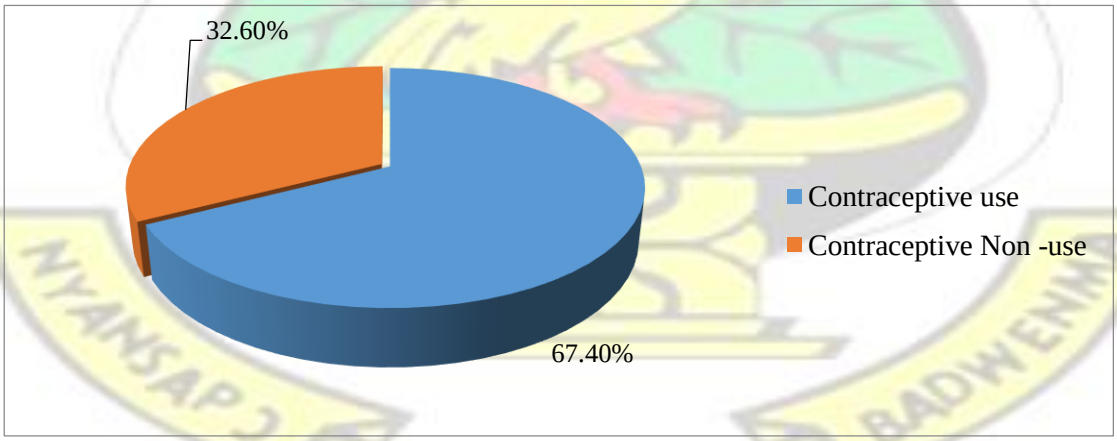


Figure 4.2: Proportion of women practicing contraceptives

Table 4. 4: Practice of contraceptive among women

Variable	Frequency	Percentage

Contraceptive use		
Use	213	67.4
Non use	103	32.6
Methods being used		
Condom	18	8.5
Oral pills	29	13.6
Intra Uterine device	27	12.7
Calendar/Withdrawal method	51	23.9
Sterilization (male/female)	1	0.5
Others	87	40.8
Reasons for non use of contraceptives		
Desire for more children	148	59.4
Prefered Traditional method	6	2.4
Fear of side effects	26	10.4
Husbands disapproval	4	1.6

KNUST

4.4 Association between demographic characteristics and Family planning Knowledge

The results showed that, highest level of education attained (p = 0.042), marital status (p = 0.028) and type of household (p = 0.038)and number of children (p = 0.013), were the demographic factors found to be significantly associated with knowledge of family planning(Table 4.6). Age, employment status and ethnicity were all assessed but were found not to influence knowledge of family planning(P > 0.05) (Table 4.5)

Table 4. 5: Association between demographic characteristics and Knowledge of FP

Variable	Family planning Knowledge			X^2
	Adequate (%)	Inadequate(%)	Total N (%)	p-value
Age group				0.483
15-19	4(30.8)	9 (69.2)	13(100.0)	
20-30	162(89.5)	19 (10.5)	181(100.0)	
31-45	114(93.4)	8 (6.6)	122(100.0)	
Marital status				0.028*
Unmarried	63 (81.8)	14(18.2)	77 (100.0)	
Married	216 (91.1)	21(8.8)	237 (100.0)	
Divorced	1(50.0)	1(50.0)	2 (100.0)	
Educational level				0.042*
No formal education	17(58.6)	12 (41.4)	29 (100.0)	
Primary	38 (79.2)	10 (20.8)	48 (100.0)	
Secondary	189 (96.9)	6 (3.1)	195 (100.0)	
Tertiary	36(81.8)	8(18.2)	44 (100.0)	
Type of household				0.038*
Single parent	15 (42.8)	20 (57.2)	35(100.0)	
Monogamic	260 (94.9)	14 (5.1)	274 (100.0)	
Polygamic	5 (71.4)	2 (28.6)	7 (100.0)	
Ethnicity				0.723
Akan	133 (91.7)	12(8.3)	145 (100.0)	
Ga	13 (65.0)	7 (35.0)	20 (100.0)	
Ewe	46 (90.2)	5 (9.8)	51 (100.0)	
Northerner	40 (81.6)	9 (18.4)	49 (100.0)	
Others	48 (94.1)	3 (5.9)	51(100.0)	
Employment status				0.458
Unemployed	63 (81.8)	14(18.2)	77 (100.0)	
Employed	217 (90.7)	22(9.3)	239 (100.0)	
Number of children				
None	18 (62.1)	11(37.9)	29 (100.0)	0.013*
1-2	172 (95.6)	8 (4.4)	180 (100.0)	
3 or more	90 (84.1)	17 (15.9)	107 (100.0)	

***Significant (p≤0.05); number in parenthesis are percentages and outside are frequencies**

4.5 Logistic regression analysis of factors associated with knowledge of family palnning

Multiple logistic regression was conducted on factors that were significantly associated with Family planning at the bivariate level.Highest level of education attained, marital status and number of children respondents had were found to be statistically significant at the multiple logistic regression analysis level (P <0.05) (Table 4.6). The odds of having adequate knowledge among women with secondary education is approximately 3 times the odds of having adequate knowledge among women with no formal education (AOR= 2.6; 95% CI=1.56-4.29, *p*=0.018).

The odds of having adequate knowledge among women with tertiaryeducation is 1.23 times the odds of having adequate knowledge among women with no formal education (AOR= 1.23; 95% CI=1.03-6.43, *p*=0.001).

The odds of having adequate knowledge among women who are married is approximately about 3 times the odds of having adequate knowledge among women who are unmarried (AOR= 3.2; 95% CI=0.56-3.78, *p*=0.014).

With respect to parity, The odds of having adequate knowledge among women who are had 3 or more children is about 2 times the odds of having adequate knowledge among women who had no child (AOR= 2.17; 95% CI=1.32-8.54)(Table 4.6).

Table 4. 6: Multiple Logistics regression of the factors associated with family plannningknowedge

Variable	FP Knowledge				
	Adequate	**Inadequate**	**cOR (95%Cl)**	**AOR (95%CI)**	**pvalue**
Educational level					
No formal education	17 (58.6)	12 (41.4)	1.0 (ref)	1.0 (ref)	
Primary	38 (79.2)	10 (20.8)	1.49 (0.90-2.48)	1.90 (1.06-3.29)	0.003*
Secondary	189 (96.9)	6 (3.1)	1.71 (1.11-2.63)	2.60 (1.56-4.29)	0.018*
Tertiary	36 (81.8)	8 (18.2)	1.28(1.11-5.67)	1.23 (1.03-6.43)	0.001*
Marrital status					
Umarried	63 (81.8)	14(18.2)	1.0 (ref)	1.0 (ref)	
Married	216 (91.1)	21(8.8)	2.4 (0.61-1.71)	3.21(1.56-3.78)	0.014*
Divorced	1(50.0)	1(50.0)	0.72 (0.17-2.65)	0.82 (0.71-2.65)	0.328
Type of household					
Single parent	15 (42.8)	20 (57.2)	1.0 (ref)	1.0 (ref)	
Monogamic	260 (94.9)	14 (5.1)	1.67(0.15-0.83)	1.54 (0.28-11.4)	0.532
Polygamic	5 (71.4)	2 (28.6)	0.45 (0.16-4.39)	0.53 (0.19-21.5)	0.287
Employmnet status					
Unemployed	63 (81.8)	14 (18.2)	1.0 (ref)	1.0 (ref)	
Employed	217 (90.7)	22 (9.3)	2.1 (0.29-5.78)	1.18 (0.37-8.72)	0.342
Number of children					
None	18 (62.1)	11(37.9)	1.0 (ref)	1.0 (ref)	
1-2	172 (95.6)	8 (4.4)	1.23 (0.43-4.91)	1.37 (1.18-5.11)	0.026*
3 or more	90 (84.1)	17 (15.9)	2.31(1.27-7.12)	2.17(1.32-8.54)	0.002*

AOR:Adusted odds ratio CoR:Crude odd Ratio

4.6 Association between demographic characteristics and practice

The results show that; marital status (p=0.003) and number of children (p=0.019) were the two demographic characteristicsthat significantly influenced practice of family

planning(Table 4.7). Age,employment status and ethnicity, educational level was not found to be statistically significant (P > 0.05) (Table 4.7)

Table 4. 7: Association between demographic characteristics and practice of FP

Variable	Family planning use			X^2 p-value
	Good (%)	Bad (%)	Total N (%)	
Age group				0.678
15-19	5(38.5)	8 (61.5)	13(100.0)	
20-30	120(66.3)	61(33.7)	181(100.0)	
31-45	88 (72.1)	34 (27.9)	122 (100.0)	
Marital status				0.003*
Unmarried	23 (29.9)	54 (70.1)	77 (100.0)	
Married	189(79.7)	48 (20.3)	237 (100.0)	
Divorced	1(50.0)	1(50.0)	2 (100.0)	
Educational level				0.09
No formal education	7(24.1)	22(75.9)	29 (100.0)	
Primary	21(43.8)	27(56.3)	48 (100.0)	
Secondary	153(78.5)	42 (21.5)	195 (100.0)	
Tertiary	32 (72.7)	12 (27.3)	44 (100.0)	
Employment status				0.728
Unemployed	38(49.4)	39 (50.6)	77 (100.0)	
Employed	175 (73.2)	64(26.8)	239 (100.0)	
Number of children				
None	3 (10.3)	26 (89.6)	29 (100.0)	0.019*
1-2	140 (77.8)	40 (22.2)	180 (100.0)	
3 or more	88 (82.2)	19 (17.8)	107 (100.0)	

***Significant (p≤0.05); number in parenthesis are percentages and outside are frequencies**

4.7 Logistic regression analysis of factors associated with Use of family palnning

The results showed that, marital status and number of children were the factors significantly associated with use.The odds of using contraceptive among women who are married is approximately about 1.8 times the odds of using contraceptive among women who are unmarried (AOR= 1.82; 95% CI=1.01-4.58, *p*=0.001).The odds of using

contraceptive among women who had 3 or more children were about 2.3 times the odds of using contraceptive among women who had no child (AOR= 2.31; 95% CI=1.08-8.66, *p*=0.021) (Table 4.8)

Table 4. 8: Logistics regression of the factors associated with family plannningUse

Variable	FP practice		cOR (95%Cl)	AOR (95%CI)	pvalue
	Good	Bad			
Educational level					
No formal education	7(24.1)	22 (75.9)	1.0 (ref)	1.0 (ref)	
Primary	21 (43.8)	27(56.3)	1.22 (0.74-3.79)	1.42 (0.07-6.23)	0.245
Secondary	153(78.5)	42 (21.5)	1.15 (0.67-7.35)	1.33(0.22-4.77)	0.192
Tertiary	32 (72.7)	12 (27.3)	1.07(0.32-5.29)	1.19 (0.31-7.32)	0.721
Marrital status					
Umarried	23 (29.9)	54 (70.1)	1.0 (ref)	1.0 (ref)	
Married	189 (79.7)	48 (20.3)	1.6 (1.02-5.67)	1.82(1.01-4.58)	0.001*
Divorced	1(50.0)	1(50.0)	0.48 (0.24-7.35)	0.71 (0.71-8.14)	0.715
Employmnet status					
Unemployed	38 (49.4)	39 (50.6)	1.0 (ref)	1.0 (ref)	
Employed	175 (73.2)	64 (26.8)	2.80 (0.35-7.78)	2.54 (0.87- 9.02)	0.459
Number of children					
None	3 (10.3)	26 (89.6)	1.0 (ref)	1.0 (ref)	
1-2	140 (77.8)	40 (22.2)	1.02(0.56-4.82)	1.28 (0.57-5.22)	0.269
3or more	88(82.2)	19(17.8)	2.27(1.02-6.12)	2.31(1.08-8.66)	0.021*

4.8 Correlation between knowledge and Practice of family planning

Karl Pearson's correlation analysis was conducted to determine the relationship between knowledge score and practice score, the results showed that there was a strong positive correlation between knowledge and practice at 95% confidence level with a correlation coefficient of 0.692 ($r=0.492$, $p<0.05$)

KNUST

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

KNUST

5.1 Introduction

This chapter is a discussion of the study findings

5.2 Summary of Major Findings

The purpose of this study was to assess the knowledge and practices of family planning among reproductive age women in Awutu Senya East Municipality. The major findings of the study are summarized as follows according to the study objectives. There washigh level of knowledge (88.6%) of contraceptive methods among reproductive among women of reproductive age group in the Awutu Senya East Municiplity. About two thirds (67.4%) of women practiced family planning in the municipality. Educational level, marital status and number of children were found to be significantly associated with knowledge. Marital status and number of children also influenced practice. Knowledge about family planning was weakly correlated with practice and showed a positive relationship. Access to sex education in school was high among the respondents which contributed to their high awareness of family planning methods.

5.3 Discussions

The demographic dynamics of the study area show the most active reproductive age group from 20-30 years were the most encountered representing 57.3% of total respondents. This is expected because the study is on reproductive age groups. Larger proportions were in monogamous marriage (86.7%)with the rest as single parents (11.1%) and 2.2 % in polygamous marriages. This understandable because the study

area is characterized by people of different origins with varying beliefs and experiences which is further confirmed with 61.9% of the people born outside the region.

The findings show that the knowledge about family planning methods is quite high among the respondents (88.6%) through information sources such as healthcare providers, written materials, and media. The knowledge levels of respondents was broadened by sex education that 66.1% of them had ever had sex education especially sexually transmitted diseases at school. The knowledge of family planning obtained in this current study is higher than that reported by Avong (1999), Onwuhafua*etal*., (2007) and Hodogbe&Nyarko (2015) who found knowledge of family planning to be below 70% each in a study conducted in Bangladesh, Nigeria and Kenya respectively. The same trend was obtainable with information source of respondents with healthcare centres and hospital the most potent source.

The study showed a 67.4% use rate of contraceptives by women in productive age in the study area (Table 4.4) which is quite higher than the 33% average for Africa as submitted by United Nations (2015). The greater majority of respondents showed preference for modern contraceptives while less number preferred traditional contraceptive methods. The most widely used traditional method however was the withdrawal method. This is in agreement with the findings of Hodogbe&Nyarko (2015) who studied knowledge and practice of family planning among female basic school teachers in Accra and United Nations (2015) global contraceptives patterns.

The single most preferred contraceptive method of choice in the study was calendar / withdrawal method with the least preferred method was female sterilization. This pattern is different from the findings of Ahmed-Adam (2010) who found Injectable as the most

preferred by couples in Kaduna State in Nigeria with withdrawal method the next most preferred while condom was the least preferred.

Factors such as education level, marital status and number of children were found to influence knowledge and these are important to the study of family planning because of their influence on knowledge and practice. Educational leveldemonstrated higher influence on both knowledge and practice compared to age as indicated in the greater significant levels recorded by educational level. The study further confirms Rogers (1995) innovation theory that says, early adopters are basically educated of middle income status and urban based. The characteristics of the study population correspond to this assertion and so is their knowledge and practice. A sizeable proportion of the sampled population had knowledge and this correlates positively with practice, the study thus established a weak positive relationship between knowledge and practice with increase knowledge corresponding to improved practice. This is in line with WHO (2008) which posited that over 120 million couples worldwide do not use contraceptives, despite the fact that they want to space or limit childbearing. Several factors like traditional and religious beliefs, personal experiences and economic base could possibly be reason for this disparity between knowledge and practice of family planning.

5.4 Conclusion

Knowledge and practice of family planning was observed to be high.Educational level attained, marital status and number of children were the factors found to be significantly

associated with knowledge. Marital status and number of children significantly influenced practice.Knowledge and practice was observed to be high and there was astrong positive correlation between knowledge and practice on family planning. Fear of side effects of using contraceptives was major reason cited for not practicing family planning. There would therefore be the need to educate women on side effects and also organize educational programmesfor women with regards to concentraceptive use in the municipality. The study therefore rejects the null hypothesis that women in their productive age in Awutu Senya East Municipality do not have adequate knowledge and practice of modern family planning procedures.

5.5 Recommendations

Based on the findings of the study, the following recommendations are offered;

- Since the study indicated healthcare providers, written materials, media as the major sources where couples learn about contraceptive methods, the Municipality Assembly or authority should improve on the existing strategies in propagating the practice of contraceptives methods among couples. This can be optimized by more media campaigns in English and the local languages.
- To address the not so strong correlation between age and educational level with knowledge and practice of family planning, community programmes should be organized for couples and adults where forums of free discussions on practice of contraceptive use methods can be held for better understanding of the methods and how to deal making choices comfortable to individual couples.
- Since all respondents in this study were females, it would be insightful for future studies to capture male opinions in order to establish the extent of support and usage of contraceptives among that population.

KNUST

REFERENCES

Album, Y.K.A.(2007). Knowledge, Attitude and Practice of Husbands towards ModernFamilyPlanning in Mukalla Yemen, University Sains Malaysia 2007.

Das, N.P., Mishra, V.K.,&Saha, P.K. (2001). Does Community Access Affect the Use ofHealthand Family Welfare Services in Rural India? National Family Health Survey Subject, Reports Number (18).

Ewutu Senya East Municipal Assembly Annual Report (2012) - Ewutu Senya East Municipal Assembly, Central region

GDHS (2003). The fourth population and health surveys conducted in Ghana as part of the global Demographic and Health.

Ghana Health Service (2014). Annual report.

Ghana Health Service Annual Report (2012) - Ghana Health Service, Accra.

Ghana Statistical Service (2010). Central Regional Analytical Report, GSS, Accra, Ghana.

Ghana Statistical Service (2010). District Profile: Awutu Senya East Municipal.

Ghana Statistical Service (2010).*Population and Housing Census*: Ewutu Senya East, Assembly Press, Accra.

Ghana Statistical Services (2010). National Analytical Report, GSS, Accra, Ghana.

Ghana Statistical Services (2010). Population and Household Census, GSS, Accra, Ghana.

Gizaw, A.,&Regassa, N.(2011). Family planning service utilization in mojo town, Ethiopia: apopulation-based study. *Journal of Geography and Regional Planning,4*(6).

Haeger, K. O., Lamme, J., & Cleland, K. (2018). State of emergency contraception in the U.S., 1–12.

Ibnouf, H., van den Borne, H.W., & Maars, J.A.M. (2007). Utilization of Family Planning servicesby married Sudanese Women of Reproductive Age. *Eastern Mediterranean health j*ournal, *13*(6), 1376 – 80.

Kessy, T.A., & Rwabudongo, N. (2006). Utilization of modern family planning methods amongwomen of reproductive age in a rural setting: the case of Shinyanga rural district,Tanzania. *East African Journal of Public Health*, *6*(2), 22-35.

Korra, A.(2002). Attitudes toward Family Planning and Reasons for Non-use among Women with Unmet Need for Family Planning in Ethiopia, ORC Macro Calverton, Maryland USA, 6.

Lachin, J.M. (1981). Introduction to Sample Size Determination and Power Analysis for Clinical Trials. *Controlled Clinical Trials*, *2*, 93-113.

Mackenzie, H., Drahota, A., Pallikadavath, S.W., & Dean, T.(2001). What kind of family planningdelivery mechanisms increase family planning acceptance in developingcountries*?* Amixed-method Systematic Review.

Margaret, L., & Hospital, M. (2001). Family Planning in the Army ', 61(March).

Moronkola A., Ojediran, M.M.,&Amosu, A.(2006). Reproductive health knowledge, Beliefsand determinants of contraceptives use among women attending family planning clinics in Ibadan, Nigeria. *African Health Sciences*,*6*(3), 45-62.

Mwaikambo, L.,Speizer, IS.,Schurmann, A., Morgan, G.,&Fikree, F. (2010). What Works in Family Planning Interventions: A Systematic Review, Studies in Family Planning, *42*(3), 72-83.

National Research Council Working Group (2011). Factors Affecting Contraceptive Use inSub-Saharan Africa (Free Executive Summary. http://www.nap.edu/catalog/2209.html).United Nations Population Fund. Evaluation Findings, Quality of Family Planning, (3), January 1994.

Nations, U. (2015). Trends in Contraceptive Use Worldwide.

Nyarko, S. H. (2015). Prevalence and correlates of contraceptive use among female adolescents in Ghana. *BMC Women's Health*, 4–9.

Okech, T., Wawire, N.W., &Mburu, T.(nd).(2012). Contraceptive Use among Women of Reproductive Age in Kenya's City Slums, *International Journal of Business and SocialScience*, *2*(1) 22-29.

Omland, G., Ruths, S., & Diaz, E. (2014). Use of hormonal contraceptives among immigrant and native women in Norway : data from the Norwegian Prescription Database, 8–10.

Riley, C., Garfinkel, D., Thanel, K., Esch, K., Workalemahu, E., Anyanti, J., … Shaw, B. (2018). Getting to FP2020 : Harnessing the private sector to increase modern contraceptive access and choice in Ethiopia , Nigeria , and DRC,*Journal of Health, Population and Nutrition*, 1–16.

Sitruk-ware, R., Nath, A., & Mishell Jr, D. R. (2014). NIH Public Access, *87*(3), 319–330.

Solanke, B. L. (2017). Factors influencing contraceptive use and non-use among women of advanced reproductive age in Nigeria. *Journal of Health, Population and Nutrition*, 1–14. https://doi.org/10.1186/s41043-016-0077-6

Tekelab, T., Melka, A. S., & Wirtu, D. (2015). Predictors of modern contraceptive methods use among married women of reproductive age groups in Western Ethiopia : a community based cross-sectional study. *BMC Women's Health*, 1–8.

Tuonane, M., Nyovani, J.M., & Diamond, I.(2004). Provisions of family planning services in Lesotho. *30*(2), 43-67.

UNDP (2007). Human Development Report, UNDP, Accra, Ghana. Population Reference Bureau, Population Hand Book 5th Edition

United Nations Department of Economic and Social Affairs, Population Division (2013). World Contraceptive Patterns.

World Health Organization (2012). Family Planning [Internet]. Cited 2012 July 5]. Available from:http://www.who.int/mediacentre/factsheets/fs351/en/index.html.

Zainab, B., Sharmin, S.,& Islam, M.N. (2010). Factors Affecting the Utilization of MCH Services inBangladesh. *The Journal of Family Welfare*, *46*(1), 1385.

APPENDIX: QUESTIONNAIRE

Demographic information

A. Age	Thick	**D.Marital status**	Thick	
1= 15-19		0= Unmarried		
2= 20-30		1= Married		
3= 31-45		2= Divorced		
B.Highest level of education 0= No education		**E.Ethnicity** 1= Akan		

1= Primary		2= Ga		
2= Secondary		3= Ewe		
3= High school/college		4= Northerner		
4= University		5=Other (please specify)		
C.Type of household 0= Single parent		**F.Employment status** 0= Unemployed		
1= Monogamic		1= Employed		
2= Polygamic		**G.Place of Birth**		
		0=Within the Municipality		
		1=Within the Region 2=Outside the Region		

Knowledge

Family planning knowledge consisted of knowledge of modern contraceptives and emergency contraceptives, source of information about family planning, sex education at school, and if the women had heard of sexually transmitted infections (STIs), like Gonorrhoea.

Heard about modern contraceptives, Female and male sterilization, intrauterine devices (IUDs), Hormonal methods (oral pills, injectable, and hormone-releasing implants, skin patches, and vaginal rings), Condoms and vaginal barrier methods (diaphragm, cervical cap, and spermicidal foams, jellies, creams, and sponges[1]**.**

0= No method, **1**=Oral pill/Condom/IUD (1-3 method), **2**= 4 and more methods

Heard about emergency contraceptives 0= No, 1= Yes

Source of information about contraceptives

1= Parents/ siblings/husbands/friends

2=Health care providers/ written information, media (pamphlets, internet, magazines)

Sex education at school 0=No/not remember, 1= Yes

Heard about STI's like Gonorrhea 0=No, 1= Yes

Practice

Age of marriage

0= less than 18 years

1=18-24 years

2= 25-30 years

3=Above 30 years

After marriage using any of contraceptives

0=No

1= Yes

Number of children

1= 0-2,

2= 3 and more

Desire for more children now

0=No,

1= Yes

Planned pregnancy

0=No/ not remember,

1= Yes

History of requesting induced abortion

0=No,

1= Yes

Which method are currently using

1=Condom

2= Oral pills

3=Intra uterine device

4=Calendar / withdrawal method

5= Sterilization (male/ female)

6= Implants

7= Injectables

8= Others

Cause of abortion

1= Study/student

2= Pregnancy was not planned

3= Too young for having 1st child

4= Economical reason

5= Too little birth space

Service for family planning Reason for not using any contraceptives

1= I want to be pregnant

2= I preferred the traditional method

3= Fear of side effect

4=Others

Unmarried girl prefer to go: 0=No answer, 1=General physician/school nurse, 2= Clinic for sexual information, 3=Health center for youth, 4= Internet, 5= I never thought about this before

Unmarried girl prefer to talk: 0=No one, 1= Parents, 2=Siblings 3=Friends, 4= General physician, 5=School nurse, 6= Health canter for youth

Face problem to seek FP service

0=No

1= Yes

Possible cause to face problems

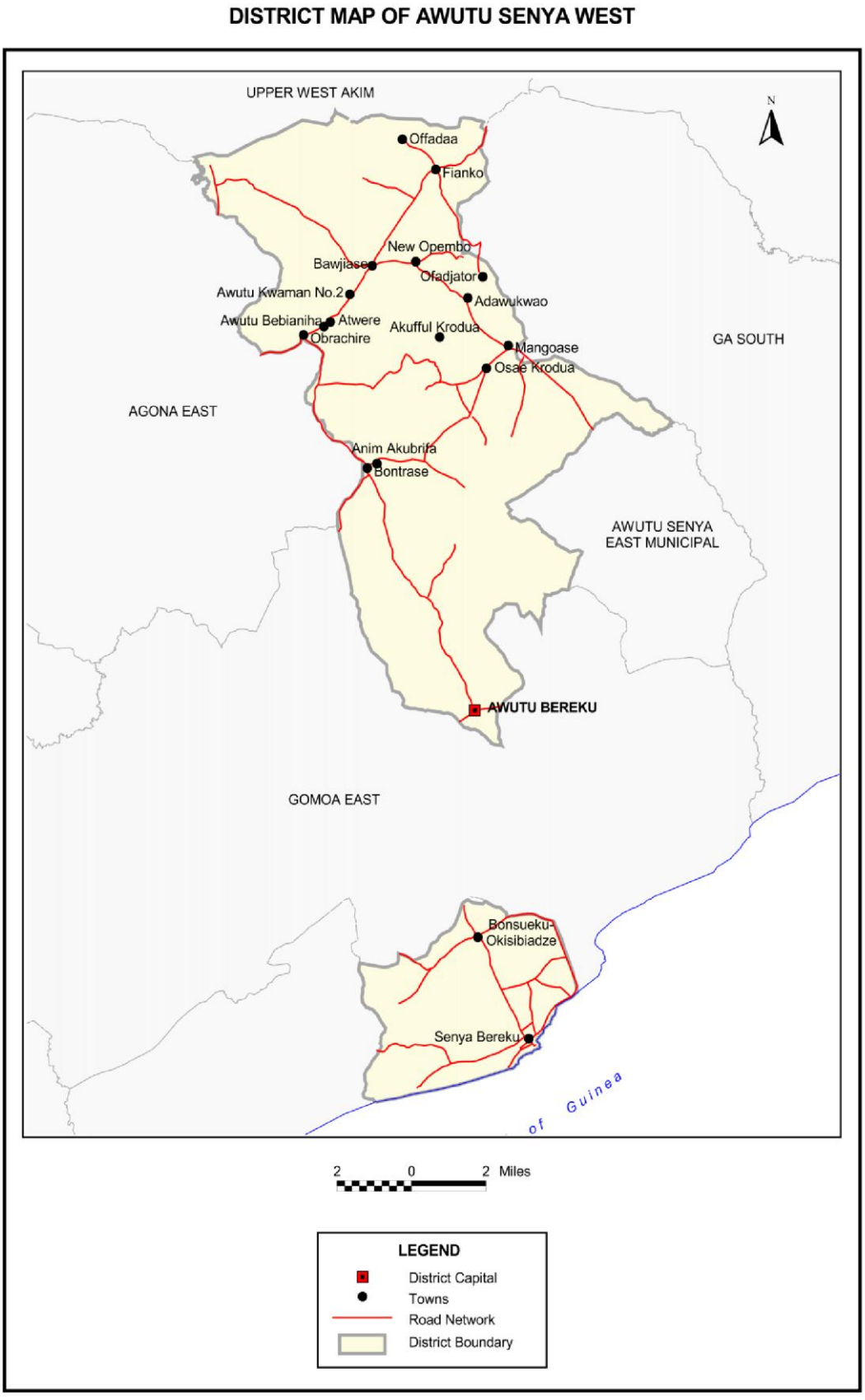
0=Am shy

1= I depend on my husband

3=Health staff never understand me

4= I don't know where I can go

KNUST



Source: Ghana Statistical Service, (GSS)