UNIVERSITY FOR DEVELOPMENT STUDIES

KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS MODERN CONTRACEPTIVE UTILIZATION AMONG WOMEN IN FERTILITY AGE (WIFA) IN THE SAVELUGU MUNICIPALITY OF THE NORTHERN REGION OF GHANA

MUSAH BASHIRU

2023

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BY

MUSAH BASHIRU

(BSc Community Nutrition)

(UDS/MPH/0028/19)

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APRIL, 2023

DECLARATION

STUDENT'S DECLARATION

I, MUSAH BASHIRU hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere. All sources used or quoted have been duly acknowledged by means of complete references.

NAME: MUSAH BASHIRU ID NUMBER: (UDS/MPH/0028/19)

SIGNATURE:  DATE: 17/01/2022

SUPERVISOR'S DECLARATION

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

SUPERVISOR'S NAME: PROF. ANTHONY AMALBA

SIGNATURE: 

DATE: 17/01/2022

DEDICATION

I dedicate this work to Almighty Allah who gave me the grace to complete this work successfully. I also dedicate this study to my late Dad Alhaji Alhassan Musah, my Mom (Hajia Fati), my wife (Adam Rashida) and all my siblings.

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All praises are due to the Almighty Allah for guiding me through this work. My greatest thanks goes to my family and friends for their prayers, unwavering and unending moral and financial support throughout my studies in school. It is a great pleasure to acknowledge my supervisor, Professor Anthony Amalba. I am most grateful. I could not have finished this work without you.

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ABSTRACT

Contraceptive services are essential elements of reproductive health care and have saved lives and protected the health of millions of women and children. The aim of this study was to assess the level of knowledge, attitudes, and practices of modern contraception among women of reproductive age in the Savelugu municipality. A mixed design was employed in the present study where quantitative research methods were employed involving 280 women. For the qualitative part, a total of two (2) focus group discussions (FGD) were conducted involving 20 women. Data were collected in five health facilities during Prenatal, Post Natal Clinic (PNC), and Child Welfare Clinic (CWC) sessions using questionnaires and interview guides in focus group discussions. Thematic analysis was used to analyze the qualitative data and binary logistic regression analysis was used to determine factors that associated with modern contraception practices using SPSS version 24. A p-value less than 0.05 was used to declare statistical significance. About 86% of the participants had access to modern contraception and 83.0% were classified as having good knowledge of modern contraception. Majority of respondents showed favourable attitude (71.8%) toward modern contraception and about 49.6% of participants were practicing modern contraception. Women whose spouses had education up to tertiary were about two times more like to utilize modern contraception services (Odds ratio (OR): 2.39; Confidence Interval (CI): 0.51-11.33; p-value: 0.272). Also, women who had unfavourable attitudes toward modern contraception were 88% times less likely to utilize modern contraception services (OR:0.12; CI: 0.51-11.33; p-value:<0.001). Women who were not seeking help from health facilities about modern contraception were 82% times less likely to uptake modern contraception compared to those who sought help (OR:0.18; CI: 0.10-0.31; p-value:<0.001). During the Focus Group Discussion, husbands' opposition to modern contraception was a major deterring factor stated by many women. Finally, women whose husbands were in favour of modern contraception uptake were

about 8 times more likely to uptake modern contraception compared to those whose husbands object to its uptake (O8.49; CI: 4.66-15.48; p-value:<0.001). The high knowledge of modern contraception among women did not match their practice in the study area. Thus, policymakers should include husbands in designing modern contraception programs.

Key words: Modern contraception, Contraception, KAP, Unmet need, Utilization

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LIST OF ACRONYMS

AIDS - Acquired Immune Deficiency Syndrome

ANC – Antenatal

CHPS - Community Based Health Planning and Services

CIC - Combined Injection Contraceptive

COC - Combined Oral Contraceptive

CPR - Contraceptive Prevalence Rate

CWC - Child Welfare Clinic

DHA - District Health Administration

ECOWAS - Economic Community of West African States

EDHS - Ethiopia Demographic and Health Survey

FGD - Focus Group Discussion

GDHS - Ghana Demographic and Health Survey

GHS - Ghana Health Service

GNFP - Ghana National Modern Contraception Program

GOG - Government of Ghana

GSS - Ghana Statistical Service

HBM - Health Belief Model

HIV - Human Immunodeficiency Virus

IUD - Intrauterine Device

KAP - Knowledge Attitude and Practices

LAM - Lactation Amenorrhea Method

MC - Modern Contraception

PNC - Postnatal Clinic

RTI - Reproductive Tract Infection

SPSS - Statistical Package for Social Science

SRH - Sexual and Reproductive Health

SSA - Sub-Saharan Africa

STI's - Sexual Transmitted Infections

UNFPA - United Nations Sexual and Reproductive Health Agency

UNICEF - United Nations Children Fund

UN - United Nations

USAID - United States Agency for International Development

WHO - World Health Organization

CHAPTER ONE

1.0 Background of the study

Globally, the demand for modern contraception has increased from 663 million to 851 million in the last two decades and it's projected to further increase by 70 million by 2030 (WHO, 2022). Despite these achievements, about 121 million unintended pregnancies were recorded each year from 2015 to 2020 among women who do not use any form of modern contraception method (WHO, 2022).

Conceptually, modern contraception is 'the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births' (Infantil et al., 2004). Modern contraception methods are classified based on the hormonal content and method of action. Contraceptive patches, pills, injectables and implants are examples of hormonal contraceptives whiles condom, intrauterine and intravaginal devices are barrier methods that prevent the sperm from entering into the fallopian tube (Bagah & Decker, n.d.; Colquitt & Martin, 2017). Other forms of modern contraception methods include lactational amenorrhea, fertility awareness based methods and withdrawal methods (WHO, 2022). Studies conducted on modern contraception in low-middle income countries have shown varying rates of its usage.

Compared to the west, the knowledge and uptake of modern contraception services is generally low in most sub-Saharan African countries. For instance, whiles about 89% of women in Talensi (Ghana) exhibited good knowledge on modern contraception , only 18% had patronized the services before (Apanga et al., 2020). In Ethiopia, less than half (43.4%) of women showed good knowledge on modern contraception and only 52.3% of them had favorable attitude towards its services (Bekele et al., 2020). Moreover, awareness and level of patronage of contraceptive methods were found to be low in Rural areas of Pakistan (Mustafa et al., 2015). A systematic

review of 20 published articles in Nigeria has also reported that uptake of modern contraception services in the country ranges from as low as 10.3% to 66.8% (Akamike et al., 2020).

Several studies have shown that knowledge, attitude and decision to utilize modern contraception services are significantly associated with socio-demographic factors including age, level of education, religion, number of wives (Abigail et al., 2022; Wulifan et al., 2019), incomplete family size, negative perceptions (Mustafa et al., 2015), exposure to media (Ossou, 2008) and marital status (Sunnu et al., 2016). In addition, the believe that modern contraception can lead to barrenness, promotes prostitution and promiscuity were among several misconceptions that incriminated the low patronage of modern contraception programs (Sakara et al., 2015). Other studies identified inadequate communication between spouses about modern contraception as a major factor to blame for the negative attitude of people towards modern contraception (Ossou, 2008; Vouking et al., 2014).

Meanwhile, demonstrating positive attitude and uptake of modern contraception services can improve reproductive health and ensure safe sex life. Thus, it is critical for people to be well informed and to have access to affordable and safe modern contraception methods (WHO, 2016). Research has shown that effective adherence to modern contraception services reduces infant and maternal mortalities by 2.7 million and the loss of healthy lives by 6 million in a year (Nsubuga et al., 2015). Given this, both government and non-governmental agencies in Ghana have adopted strategies such as provision of information and services at clinics, outreach programs and sensitization by the mass media to uplift people's interest in modern contraception programs (Hardee et al., 2017).

1.1 Problem Statement

Unmet need for modern contraception is a public health problem which could lead to high rates of mortalities among women and children worldwide (Cayan & Karaçam, 2013). Currently, about 270 million women within the reproductive ages (15-49 years) worldwide, are willing to use modern contraception services but have their needs unmet (WHO, 2022).

The issue of high population growth in Ghana may signify low utilization of modern contraception services. Despite the higher fertility rate in Ghana: almost 4 live births per woman compared to the global fertility rate of 2.5 (Worldometer, 2022), it is estimated that, more than a third (35.17%) of Ghanaian women within the reproductive age group have their needs for modern contraception unsatisfied (Wulifan et al., 2019). The 2014 Ghana Demographic and Health Survey (GDHS) also estimates that, only 22% of married women were using modern contraception methods, while 5% used a traditional method (GSS, 2015). The high fertility rate coupled with the unmet need for modern contraception could be incriminating the increase in the number of unplanned pregnancies (Lomé et al., 2018) and consequently leading to mortalities emanating from pregnancy and abortion related complications (Schwandt, 2009; Wulifan et al., 2019).

Dated back to the 1970s, the government of Ghana took a step to improve contraceptive uptake via the launch of the National Family Planning Program (NFPP) (Ashford, 2020). Albeit these efforts, knowledge and uptake of modern contraception services remains a bigger challenge in many Ghanaian settings and the case of Savelugu Municipality is even worse. According to the Savelugu annual health reports (2020), the trend for the past three years on modern contraception utilization coverage were 17.1%, 21.9% and 21.6% for 2018, 2019 and 2020 respectively which fell far away from the national target of 60%.

Its corresponding effect has manifested in an increment in the maternal mortality ratio from 73.5 per 100,000 live births in 2019 to 118.9 per 100,000 live births in 2020 in the Savelugu Municipality. In the same report, the effects of poor modern contraception coverage have seen teenage pregnancy increased from 5.3% in 2019 to 8.7% in 2020. Continuation of the current situation may undermine the realization of the Sustainable Development Goal (SDG) 3.7 aimed at *'achieving a universal access to sexual and reproductive care, family planning and education'* and goal 3.1 which is aimed at *'reducing maternal mortality'* by 2030. Meanwhile, studies to measure the knowledge and other parameters of modern contraception usage remain scanty in most Ghanaian settings including the Savelugu municipality. In this regard, this research assessed the knowledge, attitudes and practices of modern contraception among reproductive aged women in the municipality and this will provide a breakthrough to understand the true situation of the problem.

1.2 Research Questions

1. How well do women in their reproductive ages in the Savelugu municipality know modern contraception?

2. What is the level of modern contraception practice among women in the reproductive ages in the Savelugu municipality?

3. What is attitude of women in their reproductive ages in Savelugu municipality towards modern contraception?

4. What are the factors affecting modern contraception service utilization in the Savelugu municipality?

1.3 Research Objectives

The study's ultimate goal is to determine the level of knowledge, attitudes, and practices related to modern contraception utilization women of reproductive age in the Savelugu municipality.

The following are the precise goals:

1. To determine the level of knowledge of modern contraception among women of reproductive age in Savelugu municipality.
2. To examine the level of 'practices' of modern contraception among women of reproductive age in Savelugu municipality.
3. To examine the 'attitudes' of women in reproductive ages towards modern contraception in the Savelugu municipality
4. To identify factors affecting utilization of modern contraception services in the Savelugu municipality.

1.4 Research Hypothesis

There is low knowledge, attitude and practices of modern contraception among women in reproductive age (WIFA).

1.5 Justification

Understanding people's perceptions and knowledge level of modern contraception is critical to addressing unmet needs and to increase its patronage.

While knowledge of contraceptive methods is practically ubiquitous in Ghana (GSS et al., 2018; GSS, GHS, & ICF International, 2015), there remains a widespread unmet need for modern contraception (GSS et al., 2015). According to estimates, 17.4 percent and 12.5 percent of married women in Ghana respond to surveys in ways that imply an unmet need for spacing and limiting

respectively. The Northern Region has the largest number of women with unmet spacing needs (21.7%), but the lowest proportion of women with unmet limiting needs (6.1%). (GSS et al., 2015; Nyarko, Sparks, & Bitew, 2019).

Even though Ghana happens to be one of the pioneer countries in implementing modern contraception program policy in West Africa (Machiyama & Cleland,2014), prevalence of contraceptive use remains at 31.0% in Ghana, with substantially lower rates estimated for the Northern Region (18.5%) (GSS et al., 2018).

Abortion, hazardous sexual practices, unexpected pregnancy, and Sexually Transmitted Infection (STI) are all prevalent problems connected with inadequate modern contraception provision. A better use of modern contraception could reduce many of these mistimed and unplanned pregnancies, while at the same time it could reduce the number of unsafe abortions as well as the mortality related with child birth. As a result, this study is expected to provide current assessment of the knowledge level, attitude and practices among women of reproductive age (WIFA) in the study location, which may aid authorities in taking appropriate decisions based on the findings to address the situation. The research will also serve as a baseline for future research into comparable scenarios.

1.6 Operational Definitions

Knowledge: Respondents' ability to mention at least one method of modern contraception, and at least one source of modern contraception services known by respondents.

Attitude: Willingness to discuss and recommend modern contraception services to others and having a future plan to adopt any of the methods.

Practice: Currently using or have used any of the modern contraception methods.

Modern contraception: A product or medical procedure that interferes with reproduction from acts of sexual intercourse.

Utilization: Usage of any of the modern contraception methods.

Access: Knowing where to get modern contraception services and that does not require a travel distance of more than five (5) kilometres.

1.7 Conceptual Framework

For the purpose of this study, the independent variables were chosen on the basis of the Andersen's Behavioral Model (ABM) of Health Services (Anderson, 1995). In terms of predicting and elaborating health service utilization, the ABM is used extensively. To put it simply, the model consists of factors at the individual level, health related factors, environmental factors, as well as perceived need for services at the health care. The factors explaining and determining contraceptive uptake are multifaceted based on this model which could include socio-demographic factors of the individual, health facility related factors and individual level factors. Some of the socio-demographic factors include sex of participants, age in years, marital status, educational level, spousal educational level, parity, income status, religious affiliation, ethnicity, and household size. Some of the factors that could prevent the uptake of modern contraceptive could be factors such as cultural factors, family beliefs and customs, partners' disapproval, demand for large family size. Factors at the individual level could include knowledge level of modern contraception methods and partners' approval or disapproval. Furthermore, socioeconomic factors such as wealth score, occupational status, education, and residence could also determine modern

contraceptive uptake among women. Additionally, partners' religious affiliation, ethnicity or occupation could predict modern contraceptive utilization.

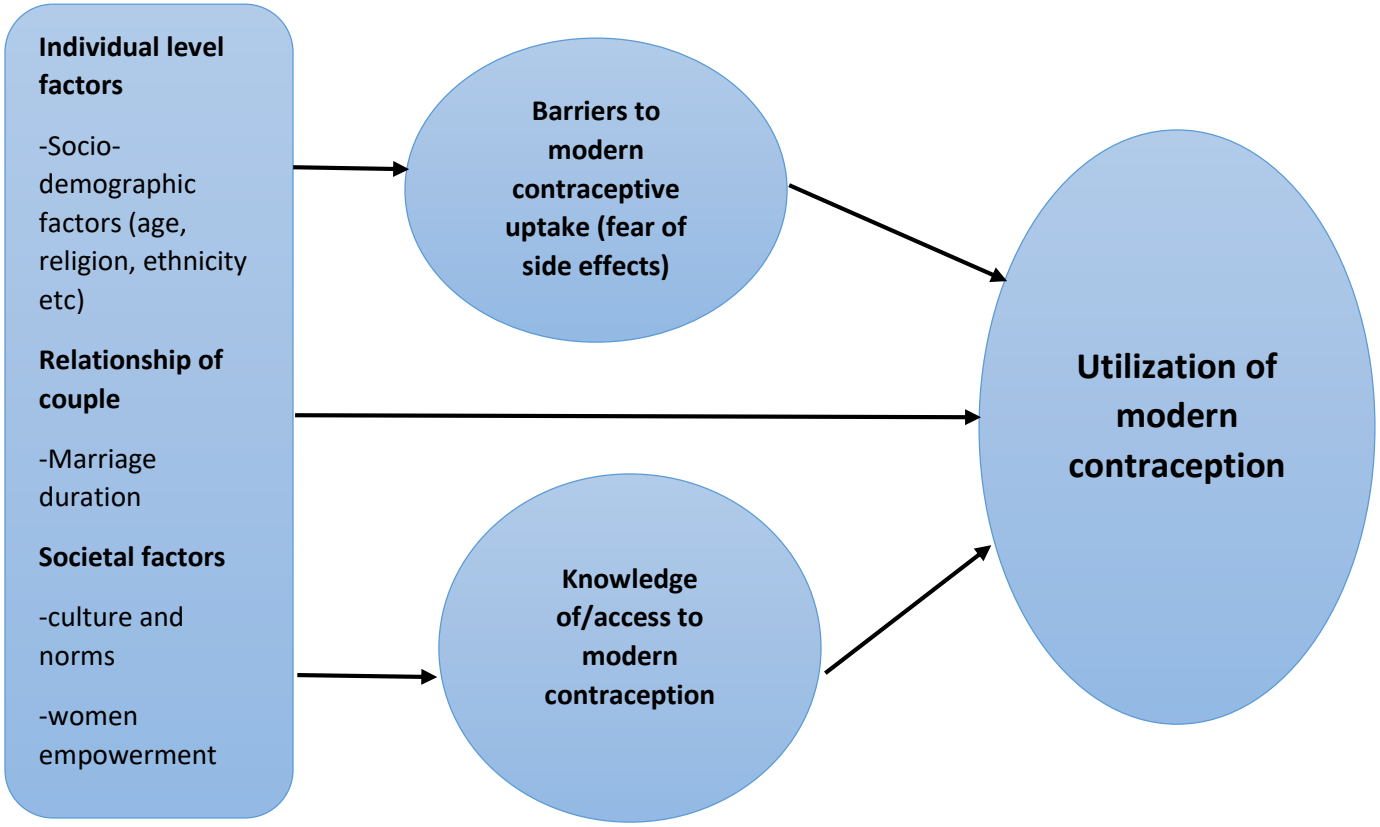

Figure 1.1: Conceptual Framework from the Andersen (1995) based on the Health Care Utilization Model

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

According to WHO, modern contraception is when couples and individuals are able to predict and accomplish their intended number of children, spacing, timing and limiting of their births (WH0, 2016). This is attained through the utilization of modern contraception methods and involuntary infertility treatment. Evidences show the direct association between spacing and liming of pregnancies among women and their health, wellbeing and their pregnancy's outcome (Dean et al., 2014). Other aspects of reproductive health are: sex education, pre-conception counselling, preventing and managing sexually transmitted infections and infertility. High levels of closely spaced births as well as unintended births could result in high fertility which increases the growth of populations and undermine development efforts in many sectors of the economy (Neyaz et al., 2015).

According to the WHO, spacing and healthy timing of pregnancies is an intervention of modern contraception to aid the woman attain good health and healthy pregnancy outcome through limiting and spacing of births by couples. Deducing from the WHO (Family Planning: Facts Sheet, 2015) it reported that more than 500,000 women lose their lives annually due to pregnancy-associated complications and that the use of modern contraception beats down maternal mortality significantly, prevents unwanted and extremely risky pregnancies and also prevents the need for safe and unsafe abortions. The African Population and Health Research Centre also highlighted the consequences of having unintended births to include suffering from postpartum depression, powerlessness feelings, increased time pressures, and decline in general physical health. In addition, they tend to relate poorly with all their children, tend to abuse them more physically and

do not spend more time with them (Gizaw & Regassa, 2011). Demographers find the study of contraception as a crucial issue in demography since the relationship between contraception and fertility is quite robust (Aryeetey et al., 2010).

2.1 Knowledge about modern contraception methods and contraceptive use

Several articles have measured knowledge of reproductive aged women in different settings. For instance, a study on Knowledge, attitude and practice towards modern contraception among reproductive age women in a resource limited settings of Northwest Ethiopia revealed that factors associated with the practice of modern contraception were: residence, marital status, educational status, age, occupation, number of children and monthly average household income of participants (Semachew Kasa et al., 2018).

Knowing about modern contraception practices is a significant step geared towards getting accessibility to contraceptive methods and using them in a timely and effective way. According to a research conducted in Nigeria's Osun State, all presently married and ever-married women (100 percent in each case) were aware of at least one method of modern contraception (Okeowo & Olujide, 2014). According to the report, persons with no or little education and those who are impoverished had the least information about modern contraception. In the same report, geographic location, level of formal education, and residing in urban setting were sited to have an impact on modern contraception knowledge (Okeowo & Olujide, 2014). In Niger Delta University in Delta State, Nigeria, 84 percent of faculty students were shown to have good awareness of modern contraception , according to a poll (Peter & Joshua, 2016). From the study, 44 percent believe that modern contraception helps couples maintain the appropriate number of children, 19.6% believe it allows women to pursue their careers, and 18.7% believe it encourages promiscuity.

Moreover, a study in Egypt reported knowledge on modern contraception at various rates stating that 34.2%, 60.2%, and 5.6% of the participants, respectively, exhibited good, fair and poor knowledge on the subject. The study adopted a quantitative approach to analyze the modern contraception knowledge, attitudes, and behavior of Egyptian women in the reproductive age range in Gharbia Governorate. The presence of a full-time work for women, a professional occupation for the husband, and a high salary were all strongly linked with good knowledge on modern contraception (Atlam et al., 2022). In another Egyptian setting (Cairo), a quasi-experimental study was conducted to boost the health education abilities of nurses working in Maternal and Child Health facilities to raise women's understanding of modern contraception. The findings indicated an improvement in nurses' health education knowledge and performance in the post-test. Additionally, the research demonstrated how a highly significant difference followed an intervention program including women and nurses and improved women's modern contraception knowledge (Mersal & Keshk, 2012). Another study reported that due to culture and religion, Egyptian women were not comfortable discussing sexual-related issues with male physicians (Eltomy et al., 2013). According to the same report, Egyptian women's poor awareness level was a predicting factor in their refusal to use modern contraception services.

A study was carried out in Africa, Asia, Latin America, and the Caribbean to give an updated overview of the reasons why many married women with unmet contraceptive needs do not use it. The findings suggest that having access to services that offer a variety of contraceptive methods to choose from, as well as information and counselling to help women select and use an appropriate method effectively, was critical in assisting women with unmet needs overcome barriers to contraceptive use (Sedgh & Hussain, 2014).

According to a research conducted in Tanzania, 98 percent of Tanzanians have access to modern contraception information. Despite the high level of awareness, only 29% of women actively use modern contraception services. When comparing males and females, the latter has more knowledge because majority of interventions targeted them (Dangat & Njau, 2013). In a similar vein, a cross-sectional study in a tertiary school in Tanzania among 347 females found that most of the participants (96%) were aware of contraception. In their survey, age, married status, and religion of the participating students were all substantially correlated with awareness of contraception (Kara et al., 2019).

Adolescents must be aware of themselves and be informed enough about their physical, psychological, and physiological changes that occur during puberty, menstruation, pregnancy, and childbirth in order to live healthy, responsible, and meaningful lives and to avoid reproductive health problems. Thus, a study randomly sampled 656 girls between 14-19 years from 3 intermediate colleges and 3 high schools in Kuppam Mandal, Andhra Pradesh to ascertain whether a reproductive health education intervention program is helpful at enhancing the knowledge of teenage girls (Malleshappa et al., 2011). The researchers found that, Menstrual cycle, ovulation, fertilization, and pregnancy knowledge improved significantly from 33.7% to 97.4% (P0.0001); knowledge regarding modern contraception improved significantly from 33.7% to 97.4% (P0.0001); and knowledge regarding the transmission and prevention of STDs significantly improved (P0.0001) following intervention.

In Ethiopia, a research has revealed that, more than 16 percent of women said their modern contraception needs were not satisfied. There was also a significant discrepancy in unmet modern contraception needs between urban and rural areas, as well as between regions. Cessation of menses, ‘it is up to God’ and/or fatalistic, health concerns, fear of side effects, and not having sex

were revealed to be the most common reasons for not using modern contraception , according to the study (Tadele et al., 2019).

More so, a study on modern contraception knowledge, attitudes, and practices among married women in Banteay Meanchey, Cambodia, 99.3 percent of respondents, regardless of their educational level or socioeconomic status, have heard of contraceptives. The vast majority of the study participants had heard of modern contraception and knew at least one current method. Despite the fact that respondents had a high level of awareness about contraceptives, the knowledge differed from one method to the other. Pills and injectable contraceptives were the most commonly used methods by respondents, indicating a proportion of 95 percent and 83 percent, respectively. The condom and IUD 34 were the other common methods discussed. According to the same study, healthcare workers were the most prevalent source of knowledge about modern contraception (67.4%), followed by television (50.7%), radio (35%), and friends (35%) (Sreytouch, 2008).

A study of health-care professionals' knowledge, attitudes, and behaviors about modern contraception in two local governments in Nigeria's Osun State discovered that not all health-care providers were well-versed in modern contraception methods. Less than half of the participants were familiar with all of the approaches, particularly the new ones (Omishakin, 2015). This might have a negative impact on their work because they won't be able to discuss all options or strategies with their clients.

In India, a survey of married women's modern contraception knowledge, attitudes, and practices indicated that all of the participants were aware of modern contraception approaches. Female sterilization was the most preferred approach among participants, followed by condom use, with

traditional modern contraception methods receiving the least support. Because they were conducted in an urban setting with advantageous surroundings such as a health training center, proactive health professionals, and other information-sharing enhancing facilities, these findings should be interpreted with caution (Gupta et al., 2016).

In a study of university students in Botswana, it was observed that 58.6 percent of male students and 59.1 percent of female students had good knowledge of modern contraception , respectively (Hoque et al., 2013). Furthermore, all female students (100%) were aware that contraceptives are not 100 percent effective, compared to 93.7 percent of male students, according to the survey. Finally, 90.6 percent of females, compared to 76.4 percent of males, were aware that irregular contraception can result in pregnancy, according to the survey. The condom was the most popular form of modern contraception (95.6%), followed by contraceptive tablets (86.7 percent) (Hoque et al., 2013).

2.2 Attitudes about modern contraception

According to a study conducted in Nigeria to measure University students' attitudes toward contraceptive use, students' attitudes influence their knowledge of sexual and reproductive health (Ugoji, 2013). Adolescents' sexual attitudes and practices are influenced by socio-psychological factors, which has an impact on their contraception knowledge (Ugoji, 2013). Young adults, they argue, require comprehensive sex education as well as increased the utilization to modern contraception options. In an Egyptian survey, 75% of non-users intend to utilize modern contraception in the future, while 81% of women who have stopped using modern contraception intend to use it again at some point in the future (Eltomy et al., 2013). The vast majority of women are uninterested with modern contraception, as evidenced by this.

A survey of married women's knowledge, attitudes, and practices in Banteay Meanchey, Cambodia, found that the women find it comfortable to discuss modern contraception with their neighbors, spouses, physicians, and close friends. Only about 10% of those polled said they had discussed modern contraception with other family members. More than half of those polled (52%) thought modern contraception was primarily concerned with the health of the mother and child, while 35% thought it was primarily concerned with the health of women. Almost all respondents supported the discussion of modern contraception , but some were opposed to unmarried or single women discussing contraception (Sreytouch, 2008).

According to a survey by the University of Lahore in Pakistan, 54 percent of women have a good attitude about modern contraception and approve of it (Sajid and Malik, 2010). According to a survey conducted in India, 83.1 percent of the respondents had a favorable attitude towards modern contraception, with roughly 75 percent of those satisfied with the services they received. 5 percent of those considering moving to other forms of modern contraception methods share this positive view regarding modern contraception (Gupta et al, 2015).

In a descriptive study in Odisha India, women were reported to have exhibited positive attitude towards modern contraception. The study randomly employed 480 married women and found that 83.95% perceived modern contraception to be beneficial and 83.33% were ready to encourage their peers and relatives to patronize modern contraception services. In addition, 64.7% of the respondents were reported to have ever used family panning in the past whiles 24.3% had not used contraceptive before but were hoping to adopt one method in the future (Jena et al., 2017).

2.3 Practices about modern contraception

According to a study on modern contraception usage amid women of reproductive age in middle and low income countries, resistance from a husband or fear of infidelity, as well as a woman's fear of side effects or other health concerns related to contraceptive methods, are all reasons for non-contraception use. (LMIC) (Wulifan et al., 2017).

Premarital sex experiences were reported by 28.0 percent of males and 14.2 percent of women in a poll of Chinese migrant youth, but only 47.4 percent of them used condoms, with 16.1 percent using condoms half the time and only 4.0 percent using condoms all the time (Liu et al., 2011). The research also revealed that the proportion of survey respondents who used condoms was relatively low to factors such as perceived risks, embarrassment, and cultural issues with condom use. Furthermore, a study conducted in Sub-Saharan Africa to identify factors influencing the use of modern contraception in women living in crisis-affected areas identified reasons such as a lack of faith in Western medicine and a desire to have large families. Access was hampered by low socioeconomic level and the lack of closeness to modern contraception clinics. Many women reported being treated with disdain at health clinics because they believed health care workers were unqualified. Contraceptive knowledge and awareness were low; while most women were aware of the various techniques available, there were many misconceptions. Fear of using contraception was exacerbated by the misconception that some contraceptives lead to death, infertility, and other negative effects. Even if there was a desire to space and restrict births, the lack of understanding and fear affected willingness to utilize contraception (Ackerson & Zielinski, 2017).

In a Tanzanian survey of adolescents, 59.2 percent of those interviewed said their parents urged them to utilize modern contraception services, compared to 11.7 percent who said their religious

leaders encourage them to do so. Only 5.6 percent of them said they had used modern contraception services. Females were found to be more likely than males to utilize contraception, with 55.6% and 44.4 percent reported usage, respectively. Only 44.4 percent of respondents who said they sought modern contraception services did so whenever they planned to have sex. The condom was the most widely used contraceptive by males, while injectable were the most commonly used contraceptive by females (Dangat & Njau, 2013).

According to a survey on modern contraception use in Western Ethiopia, 78.9% of rural women and 84.7 percent of urban rural women had used modern contraception at some point in their lives (Amentie et al., 2015). Women in rural areas are also less likely to use modern contraception services than women in cities, according to the poll. Religious and cultural beliefs have the greatest influence on people's acceptance and use of modern contraception methods. An Indian study has added that Muslim women are more opposed to modern contraception than non-Muslim women (Najafi-Sharjabad et al., 2014). Fear of infertility was one of the erroneous reasons for not taking contraception. Many women believed that using modern contraception for an extended period of time would make having children more complicated when the time came (Najafi-Sharjabad et al., 2014).

According to a survey performed in India, 61.3 percent of those polled said they utilized some sort of modern contraception. It was also discovered that people's educational level, family size, and the age of their last child all had an impact on whether or not they used modern contraception services as they grew older (Roy et al., 2015).

A survey of Niger Delta University staff and students on modern contraception knowledge, perceptions, and practices found that 22.9 percent used oral pills, 7.6 percent used the withdrawal

method, 4.2 percent used implants, and 3.6 percent used post-coital pills, while 31 percent used condoms, 22.9 percent used oral pills, 7.6 percent used the withdrawal method, 4.2 percent used implants, and 3.6 percent used post-coital pills. The aforementioned modern contraception methods were chosen by the respondents considering factors such as accessibility, reliability and safety (Peter & Joshua, 2016).

2.4 Socio-cultural related factors that determine uptake of modern contraception

Some of the social and cultural factors which influences the uptake of modern contraception include: religion, culture, values, beliefs, parents, and friends. This is a significant component that focus on the society's contribution to the development of the individual (Cherry, 2012).

A study conducted in the US found that ambivalent intentions towards pregnancy and not certain about the future was barrier against the use of modern contraception. These kinds of feelings make the adolescents take improper decision regarding the use of modern contraception or not to use it (Chernick et al., 2015). A systematic review on the determinants of modern contraception use in Sub-Saharan Africa found that social stigma, restrictive culture and low status were determinants of modern contraception use among participants. This sociocultural deterrent provides an explanation of why there is low utilization of modern contraception services among participants. Also, a study conducted in Zimbabwe which assessed the effects of individual, household and community factors on modern contraception. The study found that community level factors were having higher influence on individual and household factors (Blackstone et al., 2017). In many regions in sub-Saharan Africa which encounter higher prevalence of unmet need for modern contraception, reports have shown high rates of abortion cases and unintended pregnancies due to early exposure to unprotected sexual intercourse. Some of the factors that could contribute significantly to this was decline age of menarche and the start of sexual activity. Factors preventing

the use contraception is disproportionate among adolescent girls owing to the fact that culture places some level of restriction to their movement and for the reason being that most of them so not have the finance to pay for transport services of the services related to modern contraception (Chandra-Mouli et al., 2014).

A study in Malawi assessed the use contraception among participants and found that in spite of the services delivered to participants at no fee, there was still less use of modern contraception services with high rate of adolescent cases. Poor educational status highly influences the uptake of modern contraception services as women who are not educated are less likely to use contraception since they are less empowered in the society. This may deter them from making decisions regarding their reproductive health and ability to discuss with their husbands about contraception (Subedi et al., 2018). A study in Nigeria assessed the factors affecting the use of modern contraception by females and found that female adolescents encounter several problems with regards to managing their fertility. The study asserted that in regions where female adolescents are much into cultural values and beliefs, the uptake of modern contraception services becomes a big challenge because of the too much stigma associated with premarital sex. The participants of the study lack the courage and confidence to access any method of contraception. Some of the other barriers to the use of modern contraception included the geographical location of participants especially participants who were living in rural areas. This was found that, those living in urban centers were having 5 times more chances of using contraception compared to those who were living in rural areas. For the fear of most adolescents being labeled as promiscuous prevents them from using modern contraception (Christofides et al., 2014). According to the International Centre for Research on Women, women are put at a more disadvantage in the society owing to what is often labelled as “social correct” in these societies. This makes women who practice premarital

sex in a condition that becomes difficult for them to practice modern contraception. From these studies, it is clear that social and economic factors are some of the variables that influences the use of modern contraception.

2.5 Unmet need for modern contraception

Unmet need for modern contraception refers to the percentage of married/union women of childbearing age who are not using any method of modern contraception but would like to delay their next pregnancy (unmet need for spacing) or do not want to have any more children (unmet need for limiting) (Basha, 2019). The term "unmet need" describes the gap between women's reproductive goals and contraceptive use. Women and their families suffer significant health and well-being consequences as a result of unintended births, especially in developing countries where maternal deaths is high and induced abortions are typically dangerous.

According to Ghana Demographic and Health Survey 2014, 30 percent of currently married women have unmet needs for modern contraception services, with 17 percent having unmet spacing needs and 13 percent having unmet limiting needs. Contraceptive knowledge is practically universal in the developed world and universal in the developing world (Longwe et al., 2012). With around 85 percent of people in Sub-Saharan Africa knowing at least one contraceptive method, there is a high saturation of knowledge about contraceptive methods globally (Sedgh & Hussain, 2014).

In a related study, researchers looked at the factors that influence unmet modern contraception needs among Ghanaian married/union women. They discovered that socio-demographic characteristics like respondents' area and age have a role in predicting unmet modern contraception

needs. Additionally, cultural (faith and ethnicity), socioeconomic (partner's career), and side effects were also important drivers of both unmet limiting and spacing needs (Guure et al., 2019).

2.6 State of modern contraception in Ghana

Almost all women are aware of at least one kind of modern contraception, according to the Ghana Demographic and Health Survey 2014. In comparison to traditional approaches, the use of modern contraception was generally known among women, according to the findings. The surveys also revealed that injectable, male condoms, and pills were the most often used contraceptive methods. Nonetheless, there is a wide range of knowledge among different groups, such as age, religion, occupation, and ethnicity. Their knowledge about family method does not implied practice of modern contraception (GSS, 2015).

In Ghana, a prevalence of 22% has been reported for modern contraception among married women and 39% has been reported for the satisfaction of demand for modern contraception. Women contraceptive practice and their reproductive intention is explained by the unmet need concept. Efforts must be made in Ghana to address the high rate of unfulfilled need for modern contraception in order to improve the health of its people (Guure et al., 2019). Aiming to use modern contraception commodities is a key indicator for making future modern contraception services available. The DHS report indicates that 36% of married women who are not presently using contraception, intend to adopt a modern contraception method in the years ahead, an appreciable 6% are not sure whether to use or not, and 58% have no plans of using any method in the future (GSS, 2015).

2.7 Factors that account for the use of modern contraception services among women

According to the WHO, in low middle-income countries, an estimated 214 million women of reproductive age are trying to avoid conceiving however they are not using any form of modern contraception method, some of the reasons for this could be attributed to several factors like poor access to modern contraception methods, fear of side effects, poor quality of services, religious and cultural opposition, and barriers that are gender-based (WHO, 2018).

Studies done previously indicated that the level of education of women made them more likely to have access to information on the methods of modern contraception and health facilities compared to women whose educational status are low which could have mediated improved contraceptive usage (Adetunji, 2011). This could insinuate that educated women have better understanding of the use of modern contraception to reduce fertility, diseases and death rate among mothers and children. Moreover, these women are able to get better advices from health care workers regarding the most appropriate contraceptive method, and the negative effects of some of them (Guure et al., 2019).

Awareness on Modern contraception is universal in previous study reflecting the results of the good works done by the Governmental of Ghana and other Non-Governmental Organizations in an attempt to enhance sex and reproductive education in the area (Ayanore et al., 2015).

The high awareness could possibly be because of the easy accessibility of (Baatiema et al., 2013). CHPS compounds established in rural areas. However, the high unmet need to modern contraception in Ghana women is a cause of concern. This may be due to insufficient or authentic information about its safety and how to avoid the negative effects of modern contraception. Additionally, unmet need for modern contraception was more likely to occur among women who

were not aware of modern contraception. This finding further elaborates the importance of improving modern contraception programs regarding its awareness, access and utilization.

Moreover, unmet need was common among those who had never practice or use a contraceptive method nor did something to obstruct pregnancy. The explanation to this could be attributed to husband objection as clearly shown by Apanga et al. (2015) in Ghana and Kabagenyi et al. (2014) in Uganda. Another possible reason for that finding could be wrong perception about modern contraception. Previous studies reported that some women perceive the services of modern contraception for those who are married whereas some believed that it is harmful to the womb of the woman (Gebremariam & Addissie, 2014). Thus, modern contraception educational messages and programs should be targeted to both partners about the benefits, misconceptions and various methods of contraception (Apanga et al., 2020).

A previous study in Nepal assessed the determinants of contraception utilization and found that age was a strong factor influencing the use of modern contraception. This finding was consistent with a similar study conducted in Spain on the prevalence of oral contraceptive utilization (Chandra-Mouli et al., 2014; Tamang et al., 2017).

Moreover, other studies have found significant association between low use of modern contraception and low education level as well as residing in rural areas in a study which was conducted in South Africa (Christofides et al., 2014). Education is a factor which influences the use of modern contraception because the study revealed that the use of modern contraception was common among participants who had attained higher level of education compared to those with no or little education. About 41.2% of those using modern contraception had education up to secondary while 6.4% of them had little or no form of formal education (Asiimwe et al., 2013).

Additionally, as far as the use of modern contraception is concerned, marital status of participants is another critical determinant. This is due to the cultural perception that, marriage regards the individual as sexually matured and with the ability to make important decision concerning their reproductive health compared to those who have not married yet (Asiimwe et al., 2013). A study in Ethiopian university involving female students found that females who were more than 20 years were having about 3.4 chances of using modern contraception compared to women who were younger. The study further found that married female students were having about 15.4 chances of using modern contraception compared to the students who were unmarried. Another essential factor was age at sexual debut; students who begun to have sex above 20 years were 2.38 times more likely to use modern contraception in comparison with the female students who began to have sexual intercourse at an early stage (Birhan et al., 2022). A study in Nigeria looked at the factors that influence female adolescent modern contraception use. The study found that the use of modern contraception increases as one ages; about 98% of the adolescents objected to the use of modern contraception compared to 86% of those who were 19 years. Furthermore, the study found that age at debut is a variable influencing the use of modern contraception. Women in the study who had sex at 20years were 5 times more likely to practice modern contraception in comparison with adolescents (Shiferaw et al., 2015). Another study in Malawi assessed the factors affecting contraceptive use; these factors were both demographic and socioeconomic factors. The study found that the use of modern contraception was common among women who were older and reduced among women who were young (Palamuleni, 2013). Notwithstanding, the study involved all women of reproductive age and no precise study was targeted towards the adolescents who were unmarried. According to a Cambodian study, the adverse effects of the pill and contraceptive injections, as well as a willingness for more children, were the primary reasons for

not using modern contraception. Some participants showed disapproval of their spouses and family members, claiming that husbands were frequently working away from home and sex was uncommon, so contraception was unnecessary; adoption of traditional calendar techniques; and respondents' own perception that they were not in danger of pregnancy (Sreytouch, 2008).

In a similar vein, a study conducted in Kenya to investigate the socio-cultural determinants that affect contraceptive use in some Muslim communities discovered conflicting interpretations of Islamic teaching and counter arguments about whether or not Islam allows modern contraception use. This, along with an urge for a large family, polygamy, high childhood mortality, and a cultural preference for boys, all had a negative impact on modern contraception use. Similarly, women's inability to make reproductive health decisions influenced their adoption of modern contraception (Abdi et al., 2020).

A research conducted by the University of Lahore in Pakistan found comparable causes for non-use of modern contraception services as the Cambodian study, but the Pakistani study placed a greater focus on a lack of understanding about the sources of services (Gupta et al., 2016).

From another research carried out in Ghana, teenagers have various challenges in obtaining modern contraception services. Cost of services, social opinions of teenagers patronizing modern contraception as spoilt, and adolescents' worry of healthcare practitioners being judgmental, discriminatory, and not adhering to the values of privacy and confidentiality while providing modern contraception treatments to adolescents were among the challenges. Shyness and intimidation, as a result of society and healthcare professional attitudes, were also mentioned as barriers to access (Enuameh et al., 2014).

The reasons for not using modern contraception vary depending on where you live. According to a study conducted in Ghana's Talensi District on variables impacting the uptake of modern contraception services, the main reason for women's non-use of modern contraception services was their inability to make decisions for themselves without their husbands' approval, as well as perceived misconceptions about modern contraception services, such as it is only for married people and it is harmful to the womb (Apanga & Adam, 2015).

The reasons why some people did not use modern contraception services were emphasized in a study done in West Ethiopia. The majority of the participants cited fertility concerns as a rationale for not utilizing contraception. Some women did not utilize modern contraception due to objections from their husbands or relatives, while others did so for religious reasons. The survey also revealed that some potential modern contraception users were hesitant to utilize long-term methods due to misconceptions and health concerns (Amentie et al., 2015).

CHAPTER THREE

METHODOLOGY OF THE STUDY

3.0 Introduction

This section described the research methodologies used to achieve the study's aims. The study area, study type, study population, sample size, inclusion and exclusion criteria, data collection, data processing, and ethical considerations are all discussed in this section.

3.1 Study design

The study adopted a cross-sectional quantitative and qualitative descriptive research approach to collect information on modern contraception knowledge, attitudes, and practices among women of reproductive age in the Savelugu Municipality. The quantitative component measured the prevalence of the outcome variable among the respondents and how it is associated with other variables. The qualitative component explored the various explanatory reasons that either motivate or discourage women from the patronage of modern contraception services.

3.2 Background of the Study Area

The municipality is made up of 125 communities, the majority of which are rural. It is in the northern part of Ghana's Northern Region, with a total land area of about 1,760 square kilometers and a population density of 88.7 people per square kilometer. It borders the West Mamprusi Municipal to the north, the Sagnarigu Municipal to the south, the Nanton District to the east, and the Kumbungu District to the west.

The Pong-Tamale Veterinary College is the municipality's only post-secondary (tertiary) institution. There are 89 public primary schools, three private primary schools, 34 junior high schools, two senior high schools, and one specialized school for the deaf and dumb in the basic educational system.

The municipality has four (4) health centers, nine (9) Community Based Health Planning Services (CHPS) compounds, two private clinics, and a district hospital that serves as a referral center for all the sub-districts' facilities. With the exception of the private facilities, all the other fourteen (14) health facilities engage in the provision of modern contraception services.

3.3 Study population

The population of the municipality is predicted to be 120,367, with a 3% growth rate. There are approximately 28,888 women of reproductive age (WIFA), with a modern contraception coverage rate of 21%. (Savelugu MHA report, 2020).

Women in their reproductive years (15–49 years old) who live in the municipality comprise the study population. They consisted of women seeking prenatal, postnatal, and child welfare clinic services. Access to modern contraception services is provided by these comprehensive clinics that provide modern contraception as part of inclusive health care delivery. Because of the cultural stigma associated with access to modern contraception, most women prefer to seek services in clinics where modern contraception is delivered with other services. This is done on purpose to avoid being stereotyped only for modern contraception. To put it in another way, it is cloaked in mystery.

3.4 Inclusion Criteria

The inclusion criteria were health facilities that provided antenatal, child welfare, postnatal and modern contraception services. Also, women between the ages of 15 and 49 who live in the Savelugu Municipality met the criteria for inclusion in the study.

3.5 Exclusion Criteria

Health facilities that did not offer antenatal, child welfare, postnatal, or modern contraception clinic services were excluded. All women who were not between the ages of 15 and 49 years were omitted from the study.

3.6 Sample size determination

The Cochran's formula was used to determine the sample size of participants. $n = \frac{Z^2pq}{e^2}$; where n = sample size; Z = critical value of the desired confidence level. In this case, it was taken as 95%, thus, Z value at 95% is 1.96; p = prevalence of modern contraception uptake in the Savelugu municipality among WIFA according to the 2020 municipal health report (21.6%=0.216); q = proportion of WIFA who do not patronize modern contraception services in the municipality (1-0.216); e^2 = Degree of precision; was taken to be 5%.

$$n = \frac{1.96^2 \times 0.216\,[1 - 0.216]}{[0.05][0.05]} = 261$$

Addition of 5% non-response rate yielded a minimum of 274.02 which was rounded up to 280 sample size for the study.

For the qualitative data, two focus group discussions were organized with existing modern contraception users at the Savelugu reproductive and child health center (RCH) and the Bunglung CHPS, all located at the district capital. Each of the FGD had 10 women giving a total of 20 women for the qualitative study. The RCH and the Bunglung CHPS were chosen for the FGD because it records the highest clinic attendance among health centers and CHPS respectively in the district (DHIMS, 2020).

3.7 Sampling technique

A total of five health facilities that provide modern contraception services were randomly selected for the current study. Samples of the 280 questionnaires were allocated to the facilities based on probability proportional to size. To create room for all participants to have equal chance of participation, list of all women in the ANC, PNC and CWC registers were compiled and simple random sampling was used to select participants using the lottery method. All participants were interviewed in the he health facilities.

3.8 Data collection methods and tools

In order to reduce bias and also to enhance external validity of the research, both probability and non-probability sampling methods were used. A closed ended questionnaire was created for data collection on the socio-demographic characteristics of respondents and their knowledge, attitude and practices levels of modern contraception.

To minimize misunderstanding of the questionnaire, the data collectors chosen were proficient in the local language (Dagbani). The questionnaires were translated during the research assistants' training to ensure mutual comprehension and clarity.

Women who were selected were contacted via their addresses provided in the registers and consent was sought before they were validated to participate in the study. Interestingly, all eligible women consented to take part in the study and many of them responded to the questions in Dagbani language.

A Focus Group Discussion interview guide was also used to explore information about modern contraception from the participants as well as factors that facilitate or hinder their patronage of the

services. Focus group discussions were conducted using a semi-structured topic guide. Focus group discussions were done to probe to understand the phenomena of women contraceptive practices within the society. The semi-structured topic guide covered the socio-cultural factors related with contraception. The researcher ensured that women who participated in the quantitative study were exempted from the qualitative. The focus group discussion consisted of 20 participants. Selection was purposively done based on willingness to take part in the discussion in addition to being a current modern contraception user. The FGD took place in a health centre and a CHPS compounds. Participants were first given number codes and their characteristics registered (age). At each time the participant wanted to give an idea, first she has to call the number code. Notes on points of discussion was taken in addition to tape recording.

3.10 Variables

Dependent/Outcome variable

The main outcome variables of this study were knowledge, attitude and practices or contraceptive utilization. Thus, three different areas were estimated.

The dependent variables in this study were; Knowledge, attitude and practices. In this study, knowledge assessed respondents' ability to correctly answer at least one of the knowledge indicators of modern contraception, and, and the sources of modern contraception services known by respondents. A correct answer to a question was scored and coded as (1) and (0) for an incorrect answer. The total scores for each participated was computed after summing the scores of the individual questions. Respondents who scored at least 2 were classified as having "good knowledge" of modern contraception and those who scored less than 2 were classified as "poor knowledge" of modern contraception. Attitude was measured based on respondents' willingness

to discuss and recommend modern contraception to others and having a future plan to adopt any of the methods. If all of these criteria were met, then a participant attitude was rated 'favourable' and 'not-favourable' if otherwise. To measure practice, a set of questions were asked to each respondent some of which included; "Do you currently use modern contraception services?", "Have you ever used modern contraception services before?", "Will you advise someone to use modern contraception services?" Likewise, a correct answer to any of the practices questions was scored and coded as (1) and (0) for a wrong answer. The overall scores for each participated was computed after adding the individual scores for the responses. Respondents who scored at least 2 were classified as having "good practice" of modern contraception and those who scored less than 2 were classified as "poor practice" of modern contraception.

Independent variables

For this investigation, a variety of independent variables were employed, most of which were chosen based on recent empirical literature. Thus, the variables included were the woman's age, her education level (recoded as none, primary, secondary, and tertiary), her partner's education level (recoded as none, primary, secondary, and tertiary), her income levels, and the source of information (recorded as radio, TV, health worker, friends, others) Occupation and religious practice (reported as Islam, Christianity, and African traditional religion).

3.11 Data analysis

Data processing and analysis was done using the Statistical Package for Social Sciences (SPSS) version 24 for windows program. Descriptive statistics such as frequencies, percentage, and appropriate graphic presentation besides measures of central tendency and measures of dispersion was used for Univariate analysis. Binary logistic regression analysis was used to identify the

independent predictors of contraceptive utilization among the study participants. A two-tailed p-value < 0.05 was used to declare statistical significance in the analysis. Also, a pairwise coefficient correlation was used to analyse the association between the dependent variables knowledge, attitude and practices.

Qualitative data from focus group discussions (FGD) were recorded as sound files using tape and subsequently transcribed to text files. Transcripts of the recorded discussions were coded and analysed using manual thematic areas and participants identifying details were removed.

3.12 Quality control

The data was double-checked for accuracy and completeness. After verifying for mistakes, the data was coded and entered. Data was verified and validated on a regular basis, with all inconsistencies checked and rectified with the help of research assistants. Ten percent of randomly selected data was validated by double entry. To enhance the quality and validity of the data, research assistants with the necessary data collection experience were recruited and trained in data collection procedures. The survey was carried out by the researcher with the assistance of skilled research assistants. The information gathered was double-checked to ensure that all questions were answered. Probing was used as needed during the interview. Pre-testing of the questionnaire was carried out at the PlNC unit of the Zoggu health center in the Nanton District.

3.13 Ethical Consideration

Before the study was carried out, the following ethical issues were considered:

1. Ethical clearance was sought from the University for Development Studies Institutional Review Board.

2. The School of Public Health, UDS, provided an introductory letter to the Northern Regional Health Directorate, which also provided the researcher with an introductory letter to the Savelugu Municipal Health Directorate. The Savelugu Municipal Health Directorate then wrote to advise all the health facilities to be engaged in the research.
3. Informed consent was obtained from the study participants prior to the collection of data.
4. The facility in-charges informed all customers of the existence of the information collection team and the research's goal, and encouraged the women to participate in the study because the findings would help to improve the services they got.
5. Before obtaining the consent of the participants, the data collectors explained the goal of the study, the processes involved, as well as the risks and benefits of participating in the study.
6. Respondents were assured that, any information that would be gathered, would be treated as confidential.
7. Only participants who consented to take part in the study were included.

3.14 Limitations of the Study

The research did not include the knowledge, attitude and practices of males in the catchment area. The opportunity to participate in the study was also limited to only women who attended clinic sessions at the time of the study.

CHAPTER FOUR

RESULTS

4.0 Introduction

This section discussed the findings of the study looking at the knowledge, attitudes, and practices of women in their reproductive ages related to modern contraception utilization. The results acquired were provided in tables and charts. In addition, some of the analysis performed in this section included frequency and descriptive analysis.

4.1 Socio-demographic characteristics of respondent

The demographic characteristics of the study respondents were examined in this section. Age distribution, academic qualifications, religious affiliation, and respondent occupation were among the demographic data collected. Respondents' income was also included in the survey, in addition to their demographic information.

From the results, 103 (36.8%) of the participants were between the ages of 26 to 30 years as depicted in table 4.1. Majority of the sampled participants were from the Islamic religion (208=74.3%) and those with no formal education were almost half (137=48.9%). Also, majority (227=81.1%) of them were employed in the informal sector and mostly (178=63.6%) earn income below GHC 1,000.00. Details of the socio-demographic features of the respondents.

4.2 Access to modern contraception

Accessibility was assessed by respondents indicating the right place to go for modern contraception services and that does not require travelling more than 5 kilometres to access the service. The right places in this case refers to health facilities, maternity homes and pharmacy shops. The study evaluated the accessibility of modern contraception among participants, as shown in the table 4.1 below. Only 13.2 percent of the participants did not have access to modern contraception, according to the study.

Table 4.1: Accessibility to modern contraception services

Variable	Frequency (n)	Percentage (%)
Do you have accessibility to modern contraception services?		
Yes	243	86.8
No	37	13.2
Total	280	100.0

4.3 Knowledge of women on Modern contraception

In this study, knowledge assessed respondents' ability to mention at least one method of modern contraception and the sources of modern contraception services known by respondents. The right sources of modern contraception services in this case referred to as health facilities and pharmacy shops. Whereas the correct methods of modern contraception refers to all the modern contraceptives including IUD, injectables, condom, pills, implants etc.

The survey revealed how well-informed women are about modern contraception. About 83.0% of the women were categorized as having good knowledge, whereas 17.0% were categorized as having poor knowledge as indicated in the Table 4.2.

Table 4.2: Assessing knowledge of respondents on modern contraception

Variables	Frequency (n)	Percentage (%)
Oral Pills should be taken daily?		
No	135	48.2
Yes	145	51.8
Injectable should be taken every 3 months?		
No	46	16.4
Yes	234	83.6
Implants can prevent pregnancy up to 5 years?		
No	137	48.9
Yes	143	51.1
IUCD can prevent pregnancy up to 12 years?		
No	161	57.5
Yes	119	42.5
One condom cannot be used for more than once?		
No	10	3.6
Yes	270	96.4
Sources of MC Services		
Pharmacy	107	38.2
Health Facility	150	53.6
Traditional healer	13	4.6
Don’t know	10	3.6
Knowledge of modern contraceptive (Index)		
Good	232	83.0
Poor	48	17.0

Regarding knowledge on modern contraception methods, it was realized that, the most frequently mentioned methods were Injectable (32.1%), oral pills (26.8%), Condom (21.1%), and IUD (11.1%). This is indicated in the figure 4.2 below:

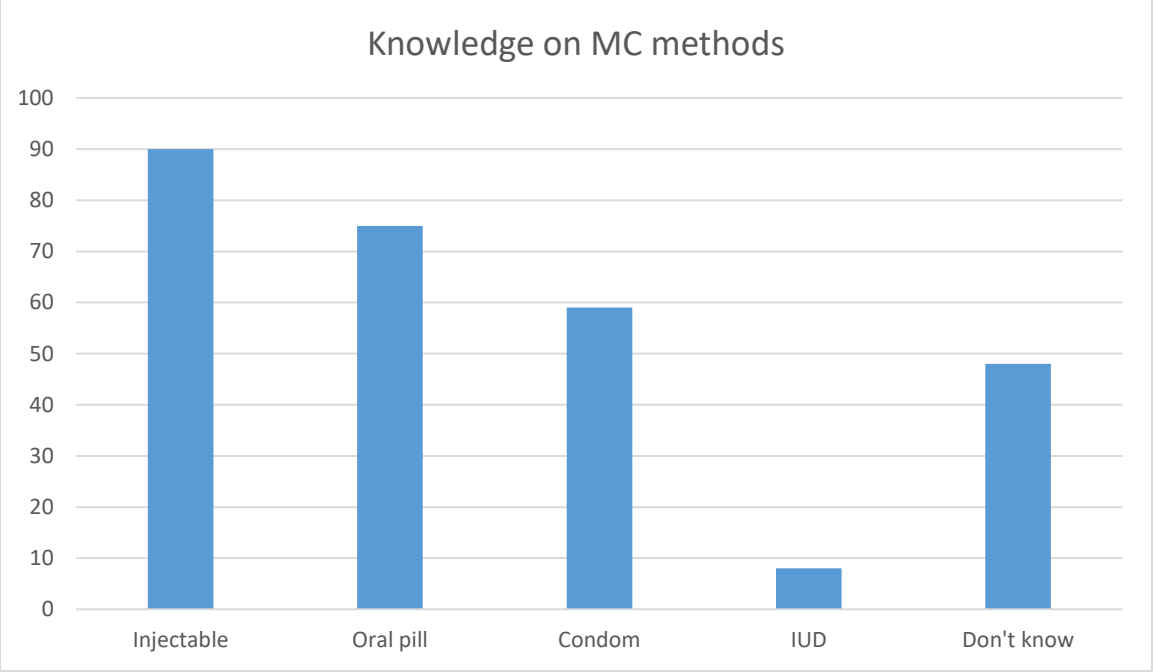

Figure 4.1: Women's knowledge on modern contraception methods

4.4 Participants' attitude towards modern contraception

Attitude was measured based on respondents' willingness to discuss and recommend modern contraception to others and having a future plan to adopt any of the methods. If all of these criteria were met, then a participant attitude was rated 'high' or favourable and 'low' if otherwise.

Concerning the attitudes of participants on modern contraception, majority of respondents showed favourable attitude (71.8%) whilst (14.3%) did not show positive attitude. Whilst the remaining 13.9% were undecided as illustrated in the figure 4.4 below:

During the FGD, a 33-year-old participant narrated as follows:

> *"Our husbands may not like it (modern contraception) because they want more children, but it is good for us (women) so I do recommend it to my friends."*

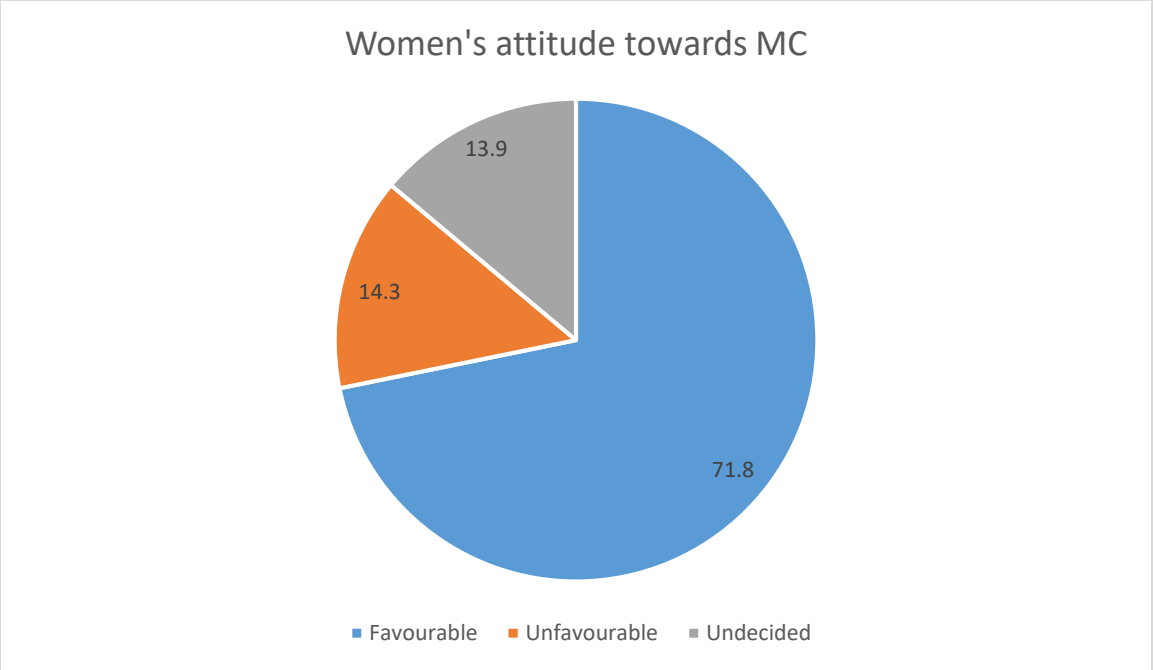

Figure 4.2: Attitude of respondents on modern contraception

4.5 Challenges faced by participants about modern contraception

According to the findings, some of the challenges participants faced that is limiting their access to modern contraception usage include: finance, privacy, distance and other factors as shown in table 4.3 below:

Confirmatively, some women gave their story during the FGD as follows:

> "W*omen in our community prefer to come for modern contraception services at night because when people see you at the contraception clinic, they will gossip about you" (a*

28 year old woman).

"…because our husbands don't like it, you can't even ask them for money to go and do modern contraception" (31 year old woman).

Table 4.1: Challenges on the use of modern contraception

Challenges	Frequency	Percentage
Privacy	125	44.6
Finance	71	25.3
Distance	47	16.8
Others	37	13.3
Total	**280**	**100.0**

Current Contraceptive use

About 49.6% of participants were current users of modern contraception whilst the other 50.4% were not using modern contraception at the time of the study. The commonly used method among current users during the study was injectable (48.2%), oral pills (22.3) and the condom (14.4) as depicted in the table 4.4 below.

Table 4.2: Usage of modern contraception services

Variable	Frequency (n)	Percentage (%)
Are you currently using any modern contraception method?		
Yes	139	49.6
No	141	50.4
Which modern contraception method do you commonly use (n=139)?		
Oral pills	31	22.3
IUD	7	5.0
Condom	20	14.4
Injection	67	48.2
Others	14	10.0

Reasons for adopting or rejection of Modern Contraception

Participants were asked about the reasons why they adopt modern contraception. Majority of them (58.6%) opted for fear of being pregnant.

The reasons why participants did not use modern contraception were explored and illustrated in table 4.6. The findings showed that “fear of side effects” (40.3%) were the most common reason why participants did not use modern contraception followed by objection from husband (37.7%). Additional results from the focus group discussion affirms that side effects of the contraceptives and opposition from husband are some of the reasons why women don’t patronize it (Table 4.5).

Table 4.3: Reasons for adopting modern contraception

Variable	Frequency	Percentage
Reasons for using contraception		
Fear of being pregnant	140	69
Protection from STI	30	14.8
Was advised	22	10.8
Others	11	5.4
Reasons for not using contraception		
Religious beliefs	17	22.0
Fear of side effects	31	40.3
Refusal by husband	29	37.7

This finding was corroborated during the focus group discussion with the women.

"My child is still very young and she needs a lot of breast milk for her growth. If I become pregnant now, it will affect the health of the child. So that is why I am using modern contraception" (woman, 31 years).

"I have 5 children now, if I get pregnant I will suffer to take care of the children" (woman 36 years).

"... I have been experiencing spots of blood for the past three months since I started using modern contraception which is not good for me as a moslem because I cannot pray with it, so I'm planning to stop " (Woman 27years)

"My menses ceased coming since I started using modern contraception for about 8 months and I always ask myself where the blood is. This is scaring me sometimes and so I may have to terminate it" (woman 30 years)

"Even though I still do it, but my husband is not in full support of it (modern contraception), he keeps telling me to remove it" (29 year old woman).

Side effects of modern contraception experienced by participants

In this section, the study tried to find out whether participants experienced side effects after using contraception and the various side effects experienced. About 75.7% of the participants affirmed that they experienced some side effects after using contraception.

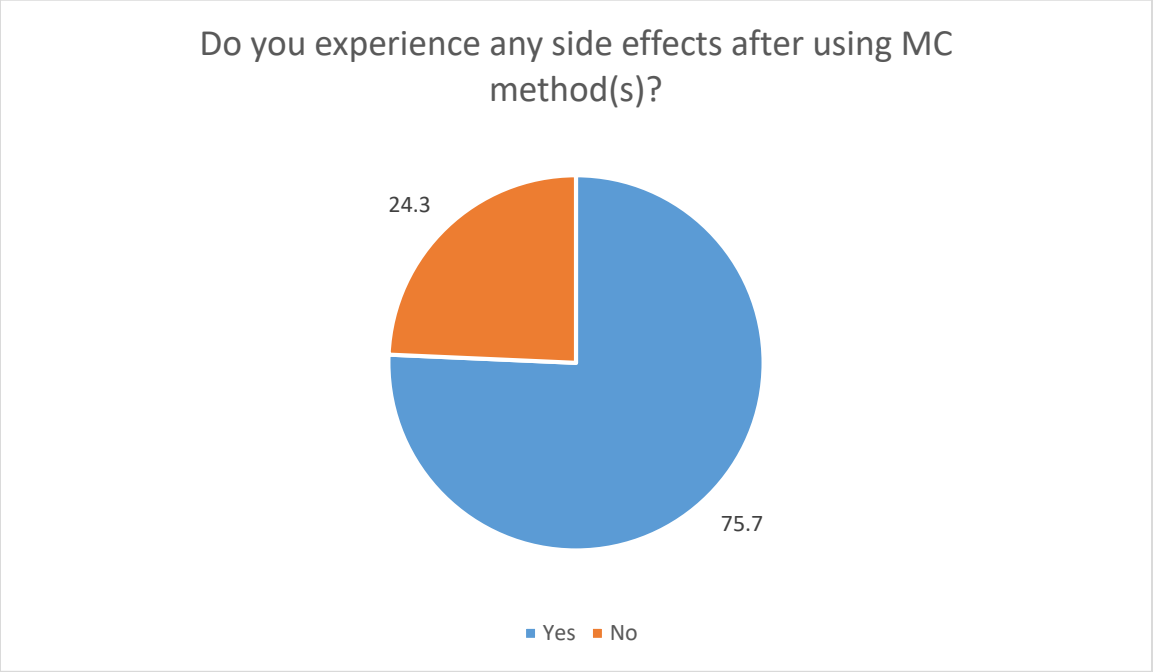

Figure 4.3: Side effects of modern contraception

Side effects of modern contraception experienced by participants

As indicated in table 4.7 below, participants were asked to explain the side effects they had encountered in this section of the thesis. It was revealed that "irregular menstrual cycle" was the most common side effect experience by participants (29.6%). About 25.9% of the participants also mentioned spotting. Some of the other side effects which were experienced include: body weakness, continuous vomiting, continuous bleeding, difficulty in getting pregnant, growing slim, lack of menses, lower abdominal pain, and weight gain.

> *"I can't tell when I'm menstruating and when I'm not, it can come at any time which is uncomfortable" (a 25 year old woman).*

Table 4.6: Side effects of modern contraception experienced by participants

Side effects of modern contraception usage	Frequency (n=154)	Percentage
Body weakness	3	1.9
Continuous vomiting	3	1.9
Continuous bleeding	5	3.2
Difficulty in getting pregnant	2	1.3
Growing slim	1	0.6
Irregular menstrual cycle	78	50.6
Lack of menses	7	4.5
Lower abdominal pains	3	1.9
Over bleeding	5	3.2

Spotting	42	27.3
Weight gain	5	3.2
Total	**154**	**100.0**

Association between modern contraception utilization and socio-demographic factors

Table 4.8 shows the association between modern contraception utilization and the socio-demographic factors of the respondents. The results show that four socio-demographic factors were having an unadjusted relationship with the utilization of modern contraception. These variables are the age group of the women (p-value < 0.001), educational level (p-value < 0.001), occupation (p-value < 0.001), and spousal education (p-value < 0.001) (Table 4.2).

Table 4.7: Modern contraception utilization and socio-demographic factors

Variable	**Utilization of modern contraception**		**P-value**
Age (years)	**No (%)**	**Yes (%)**	
Below 20	13 (41.9)	18 (58.1)	<0.001
20 -25	32 (53.3)	28 (46.7)	
25-30	15 (16.7)	75 (83.3)	
30 -35	11 (14.9)	63 (85.1)	
35+	6 (24.0)	19 (76.0)	
Religion			
Islam	57 (27.4)	151 (72.6)	0.867
Christianity	18 (29.0)	44 (71.0)	
African Traditional	2 (20.0)	8 (80.0)	
Educational level			
No formal education	14 (17.9)	64 (82.1)	<0.001
Primary	3 (12.5)	21 (87.5)	
Junior High School	1 (4.2)	23 (95.8)	

Senior High School	0 (0.0)	30 (100.0)	
Tertiary	59 (47.6)	65 (52.4)	
Occupation			
Farmer	1 (2.0)	48 (98.0)	<0.001
Health worker	0 (0.0)	57 (100.0)	
House wife	5 (13.9)	31 (86.1)	
Skilled labour	4 (21.1)	15 (78.9)	
Teacher	0 (0.0)	7 (100.0)	
Trader	65 (68.4)	30 (31.6)	
Unemployed	2 (11.8)	30 (31.6)	
Spouse education			
No formal education	18 (22.0)	64 (78.0)	0.018
Primary	1 (16.7)	5 (83.3)	
Junior High School	8 (18.6)	35 (81.4)	
Senior High School	48 (36.9)	82 (63.1)	
Tertiary	2 (10.5)	17 (89.5)	

Association between uptake of modern contraception and practices of modern contraception

Table 4.9 depicts the relationship between the utilization of modern contraception and practices of modern contraception in bivariate analysis. The results of the study show that six variables were having significant associations with the utilization of modern contraception. These variables include having access to modern contraception services (p-value < 0.001), attitude toward Modern contraception (p-value < 0.001), getting help from a facility about modern contraception (p-value < 0.001), husband's in favour of modern contraception (p-value < 0.001), and reason for not using modern contraception (p-value < 0.001).

Table 4.8: Association between modern contraception utilization, practices and attitudes

Variable	Utilization of modern contraception		P-value
Having access to modern contraception service	**No (%)**	**Yes (%)**	
No	28 (75.7)	9 (24.3)	<0.001
Yes	49 (20.2)	194 (79.8)	
Attitude toward Modern contraception			
Favourble	26 (12.9)	175 (87.1)	<0.001
Unfavourable	22 (55.0)	18 (45.0)	
I do not know	29 (74.4)	10 (25.6)	
Getting help from the health center about modern contraception			
No	51 (49.5)	52 (50.5)	<0.001
Yes	26 (14.7)	151 (85.3)	
Husband in favour of modern contraception			
No	20 (11.6)	152 (88.4)	<0.001
Yes	57 (52.8)	51 (47.2)	
Having challenges in getting modern contraception			
No	62 (29.7)	147 (70.3)	0.011
Yes	9 (13.8)	56 (86.2)	
Sources of information about modern contraception			
Television	7 (35.0)	13 (65.0)	0.167
Radio	11 (20.8)	42 (79.2)	
Health workers	27 (21.3)	100 (78.7)	
Friends	21 (33.3)	42 (66.7)	
Others	4 (44.4)	5 (55.6)	

Experience effects of modern contraception			
No	18 (24.0)	57 (76.0)	0.428
Yes	59 (28.8)	146 (71.2)	
Reason for not using modern contraception			
Fear of pregnancy	14 (8.5)	150 (91.5)	<0.001
Protection from STI	5 (16.7)	25 (83.3)	
Advice from peer	3 (13.6)	19 (86.4)	
Husband objection	52 (98.1)	1 (1.9)	
Others	3 (27.3)	8 (72.7)	

4.6 Determinants of modern contraception utilization among the women

Table 4.10 shows the determinants of the utilization of modern contraception services after adjusting for confounders. The findings of the study show that four variables remain statistically significant in association with the utilization of modern contraception services. We observed that there was an increased in the uptake of modern contraception as spousal education increased. Women whose spouses had education up to tertiary were about two times more likely to utilize modern contraception services (Odds ratio (OR): 2.39; Confidence Interval (CI): 0.51-11.33; p-value: 0.272). Women who had unfavourable attitudes toward modern contraception were 88% times less likely to utilize modern contraception services (OR:0.12; CI: 0.51-11.33; p-value:<0.001). Women who were not seeking help from health facilities about modern contraception were 82% times less likely to uptake modern contraception compared to those who sought help (OR:0.18; CI: 0.10-0.31; p-value:<0.001). Finally, women whose husbands were in favour of modern contraception uptake were about 8 times more likely to uptake modern

contraception compared to those whose husbands object to its uptake (OR:8.49; CI: 4.66-15.48; p-value:<0.001).

Table 4.9: Determinants of modern contraception uptake among the women

Variables	Odds ratio (OR)	Confidence Interval (CI)	P-value
Spousal education			
No formal education	Ref		
Primary	1.41	0.15-12.82	0.762
Junior High School	1.23	0.49-3.12	0.662
Senior High School	0.48	0.26-0.91	0.023
Tertiary	2.39	0.51-11.33	0.272
Attitude towards modern contraception			
Favourable	Ref		
Unfavourable	0.12	0.06-0.26	<0.001
I don't know	0.05	0.02-0.12	<0.001
Getting help from a health facility			
Yes	Ref		
No	0.18	0.10-0.31	<0.001
Husband in favour of modern contraception			
No	Ref		
Yes	8.49	4.66-15.48	<0.001

Focus group discussion affirming 'husband opposition' as one of the factors influencing modern contraception uptake.

"Even though I still do it, but my husband is not in full support of it (modern contraception), he keeps telling me to remove it" (29 year old woman).

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses the current study's findings and attempts to compare the study's findings to those of previous studies. This is done to determine the similarities and discrepancies between these studies.

5.1 Demographic characteristics of women

According to the findings of the present study, 36.8% of the women were between the ages of 26 to 30 years (36.8%). This age category was consistent with the standard age category of the married in Ghana as depicted from the general census in 2010 (GSS, 2011). Moreover, the same age category was reported in a similar study which was conducted in Nigeria (Monjok et al., 2010). Notwithstanding, similar age categories have been reported in Ethiopia (Semachew Kasa et al., 2018) and Ghana (Fellah & Newton, 2021).

As far as religious affiliation was concerned, the Islamic religion was largely practiced among the participants. This finding was contrary to what was previously reported by the Ghana Statistical Services (GSS) which shows Christians to be the majority in the country followed by Muslims, the high percentage of the Islamic religion was expected since the study setting is dominated by Islamic religion. When it comes to educational status, majority of the participants did not have formal education. This finding is consistent with a previous study conducted in Ghana (Fellah & Newton, 2021). However, another study in Ghana and elsewhere in Kenya found something contrary to the current findings with most of their participants having education up to the secondary level (Atuahene et al., 2016; Tilahun et al., 2013).

5.2 Women knowledge on modern contraception

The crucial factor for determining the acceptance and utilization of modern contraception is having good and sufficient knowledge. Some researchers asserted that, in a case where there is no sufficient knowledge regarding modern contraception , utilization and patronage becomes low among participants (Ankomah et al., 2011). According to the study's findings, participants had adequate knowledge in areas such as: sources of information about modern contraception, methods of modern contraception, and places where participants seek modern contraception services.

Moreover, participants' knowledge regarding where to get modern contraception services were encouraging. The findings of this study revealed that majority of the participants could identify a place to seek modern contraception services. These places are the health centers, pharmacy and others like CHPS compounds. Modern contraception services can mostly be gotten from health facilities that are public or private. Thus, this is an indication of adequate knowledge of respondents regarding places to access modern contraception.

According to the findings of the study, a high proportion of the women were classified as having knowledge of modern contraception (83.0%). Our finding is comparable to what was reported in Saudi Arabia where 80.0% of the study participants knew about modern contraception and 68.1% of them gave a correct definition of modern contraception according to that study (Al-Musa et al., 2019). Nonetheless, a similar study conducted in Bagdad reported a knowledge level that is lower than what was reported in the current study where 75.2% of them knew about modern contraception (Deen, 2016).

5.3 Attitudes and practices of participants on modern contraception

People's attitudes may influence their use and practice of modern contraception. People are more likely to embrace a practice if they have a positive attitude toward it. The current study's findings revealed that participants had a positive attitude toward the use and practice of modern contraception. The reason for this is that more than two-thirds of the participants indicated a favourable attitude toward modern contraception (71.8%). This finding is consistent with the findings of a previous study conducted in Ghana. (Fellah & Newton, 2021). When asked to rate their attitude toward the use of modern contraception, the majority of participants rated their attitude as "favourable." This finding generally insinuates that modern contraception was widely accepted among the women in this study but the plausible reason could be attributed to the accessibility of modern contraception services at the door step for majority of participant. The current finding is congruent with a previous study in Ghana (Fellah & Newton, 2021), Ethiopia (Tilahun et al., 2013), and Saudi (Saied, 2021). However, some studies have reported findings which are contrary to the current finding. A study by Deen (Deen, 2016) found a significantly high number of the participants having negative attitude towards modern contraception . Moreover, in Gambia sociocultural beliefs led to high proportion of negative attitude of participants against modern contraception (Jammeh et al., 2014).

Furthermore, the study reports that at the time of the study, 49.6 percent of the participants were using modern contraception. The current findings are similar to those of a previous study conducted in Ghana (Fellah & Newton, 2021). Several factors may influence one's decision to practice or not practice modern contraception. Such as socio-cultural, financial, and modern contraception accessibility issues. According to some researchers, the use of modern contraception

services may be influenced by time factors, financial factors, and sexual partners (Chanthasukh, 2019).

5.4 Impact of factors on the practice of modern contraception

There are many factors which could have an impact on the use of contraception. These factors could be economic, socio-cultural or factors related to the health system. The current study explored the factors that had an effect on the use of contraception. About 40.3% highlighted that, they were not using modern contraception due to "fear of side effects" and this is consistent with prior studies (Hindin et al., 2014). About 37.7% of them were not practicing because of objection from their husband. This finding is consistent with previous finding where some husbands prevent their wives from practicing modern contraception for reasons attributed to sociocultural beliefs (Jammeh et al., 2014). Another factor which affected most of the participants from practicing modern contraception was their religious affiliation. This research is also in line with previous studies about modern contraception (Sundararajan et al., 2019).

The commonly used method of modern contraception was injectable (48.2%). This finding is consistent with previous findings and studies led in Ghana (Beson et al., 2018; Eliason et al., 2014). Prior study in Ghana found a relationship between the use of modern contraception and promiscuity (Lubans et al., 2014). Owing to that, many people in prior studies as well as this study may prefer injectables to other methods since it is deemed to be more desirous method. Prior studies which were conducted to determine the availability of modern contraception method in Ethiopia (Tekelab et al., 2015) and Ghana (Adjei et al., 2015; Eliason et al., 2014) revealed Injectable to be the most used modern contraception method in both private and public health institutions. By contrast, some researches indicated condom to be the most common modern

contraception method in Ghana (GSS, 2016), however, in India the female condom was widely common (Hayat et al., 2013).

5.5 Side effects of modern contraception by participants

The knowledge of women concerning side effects of modern contraception plays an essential role in terms of usage. The findings of the study indicated that participants were not given adequate information about modern contraception services. Some researchers also argued that wrong and false information may also be given to participants which can easily make them dissatisfied and are more likely to halt the practice. A study in Nigeria showed that few people are being informed concerning the adverse consequences of modern contraception practices (Omolase et al., 2009). Most of the healthcare professionals may be reluctant in educating women the adverse reaction of modern contraception.

In addition, some health care providers may be reluctant in terms of delivering the side effects messages to women due to "nocebo effect" which is a situation where some women get to experience the side effects upon telling them about it (Grimes & Schulz, 2011). The literature shows that when the side effects are being discussed, it may not deter women from adopting modern contraception , instead it will make them adhere to the practice (Backman et al., 2002; Dehlendorf et al., 2014). As a matter of fact, some participants reported their sadness and detest for counselling in cases when participants fail to talk about the side effects (Dehlendorf et al., 2014).

5.6 Associated factors of modern contraception utilization among the women

Spousal education and modern contraception utilization

The findings of the present study revealed four predictors of the utilization of modern contraception services among the study respondents. Spousal educational level was a significant predictor of modern contraception utilization among the women which is consistent with previous reports (Gebremedhin et al., 2018; Tilahun et al., 2015). The role of men in decision-making regarding modern contraception has recently gained the attention of most researchers. The role of men in modern contraception is to aid in deciding on the practice of modern contraception. However, studies in low-middle-income countries revealed that the participation of men in modern contraception is less common which could be due to the little knowledge they have regarding the benefits of modern contraception. The current finding in this study shows the importance of educating spouses or husbands about matters of modern contraception. Moreover, men with appreciable knowledge of modern contraception will be more likely to aid and support their partners in terms of the financial costs involved in getting access to a particular modern contraception method she desired (Bishwajit et al., 2017).

Attitudes of women and modern contraception utilization

In addition, the attitude of the women concerning the practices of modern contraception was a significant determinant of modern contraception utilization in this study. Women who had unfavourable attitudes toward modern contraception services were less likely to utilize contraceptives in the current study. This finding is congruent with prior studies (Handady et al., 2015; Seidman et al., 2016). Developing a positive attitude toward a particular thing will encourage an individual to develop a liking toward it (Abdelwahab et al., 2017; Choudhary et al., 2020). On

the other hand, if an individual has a negative attitude towards a particular thing, she will always avoid all issues related to it. In the present study, some women were found to have unfavourable attitudes toward modern contraception services which compelled them to avoid utilizing contraceptive services. Some of the reasons why women could develop these negative attitudes toward modern contraception services could be attributed to the perceived side effects they have concerning modern contraception as indicated in a prior study (Schrumpf et al., 2020). Reports in the literature indicate that perceived side effects of modern contraception were a significant barrier to modern contraception utilization (Dansereau et al., 2017; Schrumpf et al., 2020). Policy makers should in designing intervention programs tailored to improving modern contraception uptake should clarify the misconception people have developed toward modern contraception.

Seeking help from health facility and modern contraception utilization

Furthermore, women who were seeking help regarding modern contraception services were more likely to utilize modern contraception services compared to their counterparts (Martins et al., 2016; People, 2020). This current finding is consistent with a prior study were women who were making efforts to seek information about modern contraception the health centers were more likely to use contraceptive methods. Women who are engaged in modern contraception programmes are more like to gain more knowledge about contraception and would be more likely to adopt it (Gupta et al., 2016). In most modern contraception programmes the various contraceptive methods are been shown to participants and the appropriate ways to utilize them. Also, the places where they can easily seek access to a particular method are shared in these programs. Health workers are seen as a bank of knowledge where many people go to seek health-related information. Women who seek advice from these health workers are more likely to develop good attitudes toward modern contraception. More so, the misconception surrounding modern contraception could be clarified

to these women which will enable them not to utilize it by themselves but to encourage others to also use these services.

Husband in favour of modern contraception services and modern contraception utilization.

A variety of studies in the available literature report husband objection to modern contraception services as an important barrier to their utilization (Tesfamariam et al., 2022). In most settings especially low-middle-income countries, men are regarded as decision-makers at the household level and play a crucial role in modern contraception. In the present finding, women whose husbands were in favour of modern contraception services were more likely to use modern contraception services compared to their counterparts. Our finding is in line with previous reports (Alemayehu et al., 2016; Wegs et al., 2016). The partners of women concerning modern contraception issues are of utmost importance in most modern contraception interventions. Husbands who object to modern contraception practice are not ready to support their partners financially in terms of getting access to it. Policymakers should consider husbands in designing modern contraception programs. Moreover, modern contraception programs should be centered on enlightening men about the importance of modern contraception and clarifying the misconception most of them have developed about its side effects.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Almost half of the participants were currently using modern contraception and the other half were not using modern contraception services. Also, about two-third of the study participants had ever used modern contraception at least once in their life time. Most of the participants in this study had acquired modern contraception services and the knowledge level of participants was good. In terms of participants' knowledge of the methods of modern contraception, injectables were widely known among them. Also, most of them mentioned that they had favorable attitudes towards modern contraception. However, the high knowledge of contraceptives did not match the high contraceptive practice in the study area. The study demonstrates that mere physical access (proximity to clinics for modern contraception) and awareness of contraceptives are not sufficient to ensure that contraceptive needs are met.

The common place where participants sought modern contraception services was the health facilities with a reasonable percentage of them getting their services from pharmacy shops and others. This means that the coverage data of modern contraception services should not be limited to only health facilities but rather identify and include data from all modern contraception service delivery points within the catchment area.

Furthermore, some participants affirmed that they experienced some side effects of modern contraception. It was revealed that an "irregular menstrual cycle" was one of the most common side effect experience by participants. Apart from spotting, other side effects mentioned by participants included: body weakness, continuous vomiting, continuous bleeding, difficulty in

getting pregnant, growing slim, lack of menses, lower abdominal pain, and weight gain**.** These are all critical issues that can prevent most women from patronizing modern contraception services.

Thus, health workers and programs aiming at increasing contraceptive use should establish better counseling techniques about contraceptive side effects of different methods and method switches. Furthermore, in all modern contraception activities, both women and their husbands' participation should be considered.

The associated factors of contraceptive utilization among the women in this study included spousal education, women's attitudes towards modern contraception, seeking help from the health facility about modern contraception, and husband in favor of modern contraception.

> *"Our husbands may not like it (modern contraception) because they want more children, but it is good for us (women) so I do recommend it to my friends."*

Also, the results of the findings refutes the hypothesis that there is low knowledge, attitudes and practices among women of reproductive age in the study area.

6.2 Recommendation

Based on the findings of this study, the following recommendations are made to improve on the knowledge, attitude and practices of modern contraception;

1. Husbands should assist their partners in determining the best contraception to use.
2. Policy makers should include husbands in designing modern contraception programs
3. Modern contraception programs should be designed in a way to enlighten people regarding the misconceptions surrounding its usage.

4. Health care providers should educate women more on the side effects of each method of contraception for them to make an informed choice, especially on 'spotting' which discourages most women from using modern contraception.
5. Health care providers should invite husbands when they are educating women about modern contraception.
6. Public health officials should design policies to increase the awareness of women regarding the different types of modern contraception methods available.
7. Public health officials should target men (husbands) in advocating for modern contraception services since they are key decision-makers regarding the modern contraception usage of their spouses.
8. The distance involved in obtaining modern contraception was a matter of concern, Ghana health service should ensure contraceptives are available and easily accessible by women at all levels of service delivery.
9. Majority of the women also sought modern contraception services from the pharmacy besides the health facility. It is therefore critical to strengthen public education on modern contraception to enable women make the best choice in modern contraception.
10. Ghana Health Service should make concrete efforts to identify all private facilities including pharmacy shops rendering modern contraception services for in-service training on modern contraception service delivery since some women seek modern contraception services from the private sector.

References

Abdelwahab, H., Fahmi, N. M., & Omran, A. A. H. (2017). Women's Knowledge, Practices and Attitude Regarding Modern contraception . *Egyptian Journal of Health Care*, *8*(2), 147–157.

Abdi, B., Okal, J., Serour, G., & Temmerman, M. (2020). "Children are a blessing from God"–a qualitative study exploring the socio-cultural factors influencing contraceptive use in two Muslim communities in Kenya. *Reproductive Health*, *17*, 1–11.

Abigail, S., Kwawukume, K., Laar, A. S., & Abdulai, T. (2022). Assessment of men involvement in modern contraception services use and associated factors in rural Ghana. *Archives of Public Health*, 4–11. https://doi.org/10.1186/s13690-022-00822-5

Ackerson, K., & Zielinski, R. (2017). Factors influencing use of modern contraception in women living in crisis affected areas of Sub-Saharan Africa: A review of the literature. *Midwifery*, *54*, 35–60.

Adetunji, J. A. (2011). Rising popularity of injectable contraceptives in sub-Saharan Africa. *African Population Studies*, *25*(2).

Adjei, K. K., Laar, A. K., Narh, C. T., Abdulai, M. A., Newton, S., Owusu-Agyei, S., & Adjei, S. (2015). A comparative study on the availability of modern contraceptives in public and private health facilities in a peri-urban community in Ghana. *Reproductive Health*, *12*(1), 1–8.

Akamike, I. C., Okedo-Alex, I. N., Eze, I. I., Ezeanosike, O. B., & Uneke, C. J. (2020). Why does uptake of modern contraception services remain sub-optimal among Nigerian women? A systematic review of challenges and implications for policy. *Contraception and Reproductive Medicine*, *5*(1), 1–11.

Al-Musa et al. (2019). *Knowledge, attitude, and practice among Saudi primary health care attendees about modern contraception in Abha, Kingdom of Saudi Arabia. J Family Med Prim Care.2019; 8 (2):576-582.*

Alemayehu, M., Lemma, H., Abrha, K., Adama, Y., Fisseha, G., Yebyo, H., Gebeye, E., Negash, K., Yousuf, J., & Fantu, T. (2016). Modern contraception use and associated factors among pastoralist community of afar region, eastern Ethiopia. *BMC Women's Health*, *16*(1), 1–9.

Amentie, M., Abera, M., & Abdulahi, M. (2015). Utilization of modern contraception services and influencing factors among women of child bearing age in Assosa district, Benishangul Gumuz regional state, West Ethiopia. *Sci J Clin Med*, *4*(3), 52.

Ankomah, A., Anyanti, J., & Oladosu, M. (2011). Myths, misinformation, and communication about modern contraception and contraceptive use in Nigeria. *Open Access Journal of Contraception*, *2*, 95–105.

Apanga, P. A., & Adam, M. A. (2015). Factors influencing the uptake of modern contraception services in the Talensi District, Ghana. *Pan African Medical Journal*, *20*(1).

Apanga, P. A., Kumbeni, M. T., Ayamga, E. A., Ulanja, M. B., & Akparibo, R. (2020). Prevalence and factors associated with modern contraceptive use among women of reproductive age in 20 African countries: a large population-based study. *BMJ Open*, *10*(9), e041103.

Ashford, H. (2020). population control, development, and ghana's national modern contraception programme, 1960–1972. *The Historical Journal*, *63*(2), 469–493.

Asiimwe, J. B., Ndugga, P., & Mushomi, J. (2013). *Socio-demographic factors associated with contraceptive use among young women in comparison with older women in Uganda. Demographic and Health Surveys*. Working Papers. 95.

Atlam, S. A., Borg, H. M., & Daoud, W. M. (2022). Contraception and modern contraception : knowledge, attitude, pattern of use, and barriers among females in Gharbia Governorate, Egypt. *Journal of Medicine in Scientific Research*, *5*(2), 155.

Atuahene, M. D., Afari, E. O., Adjuik, M., & Obed, S. (2016). Health knowledge, attitudes and practices of modern contraception service providers and clients in Akwapim North District of Ghana. *Contraception and Reproductive Medicine*, *1*(1), 1–8.

Ayanore, M. A., Pavlova, M., & Groot, W. (2015). Unmet reproductive health needs among women in some West African countries: a systematic review of outcome measures and determinants. *Reproductive Health*, *13*(1), 1–10.

Baatiema, L., Skovdal, M., Rifkin, S., & Campbell, C. (2013). Assessing participation in a community-based health planning and services programme in Ghana. *BMC Health Services Research*, *13*(1), 1–13.

Backman, T., Huhtala, S., Luoto, R., Tuominen, J., Rauramo, I., & Koskenvuo, M. (2002). Advance information improves user satisfaction with the levonorgestrel intrauterine system. *Obstetrics & Gynecology*, *99*(4), 608–613.

Bagah, D., & Decker, A. (n.d.). *Male Involvement in Modern contraception in Muslem Communities in Wa Related papers*.

Basha, G. W. (2019). Factors affecting the utilization of a minimum of four antenatal care services in Ethiopia. *Obstetrics and Gynecology International*, *2019*.

Bekele, D., Surur, F., Nigatu, B., Teklu, A., Getinet, T., Kassa, M., Gebremedhin, M., Gebremichael, B., & Abesha, Y. (2020). Knowledge and attitude towards modern contraception among women of reproductive age in emerging regions of Ethiopia. *Journal of Multidisciplinary Healthcare*, 1463–1474.

Beson, P., Appiah, R., & Adomah-Afari, A. (2018). Modern contraceptive use among reproductive-aged women in Ghana: prevalence, predictors, and policy implications. *BMC Women's Health*, *18*(1), 1–8.

Birhan, T. Y., Alene, M., Seretew, W. S., & Taddese, A. A. (2022). Magnitude and determinants of breastfeeding initiation within one hour among reproductive women in Sub-Saharan Africa; evidence from demographic and health survey data: a multilevel study. *BMC Public Health*, *22*(1), 1–10. https://doi.org/10.1186/s12889-022-13114-y

Bishwajit, G., Tang, S., Yaya, S., Ide, S., Fu, H., Wang, M., He, Z., Da, F., & Feng, Z. (2017). Factors associated with male involvement in reproductive care in Bangladesh. *BMC Public Health*, *17*(1), 1–8.

Blackstone, S. R., Nwaozuru, U., & Iwelunmor, J. (2017). Factors influencing contraceptive use

in sub-Saharan Africa: a systematic review. *International Quarterly of Community Health Education*, *37*(2), 79–91.

Cayan, A., & Karaçam, Z. (2013). Factors concerning the attitudes of married women toward modern contraception in Aydůn, Turkey: a cross-sectional study. *Iranian Journal of Nursing and Midwifery Research*, *18*(4), 323.

Chandra-Mouli, V., McCarraher, D. R., Phillips, S. J., Williamson, N. E., & Hainsworth, G. (2014). Contraception for adolescents in low and middle income countries: needs, barriers, and access. *Reproductive Health*, *11*, 1–8.

Chanthasukh, S. (2019). *Decision making and contraception: Perceptions and experiences of Thai-Isan adolescents*. Auckland University of Technology.

Chernick, L. S., Schnall, R., Higgins, T., Stockwell, M. S., Castaño, P. M., Santelli, J., & Dayan, P. S. (2015). Barriers to and enablers of contraceptive use among adolescent females and their interest in an emergency department based intervention. *Contraception*, *91*(3), 217–225.

Cherry, K. (2012). The Everything Psychology Book: An Introductory Guide to the Science of Human Behaviour Chiptin (2002) A Developmental Role for Local Governance. *Susan Parnell et Al Eds, Democratising Local Governance: The South African Experiment*.

Choudhary, A., Nakade, M., & Shrivastava, D. (2020). Modern contraception Knowledge, Attitude and Practice among Women of Reproductive Age from Rural Area of Central India. *Int J Cur Res Rev| Vol*, *12*(14).

Christofides, N. J., Jewkes, R. K., Dunkle, K. L., Nduna, M., Shai, N. J., & Sterk, C. (2014). Early adolescent pregnancy increases risk of incident HIV infection in the Eastern Cape, South Africa: a longitudinal study. *Journal of the International AIDS Society*, *17*(1), 18585.

Colquitt, C. W., & Martin, T. S. (2017). Contraceptive methods: A review of nonbarrier and barrier products. *Journal of Pharmacy Practice*, *30*(1), 130–135.

Dangat, C. M., & Njau, B. (2013). Knowledge, attitudes and practices on modern contraception services among adolescents in secondary schools in Hai District, northern Tanzania. *Tanzania Journal of Health Research*, *15*(1).

Dansereau, E., Schaefer, A., Hernández, B., Nelson, J., Palmisano, E., Ríos-Zertuche, D., Woldeab, A., Zúñiga, M. P., Iriarte, E. M., & Mokdad, A. H. (2017). Perceptions of and barriers to modern contraception services in the poorest regions of Chiapas, Mexico: a qualitative study of men, women, and adolescents. *Reproductive Health*, *14*(1), 1–10.

Deen, A. &. (2016). *Knowledge, attitudes and Of, practices of modern contraception among a sample Al-, women attending primary health care centers in Karkh, Baghdad, 2014. Iraqi Medical Journal. (2):115-124.*, *62*.

Dehlendorf, C., Krajewski, C., & Borrero, S. (2014). Contraceptive counseling: best practices to ensure quality communication and enable effective contraceptive use. *Clinical Obstetrics and Gynecology*, *57*(4), 659.

Eliason, S., Awoonor-Williams, J. K., Eliason, C., Novignon, J., Nonvignon, J., & Aikins, M. (2014). Determinants of modern modern contraception use among women of reproductive

age in the Nkwanta district of Ghana: a case–control study. *Reproductive Health*, *11*(1), 1–10.

Eltomy, E. M., Saboula, N. E., & Hussein, A. A. (2013). Barriers affecting utilization of modern contraception services among rural Egyptian women. *EMHJ-Eastern Mediterranean Health Journal, 19 (5), 400-408, 2013*.

Enuameh, Y., Tawiah, C., Afari-Asiedu, S., Nettey, O. E. A., Sulemana, A., Mahama, E., Adjei, G., Boamah, E., Manu, A., & Gyaase, S. (2014). Making modern contraception services relevant to adolescents: Perspectives from rural communities in Central Ghana. *Open Journal of Preventive Medicine*, *4*(11), 852.

Fellah, A. F., & Newton, S. (2021). *Knowledge, attitudes and practice of modern contraception among married partners in Ledzokuku Krowor municipality in the Greater Accra region of Ghana*.

GDHS. (2015). *Ghana*.

Gebremariam, A., & Addissie, A. (2014). Intention to use long acting and permanent contraceptive methods and factors affecting it among married women in Adigrat town, Tigray, Northern Ethiopia. *Reproductive Health*, *11*(1), 1–9.

Gebremedhin, A. Y., Kebede, Y., Gelagay, A. A., & Habitu, Y. A. (2018). Modern contraception use and its associated factors among women in the extended postpartum period in Addis Ababa, Ethiopia. *Contraception and Reproductive Medicine*, *3*(1), 1–8.

Grimes, D. A., & Schulz, K. F. (2011). Nonspecific side effects of oral contraceptives: nocebo or noise? *Contraception*, *83*(1), 5–9.

GSS. (2011). *Ghana Statistical Service. 2011. Multiple Indicator Cluster Surveys 2011*.

GSS. (2015). Ghana demographic and health survey 2014. *Rockville, Maryland, USA: GSS, GHS, and ICF International*.

GSS, G. H. S. (2016). Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF. 2017. *Ghana Malaria Indicator Survey*.

Gupta, V., Mohapatra, D., & Kumar, V. (2016). Modern contraception knowledge, attitude, and practices among the currently married women (aged 15–45 years) in an urban area of Rohtak district, Haryana. *Int J Med Sci Public Health*, *5*(4), 627–632.

Guure, C., Maya, E. T., Dery, S., da-Costa Vrom, B., Alotaibi, R. M., Rezk, H. R., & Yawson, A. (2019). Factors influencing unmet need for modern contraception among Ghanaian married/union women: a multinomial mixed effects logistic regression modelling approach. *Archives of Public Health*, *77*(1), 1–12.

Handady, S. O., Naseralla, K., Sakin, H. H., & Alawad, A. A. M. (2015). Knowledge, attitude and practice of modern contraception among married women attending primary health center in Sudan. *Int J Public Heal Res*, *3*(5), 243–247.

Hardee, K., Croce-galis, M., & Gay, J. (2017). Are men well served by modern contraception programs ? *Reproductive Health*, 1–12. https://doi.org/10.1186/s12978-017-0278-5

Hayat, H., Khan, P. S., Imtiyaz, B., Hayat, G., & Hayat, R. (2013). Knowledge, attitude and practice of contraception in rural Kashmir. *The Journal of Obstetrics and Gynecology of India*, *63*(6), 410–414.

Hindin, M. J., McGough, L. J., & Adanu, R. M. (2014). Misperceptions, misinformation and myths about modern contraceptive use in Ghana. *Journal of Modern contraception and Reproductive Health Care*, *40*(1), 30–35.

Hoque, M. E., Ntsipe, T., & Mokgatle-Nthabu, M. (2013). Awareness and practices of contraceptive use among university students in Botswana. *SAHARA-J: Journal of Social Aspects of HIV/AIDS*, *10*(2), 83–88.

Infantil, M., Goldenberg, R. L., Culhane, J. F., Iams, J. D., Romero, R., Purisch, S. E., Gyam, C., Manuck, T. A., Rice, M. M., Bailit, J. L., Grobman, W. A., McGovern, P. G., Llorens, A. J., Skurnick, J. H., Weiss, G., Goldsmith, L. T., Ine, O., Health, C., & Office, E. R. (2004). Modern contraception Maternal & Child Health and Reproductive Health. *World Health*, *82*(6), 1514–1520.

Jammeh, S. S. S., Liu, C.-Y., Cheng, S.-F., & Lee-Hsieh, J. (2014). Community based study on married couples' modern contraception knowledge, attitude and practice in rural and urban Gambia. *African Health Sciences*, *14*(2), 273.

Jena, S., Shrivastava, C., Kripalini, P., Anand, H., Behera, L., Padhi, B. K., & Panigrahi, P. (2017). Awareness, attitude, practice and future use of modern contraception methods in bhubaneswar, Odisha. *IOSR J Humanit Soc Sci IOSR-JHSS.*, *22*(9 Ver. 11).

Kabagenyi, A., Jennings, L., Reid, A., Nalwadda, G., Ntozi, J., & Atuyambe, L. (2014). Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive Health*, *11*(1), 1–9.

Kara, W. S. K., Benedicto, M., & Mao, J. (2019). Knowledge, attitude, and practice of contraception methods among female undergraduates in Dodoma, Tanzania. *Cureus*, *11*(4).

Liu, Z., Zhu, M., Dib, H. H., Li, Z., Shi, S., & Wang, Z. (2011). RH knowledge and service utilization among unmarried rural-to-urban migrants in three major cities, China. *BMC Public Health*, *11*, 1–9.

Lomé, M., Koffi, T. B., Weidert, K., Bitasse, O., Mensah, A. E., Emina, J., Mensah, S., & Bongiovanni, A. (2018). *Engaging Men in Modern contraception : Perspectives From Married*. 317–329.

Longwe, A., Huisman, J., & Smits, J. (2012). Effects of knowledge, acceptance and use of contraceptives on household wealth in 26 African countries. *African Journal of Reproductive Health*, *14*(4), 17–26.

Lubans, D. R., Smith, J. J., Skinner, G., & Morgan, P. J. (2014). Development and implementation of a smartphone application to promote physical activity and reduce screen-time in adolescent boys. *Frontiers in Public Health*, *2*, 42.

Malleshappa, K., Krishna, S., & Nandini, C. (2011). Knowledge and attitude about reproductive health among rural adolescent girls in Kuppam mandal: an intervention study. *Biomedical*

Research, *22*(3), 305–310.

Martins, S. L., Starr, K. A., Hellerstedt, W. L., & Gilliam, M. L. (2016). Differences in modern contraception services by rural–urban geography: Survey of Title X–supported clinics in Great Plains and Midwestern states. *Perspectives on Sexual and Reproductive Health*, *48*(1), 9–16.

Mersal, F. A., & Keshk, L. I. (2012). Improving health education skills for nurses working in MCH centers in Egypt to enhance women awareness regarding modern contraception . *Journal of American Science*, *8*(2), 286.

Monjok, E., Smesny, A., Ekabua, J. E., & Essien, E. J. (2010). Contraceptive practices in Nigeria: Literature review and recommendation for future policy decisions. *Open Access Journal of Contraception*, *1*, 9.

Mustafa, G., Azmat, S. K., Hameed, W., Ali, S., Ishaque, M., Hussain, W., Ahmed, A., & Munroe, E. (2015). *Modern contraception Knowledge , Attitudes , and Practices among Married Men and Women in Rural Areas of Pakistan : Findings from a Qualitative Need Assessment Study*. *2015*.

Najafi-Sharjabad, F., Rahman, H. A., Hanafiah, M., & Yahya, S. Z. S. (2014). Spousal communication on modern contraception and perceived social support for contraceptive practices in a sample of Malaysian women. *Iranian Journal of Nursing and Midwifery Research*, *19*(7 Suppl1), S19.

Nsubuga, H., Sekandi, J. N., Sempeera, H., & Makumbi, F. E. (2015). Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey. *BMC Women's Health*, *16*(1), 1–11.

Okeowo, T. A., & Olujide, M. G. (2014). Attitude, knowledge and utilization of modern contraception methods among rural women in Ogun state, Nigeria. *Agrosearch*, *14*(1), 39–53.

Omishakin, M. (2015). *Knowledge, attitude and practice of modern contraception among healthcare providers in two selected health centres in Osogbo Local Government, Osun State*.

Omolase, C. O., Faturoti, S. O., & Omolase, B. O. (2009). Awareness of modern contraception amongst antenatal patients in a Nigerian community: an exploratory study. *Annals of Ibadan Postgraduate Medicine*, *7*(1), 36–39.

Organization, W. H. (2016). *World health statistics 2016: monitoring health for the SDGs sustainable development goals*. World Health Organization.

Ossou, M. A. N. S. (2008). *Attitudes toward and Use of Knowledge about Modern contraception among Ghanaian Men*. *July*. https://doi.org/10.3149/jmh.0702.109

Palamuleni, M. E. (2013). Socio-economic and demographic factors affecting contraceptive use in Malawi. *African Journal of Reproductive Health*, *17*(3), 91–104.

People, H. (2020). Modern contraception . *Electronic Resource). URL: Http://Www. Healthypeople. Gov/2020/Topics-Objectives/Topic/Family-Planning (Access Date: 28.05. 2019)*.

Peter, O. A., & Joshua, E. F. (2016). Pattern, knowledge and other contextual correlates of use of pain-killers among students of Niger Delta University. *Ethnicity*, *30*(34), 12–16.

Roy, V., Gupta, M., & Ghosh, R. K. (2015). Perception, attitude and usage of complementary and alternative medicine among doctors and patients in a tertiary care hospital in India. *Indian Journal of Pharmacology*, *47*(2), 137–142. https://doi.org/10.4103/0253-7613.153418

Saied, N. H. (2021). Modern contraception Methods Knowledge, Attitude And Usage Among Married Women In Reproductive Age In Mosul City. *Systematic Reviews in Pharmacy*, *12*(3), 880–885.

Sakara, A., Namoog, M. Y., & Badu-nyarko, S. K. (2015). *Misconceptions and Rumours About Modern contraception Among Moslem Males in Tamale Metropolis , Ghana*. *4*(1), 9–14.

Schrumpf, L. A., Stephens, M. J., Nsarko, N. E., Akosah, E., Baumgartner, J. N., Ohemeng-Dapaah, S., & Watt, M. H. (2020). Side effect concerns and their impact on women's uptake of modern modern contraception methods in rural Ghana: a mixed methods study. *BMC Women's Health*, *20*(1), 1–8.

Schwandt, H. M. (2009). *Abortion, unmet need, and modern contraception service provision among gynecology patients in Ghana*. The Johns Hopkins University.

Sedgh, G., & Hussain, R. (2014). Reasons for contraceptive nonuse among women having unmet need for contraception in developing countries. *Studies in Modern contraception , 45*(2), 151–169.

Seidman, D., Carlson, K., Weber, S., Witt, J., & Kelly, P. J. (2016). United States modern contraception providers' knowledge of and attitudes towards preexposure prophylaxis for HIV prevention: a national survey. *Contraception*, *93*(5), 463–469.

Semachew Kasa, A., Tarekegn, M., & Embiale, N. (2018). Knowledge, attitude and practice towards modern contraception among reproductive age women in a resource limited settings of Northwest Ethiopia. *BMC Research Notes*, *11*(1), 1–6.

Shiferaw, B. Z., Gashaw, B. T., & Tesso, F. Y. (2015). Factors associated with utilization of emergency contraception among female students in Mizan-Tepi University, South West Ethiopia. *BMC Research Notes*, *8*, 1–10.

Sreytouch, V. (2008). Knowledge, Attitude and Practice (KAP) of modern contraception among married women in Banteay Meanchey, Cambodia. *Ritsumeikan J. Asia Pac. Stud*, *27*, 103–116.

Subedi, R., Jahan, I., & Baatsen, P. (2018). Factors influencing modern contraceptive use among adolescents in Nepal. *Journal of Nepal Health Research Council*, *16*(3), 251–256.

Sundararajan, R., Yoder, L. M., Kihunrwa, A., Aristide, C., Kalluvya, S. E., Downs, D. J., Mwakisole, A. H., & Downs, J. A. (2019). How gender and religion impact uptake of modern contraception : results from a qualitative study in Northwestern Tanzania. *BMC Women's Health*, *19*(1), 1–10.

Sunnu, E., Adatara, P., Opare, F. Y., Kuug, A., & Nyande, F. (2016). *Factors Influencing the Utilisation of Modern contraception contraceptives among Men and Women in the Ho*

Municipality of Ghana International Journal of Health Sciences and Research Factors Influencing the Utilisation of Modern contraception contraceptives among Men. *September*.

Tadele, A., Abebaw, D., & Ali, R. (2019). Predictors of unmet need for modern contraception among all women of reproductive age in Ethiopia. *Contraception and Reproductive Medicine*, *4*(1), 1–9.

Tamang, L., Raynes-Greenow, C., McGeechan, K., & Black, K. (2017). Factors associated with contraceptive use among sexually active Nepalese youths in the Kathmandu Valley. *Contraception and Reproductive Medicine*, *2*(1), 1–8.

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*, *15*(1), 1–8.

Tesfamariam, K., Argaw, A., Hanley-Cook, G. T., Gebreyesus, S. H., Kolsteren, P., Belachew, T., Van de Velde, M., De Saeger, S., De Boevre, M., & Lachat, C. (2022). Multiple mycotoxin exposure during pregnancy and risks of adverse birth outcomes: a prospective cohort study in rural Ethiopia. *Environment International*, *160*, 107052. https://doi.org/https://doi.org/10.1016/j.envint.2021.107052

Tilahun, T., Coene, G., Luchters, S., Kassahun, W., Leye, E., Temmerman, M., & Degomme, O. (2013). Modern contraception knowledge, attitude and practice among married couples in Jimma Zone, Ethiopia. *PloS One*, *8*(4), e61335.

Tilahun, T., Coene, G., Temmerman, M., & Degomme, O. (2015). Couple based modern contraception education: changes in male involvement and contraceptive use among married couples in Jimma Zone, Ethiopia. *BMC Public Health*, *15*(1), 1–8.

Ugoji, F. N. (2013). An Examination of university students' attitude to contraceptive Use. *Am Int J Soc Sci*, *2*(1), 18–22.

Vouking, M. Z., Evina, C. D., & Tadenfok, C. N. (2014). Male involvement in modern contraception decision making in sub-Saharan Africa-what the evidence suggests. *The Pan African Medical Journal*, *19*.

Wegs, C., Creanga, A. A., Galavotti, C., & Wamalwa, E. (2016). Community dialogue to shift social norms and enable modern contraception : an evaluation of the modern contraception results initiative in Kenya. *PloS One*, *11*(4), e0153907.

WHO. (2018). *WHO Modern contraception /contraception.*

WHO. (2022). SDG Target 3.7 Sexual and reproductive health. *World Health Organization (WHO)*. https://www.who.int/data/gho/data/themes/topics/sdg-target-3_7-sexual-and-reproductive-health

Worldometer. (2022). *World demographics*. https://www.worldometers.info/world-population/ghana-population/

Wulifan, J. K., Jahn, A., Hien, H., Ilboudo, P. C., Meda, N., Robyn, P. J., Saidou Hamadou, T., Haidara, O., & De Allegri, M. (2017). Determinants of unmet need for modern contraception in rural Burkina Faso: a multilevel logistic regression analysis. *BMC Pregnancy and*

Childbirth, *17*, 1–11.

Wulifan, J. K., Mazalale, J., Kambala, C., Angko, W., Asante, J., Kpinpuo, S., & Kalolo, A. (2019). Prevalence and determinants of unmet need for modern contraception among married women in Ghana-a multinomial logistic regression analysis of the GDHS, 2014. *Contraception and Reproductive Medicine*, *4*(1), 1–14.

APPENDICES

Appendix 1: Consent for Women in Fertility Age (WIFA)

Hi, my name is Musah Bashiru, a Master of Public Health Student at the University for Development Studies, Tamale. I am conducting a study to assess the **knowledge, attitude and practices related to modern contraception utilization in the Savelugu municipality**. You have been selected to take part in this study and we will be grateful if you would be willing to share your experiences with us.

Study Procedure

If you agree to participate in this research, a trained research assistant will interview you.

You will be asked to share your experience on knowledge, attitude and practices on modern contraception. You are free to answer the questions to the best of your understanding and seek clarification if any questions are unclear.

Nature of research

The expected outcome of this study is to find out whether women have knowledge about modern contraception. In addition, we would like to know whether they have positive attitude and practices towards modern contraception utilization.

Risks and benefits

The proposed project is a minimal risk study and does not involve any aggressive procedures. There are no direct benefits to the participants. The findings of the study will be beneficial to the Ghana Health Service and other policy makers in improving modern contraception implementation

strategies. Your participation in this study may therefore be helping in strengthening the modern contraception implementation in the municipality and the region as a whole.

Cost

There will not be any cost obtained by participants in the course of this study

Confidentiality

The information gained from this study would be held private and used for the purpose for the study. The information would be kept safe in a file without your name, but with a number and will only be available and accessible to the members of the research team. The coded number to your name would be kept confidential. The results of the study would be shared in such a

way to prevent a link between your identity and any information.

Compensation

We will not pay you for participation in this study.

Voluntariness

Participation in this study is voluntary and you can willingly withdraw from this study at any period without any consequences.

Outcome and Feedback

The findings from this study will be disseminated to the health facilities through the health Directorates

.

Funding information

The study is being funded by the student researcher.

Sharing of participants' information/Data

The data generated would be used for the purposes of academic work and publication in future. The data would be destroyed after the purposes for which it is being collected.

Focus Group Discussion

We would record the discussion in order to transcribe and translate the information for analysis. This is solely for the purposes of this study, after which the recordings would be destroyed.

Provision of Information and Consent for participants

A copy of the information sheet and the consent form would be given to you for keep after signing it.

QUESTIONS

You are encouraged to ask questions about the study. If you have any questions concerning this study information, you may contact the following persons;

Contact Numbers

In case of any queries/difficulties you may contact the following:

1. Musah Bashiru

Tel: 0245123452

E-mail: bashirufat@gmail.com

2. Professor. Anthony Amalba

Tel: 0244601450

E-mail: amalbaanthony@gahoo.com

Voluntary Consent

I……, have read the written information (or have had the information read and adequately explained to me in a language I understand) for the study "**knowledge, attitude and practices related to modern contraception utilization in the Savelugu municipality".**

I have been given adequate opportunity to ask any question I have. All questions have been answered to my satisfaction. I have also been given enough time and opportunity to consider taking part in this study. I fully comprehend the content and possible implications as well as my right to withdraw from the study even after consenting and signing this form.

I therefore agree to participate in this study.

Initials of Participant……

Signature of Participant, Date: ……..

Right thumb print Sign (Witness):

RTP

Form filled by: ……

Signature: ……...

Date: ……...

Interpreters' Statement

I interpreted the objectives and the content of the Participant's Information Sheet to the afore-mentioned participant to the best of my knowledge in the (…….) language to her proper understanding.

All questions, appropriate explanations sort by the participant and answers were also duly interpreted to her satisfaction

Name of Interpreter ……..

Signature ……..

Date…….

Contact Details

Investigators Statement and Signature

I declare that enough time has been given the participant to read and learn about the study.

All questions and clarifications which came up have been duly addressed.

Researcher's name……

Signature……..

Date……..

Appendix II

QUESTIONNAIRE

Hello my name is Musah Bashiru, a student from the **University for Development Studies, Tamale** working towards a Master degree in Public Health. The thesis is on **KNOWLEDGE, ATTITUDE AND PRACTICE RELATED TO MODERN CONTRACEPTION UTILIZATION AMONG WOMEN IN FERTILITY AGE IN THE SAVELUGU MUNICIPALITY** and you are selected for this purpose. You are free to answer the questions listed below. Your identity will be kept confidential and will not be revealed to anyone. I am seeking your consent to participate in this study.

Date: ……

Demographic Information

1. What is your name (optional) ……..
2. How old are you? ……
3. What is your religion? **[ ]** Islam [ ] Christian [ ] Africa Traditional Religion [ ] others, …
4. What is your educational level? i) No education ii) Primary iii) secondary iv) Tertiary
5. What is your occupation? …….
6. How much do you earn in a year? ……..
7. What is your spouse's level of education? i) No education ii) Primary iii) secondary iv) Tertiary

KNOWLEDGE

8. Do you have any Knowledge about modern contraception? [ ] yes [ ] no

9. If yes, how would you rate your level of knowledge?

   [ ] very low [ ] low [ ] Average [ ] high [ ] very high

10. Do you have access to modern contraception service? [ ] yes [ ] no
11. Which modern contraception method do you have more knowledge on? Name all……Oral Pills should be taken daily? [ ] yes [ ] no

    Injectable should be taken every 3 months? [ ] yes [ ] no

    Implants can prevent pregnancy upto 5 years? [ ] yes [ ] no

    IUCD can prevent pregnancy up to 12 years?

    One condom cannot be used for more than once? [ ] yes [ ] no

    [ ] withdrawal [ ] IUD [ ] Condom (male and female) [ ] Injection [ ] others

12. What is your source of information on modern contraception? [ ] Health providers

    [ ] Radio/TV [ ] Parents [ ] husband/boyfriend [ ] friends [ ] others (specify) …….

13. Which other modern contraception methods do you have knowledge about, mention all?

    [ ] Oral Pills [ ] withdrawal [ ] IUD [ ] Condom (male and female) [ ] Injection [ ] other

ATTITUDE

14. What is your attitude towards modern contraception? (Have you ever discuss modern contraception with others? Do you have any intention to use modern contraception in the future?

    [ ] favorable [ ] unfavorable [ ] I don't know

15. If favorable, how would you rate your attitude towards modern contraception?

    [ ] very low [ ] low [ ] average [ ] high [ ] very high

16. Do you have any contact at the health center who helps you with modern contraception services?

    [ ] yes [ ] no

17. Is your husband/boyfriend in favor of modern contraception? [ ] yes [ ] no

18. If you want modern contraception services where do you go?

    [ ] health center [ ] pharmacy [ ] my friend [ ] others

19. Have you ever experienced any problem that prevented you from getting contraceptive services?

    [ ] yes [ ] no

20. If yes, what was the problem? [ ] Finance [ ] Privacy [ ] Distance [ ] others, specify …..

PRACTICE

21. Do you practice modern contraception? (ever used any method of modern contraception) [ ] yes [ ] no

22. If yes, how would you rate your level of practice?

    [ ] very low [ ] low [ ] average [ ] high [ ] very high

23. If 22 is yes, is it your own decision? [ ] yes [ ] no

24. If 22 is no, who advised you? [ ] husband/boyfriend [ ] friend [ ] others, specify …….

25. What are the reasons for adopting a modern contraception method?

    [ ] fear of being pregnant [ ] protection from STI [ ] was advised [ ] others specify …….

26. What is your source of information on modern contraception?

    [ ] TV [ ] Radio [ ] health workers [ ] Friends [ ] others (specify) ……

27. If you don't use any modern contraception method, what are the reason?

    [ ] religious beliefs [ ] fear of side effects [ ] Refusal from my husband/boyfriend

28. Are you currently using any modern contraception? [ ] yes [ ] no
29. If yes, which method? [ ] Oral Pills [ ] withdrawal [ ] IUD [ ] Condom (male and female) [ ] Injection [ ] others
30. Have you experienced side effects of modern contraception method after its application?

    [ ] yes [ ] no

31. If yes, explain what happened. ……..

FOCUS GROUP DISCUSSION INTERVIEW GUIDE

1. What is your understanding of modern contraception?
2. What modern contraceptive method(s) do you know?
3. What are the advantages and disadvantages of modern contraception?
4. Does any of your friends use any modern contraception method?
5. Do you think your community have access to modern contraception services?
6. What are the barriers that prevent women from utilizing modern contraception services in your community?

Dear Sir/Madam,

PERMISSION TO CONDUCT THESIS RESEARCH IN HEALTH FACILITIES WITHIN THE SAVELUGU MUNICIPALITY

I am a Master of Public Health student at the **University for Development Studies** carrying out a research on the topic **'Knowledge Attitude and Practice related to Modern contraception utilization among women in fertility age'**. This research will be supervised by the University for Development studies, Tamale.

Attached is a copy of the proposal which includes copies of the questionnaire and consent form for the study .Upon completion of the study, the Municipal Health Directorate will be provided with a bound copy of the full research report. To this end, I write seeking your permission to visit health facilities in the Savelugu Municipality to engage health staff delivering Modern contraception services and to interview women attending various clinic sessions.

Yours sincerely,

Appendix III. Approval letter

GHANA HEALTH SERVICE

SAVELUGU MUNICIPALITY

OUR CORE VALUES:
1. People-Centered
2. Professionalism
3. Team Work
4. Innovation
5. Discipline
6. Integrity

In case of reply the number and The date of this letter should be Quoted

Municipal Health Administration
P.O. Box 45
Savelugu

28th June, 2021

My Ref. No.: GHS/NR/SND/MA/

Mr. BASHIRU MUSAH

RE: PERMISION TO CARRY OUT RESEARCH ON THE TOPIC'KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) RELATED TO FAMILY PLANNING UTILIZATION AMONG WOMEN IN FERTILITY AGE IN THE SAVELUGU MUNICIPALITY'

With reference to your letter dated 14th June, 2021 seeking permission to conduct research on the above topic in the Savelugu Municipality, the Health Directorate has granted permission for you to undertake your research at the various facilities under the sub-districts upon critical look at your thesis topic. It is our hope that, the findings of your study would help improved the system and lead to better Family Planning service delivery. Please ensure consent are soughted from care givers before interviews are made to them.

Administrative Manager

Sulemana Salmu ..... Savelugu Nanton MHD

Senior Administrative Manager

Savelugu