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Contraceptives Use Among Reproductive-Age Women in New Juaben Municipality, Ghana

Phyllis Abrah
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Walden University

College of Health Professions

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Phyllis Abrah

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Walden University
2021

Abstract

Contraceptives Use Among Reproductive-Age Women in New Juaben Municipality,

Ghana

by

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MPH, Kwame Nkrumah University of Science and Technology, 2014

BA, University of Ghana, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Walden University

August 2021

Abstract

This research study was an investigation into the factors associated with the use of modern contraceptives among reproductive-age women in the New Juaben Municipality of the Eastern Region of Ghana. Reproductive-age women in the Municipality have been found to have a high rate of unplanned pregnancies despite the availability of modern contraceptives. Telephone interviews were conducted with 15 reproductive-age women (20 to 39 years) from the New Juaben Municipality who were recruited voluntarily using purposive sampling technique. The research was based on the health belief model to explore the knowledge, perceived threats, perceived barriers, perceived benefits, self-efficacy, and cues to action in the use of modern contraceptives. The findings indicated that participants acknowledge the negative consequences of unintended pregnancy, and they expressed the desire to use modern contraceptives to either prevent unintended pregnancy or space their births. The study also established that the low utilization of the modern contraceptive services is influenced by low knowledge, misconceptions and perceptions about side effects in using the modern contraceptives, and religious beliefs. Recommendations include the creation of more awareness and intensify education on the modern contraceptive methods. The implications for positive social change include a better understanding of why women 20 to 39 years are not efficiently using modern contraceptives to prevent unintended pregnancy.

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Dedication

I dedicate this dissertation to God, my beloved family, and my friends, who gave me all the support I needed to complete this journey. Your prayers and financial support have brought about this victory.

Acknowledgements

I am grateful to God for His grace and mercy shown on me. I would like to acknowledge my Committee Chair, Dr. Vibha Kumar; my committee member, Dr. Jennifer Oliphant; URR member, Dr. Shanna Barnett; and Walden University for their tremendous guidance and support throughout the dissertation journey. Much gratitude goes to my family, friends, and loved ones who stood by me during this challenging period.

God bless you.

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Chapter 1: Introduction to the Study

Introduction

Contraceptive services have been identified as an important tool for the reduction of maternal deaths, which calls for the implementation of strategies to improve the use of contraceptives. The use of modern contraceptives enables individuals and couples to plan their families, including the number of children they desire to have, and how to appropriately space and time their births (World Health Organization [WHO], 2016). Ghana is a developing country that promotes the use of contraceptives to aid individuals avoid unwanted pregnancies, thereby improving the health of women and children and controlling population explosion (Beson et al., 2018; Cleland et al., 2014). Studies have shown that women have challenges accessing modern contraception, or do not use it for a range of reasons including health concerns, social disapproval and partner opposition (Afriyie & Tarkang, 2019; Beson et al., 2018; WHO, 2018; Worku et al., 2019). Women in their reproductive age group (20 to 39 years) in the New Juaben Municipality suffer from consequences of unplanned pregnancies, despite the availability of contraceptive services in the Municipality.

Reproductive-aged women constitute the main population with concerns on modern contraceptive usage in the municipality. The New Juaben Municipality is in the eastern part of Ghana and has a population of 183,727, representing 6.9% of the Eastern region's total population of 2,633,154 (Ghana Statistical Service [GSS], 2017). The municipality has a high female ratio of 51.7% and a total fertility rate of 2.4 (GSS, 2017);

as against the national rate of 3.9 (Ghana Maternal and Health Survey [GMHS], 2019). The annual report from the Reproductive and Child Health Unit of the eastern region shows a persistent decrease in the contraceptive acceptor rate, coupled with maternal deaths which are linked to unsafe abortion practices, and therefore limits the study to only women (Ghana Health Service [GHS], 2016). Maternal mortality remains high in the region despite the numerous interventions in place, such as providing access to essential reproductive health services like family planning, skilled attendance at childbirth, and emergency obstetric and neonatal care (GHS, 2016). Understanding the challenges faced by these reproductive age women in the use of modern contraceptives can contribute to reducing maternal mortality in the municipality.

This chapter contains background information, problem statement, the purpose of study, research questions, conceptual framework, nature of the study, key definitions, assumptions, scope and delimitations, limitations, the significance of the study, and summary.

Background

The decrease in the contraceptive prevalence in the New Juaben Municipality is likely to continue due to the downward trend in the acceptance rate. Reproductive-age women in New Juaben Municipality forms the population most affected by modern contraceptive usage (Ghana Health Service Eastern Region Annual Report, 2016). The health of reproductive-age women in New Juaben Municipality is of great concern as no study has been done in the eastern part of Ghana regarding the perception, threats,

barriers or challenges these women face in utilizing modern contraceptive services (Cohen et al., 2020; Mardi et al., 2018). Research studies into modern contraceptive usage needs to extend to other parts of the region to help address critical issues faced by users.

Studies completed in other parts of the country have limited information on the challenges reproductive age women face in utilizing modern contraceptive services. Research in the southern and northern parts of Ghana has shown few barriers and misconceptions to contraceptive use among married women (Adongo et al., 2014; Azmat et al., 2015; Kahsay et al., 2018). A descriptive qualitative study was undertaken, using such strategies as in-depth interviews and focus group discussions, to seek the views of married community members on the nature and form of misconceptions they have about modern contraceptive use (Adongo et al., 2014; Kaniki, 2019). The results of the study showed some misconceptions about the use of contraceptives to include infertility, uterine fibroids, and cancer of the breast and cervix (Adongo et al., 2014; Kaniki, 2019). To effectively evaluate the contraceptive acceptance rate problem, it is important to understand the related challenges to improve the use of modern contraceptives in the New Juaben Municipality.

In some studies outside Ghana researchers have found that implementing the use of contraceptives to promote reproductive health is challenging. For example, Ochako et al. (2015) and Hindin et al. (2014) determined the barriers to the use of contraceptives among young women in Kenya. The researchers revealed that the main barriers to the use

of contraceptives among young women are myths and misperceptions that a particular method would render them infertile (Hindin et al., 2014; Ochako et al., 2015). Although the study was limited to barriers and drivers to the use of contraception, the study approach will help explore the perception, benefits, and challenges faced by reproductive-age women (20-39 years) concerning to the use of modern contraceptives (Asaolu et al., 2017; Mutumba et al., 2018; Nsubuga et al., 2016). It is imperative to research the perceived susceptibility to unplanned pregnancy, threats or severity in the nonuse of modern contraceptives, benefits in the use of modern contraceptives, perceived self-efficacy, and cues to action in the use of modern contraceptives. The barriers or challenges faced by women in the New Juaben Municipality of the eastern region of Ghana on the use of modern contraceptives will also be investigated to help reduce existing disparities and improve the use of modern contraceptives such as condoms, hormonal, intrauterine devices, and others.

Problem Statement

Many developing countries, including Ghana, have implemented the use of contraceptives as an important strategy for addressing the health of the population, as well as social and economic issues. Researchers have indicated that a high number of women would want to postpone childbearing for two or more years but are not using any contraceptive method (Bawah et al., 2019; GDHS, 2019; Guure et al., 2019), due to numerous challenges encountered by them (Atiglo & Codjoe, 2019; GSS, 2017). Unsafe abortion is a key proximate cause of maternal mortality in Ghana, and the associated

complications have serious public health implications for the country. Ghana has recorded a 15% of maternal mortality because of unsafe abortion practices among women in the reproductive age group (15-49 years) during a national health survey (Ghana Maternal and Health Survey, 2019).

Unintended pregnancy and its related consequences such as unsafe abortion result from the nonuse of contraceptives. The unmet need for contraception among married women aged 15-49 years in Ghana was estimated at 26.3%, while contraceptive prevalence rate was 30.8% in 2017 (GDHS, 2019). There is a decline in the use of modern contraceptives among reproductive-age women (20-39 years) in the eastern region between 2014 and 2016 (GSS, 2017), and the New Juaben Municipality of the eastern region of Ghana records a drop-in contraceptive prevalence rate despite the availability of contraceptive services in the health facilities (Reproductive and Child Health Unit Annual Report, 2020), which puts the health of the women and children at great risk. Despite the reproductive age range for women of between 15 and 49 years, the study limited the age group to 20-39 years. This is because data from the reproductive health unit indicate that women who patronize family planning services in the municipality are within the age group of 20 to 39 years.

The consequences of nonuse of contraceptives include increased maternal mortality rate (Nettey et al., 2015). This has been identified as a major issue in the New Juaben Municipality where women often die from the consequences of unplanned pregnancies and specifically unsafe abortions. The problem to be addressed by this study is that

reproductive-age women (20-39 years) living in the Municipality are not using modern contraceptives despite their availability in the health facilities. There is limited evidence on perception, threats, benefits, barriers, or challenges in the use of modern contraceptive methods in the New Juaben Municipality.

Purpose of the Study

The purpose of this research study was to explore the perception, threats/severity to unplanned pregnancy, perceived benefits, barriers or challenges, self-efficacy, and cues to action in utilizing modern contraceptive methods to prevent maternal and neonatal deaths among reproductive-age women (20-39 years) in the New Juaben Municipality of the eastern region of Ghana. In doing a qualitative study a constructive paradigm will bring a deep understanding of the health behavior of women towards the use of modern contraceptives.

Research Questions

The research questions for this study were:

Research Question 1: How do reproductive-age women (20 – 39 years) in the New Juaben Municipality perceive the use of modern contraceptives (hormonals, condoms, lactational amenorrhea method, intrauterine device, sterilization)?

Research Question 1a: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive hormonal usage?

Research Question 1b: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive condoms usage?

Research Question 1c: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive lactational amenorrhea method usage?

Research Question 1d: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive intrauterine device usage?

Research Question 1e: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive sterilization usage?

Research Question 2: What are the benefits and cues to the action of reproductive-age women (20-39 years) in the New Juaben Municipality to use modern contraception?

Research Question 3: What are the perceived threats, barriers, or challenges in the use of modern contraceptives by reproductive-age women (20-39 years) in the New Juaben Municipality?

Conceptual Framework

The conceptual framework that was used for the research study is the health belief model (HBM), and it formed the basis for the literature review and research questions. The HBM was developed in the 1950s by social scientists, who worked at the United States public health services, and they used this model to help explain the failure of people participating in programs to prevent and detect diseases (Rosenstock, 1974). The HBM is a health behavior theory that can be linked to issues of health practices such as the use of contraceptives (Kahsay et al., 2018; Kesley, 2016). Utilizing a modern contraceptive method can be described as a health behavior which is based on certain perceptions, such as the potential consequences of terminating an unwanted pregnancy,

and a person's susceptibility to complications that may arise from an illegal or unsafe abortion.

The HBM involves six main constructs and it focuses on perceived susceptibility to unwanted pregnancy, perceived threat/severity, perceived benefits, perceived barriers, perceived self-efficacy, and cues to action (Champion & Skinner, 2008; Eldredge et al., 2016; Janz & Berker, 1984; Rosenstock, 1974). In applying this model, an assessment is made on the person's readiness or nonreadiness to comply and practice preventive health care. Normally, a person assesses the potential threat that can be caused by a health problem or health issue and determines the benefits or actions that can be taken to reduce the health threat. Other perceptions of adopting a health behavior include the benefits to be derived, as well as the barriers to be encountered (Kahsay et al., 2018).

The constructs of the HBM have are also used to identify the contraceptive behavior of people in a diverse context. One of the studies used the HBM to describe how women who experience unmet needs for family planning encounter constraining factors that set a barrier between their preferences on the number and timing of their pregnancies or births (Kahsay et al., 2018). This HBM framework identifies the potential barriers and cues to action in the use of contraceptives. When the women are faced with barriers to the use of contraceptives, their ability to avoid unintended pregnancy is reticent (Kahsay et al., 2018; Sedgh et al., 2016). For instance, WHO relates the barriers of contraception to health concerns, as well as social disapproval (WHO, 2018). The HBM is expected to

help identify the internal and external stimuli that trigger a perceived threat to pregnancy and facilitate the decision of using contraception to address the threat.

Nature of Study

A qualitative research design was used to explore the overall perceptions and experiences in the use of modern contraceptives among reproductive-age women (20-39 years) in the New Juaben Municipality. A basic qualitative approach was appropriate for this study because it allowed study participants to interpret their experiences and express their concerns or challenges on the use of modern contraceptives (Creswell, 2014; Rudestam & Newton, 2015). It also helped to fill the gap in the literature on knowledge on the perceptions and challenges to the use of modern contraceptives among reproductive-age women in the municipality. A purposive sampling approach was used to recruit study participants. The research method included the use of in-depth, phone interviews with reproductive-age women (20-39 years) in the New Juaben Municipality. The interviews were guided by open-ended questions which allowed participants to share their views. A digital recording device was used to record the interview, which was later transcribed. Data were interpreted and organized per the themes that emerged.

Operational Definitions

The following definitions are used specifically for this study:

Family planning: Applies to the technique of spacing births or preventing unwanted pregnancy (WHO, 2018).

Modern contraceptives: Applies to family planning methods including hormonal, condoms, lactational amenorrhea method, intrauterine device, and sterilization (WHO, 2018).

Reproductive age group: My construct of reproductive age group refers to women who are sexually active and are at risk of unplanned pregnancy (WHO, 2018).

Assumptions

Various assumptions were made in this study which were deemed relevant and appropriate. Although contraceptive services are offered to both men and women, the population that mostly utilized the service were women in their reproductive-age group. It was assumed that women in their reproductive age group (20-39 years) are fertile and sexually active, and they would be a good representation of the study population. Another assumption was that participants would be purposely selected, and voluntarily participate in this study, and they would answer all questions honestly.

Scope and Delimitations

Reproductive-age women (20-39 years) in the New Juaben Municipality were targeted for the study. They were fertile and sexually active, and they were expected to provide the needed information towards achieving the set objectives of the study. The selected age range fell within the recommended reproductive-age group by WHO, and this guided the inclusion criteria for the study (WHO, 2018). The selected research participants were able to provide valuable information on the contraceptive utilization

challenges faced by reproductive-age women (20-39 years) in New Juaben Municipality, Ghana.

Participants were purposely selected based on their age, residence, reproductive-age women who have knowledge on, or ever used contraceptives, and their consent to be a part of the study. Their sociodemographic data helped to do the selection. I personally approached the participants and interviewed them to know their age, where they reside, and whether they have used a contraceptive before. Participants were briefed on the research and interview procedures, and they also signed consents forms to indicate their readiness to partake in the study. An arrangement was then made to schedule a phone interview because of COVID-19 pandemic situation. The study was guided by the HBM to address constructs that have not been broadly investigated.

Limitations

Being a qualitative study, a limited number of respondents were interviewed, so the study results may not be generalizable to other groups or populations. To address this limitation, I ensured that participants who met the inclusion criteria were interviewed, to get accurate and honest responses. I also applied the principle of saturation to ensure that the sample produced similar and accurate answers. Another anticipated challenge was the time that had to be devoted to select the right participants, making sure that they fall within the selected age range.

A possible limitation to the study was the reluctance of some participants to share their views (Mermelstein & Plax, 2016), and the feeling that their opinions may not be

valuable. Efforts to minimize this limitation was by explaining to participants about the importance of them contributing to the study. Participants were assured of confidentiality by ensuring that the phone interview was conducted in privacy and their identity kept private throughout the study. I explained the research study to the participants, and I informed them that they fall within the reproductive age range needed for the study, and they also have reproductive rights to take part and contribute to the study.

Significance of the Study

The research project is very important because it is geared towards identifying the perceptions of modern contraceptive usage and contribute to ways of improving the acceptance of modern contraceptives among reproductive-age women (20-39 years) in the New Juaben Municipality, thereby improving maternal and child health. Improving the reproductive health of women in developing countries has been linked to the effective practice of fertility control, such as accessibility to modern contraceptive services (Debebe et al., 2017). There is, therefore, the need to work towards improving modern contraceptive use in the New Juaben Municipality of the eastern region of Ghana. The preventable maternal and neonatal deaths in the New Juaben Municipality of the eastern region of Ghana include 22% of pregnancy-related deaths or deaths resulting from unplanned pregnancy among reproductive-age women (GSS, 2017). The role of the researcher is to identify a roadmap intended to curtail maternal and neonatal deaths through improvement in reproductive health programs such as the use of modern

contraceptives. Data gathered from research participants will also present an understanding of the perceptions and obstacles to using modern contraceptives.

Understanding the perception of contraceptive utilization will contribute to the reformation of policies and improve interventions for this group of women to increase the use of modern contraceptives, and subsequently, promote the use of contraceptives in the Municipality. Promoting modern contraceptive usage may result in the creation of healthier families, communities, and nations (Global Health Program, 2012); which is a key objective in public health. Reproductive-age women may access contraceptive services to be able to enjoy its numerous benefits associated with the user. The reproductive-age women may feel empowered to contribute to improving the use of modern contraceptives, thereby improving the health of other women in the Municipality. Findings from this study will also be shared or communicated to the Reproductive Health Unit of the New Juaben Municipality and the participants themselves.

Summary

The use of modern contraceptives has been widely accepted in Ghana as a strategy to reduce maternal mortality and promote reproductive health, but the New Juaben Municipality of the eastern region of Ghana experiences a low contraceptive usage among the reproductive-age women (20- 39 years). This has called for an inquiry into the perceptions and challenges associated with the use of modern contraceptives among the reproductive-age women, using a qualitative phenomenological study. This chapter describes the background information on the use of modern contraceptives and public

health importance. This study used the HBM framework and relevant literature which are described in Chapter 2.

Chapter 2: Literature Review

Introduction

Contraceptives are used globally to space or limit pregnancies, and they are categorized into modern and traditional methods. The use of modern contraceptives can be considered as one of the most important health interventions that enable women to plan their births and determine the number of children to have (WHO, 2018). The New Juaben Municipality of the eastern region of Ghana has readily available family planning services (FP) and modern contraceptive methods, but there is a record of low utilization of the contraceptive services among the women in the Municipality, often resulting in high maternal mortality which is linked to complications of unplanned pregnancies (Reproductive and Child Health Unit Annual Report, 2019). The purpose of this research study was to explore the perceptions associated with the use and nonuse of modern contraceptives and identify the challenges faced by reproductive-age women (20-39 years) in New Juaben Municipality in utilizing modern contraceptives.

Data gathered from Ghana and across the globe indicates some knowledge gaps in understanding the low utilization of modern contraception despite the availability of family planning services. WHO (2016) reported an estimated 225 million women of reproductive-age in developing countries are not using any modern contraceptive method despite their desire to delay or stop childbearing. The contraceptive prevalence rate in sub-Saharan Africa ranged from 23.6% to 28.5% between 2008 and 2015, compared to 66.7% in Latin America and the Caribbean (WHO, 2016). This was an indication that

contraceptive use in sub-Saharan Africa is low, whereby many women become pregnant without having any previous plans or desire to increase their family size (Kahsay et al., 2018; Sedgh et al., 2014). The New Juaben Municipality of the eastern region of Ghana was facing a similar challenge of low contraceptive prevalence rate, which was addressed in this research study.

Despite the wide range of contraceptive methods made available to women, there are still records of low usage with increasing reports of unintended pregnancies and unsafe abortions. The use of modern contraceptive methods prevents unplanned pregnancies and unsafe abortions, reduce infant mortality, prevent pregnancy-related health risks in women, and slows population growth, and promotes the health of the population (Beson et al., 2018; WHO, 2018). Contraceptive usage allows for the spacing of pregnancies and delays in pregnancies, especially in young women who are at risk of health problems and death from early childbearing (Beson et al., 2018; WHO, 2018). In a recent report WHO (2018) found contraceptive use has increased in many parts of the world, but there are still over 200 million women of reproductive age in developing countries who are not using a modern contraceptive method but would want to avoid pregnancy (Sedgh et al., 2014; WHO, 2018). Despite the gains in contraceptive prevalence rates, indicators are showing slow progress in the uptake of contraceptives, especially in sub-Saharan Africa (Obwoya et al., 2018). It is therefore important to understand the existing gap between contraceptives availability and its utilization.

Prevention of unplanned pregnancy has been compared with disease prevention programs and there seems to be a difference in the value or urgency for contraceptive services. This can be related to the fact that there are women who do not have the desire to have children although they are sexually active, but doing nothing to fulfill this desire of avoiding pregnancy or postponing future births (Cleland et al., 2014; Johnson-Mallard et al., 2017). Approximately 70% of unwanted pregnancy is associated with nonuse or discontinuation in the use of contraceptives among women wishing to avoid pregnancy (Cleland et al., 2014; Sedgh et al, 2014). The root cause of the unmet need for family planning has been attributed to lack of access to services with an emphasis on physical proximity, lack of knowledge or ignorance of methods, fear of side effects, husband's disapproval, among many others (Machiyama et al., 2017). This chapter discusses the related literature on various contraceptive methods and factors associated with their usage among reproductive-age women, which will be compared with findings from this study.

Literature Search Strategy

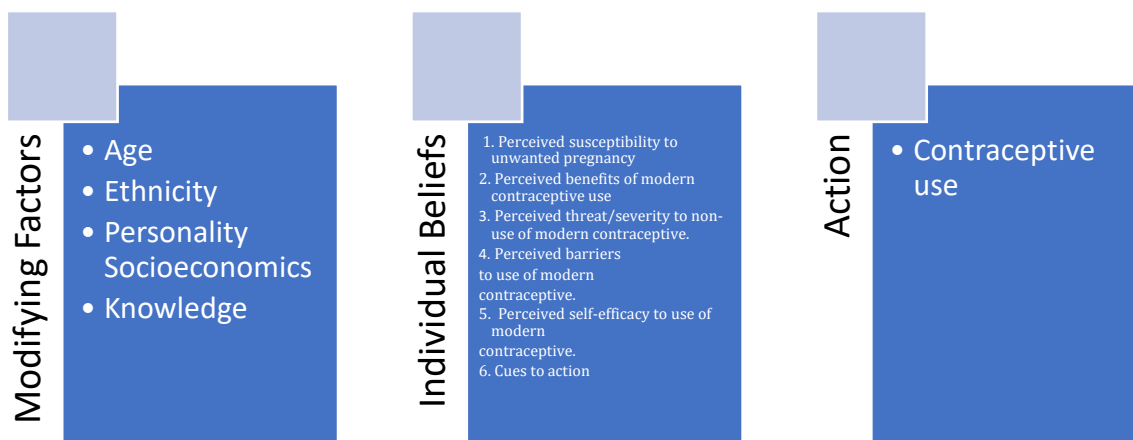
Databases used included PubMed, Google Scholar, and CINAHL. I also used the Walden University Library as a research resource. Keywords such as “types of contraceptives (hormonal, condoms, lactational amenorrhea, basal body temperature, intrauterine device, and sterilization)”, “contraceptives utilization”, “reproductive-age women” and “health belief model” were used for the search. The review was organized into the description of the various modern contraceptive methods, and according to the constructs of the HBM.

The Health Belief Model

The HBM is a health behavior model that helps determine factors influencing the use of modern contraceptives. Researchers indicated that individual factors account for the use or nonuse of modern contraceptives, hence the application of the HBM to assess the factors associated with modern contraceptives utilization (Kahsay et al., 2018). Also included in this chapter is a review of literature related to key reproductive health concepts. The description of the HBM is presented below. The HBM constructs of the model are in line with the specific objectives of the study. Additionally, it is widely used in determining factors influencing the use of modern contraceptives in other locales (Kahsay et al., 2018).

Figure 1

Modified Health Belief Model (Champion & Skinner, 2008).



The HBM (Figure 1) was adapted to provide a sound theoretical underpinning in understanding contraceptive use among reproductive-age women. The HBM is a psychosocial model that attempts to explain and predict behavior (Champion & Skinner, 2008; Rosenstock, 1974). The model was originally developed in 1950 to understand the widespread failure of people's participation in programs that prevent and detect diseases (Rosenstock, 1974). It has six constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, perceived self-efficacy, and cues to action (Champion & Skinner, 2008; Eldredge et al., 2016; Janz & Berker, 1984; Rosenstock, 1974). The model suggests that people are more likely to take action once they are convinced that the advantages of the action outweigh the disadvantages (Champion & Skinner, 2008; Rosenstock, 1974). The application of this model guided the study and helped to design research questions with the constructs of the model.

The HBM was selected as the appropriate framework to guide the study into the use of modern contraceptives among reproductive-age women. A review of the HBM shows various researchers who have successfully applied the constructs in their studies. A wide range of issues has been explored using the HBM (Ewig et al., 2018; Kamran et al., 2014; Kisiangani et al., 2018; Lothe et al., 2018; Schnall et al., 2015; Yunus et al., 2018). For example, Roderique-Davies et al. (2016) used the HBM to investigate women's intention to use long-acting contraceptives in South East Wales. Other health issues have also been studied using the HBM including adherence to hypertension medication (Kamran et al., 2014), HIV testing behaviors (Schnall et al., 2015), and

perceived risks and benefits of smoking among adolescents (Aryal et al., 2013). The HBM was the best theoretical model to help understand the contraceptive behavior of the study participants. Using this model for the study was expected to add to previous studies on contraceptive behavior of women to promote reproductive health.

The HBM has also been used to study about the use of modern contraceptives as health behavior, which is based on certain perceptions such as the potential consequences of terminating an unwanted pregnancy, and a person's susceptibility to complications that may arise from an illegal abortion. Poor contraceptive behavior has related negative consequences on reproductive health (Nsubuga, 2015). There are other perceptions of adopting a health behavior which includes the benefits to be derived, as well as the barriers to be encountered. The primary constructs of the HBM including modifying factors, individual beliefs, and action (Champion & Skinner, 2008; Corner & Norman, 2015) are discussed about contraceptive use among reproductive-age women. Normally, a person assesses the potential threat that can be caused by a health problem or health issue and determines the benefits or actions that can be taken to reduce the health threat. In applying this model, an assessment was made on the person's readiness to comply and practice preventive health care.

Perceived Susceptibility to Unwanted Pregnancy

The health belief model makes predictions about how individuals who are at risk of developing a health problem, such as unplanned pregnancy, will engage in behaviors to reduce or prevent that health problem. Perceived susceptibility forms a very important

component of the HBM, and it focuses on the motivational actions taken to prevent health problems (Rosenstock, 1974; Janz et al., 1984). The HBM assumed that motivation is a necessary condition for action (Herold, 1983). It is assumed that individuals will take a specific health-related action if they have a positive expectation of avoiding a negative health risk (Abraham & Sheeran, 2005; Herold, 1983; Nsubuga, 2015). Research indicates that most of the women perceive themselves to have a low likelihood of becoming pregnant, or they do not feel at risk of pregnancy even without the use of contraceptives (Frost et al., 2012; Nsubuga, 2015). Some of the women see themselves as less fertile, and that, they will have a difficult time getting pregnant (Nsubuga, 2015). Perceived susceptibility, in this study, is linked to the perceived risk of becoming pregnant, which will motivate a woman to either use or not to use a modern contraceptive.

A high number of unintended pregnancies have been recorded among women using no contraceptive method. A cross-sectional survey was conducted by Azmat et al., (2015) to determine the factors responsible for the uptake of family planning services and contraceptive use among married women in their reproductive age group (15- 49 years). The study was done in three districts in Punjab province in Pakistan, where about 35% of the married women in the reproductive age practice family planning (Azmat et al., 2015). The women who took up family planning were 30 years or younger, with low socioeconomic status. According to the authors, the women accessed the health facilities for contraceptive services based on proximity, good reputation of the provider, and the

type of services available (Azmat et al., 2015). This information guided the study to find out whether reproductive age women (20-39 years) in the Municipality faced similar challenges.

Modern contraceptive use continues to provide intervention for women who are sexually active and want to prevent unintended pregnancies. Patronizing family planning services is one of the surest ways to decrease maternal and infant morbidity and mortality (WHO, 2018). The study by Azmat et al., 2015, identified the unmet needs of family planning among women in the study area, and the factors that would prompt the women to access a contraceptive service (Azmat et al., 2015). According to Azmat et al. (2015), the study did not cover contraceptive uptake among men, as it was only limited to women in their reproductive age group. For this study, reproductive-age women (20-39 years) represented the target population, and the study findings helped to answer the research questions on the factors associated with the low contraceptive prevalence in the Municipality.

Perceived threats to non-use of modern contraceptives/ severity of unwanted pregnancy

Another important construct of the HMB is the perception of individuals on the negative consequences associated with the nonuse of contraceptives. The low or non-use of modern contraceptives is considered as a health burden for reproductive-age women, especially in Africa, due to their nomadic lifestyle, early initiation into marriages, high level of illiteracy, and female circumcision (Kahsay et al., 2018). Lack of birth spacing is

often associated with such issues as miscarriages, higher childhood mortality, illegal abortions, and maternal morbidity and mortality (Asekun et al., 2013; WHO, 2018). Poor health outcomes of children have been related to the consequences of unplanned pregnancy, which results from poor prenatal behavior of the women. Chima Anyanwu et al. (2013) found that the women are not able to recognize early enough that they are pregnant, hence they delay obtaining prenatal care and they also engage in unhealthy lifestyles (Chima Anyanwu et al., 2013). An unwanted pregnancy often results in unsafe abortions and abortion-related deaths, and there is the belief that unwanted pregnancy brings about shame, withdrawal from society, child neglect, and abandonment (Chima Anyanwu et al., 2013). Getting pregnant at an early age has its consequences of stigmatization, fear, shame, embarrassment, depression, social exclusion, low self-esteem, and high financial implication (Chima Anyanwu et al., 2013). The research study intended to identify similar potential threats to the nonuse of modern contraceptives among the study participants.

Perceived Benefits of Modern Contraceptives Use

Contraceptive services serve as a link to other reproductive health services such as reducing maternal deaths and preventing and managing sexually transmitted infections. The use of modern contraceptives is a strategic way of spacing births and next pregnancies, thereby safeguarding maternal and child health (WHO, 2018). Modern contraceptive use has been prioritized as a key factor in averting unplanned pregnancies and its associated adverse outcomes (Nsubuga et al., 2016). The benefits of modern

contraceptive use include maternal and child health improvements and women empowerment (Mutumba et al., 2018). Other benefits have been associated with modern contraceptive usage and these include the prevention of pregnancy-related health risks in women, reduction in infant mortality, reduction of adolescent pregnancies, empowerment, and enhancement of education, and slowing of population growth (Asaolu et al., 2017; WHO, 2016). For this study, the research questions should be able to bring out the perception of the study participants on the benefits they are likely to enjoy when they patronize modern contraceptive services.

The health and wellbeing of a woman can also be linked to her ability to choose if and when to become pregnant. Thus, the use of modern contraceptives can reduce unsafe abortion and unintended pregnancies (WHO, 2018). In a study to evaluate the knowledge and determine the future desires of women in Urban Cameroon to use contraceptives, the researcher noted that increases in the use of modern contraceptives could consequently decrease maternal mortality (Ajong et al., 2016). This cross-sectional study used a community-based survey of childbearing women, and data was collected through face-to-face questionnaires. Data was only limited to the knowledge of participants on the use of family planning without evaluating their perceptions and attitudes towards family planning (Ajong et al., 2016). This limitation was addressed in this research study.

Perceived self-efficacy to use modern contraceptives

Prevention of unplanned pregnancy has been compared with disease prevention programs, and there is a difference in the value or urgency for contraceptive services.

Some women do not have the desire to have children, although they are sexually active, and yet are not avoiding pregnancy or postponing future births. Cleland et al. (2014) reported an approximately 70% of unwanted pregnancy associated with nonuse or discontinuation in the use of contraceptives among women wishing to avoid pregnancy. The root cause of an unmet need for family planning has been attributed to a lack of access to services with an emphasis on physical proximity (Cleland et al., 2014). Other factors include lack of knowledge or ignorance of methods, fear of side effects, husband's disapproval, among many others (Cleland et al., 2014). Most of these factors outlined indicate that women are challenged with making decisions on the use of contraceptives, which were investigated in this study.

Women are often faced with constraining factors that stand between their preferences on the number and timing of pregnancies. When women are faced with barriers to contraceptives, their ability to avoid unintended pregnancy is restrained. The non-use of contraception is associated with individual factors such as lack of knowledge or awareness of family planning methods and sources of supplies, lack of motivation, low self-efficacy, and health concerns (Blackstone et al., 2017). The position or status of women serves as a barrier to contraceptive uptake, especially in situations where the woman is financially dependent on the partner and may be coerced into making reproductive choices based on the wishes of other people (Blackstone et al., 2017; Kahsay, 2018). Women can also be faced by medical barriers to contraceptive uptake, whereby a husband has to give consent; it may also be due to eligibility restrictions

(Blackstone et al., 2017). Low self-efficacy and misinformation is another possible challenge to the use of modern contraceptives (Muhindo et al., 2015). For this study, it was important to understand the levels of self-efficacy and its influence on the use of modern contraceptives.

Perceived Barriers to the Use of Modern Contraceptives

A perceived barrier is an important construct of the HBM, whereby women are faced with challenges to the use of modern contraceptives. Contraceptive use can be influenced by structural and external barriers such as lack of access to a variety of methods, cost of service, as well as medical contraindications (Islam, 2014). For instance, male partners' objection serves as a barrier to contraceptive use, where men oppose the use of contraceptives by their partners and some women have a broad dislike of contraceptive methods because it controls fertility (Islam, 2014). The fear of side effects and difficulty adhering to specific contraceptive methods have also been identified as challenges to contraceptive use (Islam, 2014). The fear of spousal retaliation resulting from the disagreement on the decision to use contraception has also shown to be a significant barrier to women, among other factors (Kabagenyi et al., 2014). This research study intended to use an in-depth interview to explore barriers to contraceptive use among reproductive-age women in the New Juaben Municipality.

Other studies have reported that women are not patronizing contraceptives services because of a lack of partner support. A report by UNFPA indicates that the low level of acceptance for family planning ranges from lack of access to information to lack of

support from partners or communities (UNPFA, n.d.). Sedgh et al. (2016) reported that women who are sexually active, and do not want to become pregnant, but are not using contraception have an unmet need for contraception. According to the study, married women in developing countries, who are not using contraception despite wanting to avoid pregnancy, citing concerns such as side effects associated with contraceptives, health risk, and infrequent sexual activity (Sedgh et al., 2016). These women needed help preventing unplanned pregnancies through programs that will reduce unwanted births and unsafe abortions, and improve reproductive health. In this research I intended to gather the needed information from study participants on the help they need to improve their contraceptive uptake.

The Sustainable Development Goals of improving maternal health, reducing child mortality, and eradicating extreme poverty will be achieved only when there is an improvement in reproductive health, through the elimination of barriers to contraceptive usage. The use of modern contraceptive methods can dramatically drop unsafe abortions, as well as unplanned pregnancies among reproductive-age women (Sedgh et al, 2016). Other factors that have globally been associated with the nonuse of modern contraceptives include a limited choice of methods, fear or experience of side-effects, cultural or religious opposition, poor quality of available services, as well as user and provider bias (WHO, 2018). The results of this study will contribute to eliminating barriers to the use of modern contraceptives so that maternal health will improve, and young women can avoid unplanned pregnancy.

Studies have shown some barriers to the use of contraception, or, for the prevention of unwanted pregnancies. Male partners' objection serves as a barrier to contraceptive use, where men oppose the use of contraceptives by their partners and some women have a broad dislike of contraceptive methods because it controls fertility (Islam, 2014). The fear of side effects and difficulty adhering to specific contraceptive methods have also been identified as challenges to contraceptive use (Islam, 2014). The fear of spousal retaliation resulting from the disagreement on the decision to use contraception has also shown to be a significant barrier to women, among other factors (Kabagenyi et al., 2014). This research study used an in-depth interview to explore barriers to contraceptive use among reproductive-age women in the New Juaben Municipality.

The prevalence of contraceptive use and its associated barriers among reproductive-age women cut across sub-Saharan African countries. For instance, Ochako et al. (2015) undertook a qualitative study to better understand the barriers faced by young women in Kenya, concerning the use of contraceptives. The study was carried out in urban and peri-urban districts within some regions in Kenya where the population has low socioeconomic profiles and the contraceptive prevalence rate was closer to the regional average rate. The results of the study indicated that the young women were not using contraceptives because they had myths and misconceptions that contraceptives are associated with birth defects or abnormalities, and they also feared that a particular method would render them infertile. (Ochako et al., 2015). The barriers outlined in the

above study are likely to be faced by the participants in this research study, which could hinder their acceptability and uptake of modern contraception.

Ghana is one of the developing countries with a low contraceptive prevalence rate, coupled with the persistent decline in contraceptive use over time. Some research studies in Ghana have described the approaches that have been used to assess and identify the barriers to contraceptives use among women. Hindin et al. (2014), undertook a qualitative study to better understand why women in Ghana are not using contraception apart from previous reports of fear of side effects. Using focus groups with vignettes, the researchers were able to elicit normative beliefs about contraception, and they were able to retrieve such concerns as menstrual irregularities caused by hormonal contraceptives, as well as low knowledge of basic reproductive biology and how the modern contraceptive methods work (Hindin et al., 2014). In another study, the researchers used in-depth interviews and focus group discussions to elicit information on misconceptions as a barrier to the use of modern contraceptives, and to understand the reasons for the misconception (Adongo et al., 2014). In addition to considering the barriers to the use of modern contraceptives, the method or approach in collecting information was also crucial for the study.

Some studies have reviewed determinants of contraception among reproductive-age women, in low- and middle-income countries, who wish to avoid or postpone childbirth but are not using any contraceptive method. A high number of women are not using contraception due to such factors as opposition from partners, husband's fear of

infidelity, fear of side effects and health issues associated with the use of contraceptives (Adongo et al., 2014; Wulifan et al., 2016). Women's education and occupational status were also identified to influence their utilization of contraception (Wulifan et al., 2016). Distinguishing contraceptive awareness from the knowledge of methods will clear the false sense that population education on contraceptive methods is not needed. The challenges associated with the use of contraceptives are common across low- and middle-income settings, hence the need to design a strategy for collecting data on the challenges to contraceptive uptake among women in my community, and close any gap established concerning the awareness and uptake of contraception.

Cues to action on the use of modern contraceptives

There are internal and external stimuli that trigger the woman's consciousness to perceive a threat to pregnancy, and this facilitates the consideration to use contraceptives to remedy that threat (Nsubuga, 2015). For example, it has been reported by Ndugwa et al. (2011) that post-partum women in Africa who are poor and lived in urban centers, initiated contraception based on how they timed the resumption of their menses. It has been indicated in another study that women who resumed menses shortly after delivery, which is an average of about one month, tend to adopt a contraceptive method (Ndugwa et al., 2011). The cues to action have also been linked to either the influence of health care workers in contraceptive choice or information from peers and the internet that have an impact on contraceptive choice, using a quantitative method (Roderique-Davies et al., 2016). For this study, there was a strong need to investigate and understand the

contraception behavior of reproductive-age women in the study area using a phenomenological approach.

Literature Review Related to Key Variables and/or Concepts

Key concepts noted in the literature review about the health belief model constructs centers on modern contraceptives and reproductive- age women. The government of Ghana has recognized contraception as a multisectoral issue with benefits beyond health and has taken initiatives to include both public and private sectors to work to expand quality contraceptive services. Contraceptives services and methods have been made available in public health facilities, and Ghana continues to increase the training of providers to ensure women are healthy. The use of modern contraceptives reduces maternal mortality, prevents unwanted and high-risk pregnancies, and provides health improvement of women, children, and the population as a whole (Sedgh et al., 2016). Ghana is among the developing countries in sub-Saharan Africa that promote the use of contraceptives to space or limit pregnancies but record a low uptake of modern contraceptives among women of reproductive ages (Beson et al, 2018). This study is being undertaken to examine the factors that promote or hinder the use of modern contraceptives among reproductive-age women.

An overview of the profile of the research study area shows a municipality that promotes the reproductive health of women through the provision of quality contraceptive services by qualified health providers. New Juaben Municipality is a municipal district of the eastern region of Ghana. The municipality covers an estimated

area of 110 square kilometers constituting 0.57% of the total land area of the eastern region (Ghana Statistical Service, 2017). The population of females in the community is quite higher (51.7%) than the male population of 48.3%, giving a sex ratio of 93, which implies that for every 100 females there are 93 males (PHC, 2010; Ghana Statistical Service, 2017). The New Juaben Municipality records a total fertility rate of 2.4 which is lower than the eastern region average TFR of 3.5. Women in their reproductive age are selected between 15-49 years, and they have a general fertility rate of 68 births per 1000 women, (Ghana Statistical Service, 2017); and this informs my decision to target this age group for the study.

The reproductive age women as related to this study targeted sexually active women aged between 20 to 39 years, who have a responsibility of spacing and limiting their pregnancies to promote their health and well-being. In a qualitative systematic review by Sedgh et al. (2016), they indicated that young unmarried women in Sub-Saharan Africa lacked family planning education and information on how contraceptive methods work. A study by Blackstone et al. (2017) in sub-Saharan Africa, also identifies barriers prohibiting women from using contraceptives, which includes misconceptions on contraceptive side-effects, male partner disapproval, and social/cultural norms associated with fertility (Blackstone et al., 2017). Other studies have shown high utilization of antenatal and postnatal health care services by women, but this is not reflecting in their use of modern contraceptives (Asaolu et al., 2019). It was, therefore, necessary to

understand why the contraceptive prevalence rate continues to drop despite the provision of contraceptive education during antenatal and postnatal health care services.

The New Juaben Municipality offers family planning programs intending to assist couples and individuals to achieve their reproductive goals and improve their general reproductive health. Contraceptive services are provided by health facilities in the municipality and they include barrier methods (condoms or cervical cap), hormonal methods (pills, injectables, implants), intrauterine devices (IUD), and sterilization (Ghana Statistical Service, 2017). Despite the availability and promotion of modern contraception in the Municipality, usage has been quite low. Given of the relatively low modern contraception acceptor rate in the New Juaben Municipality and limited evidence on the associated factors, it was timely and appropriate to undertake this study.

Various concerns have been raised by researchers about the contraceptive behavior of women about addressing their reproductive health issues. For instance, some young women have cited concerns about the side effects of contraceptives and health risks, such as menstrual changes and infertility (Sedgh et al., 2016), and this has affected their response to use modern contraceptives. In an article by Adongo et al. (2014), a qualitative study was designed to seek the views of married community members on the nature and form of misconceptions associated with contraceptive use among southern and northern Ghanaians. Study findings indicated that contraceptives predispose women to infertility, uterine fibroids, and cancer of the breast and cervix (Adongo et al., 2014). This research study intended to use a qualitative approach to identify and understand the factors

associated with the use of modern contraceptives among reproductive-age women in the New Juaben Municipality.

The contraceptive behavior of women is also associated with their locality and cultural characteristics; thus, the contraceptive prevalence rate tends to differ among cultural zones. For example, Adongo et al. (2014) carried out a study in two districts each in the northern and southern Ghana, which have been noted to have a low contraceptive prevalence for modern contraceptive methods among married women aged between 15 and 49 years, and it could be realized that the use of contraceptives was highly influenced by partner support and independence in decision making, a role which is solely played by men in the northern part of Ghana (Adongo et al., 2014). Since limited studies have been done in the eastern part of Ghana, concerning modern contraceptive usage and its associated challenges, it became imperative to carry out a similar study in the eastern part of Ghana (New Juaben Municipality) to help unveil any cultural challenges associated with contraceptive usage.

Modern Contraceptive Methods

The use of contraceptive methods which is the major component of Family Planning (FP) is a key of health as it has been shown to reduce the need for abortion by preventing unwanted pregnancies, and the cases of maternal death worldwide. It also helps women to plan their pregnancies and contribute to population growth (WHO, 2018). Contraception is the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent pregnancy (WHO, 2014). They are usually referred to as

birth control methods (WHO, 2014). Methods of contraception practiced today include “modern” and “traditional” ones. The Ghana Demographic and Health Survey (GDHS) confirms the types of fertility control methods to be categorized into traditional methods and modern methods (GDHS, 2014).

Modern methods refer to clinic and supply methods such as voluntary surgical sterilization, IUD, pills, injectable, condoms, implants, lactation amenorrhea method (LAM) and vaginal barrier methods. The main traditional or non-supply methods are periodic abstinence and withdrawal as well as traditional folk methods with uncertain efficacy. A Global Handbook for Providers by World Health Organization and Johns Hopkins Bloomberg School of Public (2018) identifies methods of contraception to include oral contraceptive pills, implants, injectables, patches, vaginal rings, intra uterine devices, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness-based methods. These methods have different mechanisms of action and effectiveness in preventing unintended pregnancy. Effectiveness of methods is measured by the number of pregnancies per 100 women using the method per year. Methods are classified by their effectiveness as commonly used into: Very effective (0–0.9 pregnancies per 100 women); Effective (1-9 pregnancies per 100 women); Moderately effective (10-19 pregnancies per 100 women); Less effective (20 or more pregnancies per 100 women) (Colquitt & Martin, 2017).

Hormonal Contraceptives

Hormonal methods of birth control use hormones to regulate or stop ovulation and prevent pregnancy. Hormones can be introduced into the body through various methods,

that includes pills, injections, skin patches, vaginal rings, intrauterine systems, and implantable rods. These methods can prevent ovulation; thicken cervical mucus, which helps to block sperm from reaching the egg; or thins the uterine lining (Colquitt & Martin, 2017). Hormonal methods can be categorized into long acting and short acting contraceptives; these comprise of Combined Oral Contraceptive (COC) methods, transdermal combined hormonal patch, transvaginal combined hormonal, intramuscular combined hormonal injectable and progestin-only methods (Colquitt & Martin, 2017). Example of hormonal long-acting reversible contraceptive is intrauterine device (IUD) and implants. Short acting hormonal methods include injectables, pills, patches and rings; they are presented as combined hormonal methods.

Oral Contraceptives

In Ghana, progestin only oral contraceptive pills (POPs) and combined oral contraceptives (COCs) are available in both the public and private sector. In the public sector, Microgynon (the combination pill of ethinylestradiol and levonorgestrel) and Microlut (levonorgestrel only) are available, whereas in the private sector, other branded combined oral contraceptives such as Secure and Lydia Oral Contraceptive Pills and Lydia Daphne Pill which is progestin only are available (GHS, 2016). Due to their high efficacy, there is an opinion by some women that the use of oral contraceptives may be associated with impairment in fertility after their discontinuation.

Implants

Implants are small flexible rods or capsules, about the size of a matchstick, that are placed just under the skin of the upper arm. They provide long term pregnancy protection by releasing a progestin like the natural hormone progesterone in a woman's body, and they are very effective for up to 5 years depending on the type of implant. The method mix in Ghana includes three brands of contraceptive implants; Jadelle (two flexible levonorgestrel containing silicone rods labeled for five years of use), Implanon (one flexible etonogestrel containing plastic rod labeled for three years of use) and Sino Implant (two flexible levonorgestrel containing silicone rods labeled for four years of use) (GHS, 2016). Implants work primarily by preventing the release of eggs from the ovaries (ovulation), and thickening cervical mucus (this blocks the sperm from meeting an egg). Implants are immediately reversible, and they require specifically trained provider to insert and remove. Bleeding changes are common but not harmful; most women experience prolonged irregular bleeding over the first year, then lighter bleeding, followed by regular bleeding, and subsequently infrequent bleeding or no bleeding.

Injectables

Injectables are hormonal methods of contraception that contains either progestin only, or a combination of the hormone progestin and oestrogen. Two contraceptive injectables are provided at both public and private health facilities in Ghana; a monthly injectable, Norigynon contains 2 hormones (a progestin and an estrogen); whereas Depo Provera is a progestin-only contraceptive injectable given every three months (GHS,

2016). They work primarily by preventing the release of eggs from the ovaries. The route of administration is either into the muscle, that is intramuscular injection, or under the skin (subcutaneous injection). Effectiveness depends on getting injections regularly; so, when a woman misses an injection, she is at risk of pregnancy. Some users report of weight gain, headache, dizziness, abdominal bloating and discomfort, mood changes and less sex drive.

Intrauterine Device (IUD)

The intrauterine contraceptive device (IUD) is one of the most frequently used methods for birth control around the world. Globally, IUD has been recognized as a modern long-acting reversible contraceptive method suitable for all reproductive aged women (WHO, 2016). The IUD is one of the most effective reversible contraceptive methods with an average pregnancy rate after 1 year of use 3-5 per 100 typical users (Aliyu, 2017). IUD represents the most cost-effective reversible method for preventing unwanted pregnancy, and it has been scientifically proven to be safe, and efficient (Gbagbo & Kayi, 2018).

IUDs are inserted into the uterus at any point of the menstrual cycle as long as pregnancy has been excluded. Some health practitioners prefer to insert it towards the end of menstruation or just after (Aliyu, 2017). However, it is used far less often than experts believe it should be. Basically, this is believed to be the result of the concerns of clinicians for the risk of complications linked to its use, particularly pelvic inflammatory disease (PID) and subsequent sequels (Gbagbo & Kayi, 2018; Steenland et al., 2013).

The most common medical reasons for early discontinuation of IUD are bleeding and/or pain along with genital infection (Agawal et al., 2004; Gbagbo & Kayi, 2018).

Condoms

Condoms are barrier methods of contraception, and they work by preventing spermatozoa from coming into contact with the ovum; they also protect against sexually transmissible infections (STIs). Condoms come in male and female varieties, and they are hormone free. Most of them are made of thin latex rubber, and other materials like polyurethane, polyisoprene, lambskin, and nitrile. Condoms are the most widely known and used barrier device by male partners around the world. Male condoms are rolled onto the penis, and act as a physical barrier; the female condom is placed into the vagina right before sex. Advantages are: easy availability, protection against sexually transmitted diseases, cheap, and safe (Aliyu, 2017; Clottey, 2012).

Lactational Amenorrhea Method

The lactational amenorrhea method (LAM) is temporary family planning method based on the natural effect of breastfeeding on fertility. LAM provides contraception for the mother, and it works primarily by preventing the release of eggs from the ovaries. During breastfeeding, the resumption of ovulation postpartum is delayed and this can be used to prevent conception as long as the mother fully or nearly fully breastfeeds and remains amenorrheic (Stewart et al., 2013). The effectiveness of LAM depends on the user; thus, the mother's monthly bleeding has not returned; the baby is fully or nearly fully breastfed and is fed often, day and night; the baby is less than 6 months old.

Sterilization

Sterilization is the process of completely taking away the body's ability to reproduce through open or minimal invasion surgery. It is a permanent method of contraception, suitable for people who are sure they never want children or do not want any more children (Anita et al., 2020). Sterilization is available for both women and men. The sterilization process for women is called tubal ligation; this is where the fallopian tube is either cut or sealed so that eggs do not reach the uterus at all. Globally, about 19% of married women uses female sterilization but there are marked regional differences in the uptake among reproductive age women (Anita et al., 2020). The male sterilization is called vasectomy, and it involves the cutting and sealing of the vas deferens so that the sperms do not enter the ejaculation stream. In Ghana, vasectomy is not a common modern contraceptive method as compared with female sterilization, and the level of awareness is also low (Adu et al., 2018). Vasectomy is described as safe and inexpensive modern contraceptive method, but it's not widely used.

Ambivalence and the Use of Modern Contraceptives

The health and wellbeing of a woman can be linked to her ability to choose if and when to become pregnant. Ambivalence in pregnancy is described as a conflicted desire or unresolved feelings or ideas about wanting to have a child at a particular moment (Higgins et al., 2012; Wekesa et al., 2018). Women sometimes are not consistent on contraceptive usage based on their expression of pregnancy ambivalence, or conflicted desire about having a baby. They have difficulty in deciding their intention or non-

intention of getting pregnant, which often affects their use of contraception consistently and effectively (Craig et al., 2016). Studies have indicated that women who experience ambivalence towards the idea of pregnancy are not able to make contraceptive decisions, especially the use of long-acting modern contraception (Sundstrom et al., 2017). Study participants should be able to express their concerns on whether their decision to avoid pregnancy have any external influence.

Researchers have also identified pregnancy ambivalence as an obstacle to contraceptive usage. According to Frost et al. (2007) and Wekesa (2018), when a woman is ambivalent about avoiding pregnancy, she is not likely to use contraception and this places her at risk for an unplanned pregnancy. OlaOlorum et al. (2016) described how women's fertility desire influences their contraceptive behavior in both developed and developing world settings. For instance, deciding on the use of contraceptives or selecting a particular contraceptive method can be based on whether a woman wants to get pregnant (OlaOlorum et al., 2016). One of the reasons why women who do not wish to get pregnant and yet not take any contraceptives is because of their ambiguity around pregnancy intentions (Latye et al., 2006; Staveteig, 2017), and this research study intended to verify this information from the study participants.

Summary and Conclusion

Unplanned pregnancy is a global public health challenge that typically occurs after sexual activity without the use of contraception. Even though the use of modern contraception serves as an important intervention towards preventing unplanned or

unintended pregnancy, there are records of millions of women in developing countries who are not using any modern contraceptive method (WHO, 2018). Ghana is among the developing countries that have made technological advancements in modern contraceptive methods but still records a low modern contraception prevalence rate of 23% in 2018, as against the target rate of 50% by 2020 (Afriyie & Tarkang, 2019). The HBM is the theoretical framework guiding this study and it provides the basic concepts to understand the perceptions and challenges associated with modern contraceptive usage.

The use of modern contraceptives by women is influenced by the perception of susceptibility to unwanted pregnancy, threats to non-use of modern contraceptives and severity of pregnancy, the perception of benefits, perception of barriers, self-efficacy, cues to action, as well as pregnancy ambivalence. This chapter covered various studies that identify the need for continued research on modern contraceptive usage among reproductive-age women in the New Juaben Municipality of the eastern region of Ghana towards improving maternal health. Most of the research studies on the use of modern contraceptives has been limited to the northern and southern parts of Ghana, which have their cultural values and characteristics. This study focused on the use of a conceptual framework (HBM) that would enable study participants to share their lived experiences and contribute to ways of promoting reproductive health. It was also important to fill the knowledge gap that existed between the availability of contraceptives and its utilization in the New Juaben Municipality. A qualitative research approach, therefore, had to be used to interview reproductive-age women to get a deeper understanding of what

influenced their contraceptive behavior. Chapter 3 discusses the research methods needed to answer the research questions and complete the research study. The chapter will also cover the research design, data collection, validity, and ethical considerations needed for the study.

Chapter 3: Research Method

Introduction

The purpose of this research study was to explore the perception to susceptibility to unplanned pregnancy, threats to non-use of modern contraceptives, severity to non-use of modern contraceptives, benefits to the use of modern contraceptives, and barriers or challenges in utilizing a modern contraceptive method to prevent maternal and neonatal deaths among reproductive-age women (20-39 years) in the New Juaben Municipality of the eastern region of Ghana. In doing a qualitative study a constructive paradigm will bring a deep understanding of the health behavior of women towards the use of modern contraceptives.

The following research questions were used to guide this study:

Research Question 1: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive the use of modern contraceptives (hormonals, condoms, lactational amenorrhea method, intrauterine device, sterilization)?

Research Question 1a: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive hormonal usage?

Research Question 1b: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive condoms usage?

Research Question 1c: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive lactational amenorrhea method usage?

Research Question 1d: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive intrauterine device usage?

Research Question 1e: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive sterilization usage?

Research Question 2: What are the benefits and cues to the action of reproductive-age women (20-39 years) in the New Juaben Municipality to use modern contraception?

Research Question 3: What are the perceived threats, barriers, or challenges in the use of modern contraceptives by reproductive-age women (20-39 years) in the New Juaben Municipality?

This chapter includes information regarding the participant sample and process that was used in conducting the interviews, and a review of result areas that were vital to obtaining quality results. There is a discussion on the data collection setting, the participants demographics, a brief explanation of the data collection performed, explanation of data analysis, evidence of trustworthiness, and a summary to complete the chapter. The major sections that have been addressed in this chapter include the research design and rationale, the role of the researcher, methodology, participant selection, data analysis plan, issues of trustworthiness, ethical procedures, and summary.

Research Design and Rationale

This study was a basic qualitative research that sought to understand the perceptions and experiences of reproductive-age women in the New Juaben Municipality in the eastern region of Ghana regarding modern contraceptives utilization. A basic

qualitative research design was appropriate for this study because it allowed the reproductive-age women in the New Juaben Municipality to share their experiences and express their concerns or feelings about the use of modern contraceptives (Creswell & Creswell, 2018; Rudestam & Newton, 2015). Qualitative research approach can be described as the method a researcher uses to explore the experiences of participants on a particular issue, but for this study it focused on the use of modern contraceptives to prevent unwanted pregnancy (Ravitch & Carl, 2016). According to Sutton and Austin (2015), qualitative research makes use of small sample sizes and does not necessarily link the results or findings of the study to a wider population (Sutton & Austin, 2015). Qualitative research is also concerned with the study of people in their natural setting, using various tools and techniques to help develop an understanding of people's perception of social reality and their actions within the social world (Creswell & Creswell, 2018). The qualitative research method was chosen because it allowed for seeking the views of these women who had challenges in the use of a contraceptive method or modern contraceptives despite their desire to postpone childbearing or space their births.

A basic qualitative research approach was adopted for this study, with focus on the commonality of the lived experiences of study participants in their setting. This research approach describes how participants interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences. Generally, basic qualitative research gives an overall picture about how people make sense of their lives and their

experiences (Merriam, 2013; Patton, 2015). Researching in the home settings of the research participants or their selected private places will make them feel relaxed to bring out quality responses, as far as there are no distractions (Ravitch & Carl, 2016). A review of maternal mortality records in the eastern region of Ghana indicated that most women die from pregnancy-related complications as well as unsafe abortions (GSS, 2016). Reproductive-age women would want to postpone childbearing for two or more years, but are not using any contraceptive method (GDHS, 2016); this is a public health issue that needs prompt intervention. No research has been done in the eastern part of Ghana concerning this situation, hence the need to fill this gap in the literature on modern contraceptives availability and its utilization.

Using a basic qualitative approach also allows for exploration of what people experienced, and it focuses on their lives and meaning they attribute to their experiences. Again, the basic qualitative research approach was appropriate because it helps to obtain an in-depth information and understanding from research participants through qualitative methods like an interview which is subjective in nature, as opposed to quantitative research which emphasizes the number of findings. An individual's experience is unique and subjective and using a basic qualitative approach enables the researcher to gain an in-depth understanding of women's lived experiences on the use of modern contraceptives (Creswell, 2018; Merriam, 2013). Therefore, a basic qualitative study is a better design for this research study because it is concerned with establishing answers to the "whys"

and “how’s” of the phenomenon in question. The researcher also gains a richly detailed understanding of issue, based on the first-hand experience.

Role of the Researcher

The researcher was the primary instrument for data collection and data analysis for this research study. As a principal investigator in this study, I was responsible for the recruitment or sampling of participants and facilitation of interviews. I conducted interviews with participants using a semistructured interview guide, which had subquestions designed, to help get adequate information from participants. I did not have any personal or professional relationship with the participants, thereby preventing any possible research bias (Sutton & Austin, 2015). I purposefully recruited only participants who met the criteria for the research study.

My role as a researcher also included establishing rapport with the study participants to make them feel relaxed and cooperative throughout the interview process. Participants were allowed to select the date, and appropriate time for the conduct of the phone interview, and they were given approximately 10 dollars (50 cedis) as a token to appreciate their time for the interview. Again, I informed participants that the interviews will be tape-recorded and later transcribed for analysis. Additionally, I safeguarded participants and their data by adhering to ethical research guidelines, as approved by Walden Institutional and Ghana Health Service Ethical Review Boards, by taking the participants through the study protocol, and getting their approval to participate in the study by signing consent forms.

Methodology

Population

The population in this study consisted of women in the reproductive age group (20-39 years) who were residents in the New Juaben Municipality of the Eastern Region of Ghana. These categories of women were purposely selected because the study was centered around sexually active women, who were matured enough to share their knowledge and experiences on modern contraceptives (Patton, 2015). Women having the experiences needed to provide relevant information to address the phenomenon under study and adequately answer the research questions were considered in the target population. This was ensured by including participants who had used a modern contraceptive method before.

The initial contact was made with the unit in-charges who assisted me to identify women in the age category of 20 to 39 years. I then screened the potential participants based on their socio-demographic data (see Appendix A), and I selected participants who met the inclusion criteria. An average of 5 participants were recruited daily, but I considered individuals who have the knowledge or are ready to share experiences on the subject. I asked for the consent for participation after explaining to them the purpose, significance, and process of the study. Contact numbers were exchanged, and participants booked for the appropriate time for the phone interviews.

Sampling and Sampling Strategy

Based on the research questions and the intent of the study, a purposive sampling technique was employed to ensure that the right participants have been selected for the study, and they would provide a rich source of information (Palinkas et al., 2015; Patton, 2015). The research participants for this study were women in their reproductive age group (20-39 years) who lived in the New Juaben Municipality of the Eastern Region of Ghana. Participants were identified by the researcher based on the inclusion criteria and with the help of health workers who rendered reproductive health services at the antenatal and postnatal clinics of the Eastern Regional Hospital in the Municipality. Eligible participants were contacted by the researcher and recruitment was done after they have gone through screening. Potential participants were easily identified at the health facility and they were approached individually for selection based on their eligibility and readiness to take part in the study.

Purposive sampling technique was used to select the participants, while considering the principle of saturation. Purposive sampling is the deliberate selection of participants possessing a predetermined criterion of interest (Patton, 2015). The principle of saturation is described as a point at which further data collection becomes counterproductive or data has reached a conceptual depth (Nelson, 2016). Reaching saturation in qualitative research is seen as a point at which observing more data will not lead to the discovery of more information related to the research questions, and Creswell recommends 5 to 25 participants for a phenomenological study (Creswell, 2013).

I intended to select the number of participants for the study based on the type of study (basic qualitative study), the data collection method (in-depth interview), and the phenomenon under study (modern contraceptives utilization), and data collection would continue till saturation was achieved. The unit in charges were first informed about the intended research study, so they assisted me to select potential study participants based on the age category. The contact numbers of potential study participants were taken after consenting and then saved by the researcher after the purpose of the study had been explained to them. I then followed up with a call and arranged a suitable date and time for the phone interviews.

Inclusion Criteria and Sampling

Potential study participants were expected to have certain attributes or characteristics to enable them to participate in the study. The study participants were women within the reproductive-age category of 20 to 39 years, who were residents of the New Juaben Municipality. The World Health Organization (2015a) categorizes reproductive age women to be between 15 to 49 years, because they are fertile and sexually active, and they can provide the right information needed for the study. (WHO, 2015a). This study, however, selected reproductive-age women between 20 to 39 years because they represent the category of woman who patronize modern contraceptive services in the Municipality. It was also assumed that reproductive-age women within this age category (20-39 years) were old enough to provide legal consent, and could provide the necessary information to address the research questions. Participants were

purposely selected based on their age (20-39 years), residency, parity, thus, reproductive-age women who are pregnant or had previously given birth; reproductive-age women who desire to space their births, and their consent to be a part of the study. These study participants were rescreened by the researcher to ensure they fit the inclusion criteria before interviews were conducted.

Instrumentation

There are various forms of qualitative data collection, but I considered an in-depth phone interview as the main instrument or strategy for data collection due to the emergence of the covid-19 pandemic (Canals, 2017; Creswell, 2014). Interviews enable interactions with participants to generate the needed information that can help to answer the research questions (Canals, 2017). I designed a semi-structured interview guide for the data collection, with a focus on the research questions and the conceptual framework. The semi-structured interview guide which was developed consisted of a list of key questions for the interview as well as demographic information about the interviewee. The interview questions were open-ended, general, and focused on the phenomenon being tested (Creswell & Poth, 2017). The data collection instrument was revised and improved upon as interviews were conducted.

Procedures for the Recruitment, Participation, and Data Collection

Approval was sought from the Institutional Review Board (IRB) of Walden University (IRB 06-17-20-063450), and Ghana Health Service Ethics Review Committee before the collection of data. The initial plan to conduct a face-to-face interview was

replaced with a phone interview due to the covid 19 pandemic restrictions, and the need to strictly adhere to the safety protocols. IRB also requested that I change the face-to-face interview to a phone interview so as to restrict direct contact and interaction with study participants. This negatively affected the time interval and intensity for an in-depth interview, and hence the details of study results. The consent of the study participants was also obtained before the conduct of the research study. Given (2008) recommends conducting qualitative research in natural settings, whereby the researchers can study things as they are without manipulating the environment. My knowledge or experience did not have to interfere with the study.

I recruited the study participants from the Eastern Regional Hospital in the New Juaben Municipality with the help of health workers (unit in-charges) who render reproductive health services at the antenatal and postnatal clinics of the hospital, following site approval from the hospital. The role played by these health workers was to assist me identify clients who fell within the age category of 20 to 39 years. The participants were then screened on their socio-demographic data (see Appendix A). The purpose of the study was first explained to the participants, by the use of a participant information sheet; they then signed two consents forms from IRB and GHS following clarification of issues on interview recording, confidentiality and anonymity. Their contact numbers were taken to enable us arrange a suitable time for the phone interview. I then followed up with a call and arranged a suitable time for the interviews.

An interview schedule was made after concluding with research participants on the appropriate day and time. The participants were also informed that the interview would take about 30 minutes and it would be tape-recorded and later transcribed for analysis. It was explained to the participants that they have the right to decline from continuing the research study at any point in time without any harassment. Participants who were willing to listen to the recorded interview for possible errors and clarification were given the opportunity. Participants were also informed of a return for follow-up interviews in case of any interruption in the recording process. Data collected from study participants were treated with confidentiality, and pseudonyms were used so as not to identify any participant.

Data Analysis Plan

Qualitative research deals with data that represent words and ideas rather than numbers and statistics, as found in quantitative studies, and the process involves the transcription of interviews (Lathlean, 2006). A semi-structured interview schedule comprising of open-ended questions were used to collect data on the use of modern contraceptives among reproductive- age women. Data analysis was based on the inductive approach using a predetermined theory or framework while focusing on the actual data to derive the structure of analysis (Lathlean, 2006).

For this research study, thematic content analysis was adopted following the data transcription, whereby themes and categories were identified based on the research questions, the constructs of the HBM, and also the content of the data. The HMB

constructs encompassed the perceptions of participants about their susceptibility to unwanted pregnancy, threats to non-use of modern contraceptives, barriers to the use of modern contraceptives, benefits to the use of modern contraceptives, self-efficacy to the use of modern contraceptives, and cues to action on the use of modern contraceptives.

The initial plan was to use a computer-assisted qualitative data analysis software (CAQDAS) package and NVivo to help manage and analyze the data, but I had to do a manual analysis due to network disruptions and other technical challenges.

Issues of Trustworthiness

A qualitative researcher has the responsibility of ensuring reflexivity, trustworthiness, and confirmability in the research study (Shenton, 2004). The trustworthiness of a qualitative study involves the maintenance of credibility and objectivity throughout the research process (Shenton, 2004). As indicated by Lincoln and Guba (1985), “trustworthiness is one-way researchers can persuade themselves and readers that their research findings are of quality and worthy of attention” (p.290).

Assessing credibility involves the review of the various data sources which turns to bring out a common theme of establishing a positive social change, using different distinctive approaches (Nowell et al., 2017; Shenton, 2004). Credibility is a system of measuring internal consistency in the research process (Shenton, 2004).

For this research study, credibility was established based on the fact that adequate time and energy were invested in the data collection process. Proper techniques were also be adopted for the interview process, and data was appropriately transcribed.

Transferability is a component of trustworthiness and it describes the applicability of the research findings. The right coding techniques were applied and the data collection techniques used for the study were expected to promote sound, reliable, and valid research findings. The findings from the other sources were applied with the findings from my interview.

To achieve dependability, I ensured that the research process was reasonable, traceable, and documented (Nowell et al., 2017). The research findings could also be described as dependable, as they reflected the responses from study participants (Ravitch & Carl, 2016). Confirmability signifies the degree of neutrality of the research findings following a qualitative study (Nowell et al., 2017). For this research study I ensured that the findings from the study are based on the responses from participants and that no external or personal motivations influenced the study.

Ethical Procedures

The research study was on the use of modern contraceptives among reproductive-age women (20-39 years), and the approach for the study was a qualitative design, using the individual interview. Ethical clearance was sought from the Institutional Review Board (IRB 06-17-20-063450), and the Ghana Health Service Ethics Review Committee. To be able to carry out this research study, there was the need to apply the general principles of informed consent, justice, and beneficence, and research following the approved research protocol (Rudestam & Newton, 2015). The research participants were adequately informed about the research procedure, purpose of the research, expected

duration, possible risk, as well as the potential benefits. The research participants were made to fully understand the project as a public health initiative to promote reproductive health in the Municipality so that they could give their informed consent (Rudestam, & Newton, 2015).

Research participants were assured of confidentiality through the process of coding by de-identifying them. They were informed that the interview would be recorded for research purposes only, and the tape recordings would be listened to only by the researcher. Informed consent was obtained from research participants before recording their voices for data collection (Rudestam, & Newton, 2015). On the day of recruitment of study participants, they were given the two consents forms from IRB and GHS-ERC to fill, after they had agreed to take part in the research study. The informed consent form was made available to the participants, indicating the identification of myself, the name of my faculty supervisors, and my institution.

Summary

The research was a basic qualitative study on modern contraceptives usage among reproductive aged women. As a researcher, I made sure that the right participants were identified and recruited for the study, and I also gave them adequate information about the study. Ethical principles were strictly adhered to, as well as issues of trustworthiness were ensured. A purposive sampling technique was used to recruit participants who met the selection criteria. A semi-structured interview was used to solicit the needed information for the study. The interview was tape-recorded and later transcribed for

analysis and discussion. The next chapter details the results of the study, and a disclosure of the steps taken to collect and analyze the data.

Chapter 4: Results

Introduction

Chapter 4 of this basic qualitative study contains the results from having analyzed the participants' interviews. In this study I aimed to contribute to additional knowledge to the field of public health and community health education by exploring the perceptions, knowledge and experiences of reproductive-age women in New Juaben Municipality on the use of modern contraceptives. To guide this study, I developed three primary research questions and employed the six constructs of the HBM to structure the interview questions. I collected data through open ended phone interviews which allowed for descriptive analysis of their concerns and experiences.

The findings were based on the responses from semi-structured phone interviews conducted with 15 reproductive-age women of New Juaben Municipality. A sufficient sample size was used in this basic qualitative study to enable me to obtain a detailed description and understanding of the study participants. The study involved the recruitment and semi-structured interviews with open ended questions by phone interviews, audio recordings, and manual data processing.

The following research questions were used to guide this study:

Research Question 1: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive the use of modern contraceptives (hormonals, condoms, lactational amenorrhea method, intrauterine device, sterilization)?

Research Question 1a: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive hormonal usage?

Research Question 1b: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive condoms usage?

Research Question 1c: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive lactational amenorrhea method usage?

Research Question 1d: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive intrauterine device usage?

Research Question 1e: How do reproductive-age women (20-39 years) in the New Juaben Municipality perceive sterilization usage?

Research Question 2: What are the benefits and cues to the action of reproductive-age women (20-39 years) in the New Juaben Municipality to use modern contraception?

Research Question 3: What are the perceived threats, barriers, or challenges in the use of modern contraceptives by reproductive-age women (20-39 years) in the New Juaben Municipality?

In this chapter, I focus on the research settings, demographics, data collection, data analysis, evidence of trustworthiness, results, summary, and a brief introduction to chapter 5.

Setting

The setting of the study was the Eastern Regional Hospital located at New Juaben Municipality of the Eastern Region of Ghana. After approval from IRB and GHS-ERC, I

notified the hospitals' ethics committee and unit in-charges about the data collection since I had already received permission from the hospital. With assistance from the unit in-charges I purposely recruited the study participants based on the age (20 to 39 years), residency, knowledge on modern contraceptives, and the readiness to take part in the study. Excluded from this study were women that did not reside in New Juaben Municipality, and that had no experience to share on the use of modern contraceptives. Only reproductive aged women who were 20 to 39 years old, and lived in New Juaben Municipality, were included.

The reason for choosing the age bracket was the fact that reproductive age women who patronized reproductive health services in the Municipality were between the ages of 20 and 39 years, as indicated in the Reproductive Health Unit Record. During the initial meeting, I confirmed the eligibility of the study participants based on their age, residency, knowledge on modern contraceptives, and desire to take part in the study. The target participants were then given a detailed information about the nature of the study, after which they signed two consent forms from IRB and GHS-ERC. Contact numbers were then exchanged, and I asked the participants to choose their most convenient time and place for the phone interviews. Participants were made to understand that the interview will be recorded and it will last for about an hour or less, so they should choose a quiet and comfortable environment. All participants were on schedule for the phone interview, but two of them didn't consent to audio recording of the phone interviews, so their request was granted.

Demographics

A total of 15 women aged between 20 to 39 years were recruited to participate in this research study, and the participants answered demographic questions before the start of the phone interview. The demographic information included age, residency, marital status, educational level, employment status, religion, and parity. The demographic questions guided me to recruit the right participants for the study. Each interview was transcribed and reviewed to identify categories and themes until no new themes were obvious. The concept of saturation guided me to end the interview after the fifteenth participant. The sample size was sufficient to explore the phenomenon under study. All participants were women within the reproductive-age group of 20 to 39 years, and residents of New Juaben Municipality. The parity and past experience in the use of contraceptives was an added criterion for recruitment. All participants were willing to take part in the study.

Sociodemographic Data of Participants

Participants for this interview were mostly in their thirties; the highest age was 39 years and the lowest age was 23 years. A little over half of the participants were married. All participants have had a formal education with majority of them attaining a tertiary status and also working. Almost all the women interviewed identified themselves as Christians, except for one Muslim. With the exception of five participants, the rest had between one child to three children.

Data Collection

I conducted phone interview with 15 participants within a period of two weeks. These participants were purposefully selected, and participation selection ended when I reached saturation. Prior to the commencement of the interviews, I briefed participants on the purpose and parameters of the study, as contained in the participant information sheet (see Appendix B). I also informed them that the interview will be audio recorded to help obtain accuracy, and that they have the right to opt out of the study. Informed consent forms were presented to the participants on the day of recruitment and I assured them that their identity will be protected throughout the study. All participants were given a token gift of 50 cedis (approximately 10 US dollars) as a compliment for their time, and I did not encounter any unusual circumstances during the data collection process.

Data Analysis

I used the six constructs of the health belief model to analyze the collected data. This consisted of: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, perceived self-efficacy, and cues to action. I listened to the recordings of each participant and completed a detailed transcription of each participant's responses. I ensured that the transcribed data were read multiple times to get a good understanding.

I continued the data analysis with the creation of codes in relation to the research questions of the study. I made sure that participants' responses were coordinated with the constructs of the health belief model, which facilitated answering the research questions of the study. The responses from participants were coded under the key themes of the

interview protocol. I aligned the categories that I developed with the elements of the conceptual model (HBM). I manually reviewed several essential phrases and statements made by participants to establish links and relationships for the analysis.

Evidence of Trustworthiness

Credibility

I ensured the trustworthiness of the data by maintaining credibility in the entire process of data collection and analysis. I invested adequate time and energy in the data collection process, and I also selected participants who were matured and capable of providing accurate and truthful responses (Shenton, 2004). I made sure to select and analyze the most significant findings from the participants' interviews that supported the generated themes.

Transferability

Transferability is a component of trustworthiness and it describes the applicability of the research findings (Shenton, 2004). I adhered to the research guidelines by documenting the data collection process and data analysis clearly so that the research process can be understood and replicated. I applied the right coding techniques and the data collection techniques used for the study were expected to promote sound, reliable, and valid research findings.

Dependability

Dependability is also needed in qualitative research as it allows for other researchers to confirm accuracy of the findings of the study, and also ensure the findings

are supported by the data collected (Nowell et al., 2017; Shenton, 2004). To achieve dependability, I ensured that the research process was reasonable, traceable, and well documented.

Confirmability

Confirmability is another component of trustworthiness which signifies the degree of neutrality of the research findings following a qualitative study (Nowell et al., 2017). For this research study I ensured that the findings from the study are based on the responses from participants and that no external or personal motivations influenced the study. I used the health belief model constructs to guide the development of the interview questions. I also used the health belief model constructs to code the data.

Results

I applied the health belief model to the interview data, coding and thematic analysis of the data. This enabled me to obtain pertinent information from the participants regarding their perception on the use of modern contraceptives, their perceived barriers, threats, benefits, self-efficacy, and cues to action. I also organized the themes by using the research questions which is incorporated in the HBM. As I indicated earlier, I coded the transcripts manually based on the individual responses from the participants for each interview question.

The research participants were asked to describe their perception about the use of modern contraceptive methods, the perceived benefits/ cues to action/ self- efficacy in the use of modern contraceptives, and the perceived threats/barriers/ challenges in the use of

modern contraceptives. Below are the themes and codes that emerged from the responses of the participants.

Table 1

Themes and Codes

<i>Themes</i>	<i>Codes</i>
Knowledge/ experience on modern contraceptives	Oral pills, condoms, IUD, emergency contraceptives, implants, injectables, vasectomy, emergency ligation Source of information from the media, health facility, professional knowledge, friends, family members
Unintended pregnancy	Rape, unplanned pregnancy, pregnancy at the wrong time, Unprotected sex, unmet for family planning, abortion, Economic hardship, school dropout, delay vision, no life progress, lack of concentration, life threat, death
Reasons for non-use of contraceptives	Side effects, difficulty in assessing right method, risk of STIs, Negative impact on sexual life, anxiety, religious factor
Benefits of modern contraceptives	Prevent unwanted pregnancies, prevent STIs, birth spacing Reduce maternal mortality, control population explosion Ability to take good care of family, easily accessible Reduce rate of teenage pregnancy, reduce unsafe abortion, reduce STDs, Reduce maternal morbidity and mortality, birth spacing Adequate time to take care of family, saves money, Allows for career progression, empowers women
Challenges of using modern contraceptives	Changes in menstrual cycle, heavy bleeding, irregular menses, Anemia, high blood pressure, blood clotting, breast tenderness

Ovarian cancer, weight gain, heart attack, cervical cancer, low sex drive

Research Question 1: Perception on the Use of Modern Contraceptives

Theme 1: Knowledge/Experience on the Use of Modern Contraceptives

Participants mentioned their knowledge on modern contraceptives to include hormonals (oral pills, injectables, implants), condoms, and intrauterine devices (IUD). Some of the participants also mentioned about emergency contraceptives (Postinor 2, Lydia, Lenor and Levon), male sterilization (vasectomy) and bilateral tubal ligation (BTL), as other methods of preventing pregnancy. The participants expressed various concerns on the modern contraceptive methods, and their sources of information which includes the media, education at the health facility, professional knowledge, friends, and family members. Participants were of the view that the use of modern contraceptives could help prevent unwanted pregnancies, sexually transmitted infections (STIs) and also help in birth spacing. Some of the participants also attributed the use of modern contraceptives to a reduction in maternal mortality cases among women and control of population explosion.

Another view expressed was that modern contraceptives (hormonals, condoms, IUD) are very effective when used correctly and consistently. It also gives women the opportunity to save and take good care of their families. Participants also held the view that modern contraceptives are safe to use, easily accessible and can be purchased at

healthcare centers/ pharmacies. Participant 2 commented that, “It is a necessary evil because at a point in time it is needed to prevent unwanted pregnancy and at another time its side effects can result in health issues.”

However, some participants raised concerns about the side effects and health related issues associated with the use of modern contraceptives. Participant 8 indicated that the side effect could affect her decision not to use modern contraceptives when she said, “I am looking at its effect on the female hormones...” Participant 2 also made this statement, “The side effects are a bid concern to me.” Others were of the opinion that it is not hundred percent reliable. Participant 4 expressed her view by stating that, “It is not a hundred percent safe because it can still lead to pregnancy.”

Theme 2: Unintended Pregnancy

In assessing the views of participants on what they meant as unintended pregnancy, almost half described the situation as pregnancies that were not planned, or pregnancy at the wrong time. Few attributed it to pregnancy as a result of rape or unprotected sex. Other opinions expressed highlighted concerns on the psychological stress and negative social life impact associated with unplanned pregnancies which could lead to unsafe abortions. Participants expressed various views about unintended pregnancy and the negative impacts they have on women. Participant 1 described unintended pregnancy as having children when a person has not initially planned for it, and that, a pregnancy must be well planned and the number of children or the spacing plan well outlined when she stated that:

I think a pregnancy becomes unintended when the person did not plan for such pregnancies. When you are not working or when you are not married and you think society will judge you, so you force yourself to get pregnant at the wrong time.

Participant 5 also made this statement, “Unintended pregnancy is where a woman has an unmet need for family planning so she gets pregnant when she is not ready for it and now, she puts herself at great risk of depression and parenting stress.” Participant 7 added that, “My view concerning unintended pregnancy is that when you don’t have plans for such pregnancy, it either stresses you or make you unhappy, especially when you are schooling.” Participant 8 also mentioned that, “For me I feel when you are not ready for marriage and psychologically not ready for children and you get pregnant unintentionally, it leads to lack of concentration and can also make you opt for induced abortion.”

Other participants expressed their concerns on the factors associated with unintended pregnancy. Participant 9 commented, “...for me I think unintended pregnancy is one that is unplanned or not wanted or mistimed that can disrupt one’s life or happiness.” Participant 12 mentioned that “...I got pregnant at a time that I was not ready for because I needed to go to school and it became a big challenge for me.” Participant 14 also expressed that, “Unplanned pregnancy can result from rape and this brings psychological stress to the woman and it also brings misunderstanding in the family...”

Participant 2 also shared her view with this statement, “I see unintended pregnancy as a very unpleasant experience. Can be very frustrating.”

Sharing their views on the risk of getting pregnant when not ready, participants mentioned unprotected sex, unmet need for family planning and rape as means of getting pregnant when not ready, which could lead to increased risks associated with unwanted pregnancies. According to Participant 4, she stands the risk of getting pregnant when she engages herself in unprotected sex. Participant 8 also stated that, “For me I feel when you are not ready for marriage and psychologically not ready for children and you get pregnant unintentionally, it leads to lack of concentration and can also make you opt for induced abortion.” Participant 6 indicated that an individual is at risk of unintended pregnancy when she is raped.

Participants were of the view that unwanted pregnancy is a threat to a woman’s life. Perceived threat or severity to non-use of modern contraceptives is the individual’s belief regarding the seriousness of not using a modern contraceptive and having an unplanned pregnancy with its complications and consequences. Some went ahead to cite abortion, economic hardship and dropping out of school as some of the negative effects of unwanted pregnancy. Other participants were of the opinion that unwanted pregnancy hampers one’s progress in life. Participant 4 had this to say “Unwanted pregnancy is a threat to my life because it can delay my vision in life”

Theme 3: Reasons for Non-use of Contraceptives

Participants were of the view that the “side effects” associated with modern contraceptives will be a major factor in deciding not to use it. “It is not hundred percent safe because it can still lead to pregnancy” as alluded by a participant. Some of the participants also expressed the view that difficulty in assessing the right method and an unmet need for family planning can cause them to decide not to use modern contraceptives. Also, poverty and socio-cultural beliefs were stated by some of the participants as one of the reasons that would influence their decision not to use modern contraceptives. The desire to have babies was another reason stated not to use modern contraceptives.

Participants were of the opinion that, deciding not to use modern contraceptives can result in unwanted pregnancy. Some were of the view that deciding not to use modern contraceptives can affect one’s reproductive health, have an impact on their sexual life and increase their risk of contracting sexually transmitted infections (STIs). Also, anxiety coupled with psychological trauma after sex and fear of getting pregnant was also mentioned. However other participants were of the opinion that nothing will happen if one decides not to use modern contraceptives.

A question was asked to elicit information on the consequences of not using a modern contraceptive to delay pregnancy or avoid unintended pregnancy. Participant 7 said, “In the case where I am not ready for a baby but have unsafe sex, then if I don’t use contraceptives I will get pregnant which will lead to unwanted pregnancy.” Participant 12

response was, “There will be a possibility of an unwanted pregnancy.” Participant 9 said, “If you don’t use modern contraceptives, it can affect one’s reproductive health and have impact on your sexual life.” Participant 15 also described modern contraceptives as “A necessary evil.”

Participants expressed concerns about the negative effects of unintended pregnancy on the health of mothers and children, as well as the social and psychological impact on the family. Participant 5 commented, “...An unwanted pregnancy can put the woman at great risk because it can end up in an illegal abortion.” Participant 6 also stated, “I think an unwanted pregnancy is a threat to a woman’s life because it brings economic hardship to the woman as well as psychological stress.”

Participant 12 shared her view on how unintentional pregnancy can affect a person’s life, “...unintended pregnancy can be a threat to a woman’s life because it can delay her vision in life.” Similarly, Participant 2 also stated, “It can be when the individual decides to terminate it in the wrong way.” Participant 8 added, “Yes, unwanted pregnancy can lead to death due to illegal abortion or termination of the pregnancy.” Participant 9 also mentioned that, “Yes, you will think of aborting the pregnancy, and that may come with bleeding and possible loss of the womb.”

Participants were of the opinion that, deciding not to use modern contraceptives can result in unwanted pregnancy. Participant 7 made this comment, “In the case where I am not ready for a baby but have unsafe sex, then if I don’t use contraceptives I will get

pregnant which will lead to unwanted pregnancy.” Participant 5 also added, “I can become pregnant while I am not ready for it.”

Participant 9 shared her view that deciding not to use modern contraceptives can affect one’s reproductive health, have an impact on their sexual life and increase their risk of contracting sexually transmitted infections (STIs), when she made this statement, “If you don’t use modern contraceptives, it can affect one’s reproductive health and have impact on your sexual life.” Participant 2 stated that, “I don’t have the soundness of mind to during and after sex because I feel there is a possibility of me getting pregnant.”

Participant 11 also made this comment, “It will result in unwanted pregnancies and contraction of sexual related diseases.” Participant 13 made a similar comment by stating that, “If you don’t use modern contraceptives, you are likely to contract STIs and also unwanted pregnancies.” Again, anxiety coupled with psychological trauma after sex and fear of getting pregnant was also mentioned. However few participants were of the opinion that nothing will happen if one decides not to use modern contraceptive.

Research Question 2: Perceived Benefits /Cues to Action/ Self-efficacy in the Use of Modern Contraceptives

Theme 4: Benefits of Modern Contraceptives

Participants expressed various concerns about the benefits of using modern contraceptives. Pregnancy prevention emerged as the major responses of participants about the benefits of using modern contraceptives. The use of contraceptives was identified as an effective means of preventing unwanted pregnancy. According to

participants, the prevention of unwanted pregnancy is a key benefit that can be attributed to the use of modern contraceptives. Participant 7 mentioned that, “It helps one to prevent unwanted pregnancy and it also avoid people from aborting babies.”

Sharing her own experience, Participant 2 said, “It’s been helpful so far in the spacing out my children and has to an extent also relaxed my mind...” Participant 13 stated, “It helped me prevent unwanted pregnancy but I felt a little dizzy and weak...also the date of my menstruation changed.” Participant 1 mentioned, “I have never used a contraceptive method before but I know it helps to prevent unwanted pregnancy.” Participant 9 made this comment, “Using modern contraceptives helps you to plan to space your pregnancy...”

Some of the participants were of the opinion that modern contraceptive helps reduce the rate of teenage pregnancy, unsafe abortions and sexually transmitted diseases (STDs). It was also pointed out that the use of modern contraceptives reduces pregnant related morbidity and mortality. Helping to plan and space pregnancy was cited by participants as another benefit of using modern contraceptives, this in turn leads to women delivering healthy babies, and having adequate time to take good care of them. Participant 9 described the use of contraceptives as a way of empowering women, when she stated that, “Using modern contraceptives helps you to plan to space your pregnancy. I can also say that it assists you to plan and space your pregnancy. It keeps your children healthy as one has time to care for them.” Participant 11 mentioned that, “It helps one plan for their family as well as with their education.” Similarly, Participant 10 said, “At

first it was fun because you can have sex with your partner without thinking about getting pregnant...”

Participants also made some responses describing disease prevention as one of the benefits of using modern contraceptives. Participant 7 stated, “The use of some of the contraceptives prevents unwanted pregnancy and also help cure sexually transmitted disease.” Participant 8 said, “It reduces pregnancy related morbidity and mortality, and it also reduces the risk of developing reproductive cancers.” Similarly, Participant 10 commented, “It helps you to prevent unwanted pregnancy and it reduces the risk of developing certain reproductive cancer.” Participant 5 also stated, “It prevents unintended pregnancies as well as sexually transmitted infection, example the use of condoms.” Participant 6 shared her experience that, “I always experience dysmenorrhea during my menses, after four years of the use of Norplant, the problem of dysmenorrhea stopped.”

Out of the 15 participants only 5 of them had never used a modern contraceptive before. The remaining participants mentioned their various reasons for using modern contraceptives and others expressed their desire to continue using modern contraceptives to protect themselves from any unintended pregnancy, which signifies a positive contraception behavior. Participants who have ever used some form of contraceptives mentioned examples to include the hormonals, condom, IUD and implant. Participant 6 stated that, “I felt motivated to use the oral contraceptives because I did not want to become pregnant after having unprotected sex ... and it also helps to space my children.” Participant 5 also commented that, “I used contraceptives when I was an undergraduate

student.” She further explained that “it was very effective and solved the problem of dysmenorrhea.” Participant 12 stated, “Career opportunities might motivate me to use modern contraceptives.”

In addition, some of the participants expressed their intention to only stop using modern contraceptives when they want to be pregnant again. Participant 9 said, “After using contraceptives I feel very sound and peaceful to concentrate on my studies. I feel motivated to use modern contraceptives because of seeing my children healthy and reducing my financial burden.” Participant 10 also said, “Unwanted pregnancy will motivate me to use modern contraceptives.” Similarly, Participant 14 stated, “I will continue to use contraceptives because I don’t want to get pregnant now.”

I obtained information on how participants planned their births to prevent unintended pregnancy. Responses from participants indicated that prevention of unintended pregnancy is best managed with either the use of modern contraceptives or complete abstinence from sex. Participant 5 stated, “I think an effective use of modern contraceptives can prevent an unintended pregnancy.” Participant 12 also mentioned that, “Unwanted pregnancy can be prevented by the use of condoms and abstinence.” Participant 1 commented, “Even though I have never used a contraceptive before, I think the best way to prevent an unwanted pregnancy is to use contraceptives.” Participant 3 also commented, “I will either use contraceptives like condom or abstain from unsafe sex.”

Participants expressed various levels of confidence to successfully prevent unintended pregnancy using the various types of modern contraceptives. Having high confidence is an indication that the participant has accepted to use modern contraceptives irrespective of the consequences. Participant 8 indicated this when she said, “Yes, because it will help to prevent unwanted pregnancy.” Participant 6 also expressed high confidence when she said, “Yes, I intend to advise women and to use modern contraceptives because it is very helpful.” Participant 9 also commented, “Yes, Yes, I will continue to use the contraceptives and even advise other women to do same because it’s safer and healthier.” Participant 13 stated, “Yes, so that they can avoid pregnancies they haven’t planned for.”

Some of the participants expressed low self-efficacy in using modern contraceptives to prevent unintended pregnancy. This is an indication of low confidence or lack of motivation to use modern contraceptives. Participant 3 stated, “Although I intend to use and advise women to also use modern contraceptives because it helps to prevent unwanted pregnancy, but I will also advise they shouldn’t use the contraceptive regularly.” Participant 4 was however, against the use of modern contraceptives when she made this statement, “...I have never used any form of contraceptives and I won’t advise women to use modern contraceptives because its side effects can affect your health.”

Questions were asked to establish whether the participants had any plans of supporting the women in the Municipality in planning their births using the various

modern contraceptive methods (Hormonals, IUD, Implants, Condoms, Sterilization, Lactational Amenorrhea Method). Participant 9 commented:

I will organize education outreach for women of reproductive age, use church platforms to inform women of the need to use modern contraceptives, distribute leaflets on contraceptives for the youth, and make the services available and without cost to the community.

Participant 2 stated, “When I get the opportunity. I will have one on one education or a group one for those I chance upon depending on the situation.” Participant 8 also expressed her willingness to promote the use of modern contraceptives with this statement, “I think I can be able to contribute in my own small way by explaining the benefits of the use of modern contraceptives.”

Similarly, Participant 5 had this to say, “Making family planning services more accessible and affordable, and correcting misconceptions on family planning or contraceptive use through health education.” Participant 12 said, “I will promote the use of modern contraceptives by giving women in my municipality, leaflets to read about modern contraceptives.” Participant 10 also said this, “I will tell my friends who have problems to visit the health facility for assistance.” Finally, Participant 7 commented, “I will promote the use of modern contraceptives through campaigns.”

Research Question 3: Perceived Threats, Barriers or Challenges in the Use of Modern Contraceptives

Theme 5: Threats/Barriers/ Challenges

Participants expressed their opinion about the negative experiences' participants have had or heard about the use of modern contraceptives. Participant 3 said, "...It has side effects if used continuously... it causes changes in menstruation, it can cause loss of menstruation or extra bleeding." Participant 4 commented, "It is not hundred percent safe because it can still lead to pregnancy. It can affect your health because it can lead to blood clotting and this can cause heart attack."

Similarly, Participant 15 shared the experiences she had in the use of modern contraceptives and she stated, "There are so many side effects associated with the use modern contraceptives, like piercing pain in the chest around the area of the heart, per my experience. Even the menstrual cycle is also altered." Participant 12 said, "Some of the methods have serious side effects, such as vaginal irritation and breast tenderness. I also think that the fear of side effects can be some of the barriers" Participant 2 mentioned, "Yes, some people may experience reactions to the modern contraceptives like the condom if they are allergic to latex." Participant 7 made this statement, "Yes, the fear of side effects... this is because the side effect of contraceptives causes a lot of health issues or problems in women, example delay in returning to become fertile as a woman." Participant 11 also stated, "Modern contraceptives can lead to cervical cancer and a change in sexual drive.

The individual's religious belief was also identified as a barrier to the use of modern contraceptives. For instance, Participant 6 shared her view by stating that, "Because of the religious beliefs of some denominations or Christian groups, it becomes difficult for some women to use the contraceptive methods." Participant 5 also commented on the barriers women face in using modern contraceptives and she stated, "Yes, the religious background of women, example being a catholic ... spouse not in agreement with the use of contraceptives poses a big challenge for some women." Participant 8 also said, "Yes, due to individual's religious beliefs, the misconception of its effect on the human body..." In describing the religious barrier to the use of modern contraceptives, Participant 3 stated, "Yes, because of religious beliefs of some denominations or Christian groups."

Only four participants expressed satisfaction on the amount of knowledge on modern contraceptives, but majority of the participants responded that they have inadequate information about modern contraceptives, which could devalue their urgency for contraceptive services. Participant 3 stated, "I don't have adequate information or education on modern contraceptives...I have never received any services on modern contraceptives at the health facility." Participant 4 commented, "I think there is more I don't know concerning the use of modern contraceptives." Participant 8 also said, "Yes, I have some information but I would want to know and learn the latest development in case new information are implemented." Similarly, Participant 15 expressed inadequate

information on modern contraceptives when she stated, “I think I still have more to learn despite what I already know.”

Questions were asked to obtain the concerns of participants on whether the health facilities in the Municipality are offering adequate contraceptive services, to give them the confidence or conviction to use the various modern contraceptives. With regards to the provision of adequate services, Participant 2 stated, “I think the staff are doing well but from the few friends I have spoken to, it seems explanation is not detailed as to the various types available and their possible side effects...” Participant 9 said, “The service is very effective as the midwives are always punctual and ready to assist.” Participant 8 expressed some satisfaction with the contraceptive services when she stated, “In general the service providers are doing well but at times the chosen method is not available.”

The confidence to use a modern contraceptive can be linked to the attitude and competence of the service providers. Participant 6 indicated this when she stated, “The facility I went to, the staff were cordial and very accommodating so I would always want to go there whenever the need arises.” Participant 15 however commented that, “Personally I see that the invasive procedures are left in the hands of a few staff to do.” Participant 2 also mentioned, “I think the staff are doing well but from the few friends I have spoken to, it seems explanation is not detailed as to the various types available and their possible side effects. Personally, I see that the invasive procedures are left in the hands of a few staff to do, so it causes a lot of delay.”

Summary of Key Findings

The study was carried out by conducting individual interviews for 15 reproductive-age women participants, aged between 20 to 39 years, living in the New Juaben Municipality. The participants described their various perceptions about unintended pregnancy, the threat or severity of non-use of modern contraceptives, the barriers to the use of modern contraceptives, the benefits in the use of modern contraceptives to prevent unintended pregnancy, cues to action, and self-efficacy in the use of modern contraceptives. An overview of the results implies that participants have significant awareness of the factors associated with unintended pregnancy, the effect of unwanted pregnancy on one's life, and how to prevent unwanted pregnancy. Research participants acknowledged the effect of non-use of modern contraceptives, but most of them had limited knowledge of the modern contraceptive methods. Religious belief and side effects of some of the methods formed a major hindrance for some participants to using modern contraceptives.

As per the themes that emerged about the barriers, the participants mentioned bleeding disorders, infertility, and diseases like cancer and heart attack. Again, there are some benefits to the use modern contraceptives, which gives participants the confidence and the motivation to continue using it. In chapter 5, I discuss interpretation of study findings, limitations of the study, implications for social change, and recommendations for future research, programs and policies to improve maternal health in New Juaben Municipality.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

My purpose in this basic qualitative study was to contribute additional knowledge to the field of public health and community health education by exploring the perception, threats, benefits, barriers or challenges in utilizing modern contraceptive methods to prevent maternal and neonatal deaths resulting from unintended pregnancy, among women of reproductive age (20-39 years) in New Juaben Municipality of the Eastern Region of Ghana. A basic qualitative study was used to address the research questions, which were linked to the six constructs of the HBM. I used the HBM as the conceptual framework for this basic qualitative study, with the aim of gaining a deeper understanding of the health behavior of women towards the use of modern contraceptives.

In this final chapter, I present a detailed discussion of the interpretation of the findings based on the three research questions and in the context of the conceptual framework that guided this study, and the themes associated with participants' responses of the interview questions. I also compare the results to findings of the literature review in Chapter 2 to gain insight into whether this study added or failed to add new knowledge to the existing body of knowledge on the phenomenon under study. Indicated also are the recommendations for future research, limitations, implications for positive social change, dissemination of findings, and conclusions of the study.

Interpretation of Findings

This section of the study presents the conclusions from the findings of this basic qualitative study that answers the three main research questions and how findings from the interview questions substantiate the conceptual framework for this study. In answering the research questions, I developed 16 open-ended questions in my interview protocol to respond to the three main research questions and the six constructs of the HBM. Themes were identified during the analysis of the interview data and this include Knowledge/ Experience on the use of Modern Contraceptives, Unintended Pregnancy, Effects of Non-use of Modern Contraceptives, Benefits of Modern Contraceptives, and Barriers/ Challenges in the use of Modern Contraceptives.

RQ1: How do reproductive-age women (20-39 years) in New Juaben Municipality perceive the use of modern contraceptives (hormonals, condoms, lactational amenorrhea method, intrauterine device, sterilization)?

Theme 1: Knowledge/Experience on the Use of Modern Contraceptives

In addressing this research question, participants were made to answer interview questions on their knowledge about the types of modern contraceptives, their beliefs regarding their use, their concerns about unintended pregnancy, and the risk of getting pregnant when not ready. Information was also sought to understand any threat there might be on not using modern contraceptives. Most of the participants mentioned about different modern contraceptive methods to include hormonals, condoms, sterilization, and intrauterine devices; their sources of information included the media (television), health

care providers, professional background, friends, and family members. The participants expressed a limited knowledge on each of the modern contraceptives to which may be attributed to less probing during the course of phone interviews. Even though the Ghana Health Service is trying so much to educate the populace and promote the use of modern contraceptives, the level of awareness seems to remain low and thus contribute to the declining contraceptive prevalence rate. Most of the participants who had ever used a contraceptive method complained about the unpleasant experiences they had; which sometimes deters them from using it again. Participant 2 commented that the side effects are her outmost concern, and Participant 4 believed that modern contraceptives are not 100% safe because it can still lead to pregnancy.

Theme 2: Unintended Pregnancy

In relation to the perceived susceptibility of unintended pregnancy, individuals who are at risk of getting pregnant will engage in health behavior that will prevent the problem. Results revealed that there is a high risk of a woman becoming pregnant unintentionally and a negative consequence follows this action. Some of the participants perceived a high risk of becoming pregnant without the use of modern contraceptives, which is in line with the findings of Azmat et al., (2015), and Kabsay et al., (2018). Participant 1 described unintended pregnancy as having children when a person has not initially planned for it, and Participant 6 indicated that an individual is at risk of unintended pregnancy when she is raped. Participant 4 also mentioned that unintended pregnancy results from unprotected sex.

However, a few of the participants perceive themselves to have a low likelihood of becoming pregnant, or they do not feel at risk of pregnancy even without the use of contraceptives. This finding supports the notion of Moreira et al. (2019). Some of the women also see themselves as less fertile, and that, they will have a difficult time getting pregnant (Schrumpf et al., 2020), which is similar to the concerns of some few participants, who are still not certain to use modern contraceptives.

Theme 3: Reasons for Non-use of Modern Contraceptives

Participants shared their understanding of reasons for non-use of modern contraceptives. Most of them pointed out that there are side effects associated with the use of modern contraceptives. A few of the participants mentioned difficulty in assessing the right contraceptive method, anxiety, and religious factors as a hindrance to the use of modern contraceptives. One participant pointed out that the modern contraceptive is not completely safe because it can still lead to pregnancy. However, some participants' responses revealed that the non-use of modern contraceptives has negatives consequences such as getting more of unwanted pregnancies, criminal or illegal termination of pregnancy, and lack of birth spacing. Previous studies by Kahsay et al., 2018; Nettey et al., 2015 confirms the study findings by indicating that the low or non-use of modern contraceptives is a health burden to reproductive-age women.

The fears and concerns the women expressed about the non-use of modern contraceptives signified their perceived threat to unintended pregnancy and their conscious desire to use modern contraceptives. The study revealed that a significant

concern among the women was experiencing negative outcomes from unintended pregnancies and getting pregnant even when they are not ready for it. This finding confirms results from other studies that show that internal or external stimuli triggers the woman's perception of a threat to pregnancy and this facilitates the consideration to remedy that threat (Beson et al., 2018; Mardi et al., 2018; Moreau & Bohet, 2016). A study by Mardi et al. (2018) also found that women who resumed menses shortly after delivery, that is an average of about a month, tend to adopt a contraceptive method.

RQ2: What are the benefits, self-efficacy, and cues to action of reproductive-age women (20-39 years) in the New Juaben Municipality to use modern contraceptives?

Theme 4: Benefits of Modern Contraceptives

The benefits associated with modern contraceptives usage cuts across the advantages for the individual woman, family, and society in general. Participants stated various benefits of using modern contraceptive methods to include pregnancy prevention, spacing of births, prevention of STDs, and women empowerment. The study revealed some positive attitudes of women who have benefited from the use of modern contraceptives by preventing pregnancies, and strategically spacing their births, and this supports the notions of Ajong et al. (2016); and Asaolu et al. (2017). Some women also used modern contraceptives to enable them enhance their education and support their family financially. Some researchers have highlighted the positive association between reproductive health and modern contraceptive usage to include the prevention of pregnancy-related health risks in women, reduction of maternal mortality, women

empowerment, and aversion of unplanned pregnancies and its associated adverse outcomes (WHO, 2018; Nsubuga et al., 2016; Mutumba et al., 2018; Asaolu et al., 2017; Ajong et al., 2016).

The cues to action in the use of modern contraceptives can be linked to either the influence of health care workers on the choice of contraceptive or information from friends and the social media, as indicated by Roderique-Davies et al. (2016). This study confirmed these findings when some of the participants highlighted on the provision of adequate contraceptive services by competent health providers. Most of the participants expressed satisfaction about the attitude of the health care providers and support from family and friends, which boosted their confidence to assess the service. There were however, concerns of inadequate provision of contraceptive information, especially on the various contraceptive methods and the side effects of the methods, which tend to reduce their self-efficacy to confidently use modern contraceptives.

RQ3: What are the perceived threats, barriers, or challenges in the use of modern contraceptives by reproductive-age women (20-39 years) in the New Juaben Municipality?

Theme 5: Threats/Barriers/ Challenges

Some constraining factors stand between women's preferences on the number and timing of their pregnancies. When women are faced with barriers or challenges to contraceptives, their ability to avoid unintended pregnancies is restrained. Participants mentioned the negative experiences they faced following the use of some of the modern

contraceptive methods (hormonals), to include irregular menstruation, bleeding disorders, pain in the chest, and delayed fertility. Other research studies indicate that the fear of side effects and difficulty in adhering to specific contraceptive methods serves as a challenge to contraceptive use (Islam, 2014; Sedgh et al., 2016).

Other participants shared their misconceptions on modern contraceptives as rendering a woman infertile, which is in line with studies by Ochako et al. (2015), and Wulifan et al. (2016). A participant stated that modern contraceptives can lead to cervical cancer and a change in sexual drive. The negative consequences of using modern contraceptives as shared by the participants were either based on their personal experience or that of others. Participant 2 mentioned that some people do experience reactions to the condom if they are allergic to latex.

Male partner rejection and access to contraceptive services was not a major issue for the participants, contrary to a report by Cleland et al. (2014), who attributed lack of access to services as a root cause of an unmet need for family planning. Only one participant attributed spouse disagreement as a barrier to the use of modern contraceptives. Other concerns that were raised by participants were their religious belief which prevented them from effectively using modern contraceptives. Participant 8 indicated that the religious background of an individual, such as a Catholic, poses a challenge in using modern contraceptives. This finding confirms the study by Gele et al. (2020) that religious beliefs does not favor contraceptive use.

Limitations of the Study

The study was limited to reproductive-age women (20 to 39 years) because they represented the group who patronize contraceptive services in the Municipality, and who are at risk of complications of unplanned pregnancies resulting from unsafe abortion practices. The results of the study may not, therefore, be generalizable to all women in the reproductive age (15 to 49 years). The study was also limited to the New Juaben Municipality, thereby excluding other locations in the Eastern Region of Ghana. Again, the sample size for this study was 15 participants, which does not reflect the entire population of reproductive-age (20 to 39 years) in New Juaben Municipality. There was also the probability that participants will be reluctant to answer questions honestly and extensively, and this could be a limitation to the study whereby the integrity of information will be threatened.

I employed a purposeful sampling technique to recruit participants that were within the inclusion criteria, with regards to age, residency, and better knowledge and experience of modern contraceptive methods. I selected 15 participants for the study, which according to Creswell (2014) is an adequate number for a qualitative study. Due to the limited time period for the phone interview, not much probing was done during the interview. However, I ensured that the results from the responses of study participants were quoted verbatim without any bias. I utilized a semi-structured interview with open-ended questions for the study, and I ensured that they all answer the same questions.

Recommendations

This study was carried out to bridge the gap in literature available on the perception and overall experiences of reproductive-age women (20 to 39 years) in New Juaben Municipality about the use of modern contraceptives to prevent unintended pregnancy. There is a decline in the use of modern contraceptives among reproductive-age women (20-39 years) in the Eastern Region between 2014 and 2016 (GSS, 2017), and the New Juaben Municipality of the Eastern Region of Ghana records a drop-in contraceptive prevalence rate despite the availability of contraceptive services in the health facilities (Reproductive and Child Health Unit Annual Report, 2019), which puts the health of the women and children at great risk. The cause of persistent decline in the contraceptive prevalence rate in the Municipality have not been identified, and there is a need to close this gap. Studies carried out in other regions in Ghana are, however, different from my study in that the focus of my study is on the contraceptive behavior of reproductive-age (20 to 39 years) using the six constructs of the HBM.

Being the first study in the Municipality, I recommend that more research is done to identify the reproductive health needs of the adolescents in the Municipality, in relation to the prevention of teenage pregnancy using modern contraceptives. It is also important to study into the role men can play towards the promotion of reproductive health using modern contraceptives, since they have influence on decision making processes to support women's preventive healthcare. Many times, men are not aware of their roles in preventing unintended pregnancy, and they do lack knowledge on the

various contraceptive methods that promote maternal and neonatal health (Worku et al., 2019). Studies in these areas could further help to understand the issues necessary to improve contraceptive prevalence rate.

To address the limited knowledge on modern contraceptives, it is important to continuously give health education on the different modern contraceptive methods, and how contraception works to prevent pregnancy. As noted by Harries et al. (2019) the communication and knowledge gap on modern contraceptives must be addressed because they influence uptake and effective contraceptive use. I recommend that a more intensive community centered health education program and dynamic communication strategy is developed to bridge the knowledge and communication gap between users and providers of contraceptive services in the Municipality.

Implications for Positive Social Change

The implications for positive social change include a better understanding of why women 20 to 39 years are not efficiently using modern contraceptives to prevent unintended pregnancy. Based on the responses from the participants, there is a need to correct misconceptions and intensify education on the use of modern contraceptives to prevent unintended pregnancy and its associated complications. Presently, education on family planning is carried out in the health care facilities but it is limited to few days and a few health care providers to give the talk. The provision of community -centered education or counseling and dynamic communication strategy is needed to promote and maintain modern contraceptive uptake.

Reproductive age women (20 to 39 years) in New Juaben Municipality provided their perception, knowledge, and experiences in the use of modern contraceptives to prevent unintended pregnancy. The women have shared their concerns about the role health care providers needs to play to boost their commitment to continue using modern contraceptives. The study findings have the capability to enhance understanding of the perceptions of unintended pregnancy and contraceptive behaviors. It is hoped that the study results will support health care providers to help the populace and encourage them to patronize the contraceptive services. This study also provides the Ghana Health Service and the health facilities in the Municipality the information to encourage them to advocate for policies that would mandate that public and school sex educational programs include topics on pregnancy prevention using modern contraceptives.

Conclusion

Women in the reproductive-age group constitutes a population at greater risk of unintended pregnancy. There are knowledge gaps in understanding the low utilization of modern contraceptives despite the availability of family planning services (WHO, 2016). Despite the availability of modern contraceptive services, there are still records of low usage with increasing reports of unintended pregnancy and unsafe abortions (Beson et al., 2018; WHO, 2018). This study was conducted to explore reproductive-age women's account of perceptions and challenges in the use of modern contraceptives.

Data was collected directly from reproductive-age women (20 to 39 years) who are residents of New Juaben Municipality in the Eastern Region of Ghana. I used the six

constructs of the HBM to design the interview protocol for data collection. I found out that participants desired to prevent unintended pregnancy and space out their births, but the misconception and side effects of the contraceptive methods often deters them using modern contraceptives. A few of the women complained of not having adequate information on all the modern contraceptive methods and their side effects, but they still intend to use the contraceptives to prevent unintended pregnancy.

The study findings could contribute to the knowledge base of the various factors that influence the decision to use modern contraceptives to prevent unintended pregnancy among reproductive-age women. The results of the study could further promote the development of appropriate health interventions to the address the barriers to the use of modern contraceptives. The lived experiences of participants highlight the need for further education about reproductive health needs of women. The Ghana Health Service and other stakeholders have a responsibility of intensifying education and empower women to use modern contraceptives to prevent unintended pregnancy.

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Appendix A: Demographic Questions

Sociodemographic Data

Age.....

Marital Status

Residency in New Juaben Municipality

Educational Level

Employment Status

Religion

Parity.....

Heard/Ever used contraceptives.....

Appendix B: Interview Guide

Perceived susceptibility to unintended pregnancy

1. What are your views concerning unintended pregnancy?
2. How can a woman be at risk of getting pregnant?
3. How do you think an unintended/ unwanted pregnancy can be a threat to your life?
4. How will you prevent an unwanted pregnancy?

Perceived threat/ severity to non-use of modern contraceptives (Hormonals, Condoms, IUD, Implants, LAM, Sterilization)

5. What types of contraception do you know about?
6. What are your thoughts about the use of modern contraceptives?
7. What would happen to you if you don't use modern contraceptives?

Perceived barriers or challenges to the use of modern contraceptives

8. What factors could affect your decision not to use modern contraceptives?
9. How can the use of modern contraceptives affect your health?

Perceived benefits of modern contraceptive use

10. How would you describe your experiences with the use of modern contraceptives?
11. What do you think are the benefits of using a modern contraceptive method?

Cues to action on the use of modern contraceptives

12. How were you motivated to use modern contraceptives?
13. What are your concerns about modern contraceptive services at the health facility in or outside your community?

Perceived self-efficacy to use of modern contraceptive

14. Do you think you have adequate information on modern contraceptives, or you think there is more you don't know?
15. Describe your confidence to successfully prevent unintended pregnancy using a modern contraceptive method.
16. How will you promote the use of modern contraceptives in the Municipality?

Appendix C: Participant Information Sheet

PARTICIPANTS INFORMATION SHEET**Title of Study: Contraceptives Use Among Reproductive-age Women in New Juaben Municipality, Ghana.**

The research study is about the use of modern contraceptives among reproductive-age women (20-39 years) in the New Juaben Municipality. The contraceptive prevalence rate in the Municipality continues to show a decline despite the availability of contraceptive services across the region. There seems to be challenges associated with the use of modern contraceptives among reproductive-age women despite their desire to space their births or prevent unplanned pregnancies.

Nature of research:

This is a qualitative study which is targeting reproductive-age women (20-39 years) in the New Juaben Municipality of the eastern region of Ghana. The study intends to interview a sample of women to identify their perception, threats, barriers, perceived benefits and cues to action in the use of modern contraceptives. The results of the study will contribute to identifying ways to promote modern contraceptive usage and reducing maternal mortality in relation to unplanned pregnancy and unsafe abortion practices in the Municipality.

Participant's involvement:

- A phone interview will be conducted for only women who meet the legibility criteria (20-39 years; residents of New Juaben Municipality; interested in the research study). You will be made to sign a consent form after the procedure for

interview has been explained to you. A phone interview will be conducted at your own convenient time, which will be recorded and later transcribed for analysis.

- **Potential Risks:**

Please, be informed that you will have to sacrifice your time as the duration of interview may last for about an hour.

- **Benefits:** The study would not have direct benefit to you as a participant but the results would serve to contribute to strategies that will promote the use of modern contraceptives thereby improving the contraceptive prevalence rate in the Municipality.

- **Costs:**

Please, be informed that the duration for the phone interview may incur some cost to you. You are therefore required to schedule your own time of convenience for the interview.

- **Compensation:**

You will be compensated with a token of 50 cedis for your time of participation.

- **Confidentiality:** Participants' names will not be needed for the study so codes will be used to assist with the transcription of data. Information gathered from participants will only be shared with the supervisor and no other person.

- **Voluntary participation/withdrawal:** Please, understand that your participation is voluntary and that you have the right to decline from the study at any point in time without any penalty.

- **Outcome and Feedback:** Data from the study will be made available to the participants only on demand, but it will be shared with the supervisor and institution of study, as well as the health facility where participants are selected.
- **Feedback to participant:** Feedback will be given to participants on whether the interview was well conducted and the recording was clear. Where there is an error in the recording, another interview will be scheduled.
- **Funding information:** The entire research study will be funded by the principal investigator.
- **Sharing of participants Information/Data:** The data will be owned by the principal investigator but the results will be shared with the supervisor, institution, health facility, and eastern regional health directorate.
- **Provision of Information and Consent for participants**

You will be given copies of the information sheet and informed consent forms after it has been signed or thumb printed.