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**COLLEGE OF HEALTH SCIENCES**

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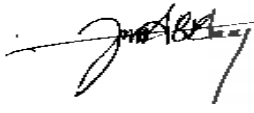


**A DISSERTATION SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH,  
UNIVERSITY OF GHANA IN PARTIAL FULFILMENT OF THE REQUIREMENT  
FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE**

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### DECLARATION

I hereby declare that the work in this dissertation titled “Determinants of Male Partner Involvement in Antenatal Care and its Effect on Birth Preparedness and Complication Readiness at the New Juaben North Municipality” has been carried out by me in the School of Public Health and is my original work. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

  
.....

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...24<sup>th</sup> April,2023.....

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...24<sup>th</sup> April,2023.....

**Date**

## DEDICATION

I dedicate this thesis first to God Almighty for His guidance and direction. I also dedicate this to my lovely mother, Mrs. Ernestina Blay, my husband Mr. Akwasi Asare, and my siblings, Nana Nyarko Blay, Abere Nyarko, Afua Agyapong, Abena Duodu, and Kwame Blay for all their encouragement, prayers and support.



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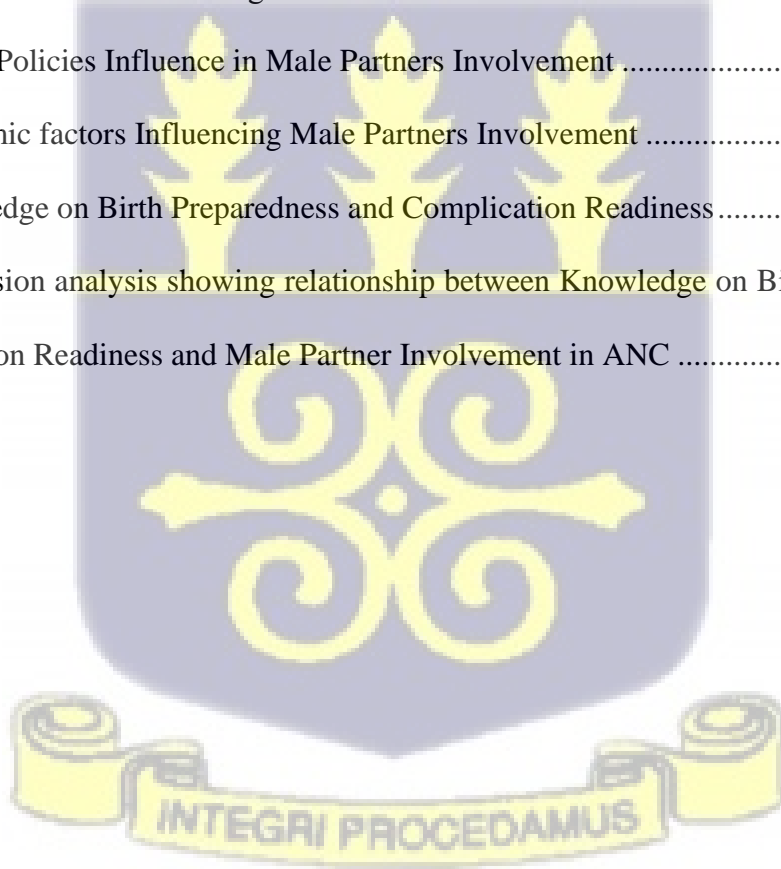
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## LIST OF ABBREVIATIONS

ANC	Antenatal care
BF	Breastfeeding
BP	Blood Pressure
BPCR	Birth Preparedness and Complication readiness
BSL	Blood Sugar level
BWC	Birth Weight Centile
MPI	Male Partner Involvement
NJN	New Juaben North
SRH	Sexual and Reproductive Health
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization



## ABSTRACT

Despite the multiple benefits of male partner engagement in maternal healthcare, the prevalence of involvement is rather low internationally. Men are rarely involved in accompanying women to seek maternal health care in middle- and low-income countries, particularly in Sub-Saharan Africa. However, limited research has been done on this subject in Africa and more so in Ghana.

The study evaluated the factors that affect male partners' involvement in antenatal care (ANC) and its effect on Birth Preparedness and Complication Readiness (BPCR). The study aimed to address three specific objectives: ascertain the prevalence of male partners' involvement in antenatal care utilisation; identify the sociocultural and economic factors that influence male partners' involvement in antenatal care; and assess the impact of male partner involvement in antenatal care on BPCR in the New Juaben North Municipality.

A total number of 310 men between the ages of 18-60 years whose partners were ANC attendants and were pregnant or had delivered in the last 24 months were randomly sampled and interviewed.

Semi-structured interviewer-administered questionnaires were used to gather the data. Excel spreadsheets were used to enter the data and SPSS version 27 was used to analyse it.

Descriptive statistical analysis was used to assess male involvement in antenatal care in the New Juaben North municipality. The linear regression model was used to assess the effect of male involvement on birth preparedness.

The results indicate that the majority of male partner respondents (58.7%) attended ANC once or more. This observation demonstrated that the participants made some effort to accompany their partners to ANC. However, when asked about active participation in ANC visits (where they saw the health care personnel together with their partners and interacted with them), 73.5%

(228) of male respondents gave negative responses which indicate that the majority of individuals were not actively involved in the ANC.

The study explored factors influencing male partners' engagement in prenatal care in New Juaben North Municipality. Cultural norms, such as the belief that men should not mix with women or discuss sex openly, were found to be influential in limiting involvement. Health policies like free access to ANC, reproductive health education, and partner participation positively impacted male engagement. Financial issues, including unexpected costs at ANC facilities, negatively affected participation. Regression analysis indicated a significant relationship between male partner involvement in ANC and improved birth preparedness, with a coefficient of 0.031, signifying a 10% significance level.

In conclusion, the existing male involvement in ANC within the district is a positive sign. However, to maintain and build upon this progress, it is essential for the health directorate to collaborate with appropriate institutions to conduct comprehensive public education campaigns.



## CHAPTER ONE

### INTRODUCTION

#### 1.0 Background of the study

An estimated 152 maternal deaths for every 100,000 live births occur globally due to complications related to pregnancy and childbirth (UNICEF, 2021). The majority of these fatalities are recorded in developing countries including sub-Saharan Africa (UNICEF, 2021).

A woman can die from complications that occurred while she was pregnant, during childbirth, or after childbirth. The number of women who lose their lives as a result of preventable maternal causes drops dramatically when they have made adequate preparations for childbirth and any complications that may arise (Mersha, 2018). Usually, the challenges including lack of financial support, access to quality healthcare, and support from partners tend to be limiting factors for birth preparedness (Craymah et al., 2017). Male involvement helps to provide women with the needed leverage to attend ANC. Men provide financial, emotional, and psychological support to their pregnant partners which goes to empower them to attend ANC. It was acknowledged at both the 1994 International Conference on Population and Development in Cairo and the 1995 World Conference on Women in Beijing that empowering women to go to ANC requires the engagement of men to advance improvements in reproductive, maternal, new-born, and child health (RMNCH) outcomes.

In the Beijing Declaration, there was a widespread agreement to "encourage men to participate fully in all actions toward equality" (Alliance ME & UN Women, 2014). The cause of these organisations requires significant male participation to unearth and address the male attitudes, beliefs, and behaviours that maintain gender power differentials and reinforce inequalities that contribute to poor maternal health outcomes.

Male involvement has been described as a process of social and behavioural change that require men to play more responsible roles in maternal health care (MHC) to ensure the health and

well-being of both women and children. This change is necessary for males to take on more responsible roles in MHC (Yidana et al., 2018). It is impossible to overstate how important it is to have direct involvement from men in efforts to lower the rate of maternal mortality. The numerous spheres of influence that men have in almost every aspect of life have led to the necessity of their participation in maternal health care (Isiugo-Abanihe, 2016). The practice of male dominance, also known as “patriarchy”, is a major contributor to the negative attitude that many men have toward maternal health, particularly in African countries (Craymah et al., 2017). Because African men play such an important role in the decisions that affect their families, they must participate in and lend their support to maternal and child health programmes. People's capacities to manage their sexual and reproductive health (SRH) are largely determined by their social relationships, which has important repercussions not only for their health but also other available options in life. In order to enhance health outcomes for women and children, the World Health Organisation (WHO) recommends that fathers actively participate in antenatal care (ANC), delivery, and postnatal care (WHO, 2016a). The health of mothers and their children is thought to benefit greatly from male engagement. Men's involvement in reproductive health improves communication between partners, which in turn decreases the number of unintended pregnancies and increases women's readiness for childbirth. Hence, it reduces maternal and child mortality.

When pregnant women are educated together with their partners at ANC, there is better assimilation of information given and obstetric emergencies are quickly identified for seeking early intervention and prevention of mortality (Kululanga et al., 2011a). Also, when men visit ANC clinics, they have the chance to understand the relevance of antenatal care, as a result, they tend to be more supportive of their partners and encourage them to attend clinics and report health problems (Kululanga et al., 2011; Mullany, 2007).

According to the findings of some studies, a pregnant woman can avoid plenty of unfavourable outcomes if she receives social and psychological support during her pregnancy. This support can come not only from providers of excellent maternal and child healthcare but also from other members of their social network, particularly their partners (Craymah et al., 2017).

Engaging men in healthcare early in pregnancy is seen as a chance to educate men on the significance of perinatal healthcare, as well as an opportunity to assist men in providing their partners with appropriate support throughout pregnancy, birth preparation, and the postnatal period (Jackson et. al, 2016). It is also the right moment to discuss the sexual and reproductive health of men and to encourage them to take on the role of responsible partners to women and parents to their children (Forbes et al., 2018).

Birth preparedness and complication readiness (BP/CR) is an important component of ANC. It encourages active preparation and decision-making for delivery by pregnant women and their families, and it aims to increase timely access to professional maternal and neonatal services (Kalisa & Malande, 2016). This is because every pregnant woman runs the danger of experiencing unexpected and potentially life-threatening problems, any of which might result in the mother's death or injury, as well as that of her unborn child (Kalisa & Malande, 2016).

Birth preparedness and complication readiness is the important reason why male involvement in prenatal care is critical. Aguiar & Jennings (2015) list frequent ANC visits, a birth plan developed with a trained medical professional, a safe and convenient delivery location, the allocation of funds or the saving of funds for transport, and the arrangement of transportation as the due date approaches as examples of such preparations. It has also been shown that when males are involved in prenatal care, they are better able to see potential problems early and provide their partners with the encouragement they need to seek treatment (Kaye et al., 2014).

Increased institutional deliveries and postnatal service utilisation are just a few of the positive outcomes of preparing for birth and being ready for complications. Better birth plans also reduce maternal morbidity and mortality by preventing unnecessary delays in seeking care due to obstetric emergencies. All three types of delay are reduced as a result of these factors, leading to better delivery results (Yargawa & Leonardi-Bee, 2015).

Despite enormous social and economic control held by husbands over their wives, pregnancy and delivery are seen as exclusively women's problems in sub-Saharan Africa, although male participation is crucial in this area (Kalisa & Malande, 2016). Male participation in maternity and child health (MCH) programmes has been shown to have positive outcomes, yet, it remains low in sub-Saharan African nations, and in many contexts, it is inconceivable for a male partner (MP) to be present in the delivery room. (Bhatta, 2013). In particular, countries in SSA that account for the large proportions of maternal deaths have reported correspondingly low levels of male partner involvement which include 54% in Tanzania (Natai et al.,2020), 29.8% in Ethiopia (Ayalew et al.,2016), 6% in Wakiso District, Uganda (Kariuki & Seruwagi, 2016) and 26% in Nairobi, Kenya (Aluisio et al.,2016). The few male partners who are supportive have also encountered health systems that are unwelcoming, frightening, and unsupportive which is a wasted chance to appreciate their commitment. This study thus delved into the determinants of male involvement in ANC and the impact it has on birth preparedness and complication readiness. The results provide some insights, which may help in the search for ways to improve male participation.

## 1.1 Problem Statement

According to Suandi, Williams, and Bhattacharya (2020), the inclusion of male partners in accessing ANC treatment has helped to boost service utilisation, ultimately benefiting child and mother's health. As a result, pregnant women who have supportive partners during pregnancy and childbirth have a lower chance of maternal death or losing their baby. Pregnant women whose partners participate in ANC have been shown to be more likely to use reproductive health care services, which in turn improves mother and child health outcomes.

Despite the multiple benefits of male partner engagement in maternal healthcare, the prevalence of involvement is rather low internationally. Men are rarely involved in accompanying women to seek maternal health care in middle- and low-income countries, particularly in Sub-Saharan Africa (Kariuki & Seruwagi, 2016). Male involvement in prenatal care has declined worldwide, especially in poor and middle-income nations. Less than half (45.7%) on average of men ever accompanied their partners for ANC checkups, according to an analysis of Demographic and Health Surveys (DHS) across eight chosen African nations. With 18.2%, Burundi had the lowest percentage (Jennings et al., 2014). According to research conducted in Ethiopia, 26.5%, 11%, and 3% of men saved money, made travel arrangements, and located a medical facility to assist their partners in giving birth, respectively (Mersha, 2018). In recent research by Atuahene et al. (2017) in under-served neighborhoods in Accra, Ghana, out of 256 participants, only 47 (8.4%) men accompanied their partners to ANC clinics. Even among the 47, 40.4% of them went to ANC clinics with their spouses just once, 51.1% visited twice, and only (Atuahene et al., 2017).

The poor attendance of male partners at antenatal healthcare facilities in New Juaben North Municipality mirrors the national situation (New Juaben Municipal Health Directorate, 2022). Few men in the district attend or follow their spouses to the hospital to seek medical attention.

Based on records from New Juaben Municipal Health Directorate (2022), male attendance has been low with an average of 29.2% of females being accompanied by their partners to antenatal care between 2019 and 2021. Meaning not even 50% of the females that attend ANC are accompanied by their partners. This is an alarming situation as men are considered crucial to aid in the reduction of maternal mortality and improvement of maternal health. As a result, it is critical to identify the elements that influence men's failure to participate in ANC. Studying this problem will aid in the identification of appropriate remedies to minimise the occurrence and encourage men to attend ANC.

There have also been several studies on male involvement in maternal health. However, the majority of these studies, both local and foreign have mostly focused on the female perspective. Aborigo et al. (2018), Ali et al. (2020), Kabanga et al. (2019), Kalisa & Malande, (2016), who investigated the topic used predominantly females. Whiles others broadly investigated male partner involvement in maternal health(Craymah et al.,2017). Consequently, this study delves into the opinions of males focusing specifically on antenatal care. This is thought to produce better results in terms of identifying the reasons that prevent males from participating in ANC as studying the issue among female respondents produces a significant bias, since women's perceptions may be only a mirror of their sentiments about the quality of their relationships with their male partners (Craymah et al., 2017). Furthermore, investigations on the issue in Ghana have seldom assessed the impacts of male involvement in ANC. This study wants to fill that gap in the literature, using male respondents while employing some rigorous quantitative analysis. Thus, the study delves into the determinants of male involvement in ANC and the impact on birth preparedness and complication readiness.

## 1.2 Research objectives

### 1.2.1 General Objective

The general objective of the study is to assess the determinants of male partner involvement in antenatal care and ascertain its effect on birth preparedness.

### 1.2.2 Specific Objectives

The study seeks to achieve the following specific objectives:

1. Determine the prevalence of male partners' involvement in antenatal care utilisation in New Juaben North Municipality.
2. Identify the sociocultural and economic factors that influence male partners' involvement in antenatal care in New Juaben North Municipality.
3. Ascertain the effect of male partners' involvement in antenatal care on birth preparedness and complication readiness in New Juaben North Municipality.

## 1.3 Research Questions

The study seeks to answer the following questions:

- i. What is the prevalence of male partners' involvement in antenatal care utilisation in New Juaben North Municipality?
- ii. What are the social, cultural, and economic factors that influence male partners' involvement in antenatal care in New Juaben North Municipality?
- iii. What is the effect of male partners' involvement in antenatal care on Birth Preparedness and Complication Readiness (BPCR) in New Juaben North Municipality?

#### **1.4 Justification of the study**

Research on the determinants and impact of male partners' involvement in antenatal care on birth preparedness and complication readiness will aid health institutions in developing strategic approaches towards achieving better participation of male partners in antenatal care and the best BPCR for expectant mothers and fathers. Health professionals and other health policy makers might use this study as a resource to better understand male partners' engagement in ANC. The study would benefit both local and international health agencies, such as Ministries of Health, the World Health Organization, and others because it would help them understand how much male partner engagement enhances birth preparation. Furthermore, the study would add to the increasing body of knowledge on male partners' engagement in ANC and birth preparation. It would also serve as a starting point for more study on the issue. Again, academics will be interested in the study because it differs from previous studies which focused on the perspectives of women.

#### **1.5 Scope of the study**

This study focuses primarily on male involvement in ANC utilisation at New Juaben North Municipality. The study focused on men who have partners who were pregnant or have delivered in the past 24 months and were attending ANC.

#### **1.6 Limitations of the study**

The investigation was constrained by time, money, and data. There was lack of local and recent academic resources. Due to budgetary restrictions and time constraint, the study is limited to a single location.

#### **1.7 Chapter Organisation**

The thesis is organised into six chapters. The background of the study, problem statement, the aims of the research, research questions, justification, scope of the study and limitation of the

study are presented in the first chapter. The second chapter reviews pertinent literary material. The review of the literature encompasses conceptual, theoretical, and empirical studies. The third chapter of the study presents the research methodologies. It covers research techniques including study design, research approach, study area, study population, sampling techniques, sample size, data collecting and analysis. The fourth chapter reports the results obtained. Discussion of the study results is presented in chapter five. Conclusions, and suggestions are summarised in chapter Six.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter reviews literature such as published books, and articles that relate to the subject matter of the study. The review focuses on the objectives of the study, concepts of the study, and previous empirical studies.

#### 2.1 Overview of Antenatal Care

Antenatal Care or prenatal care is a form of preventive care. This care is offered in the form of prenatal check-ups, and it consists of medical advice on how to live a healthy lifestyle, as well as information on topics like the physiological and biological changes that occur in a pregnant woman, and prenatal nutrition, which includes the use of prenatal vitamins, to protect against diseases and improve the health of both the mother and the unborn child (David et al., 2021). Maternal mortality, stillbirths, congenital malformations, low birth weight, neonatal infections, and other preventable conditions have all decreased because of routine prenatal care, which includes screening and diagnosis.

Antenatal care is crucial as it was found that in 2015, a total of 303,000 women lost their lives as a result of conditions associated with pregnancy or delivery (WHO, 2022). These deaths could have been easily prevented through ANC. This is because the majority of these deaths were as a result of severe haemorrhage, sepsis or infections, eclampsia, obstructed labour, and the after-effects of botched abortions. The majority of these factors are either avoidable or may be effectively addressed through various treatments during ANC (WHO, 2022). Access to and the ability to take advantage of ANC are two major factors that have a role in reducing the risk of maternal death. Women who do not receive prenatal care have a mortality risk that is three to four times higher than the mortality risk of women who do receive prenatal care due to

problems related to pregnancy or delivery (WHO, 2022). The importance of ANC cannot be overemphasised, and the involvement of male partners can help alleviate the deficiencies.

Traditional ANC was established in the early 20th century, however, there is no proof that it is the most effective method (Dowswell et. al, 2015). The World Health Organization (2020) suggests that all pregnant women get at least eight prenatal visits, during which any problems can be identified and treated. Many women do not have the recommended eight prenatal visits, which are important for the health of the mother and the baby. There is scant data to back both the frequency with which pregnant women receive prenatal care and the quality of that treatment (Dowswell et. al, 2015). Some professionals believe that women who are pregnant but are not at high risk should have fewer prenatal checks. According to the data, infants born to moms who did not visit the hospital often had a much higher risk of being admitted to neonatal critical care and significantly longer median lengths of stay (though this could be down to chance results). Declining ANC programmes are associated with an increase in perinatal mortality in resource-poor settings where visit rates are already low (Dowswell et. al, 2015). Thus, the reduced visits paradigm appears dubious even in low-income countries (LICs), where pregnant women already attend fewer examinations (David et al., 2021). Not only is it recommended that expectant mothers get prenatal care as early in their pregnancies as possible, but there is also a more adaptable pathway allowing extra visits from the time a pregnant woman plans for prenatal care, which may allow for more focus on those who show up late (David et al., 2021). Additionally, women who did not access the recommended number of prenatal visits reported lower levels of satisfaction with their care (Dowswell et al., 2015).

ANC with the current technological improvement in healthcare birth greatly reduce maternal complications and deaths. The decrease in the number of fatalities and complications that occur among pregnant women can be attributed, in large part, to improved aseptic procedures, improved hydration management, increased access to blood transfusions, and enhanced

prenatal care. With ANC, a mother before delivery is aware of the need to have blood on standby and other required needs. Pregnant women are well-prepared and educated through ANC (Miller et. al, 2007). In part, to help increase ANC's impact, there is the need for public health interventions, especially in rural communities. Without that, improved technology to save the lives of women and children will be limited.

Poor attendance to ANC is an issue that should be addressed from a public health perspective, which involves learning as much as possible about the scale of the problem, pinpointing its root causes, and taking action to mitigate those causes which will go a long way to increase ANC attendance and reduce birth complications, as well as maternal and child deaths (Rai et. al, 2012).

### **2.1.1 Access to Maternal Care and the Three Delays Model**

Generally, a woman's participation in ANC is associated with a host of challenges. WHO (2022) underlined that women's access to care is affected by three critical factors that are highlighted by the three delay models. The delays model emphasizes that maternal health care is hindered by delays in seeking care, delay in reaching care, and delay in receiving adequate and appropriate care.

The choices that pregnant women and/or other persons who make decisions contribute to the delays that occur when they try to get medical attention. A spouse and other family members can participate in decision-making. Lack of understanding about when it is appropriate to seek medical attention, difficulty to afford medical attention, and the requirement that women obtain permission from family members are all examples of factors that might contribute to delays in seeking medical attention (WHO, 2022). This emphasizes the extent to which male involvement in ANC is much needed. It mitigates the delay in seeking medical attention. Delays in reaching care include causes such as constraints in transportation to a medical

facility, lack of proper medical facilities in the region, and loss of faith in medicine (WHO, 2022). Delays in getting adequate and appropriate treatment may occur due to insufficiently skilled caregivers, a lack of necessary supplies, a lack of knowledge of an emergency, or a lack of comprehension of the severity of the situation (WHO, 2022). The three-delays model demonstrates that maternal mortality can be caused by a wide variety of interrelated causes, including those that are social and cultural (WHO, 2022).

### **2.1.2 Women's Access to ANC**

Problems with "access" might arise for a variety of reasons, such as a lack of partner support, a lack of financial resources, time to travel to a clinic, reliable means of transportation, and familiarity with medical terminology. Pregnant women need to be able to get to their prenatal (pre-delivery) care appointments to have a healthy baby. These prenatal checkups provide a chance to educate the expectant mothers on the health benefits of giving birth at regular intervals and on how to manage their current pregnancies (Rai et. al, 2012).

Researchers have shown a correlation between giving birth in a hospital or other facilities supervised by a medical professional and improved maternal and infant outcomes. Sub-Saharan Africa and South Asia, the two regions worst hit by maternal mortality, also had the lowest rates of skilled attendance at delivery, at 45% and 41%, respectively. Services including emergency caesarean sections, blood transfusions, antibiotics for infections, and aided vaginal birth with forceps or vacuum are all part of emergency obstetric care, which is essential in reducing maternal mortality. Medical treatment is not easily accessible due to a combination of physical and financial obstacles. Seven in ten women of childbearing age lack health insurance. As a result, women are less likely to be able to receive the prenatal care they need, which increases their risk of dying during childbirth (Rai et. al, 2012).

A pregnant woman is more likely to get medical treatment when she needs it if the public has a better understanding of pregnancy and the potential risks and issues that might arise during pregnancy thanks to health education initiatives. There is evidence that suggests that women with more education are more likely to utilize family planning and contraceptive services, as well as seek prenatal care. A pregnant woman must be aware of the warning signs of difficulties so that she may seek medical attention promptly. A pregnant woman will be more likely to seek treatment if she feels she has a good relationship with the healthcare system. Increased adherence to prescribed therapies may also benefit from improved patient-provider communication and the providers' cultural competency (Rai et. al, 2012).

The implementation of specialized education for moms is also a crucial preventative step. Healthcare providers should simplify their explanations to help prevent misunderstandings between doctors and patients, particularly those from lower socioeconomic backgrounds. Improving healthcare provider training can also play a role in reducing the number of maternal deaths. According to the study, white medical students and residents often held inaccurate and even "fantastical" biological assumptions regarding racial differences in patients. As reported by Rai et al., (2012) medical professionals have a hard time empathising with patients whose experiences are different from their own.

### **2.1.3 Factors that Affect Women's Participation in ANC**

Male participation in ANC is heavily reliant on their partners' willingness to attend ANC (WHO, 2022). Thus, knowing the factors that influence women's participation in ANC helps to understand the reasons why their partners are unlikely to join. A variety of variables influence women in developing countries' ability to use ANC services (Farah & Karim, 2013). According to the health behavioural model developed by Andersen and Newman, personal determinants of health care use may be broken down into predisposing, enabling, and need factors (Boerleider et al., 2013). The conceptualisation of ANC use variables and the

concentrated literature search for the determination of the components of the study with prenatal care utilisation were both aided by this model. Predisposing factors, as they pertain to ANC, are personal characteristics that a woman possesses prior to being pregnant that affect her propensity to seek treatment. Young age, low education level, unemployment, language barriers, lack of social network support, and unfamiliarity with the healthcare system have all been linked to limited ANC use (Feijen-de Jong et al, 2012). Facilitating factors are those that pave the way for pregnant women to get ANC. Attendance at ANC has been connected to factors including whether a person has health insurance, the desired pattern of ANC, the quality of communication between the care provider and patient, and the clinician's familiarity with cultural norms (Feijen-de Jong et al., 2012). High parity, unintended pregnancies, a lack of prior preterm births, medication discontinuation, late pregnancy detection, and behavioural characteristics including smoking during pregnancy have all been linked to inadequate ANC usage (Heaman et al., 2013). Several of the most important factors are discussed in length below.

### **2.1.3.1 Age of the mother**

There is disparity in findings regarding whether older or younger women are more likely to use ANC services. Several studies have revealed that a woman's youthful age is a risk factor for not making use of ANC services (Nketiah-Amponsah et al, 2013). Other research indicate that older people tend to use more ANC services as they become older (Roy et al., 2013). Women between the ages of 20 and 34 are more likely to get ANC than those between the ages of 15 and 19, according to a study conducted in Central Ethiopia (OR=1.168 by (Birmeta et al). Similar results were found in a study of Vietnamese women (Tran et al., 2012) that found women above the age of 25 were more likely to use ANC. Similarly, a Chinese study found that mothers in their twenties and thirties were more likely to have had sufficient prenatal care

(AOR=2.2 and 1.9, 95%CI=1.4-3.5 and 1.1-3.2, respectively) than mothers in their teens and twenties (Zhao et al, 2012). These studies thus buttress the point that youthful age of a woman is a risk factor in accessing ANC services. This may be due to lack of knowledge on these services and unplanned pregnancies among teens and youth.

### **2.1.3.2 Women's education**

Women with higher levels of education are more likely to know about ANC services and its advantages (Efendi et al, 2016). Women with higher levels of education are believed to be better informed about healthcare options than their less-educated counterparts (Onasoga et al., 2012). A woman who is educated may feel more in charge of her pregnancy and have fewer health complications as a result (Zhao et al., 2012). In addition, women may be more likely to be exposed to health education messages and campaigns if they have higher education. It is possible that these women pay more attention to their health and seek out specialised maternity care (Zhao et al., 2012). Research shows that low-income women had a harder time learning about and using ANC programmes (Tran et al., 2012). Studies in North Ethiopia, Nigeria, and China (Zhao et al., 2012) found comparable results, showing that women with some levels of education were almost twice as likely (OR=2.645) to attend ANC as those with no education.

### **2.1.3.3 Socioeconomic status**

Migrant moms have considerable barriers to receiving prenatal care, including a lack of financial resources (Zhao et al., 2012). Efendi et al. (2016) observed that ANC usage was associated with lower socioeconomic position. An Ethiopian study found that women with higher earnings begin ANC sooner, and that the likelihood of utilising ANC decreased with decreasing family income (Birmeta et al, 2013). Women from wealthier households were also more likely to have used ANC services very well (AOR=1.6, 95% CI=1.0-2.5) in a study conducted in China (Zhao et al., 2012). Research by Worku et al. (2013) and others indicated

that increased affluence had a positive effect on all indices of maternity service use and a substantial effect on postnatal care.

A study by Ekholuenetale et al. (2019) in Ghana indicated that the educational degree of moms affects eight or more ANC encounters among Ghanaian women. Eight or more ANC encounters were more common among those with a secondary or higher education, regardless of age, domicile, timeliness in scheduling, health insurance coverage, or gender parity. Those with a college degree or above also were on equal footing. Socioeconomic inequalities that force women to pay out of their pocket for healthcare, a lack of access to health facilities that are well-equipped and operational, a lack of women's enlightenment, and either a lack of decision-making power or the ability to make poor decisions are all factors that have been hypothesised to discourage pregnant women from seeking medical attention. These findings corroborate those of numerous other reports on the examination of socioeconomic disparities, which found that women from more affluent backgrounds and with higher levels of education were more likely to use maternal health care services than their less advantaged counterparts. Research shows that this factor influences ANC initiation, with fewer women reporting timely ANC initiation as their parity increases (Tran et al., 2012). Women with a high number of births before this one may put too much stock in their memories and forego prenatal care, according to a 2012 study by Zhao et al. Pregnant women with greater life experience may be more self-assured and so less likely to seek out prenatal care (Zhao et al., 2012). Those expecting their first child were shown to be twice as likely to make advance reservations compared to those with many children (Gross et al., 2012).

#### **2.1.3.5 Women's antenatal care knowledge**

The ability to learn about health is crucial. Having knowledge about health issues empowers women to advocate for the care they need (Onasoga et al., 2012). Those who had a greater

understanding of pregnancy risks than those who did not (OR=3.541) were more likely to seek out ANC. A study by Birmeta et al. (2013) shows that informing expectant mothers about the advantages of ANC and the risk of pregnancy significantly increases their use. The significance of ANC, screening tests, and diabetes and hypertension concerns during pregnancy was found to be poorly understood by the pregnant women surveyed.

#### **2.1.3.6 Quality of care**

Gross et al. (2012) found that women were postponing ANC because they expected to get inadequate care from the hospital. Primarily, the women complained about a lack of services, stating reasons including being sent home without receiving treatments owing to a shortage of personnel and having to pay for medications, cards, or diagnostic tests despite the service being promised to be free (Gross et al, 2012). The high standard of care offered is a strong motivator for women to attend ANC. All indicators of expert maternal services are more likely to be used when all six signal functions are available in a local basic essential obstetric care facility (health centre). Providing essential care for both common and unusual pregnancies requires a facility that is staffed around the clock, every day of the week. All signal functions should be operational at a healthcare institution for optimal performance (Worku et al., 2013).

#### **2.1.3.7 Distance from a health facility**

The research also found that there is a significant correlation between geographic proximity and ANC participation. In particular, those living in rural regions may find it difficult to get services because of the distance involved. Researchers have shown that patients' use of medical services of all kinds is affected by the geographic distance between their homes and healthcare facilities. Using healthcare services decreased exponentially with increasing distance from healthcare facilities (Yamashita et al., 2010). The negative impact of distance on service uptake is exacerbated when adequate transit options are unavailable, as is often the case in poor

nations. The convenience of the location also affects how often services are utilised. Researchers in Pakistan found that the distance between rural areas and urban hubs significantly impacted how easily pregnant women could reach obstetric treatment. In addition, just 33% of rural Pakistanis live within 5 kilometres (km) of a road, despite significant expenditures and the passage of twenty-two years. Women who lack autonomy and so need someone to accompany them may find this distance to be an impediment to receiving care.

Therefore, distance is intrinsically related to other elements like accessibility, overall trip cost, and women's limited mobility. Similarly, a lack of prenatal care has been linked to greater distance from the nearest health centre. Onasoga et al. (2012) conducted research and found that the distance a person lived from a health care institution was significantly related to how often they used ANC treatment. The proximity of a woman to a clinic offering prenatal care has been shown to be a limiting factor in her ability to get these services. Researchers argue pregnant women who lived further away from a health care provider used ANC services less frequently than those who lived closer (Onasoga et al., 2012).

#### **2.3.3.8 Financial Status**

Due to inadequate ANC use, especially in most developing countries in accordance with minimal WHO standards for visits, several studies have been recommended to investigate the root causes of this problem. It has been shown that a lack of financial resources to pay for transportation charges and service fees is a factor that influences women's access to prenatal care. (Titaley et al., 2010). Due to the greater poverty rates in developing countries compared to those in affluent nations, fewer individuals are able to afford to use health care services like prenatal care. This causes an incredible amount of suffering and loss of lives, particularly among mothers. According to a study carried out in Nigeria from the viewpoint of people who

do not use the programme, the two most significant characteristics that are known to be related with ANC service consumption are the availability of travel funds and the location of the ANC service. Both of these factors may be rolled into a single category of low income, as those with more disposable income will not let a lack of a convenient public transportation system prevent them from going where they need to go. Moreover, this finding is consistent with data from Ghana, where it was shown that around 49% of pregnant women opted not to access ANC therapies due to barriers including cost and distance (Asundep et al., 2013).

#### **2.1.3.9 Supportive spouse or partner**

Adolescent and adult women are more likely to delay starting ANC if their partners are not supportive of their decision to do so ( $p=0.035$ ; Gross et al., 2012). According to the results of a study by Gross et al., (2012), women who did not have the support of their partners waited approximately three weeks longer to seek ANC treatment. Similarly, the odds of ANC usage among women whose husbands supported the practise were approximately nine times higher than those of women whose husbands did not ( $OR=8.99$ ). This highlights the importance of male involvement in ANC.

According to a study conducted in rural Ghana, women who live together or who are not married are 43% and 61% respectively less likely to have attended ANC at least four times compared to married women (Sakeah et al., 2017). Ziblim et al. (2018) study also showed that marital status significantly correlates with ANC use. Unmarried, divorced, widowed, or separated women in Rwanda are also more likely to underuse ANC services compared to married women (Rurangirwa et al., 2017). Nuamah et al. (2019) identified a high association between marital status and ANC usage. They discovered that married mothers in Ghana's forest belt were more likely to attend ANC than cohabiting mothers. In addition, Kparu's (2016) research involving Ghanaian teens reveals that there is no association between marital status

and ANC attendance, with 66 (58.9%) of single teenagers attending ANC 4 or more times, compared to 16 (43.2%) of cohabiting teenagers and 15 (48.4%) of married teenagers.

## **2.2 Birth Preparedness and Complication Readiness**

The ability to anticipate and plan for complications during labour and delivery (BP/CR) is a crucial part of antenatal care. Evidence suggests that Birth Preparedness and Complication Readiness (BPCR) therapies may lower the risk of death for both mothers and their newborns (Debelie et al., 2018). The WHO (2020) further stresses the need of BPCR advocating for skilled medical care and timely hospital visits for maternity and baby issues. Preparing for a birth and any potential complications include spotting warning signs, organising a birth attendant, deciding where to give birth, recruiting potential blood donors, and setting aside funds for travel and other costs. Pregnant women and their partners should always be ready to give birth, since complications during labour, such as bleeding, may strike any mother at any time (Tura et al., 2014).

### **2.2.1 Birth Preparedness and Complication Readiness Issues in Ghana**

In 2015, the Maternal Mortality Ratio (MMR) in Sub-Saharan Africa (SSA) was 546 fatalities per 100,000 live births, the highest in the world. Gülmezoglu (2016) reports that Southern and Eastern Africa have the highest MMR in the developing world. Over the last several decades, there has been a marked disparity in the decrease of maternal and infant mortality among rising countries due to disparities in the distribution of human resources, infrastructure facilities, essential medications, and the quality of medical care. Poor treatment quality, a lack of care, and cultural attitudes or misunderstanding about the requirement of obstetric care have all been implicated in previous studies as primary drivers of these differences. Many women, especially those in more remote parts of underdeveloped nations, avoid giving birth in hospitals or other medical facilities due to the inadequate quality of care they get there. Therefore, they significantly raise their own perinatal mortality risk (Austin et al., 2015).

According to the Ghana Statistical Service (GSS), between 1990 and 2015, the MMR in Ghana decreased from 740 to 319 per 100,000 live births, while the Infant mortality rate (IMR) decreased from 80 to 41 per 1,000 live births. A significant factor in Ghana's decrease in MMR and IMR rates was the implementation of numerous policies by Ghana Health Service (GHS) and the Ministry of Health (MOH), which increased the number of births that occurred in medical settings and the number of women who received postnatal care (Adu et. al, 2018). Pregnant women in Ghana have access to all government and church-run hospitals since September 2003. After this, in July 2008, a policy of free maternity healthcare under the National Health Insurance Scheme (NHIS) was put in place. The term "maternal healthcare policies" (Adu et al., 2018) describes the set of regulations regarding the health and well-being of pregnant women and new mothers. Despite positive developments, Ghana still has a long way to go before it achieves its goal of increasing its live birth rates and providing prenatal care to all pregnant women. Maternal mortality was responsible for 14% of all deaths in Ghana, according to the results of the 2017 Ghana Maternal Health Survey (GMHS). Indirect causes of maternal mortality accounted for 4% of all maternal fatalities, whereas 10% were attributable to direct maternal causes. According to the Ghana Statistical Services (2017), 67% of maternal deaths were of direct causes. Another 27% of maternal deaths were linked to unspecified causes, and another 6% were related to indirect factors (Ghana Statistical Services, 2017). Complications from unsafe abortions are a leading cause of maternal death, followed by obstetric haemorrhage (30%), hypertensive disorders (14%), and sepsis (10%). Most maternal fatalities are caused by complications during delivery, especially haemorrhage. Nurses, midwives, and physicians are in low supply in rural Ghana (Adu et al., 2018), making it difficult to treat obstetric haemorrhage and pregnancy-induced hypertension.

Poor birth preparation and complication readiness are directly responsible for 71% of all newborn deaths in Ghana, according to data released by the Ghana Statistical Services in 2015.

The Ghana Health Service (2017) reports that one newborn baby dies in Ghana every fifteen minutes and that over 21,000 babies lose their lives in Ghana in a year. The GMHS (2017) reports a mortality rate of 37 per 1000 live births for infants and a mortality rate of 52 per 1000 live births for children under the age of five. One in twenty-seven babies die before their first birthday, and one in nine under the age of five in Ghana, according to 2017 data from the Ghana Statistical Services. Inadequate access to excellent treatment, financial limitations experienced by mothers, mismanagement of the NHIS, and poor nutrition are all linked to preterm delivery, difficult labour, and the mortality of pregnant women in Ghana (Ghana Statistical Services, 2017). As reported by the Ghana News Agency in 2017, the GHS attributes the country's setbacks to the poor performance of the GHS's maternal and child health department and the inadequate number of trained and certified midwives in the country, particularly within the rural communities. The lack of qualified midwives in remote areas is another factor the GHS cites as contributing to the country's problems. There are no national policies in place to address the challenges of providing high-quality medical care to women and their children in underserved areas, even though the GHS and the MOH have a firm grasp on what needs to be done. If pregnant women and their partners are strongly encouraged to attend ANC, birth outcomes will improve and preventable delivery problems will be reduced (Austin et al., 2015).

### **2.2.2 Complications and Maternal Deaths**

Depending on the organisation defining, "maternal death" and "maternal mortality" might have different meanings. Maternal mortality, as defined by the World Health Organisation (WHO), occurs when a pregnant woman dies from complications related to the pregnancy, from preexisting diseases that worsen during pregnancy, or from the treatment of these disorders. This may occur at any time throughout pregnancy or up to six weeks after delivery. According to CDC guidelines, pregnancy-related deaths should be recorded for a full calendar year following the end of the pregnancy. American College of Obstetricians and Gynaecologists

(ACOG) states that any mortality that happens within a year after a resolved pregnancy is considered to be pregnancy-associated. Pregnancy-related deaths must be identified so that researchers can determine whether pregnancy was a direct or indirect cause of death (CDC, 2022).

There are two primary indicators that are considered when talking about maternal mortality rates in a community or nation. The "maternal mortality ratio" and the "maternal mortality rate" are both abbreviated as "MMR," which stands for "maternal mortality." The number of women dying from complications during pregnancy or delivery decreased by 44% worldwide by 2017, although it is still 808 per day. The United Nations Population Fund (UNPF) reports that in 2017, one woman died every 88 minutes from complications related to pregnancy or delivery. For every woman who loses her life during pregnancy or childbirth, an additional 20-30 experience some kind of damage or disease (UNFPA, 2017).

The United Nations Population Fund predicts that 303,000 women died in childbirth or pregnancy-related problems in 2015. Direct obstetric deaths and indirect obstetric deaths are two categories used by the WHO to categorise the causes of maternal mortality. Individuals who die directly in the obstetric process are individuals who have complications during pregnancy, delivery, or abortion. Extremely effective treatments may be used to treat a wide range of these conditions, from severe bleeding to obstructed labour (WHO, 2022). An indirect obstetric fatality may occur when a preexisting condition, such as heart problem, is either unable to be treated during pregnancy or is made worse by it (WHO, 2022).

As a result of improvements in family planning, experienced birth attendants, and emergency obstetric treatment, the worldwide maternal mortality ratio dropped from 385 deaths per 100,000 live births in 1990 to 216 deaths per 100,000 live births in 2015. There were 385

fatalities for every 100,000 babies born in 1990. The rates of maternal mortality have been lowered by half in numerous countries in the previous decade. The incidence of maternal mortality has decreased because of various initiatives, but there is still room for improvement, especially in low-income regions. In Africa and Asia, where resources are already few, maternal mortality rates are higher than everywhere else. Even in locations with more access to services, racial and ethnic gaps and inequities in maternal MMR persist and provide a significant opportunity for advancement (Ozimek & Kilpatrick, 2018). The maternal mortality rate is often regarded as an important barometer of a nation's health and a reflection of its health care system. Reducing worldwide MMR has been a priority for many health organisations throughout the world.

Maternal outcomes may be improved by increasing community and family support. Furthermore, social and economic deprivation also have negative effects on maternal health, which may lead to an increase in maternal mortality. There is an increase in maternal mortality due to a variety of factors, including a lack of access to skilled medical care during childbirth, a long distance to travel to receive proper care, multiple births, barriers to accessing prenatal medical care, and inadequate infrastructure (WHO, 2022).

### **2.3 Male Involvement in ANC**

Male involvement in maternal and child health, is when fathers and other males in the community advocate for and help women and girls gain access to health care. This is a crucial step in bettering the health of mothers and children (Findlay et al., 2013). A father is considered active in the pregnancy if he is "present, accessible, available, understanding, willing to learn about the process of pregnancy, and eager to offer emotional, physical, and financial support to the woman who is carrying his child" (Alio et al., 2018). Male participation has been shown to improve maternal health outcomes, especially in areas such as service utilisation, birth planning, and nutrition (Tokhi et al., 2018). Men have an important role in family health

because their knowledge of RMNCH impacts women's access to and use of RMNCH health services (Comrie-Thomson et al, 2020). This is particularly the case in less developed nations. Health outcomes for low- and middle-income people are significantly affected by whether women and children have access to and make use of health care (Comrie-Thomson et al., 2020).

### **2.3.1 Importance of Male Involvement in ANC**

Many low-income nations like Ghana regard male involvement in pregnancy and safe motherhood programmes as crucial to increase women's access to health care. Whether a woman should have access to healthcare at all, when she should have access to healthcare, and where she should obtain healthcare are all questions that are often decided by males in societies with strong patriarchal traditions. Informed choices and postpartum care utilisation were higher among women who received the information at ANC with their partners (Ganle & Dery, 2015; Mullany & Becker, 2006). Recently, however, it has been discovered that strategies to involve men in ANC services are associated with increases in antenatal care participation, skilled labour and delivery, facility birth, after delivery, birth and complications preparedness, and the nutrition of pregnant women, as well as improve male partner's support for the wife and increase couple conversation and joint decision making, with effects on women's autonomy (Tokhi et al., 2015). Eighty-seven percent of pregnant women in Ghana's Sunyani municipality had some kind of antenatal care (ANC) at some point during their most recent pregnancies, with 95.6% receiving treatment four or more times and 77.1% starting care early. The majority of mothers (97.3%) were found to have a comprehensive understanding of ANC. There was a statistically significant correlation between being married and knowing about and engaging with the ANC. There was a lack of male participation in ANC activities in the Sunyani municipality.

Nearly two-thirds of the male population in the northern Ugandan peri-urban Gulu area attended at least one ANC visit. Tweheyo et al. (2010) found that 61.5% of males in a sample

were willing to accompany their spouses to future ANC appointments, whereas only 93.7% were not. While the vast majority of men understand the value of male participation in maternal health care decision-making, studies demonstrate that few actually do so (Ganle & Dery, 2015). The role of gender and standard issues (the belief that pregnancy care is a female role and men are family providers); unfavourable cultural views (the belief that men who accompany their wives to receive ANC services are being dominated by wives); health services factors (such as unfavourable service hours; unfavourable attitudes of healthcare providers) were found to be the four main drivers of men's reluctance to utilise maternal health care (Gao et al, 2012). Getting first-hand knowledge about their wives and the unborn children is one reason why some men get involved in maternal health issues, as reported by Kwambai et al. (2013). Another issue is to remind their spouses to follow the doctors' orders, as some men believe their wives may withhold or distort information after clinic visits. Some nations have taken steps to increase male participation in maternal health care, such as barring treatment to women who seek prenatal care without their partners, giving priority to male patients, and raising public awareness through education and community outreach (Peneza & Maluka, 2018).

Pregnant women are less likely to face demand-side hurdles in receiving health care when their partners are engaged in maternal health concerns (Story et al., 2012; Tokhi et al., 2018). Improved couple communication and shared decision-making due to male partner participation in interventions has been linked to improved maternal health and care-seeking outcomes (Hartmann et al., 2012; Richards et al., 2011). The decisions made by males in a family's healthcare setting have an impact on the options available to pregnant women (Dudgeon & Inhorn, 2004). The model of three delays (delay in seeking care, delay in reaching care, and delay in the provision of care once one arrives at the institution) which contribute to maternal fatalities can help us better understand the potential impact of men on maternal health. Several factors, especially the extent of male interaction, may influence the first two delays. Most

Afghan women are expected to rely on their husbands for financial and/or legal support when seeking medical attention (Mahmood et al., 2018), and in some households, men make or at least approve of decisions to refer women to a health facility and arrange transportation to get them there. International community-driven measures to reduce maternal mortality include, among other things, better prenatal, labour, and postpartum care; increased access to health facilities; and expanded education and awareness campaigns (Shrestha et al., 2014).

To further improve women's health, it is recommended that males be involved in reproductive health care (Varkey et al., 2004; WHO, 2015). Countries were mandated to engage male partners in the implementation of sexual and reproductive health programmes at both the Fourth World Conference on Women (1995) in Beijing and the International Conference on Population and Development (ICPD) in Cairo, recognising the importance of men's involvement in improving women's sexual and reproductive health and rights. Countries pledged at the ICPD to develop effective plans and strategies to involve men in all aspects of reproductive health care, including but not limited to family planning, sexual health, and maternal health care, which primarily entails care during the antenatal, delivery, and postnatal periods. The 2015 WHO Recommendations on Health Promotion activities for Maternal and Newborn Health sought to improve health outcomes for mothers and their newborns by enabling and supporting efforts to promote fathers' involvement in childbearing. According to WHO (2015), women should always be allowed to make their own healthcare decisions and therapeutic choices.

#### **2.4 Factors affecting male involvement in ANC**

Male partner involvement in antenatal care is influenced by several factors which include health service related, socio-demographic and socio-cultural factors. These factors are discussed below.

#### **2.4.1 Socio-demographic factors**

The educational status, occupation, and marital status may influence a man's participation in his partner's maternity care. Male partners who had higher formal were found to be more involved in their partners antenatal care and birth plan (Craymah et al., 2017). The percentage of men accompanied their partners to ANC increases with increasing age, in a study by Dumbaugh et al., (2014). Similarly, level of income of male partners also had some influence. This study in rural Ghana found that pregnant women whose husbands earn high income were more expected to aid their counterparts antenatal care and birth preparedness (Dumbaugh et al., 2014). Occupation and financial constraints were other factors found to affect male partner involvement. Some of these men may be on contract or casual jobs with very uncompromising bosses. Absenteeism may therefore mean loss of job or no income for that day (Ganle & Dery, 2015).

#### **2.4.2 Socio-cultural factors**

Cultural beliefs, taboos and segregated gender roles are factors that greatly affect men's involvement in antenatal care. In some African rural communities, there exist a lot of cultural beliefs that do not encourage male involvement in sexual and reproductive health issues including antenatal care (Adongo et al., 2013). Pregnancy and its related maternal issues are sometimes seen as a woman's affair that do not require men's participation (Kululanga et al., 2014). Some also have beliefs that if a man follows his wife to places like ANC then he is being dominated by his female partner (Ganle & Dery, 2015). Traditionally, men are seen as heads of households and breadwinners who should focus is mainly on economic activities while maternal healthcare issues are usually seen as the woman's responsibility.

Maternal level of empowerment is another important determinant of male partner involvement during antenatal care. As per the finding of a case control study in South Ethiopia study under-empowerment of mothers was reduced male partner involvement during antenatal care by 80%(Mamo et al., 2021).

### **2.4.3 Health Service factors**

Poor health staff attitudes and delays during ANC visits are some of the health service factors found to reduced the likelihood of high male involvement. A research in South Ethiopia found that friendly staff attitudes encouraged men to accompany their partners to ANC clinics as well as support them in other maternal health issues such as funds for running laboratory test, discussing issues relating to the pregnancy among others. It was identified also that if men felt that time spent during ANC sessions is taking more than they expected, they were likely not to accompany their partners to the ANC clinics because of their busy schedules(Mamo et al., 2021). According to a research by Gibore et al. (2019) in central Tanzania ,men who reported to spend more than one hour waiting for the services at the health care facility were less likely to have men's involvement index than their counterparts (AOR=0.685, 95%CI=0.479 to 0.978)(Gibore et al., 2019).

### **2.5 Empirical Review of Male involvement in ANC**

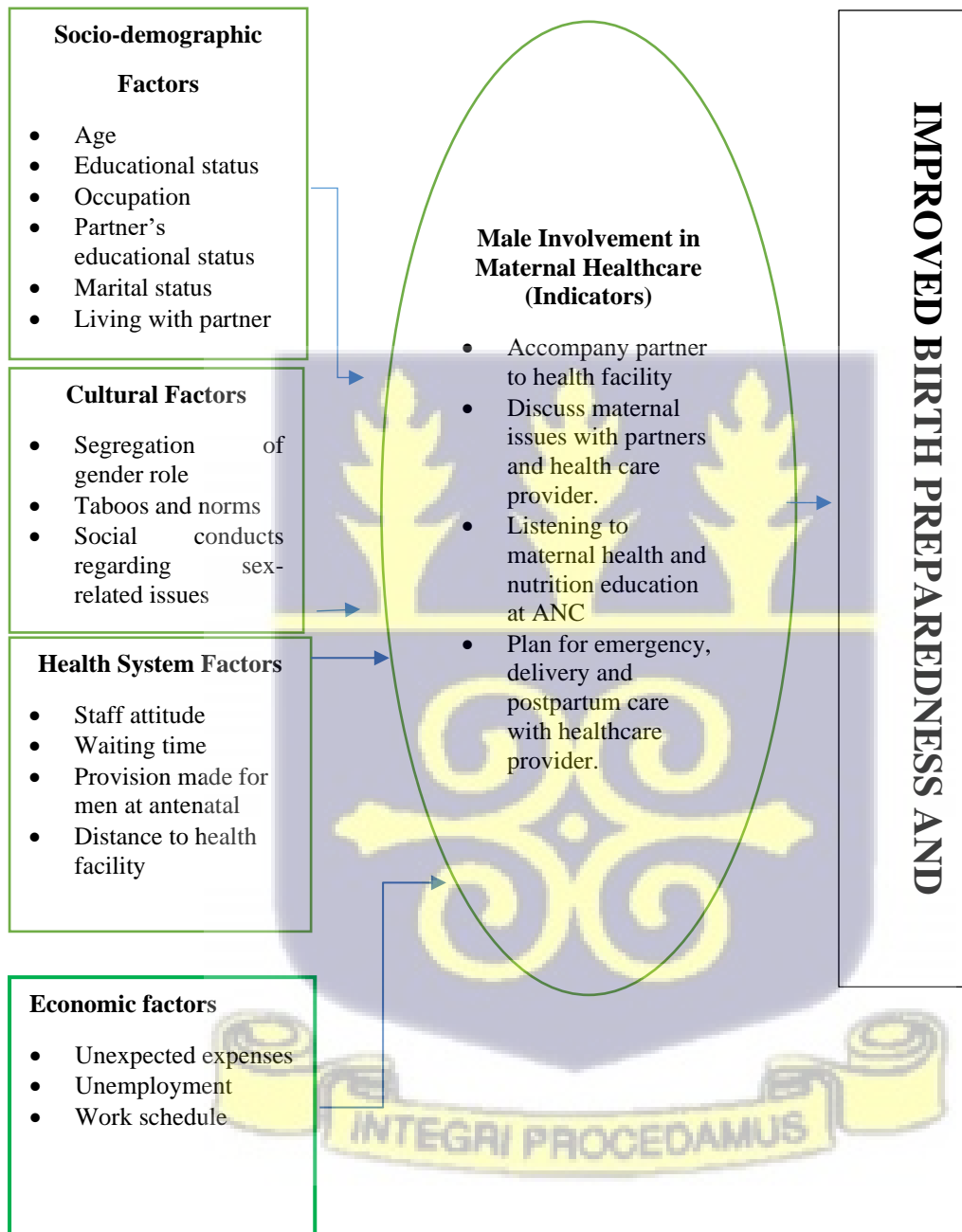
Male attendance during prenatal care visits was investigated by Kabanga et al. (2019) in the Kyela neighbourhood of Mbeya. The purpose of this research was to identify the factors that influence whether male partners in the Kyela area of Mbeya use ANC services. The hospitals in the Kyela region of Mbeya were used for a cross-sectional study that took place from October to November of 2017. Using variables that had P values of 0.05 or below in univariate logistic regression, a multivariate logistic regression model was fitted to discover predictor variables

that are independently connected with the outcome. If the P value was less than 0.05 and the OR was not equal to 1.0, then there was a statistically significant difference. In all, 174 pregnant women who were frequent or very frequent visitors to the ANC participated in this research. There were 99 male partners who made up 56.9% of the ANC attendance rate. Despite claims that 99 males had attended ANC services with their wives or girlfriends, only 90 had their attendance verified. The majority of pregnant women's partners (51%, or 52/99) were asked by their partners to attend ANC clinics with them. For those with a male spouse who went to ANC, the OR for him knowing about the visiting dates was 24.1, with a 95% CI of 6.8 to 86.5% and a significance level of P 0.0001.

Gopal et al. (2020) examined how influential people in Uganda's healthcare system work to further the "male involvement" goal and its associated policies. In this study, researchers looked at how various political, economic, and organisational issues affect men's opinions on male engagement programmes. In all, 17 in-depth interviews and two focus groups were held for this study in the Ugandan cities of Kasese and Kampala. Men and their wives who were participating in a project to enhance maternal health were included in the study, as were people and groups actively seeking to increase male participation. Gaps between policy and practice, resources and skills, insufficient engagement by important players, and kinds of dissemination were identified as the four overarching topics of the study using thematic analysis. These recurrent issues characterise the obstacles that prevent male engagement initiatives from being put into action successfully. The majority of healthcare personnel surveyed reported receiving insufficient training in male-friendly service provision and male mobilisation. An over-reliance on donor funds and other forms of external support makes interventions impossible to maintain. In addition, men and religious or community leaders are typically excluded from male participation in intervention planning and administration. Not enough was being done to improve communication and get input.

The goal of the study by Kalisa & Malande (2016) was to examine the variables related to BP/CR among obstetric referrals in rural Rwanda, as well as the extent of male partner engagement in the birth plan and women's attitudes toward maternal care. Three hundred and fifty pregnant women who were sent to Ruhengeri Hospital were included in the cross-sectional research that was conducted between July 2015 and November 2015. Demographic information was gathered, as well as details about how men and women felt about their partners' roles in maternal health care and housework (specifically, how they felt about the men's roles), and BP/CR outcomes. Women were considered to have prepared a birth plan if they had planned for a birthing partner, chose a place to give birth, learned about the risks associated with pregnancy and labour, set aside money in case of problems, and gone to ANC at least four times. Research showed that just a few males attended ANC (n=103; 29.4%), whereas nearly a quarter (78 women; 22.3%) had male companions in the delivery room. However, there was significant resistance to having a male partner (MP) present in the delivery room (n=178; 50.9%). Many women object to having a MP there because it is a taboo in their culture for a man to be present during childbirth. Multivariate analysis found that having a secondary education or higher was associated with being well prepared (adjusted odds ratio [AOR] 1.4, 95% confidence interval [CI] 1.8-2.6), having a spouse with a formal occupation was associated with being well prepared (AOR 2.4, 95% CI (1.4-4.2), and having community health worker check-ins during ANC was associated with being well prepared (AOR 2.2, 95% CI (1.3-3.7).

## 2.5 Conceptual Framework



*Figure 1: Conceptual framework of factors influencing male partner involvement in ANC and its effect on birth preparedness and complication readiness.*

### 2.5. 1 Narrative to Conceptual Framework

The figure above is a conceptual framework which illustrates the variables that was assessed in this research and how they are related. In the figure, the study assumed three causative dimensions of the factors which influence male partner involvement in ANC in the New Juaben North Municipality of Koforidua. These dimensions are the cultural factors, the health system factors, economic and the socio demographic factors which mirror the educational level, age, occupation, marital status religion and other important factors believed to have some influence on the involvement of male partners in ANC visitation. The health facility factors are clinic specific factors which may be push or pull factors to the male partners.

The extent of influence of these factors on male partner involvement in ANC visitation is perceived to be on similar intensity as depicted by the arrows. The indicators of male partner involvement are accompanying partner to health facility, discussing maternal issues with partners, discussing maternal issues with her health providers, active participation in maternal health and nutrition education and planning for emergency, delivery and postpartum care.

The expected outcome of this is to improve birth preparedness and complication readiness, and eventually improve maternal health outcomes. This framework exhibits the expected cause-and-effect relationship of the study, integrating pertinent variables or confounders that might influence the relationships between the defined factors and the expected outcome.

### 2.6 Chapter Summary

This chapter reviewed relevant literature on Antenatal care. It established that ANC is a form of preventive care given in the form of prenatal check-ups, prenatal nutrition and medical advice to help improve the health of both the mother and the unborn baby. Antenatal care is thus crucial to prevent maternal and infant mortality. Some factors that affect women from

accessing antenatal care include educational levels, socioeconomic status, age of the mother, quality of care and lack of knowledge on ANC services. Research suggests a significant impact on maternal and child health through male involvement in antenatal care. As most decision-making rest with men, their involvement in ANC is crucial to prevent the three delays as emphasised by the literature. Barriers that hinder male involvement include cultural, social and economic. The literature also suggested a positive correlation between ANC attendance and Birth Preparedness and Complication Readiness. Thus, it is extremely necessary to ensure ANC attendance by encouraging male involvement.



## CHAPTER THREE

### METHODS

#### 3.0 Introduction

The methods describe the procedures that were used to conduct the research. The study design, strategy, setting, population, sample size, sampling methods, data collecting, analysis, and other procedures are presented in this chapter.

#### 3.1 Study Design

A cross-sectional study is a type of observational research that evaluates data from a population or an illustrative subset at a certain time. This study used cross-sectional study design to collect the data it needed to understand the population's characteristics at a particular moment in time. This study was used because it is not costly and it is time efficient.

#### 3.2 Research Approach

According to Creswell (2014), research methods are strategies and procedures that encompass the steps from broad assumptions through specialised methodologies of data collection, analysis, and interpretation. Creswell (2014) classifies the approaches used in scientific inquiry into three broad categories: qualitative, quantitative, and mixed research approach. This study employs a quantitative strategy to address its objectives. With the use of statistics, mathematics, and computers, the quantitative method conducts in-depth studies of phenomena. To accomplish these aims, the study employed quantitative techniques such as elementary statistics, regression, and correlation analysis.

#### 3.3 Study Area

The area selected for this study was the New Juaben North Municipality (NJNM), a newly carved municipality among the 33 Metropolitan, Municipal and District Assembly (MMDAs) in the Eastern region. The municipality was part of the New Juaben Municipality which was

divided into North and South and inaugurated in 2018. The capital of the municipality is Effiduase. It has 5 sub-districts which include Jumapo, Oyoko, Akwadum, Asokore and Effiduase sub-districts with a total of 53 communities. Possessing a total land area of 106 square kilometers, the municipality is bordered by four main MMDAs. These are Suhum municipal in the west, Abuakwa North Municipal in the North, Yilo-Krobo Municipal in the south and New Juaben South municipal in the south.

There are varied ethnic groups within the municipality, with Ga-Adangbes and Akans being the dominant ethnic groups. Other significant ethnic groups include Ewes and some northern groups. The major Akan groupings of the municipality are Kwahus, Akims, Asantes and a larger number of Akuapems. Christian religion dominates the municipality, with Islam and traditional religion following respectively.

The main festival celebrated by the people of the municipality is the Addae, which comes in sub festivals as Addae Fofie, Akwasidae and Wukudae. In contemporary times however, the people of the municipality are adopting the Akwantukese celebration to honour their migration from Old Juaben in Asante to their current destination.

The population of the municipality is urban even though some of the people live in rural environments. The population is concentrated in the urban centres of Jumapo, Oyoko, Asokore and Effiduase. According to the 2021 population and housing census, the population of the municipality is 93,201 with 46,402 (49.8%) males and 46,799 (50.2%) females. The females are more than the males. In terms of structure, the younger or children population of the municipality is the highest. The population is youthful in structure.

There is a plethora of small and medium-scale businesses within the municipality, including fashion shops, hair-dressing and barbering shops, hotels, ICT and mobile phone centres, hotels

and restaurants. Others include drinking bars, pharmacies, photo studios and supermarkets. Major service providers are in health, banking, insurance, postal and communication.

The industrial sector within the municipality comes in the form of soap making, textiles, carpentry, palm and kernel oil production, traditional medicine, beverages production, and bead making.

The rural settings of the municipality engage in agricultural activities. Popular among the agricultural activities is the production of crops such as maize, yam, kola, cocoa, cassava and plantain within the rural enclaves of the municipality. While over 80% of farmers within the municipality are involved in crop production, the remaining 20% focus on animal rearing. The youthful population of over 15 years have about 60% of them being economically active while the remaining 40% are not.

In terms of healthcare delivery, the district has 27 CHPS zones, 6 health centres, 1 private clinic and a hospital. Each of the sub-districts has a health centre equipped to provide primary healthcare services including reproductive and child health services.

The municipality has its various markets located in the major towns. There are markets in Akwadum, Asikasu, Oyoko, Asokore and Jumapo. These markets operate on daily basis except the market in Jumapo which is designated to run on Fridays. The various commodities which are on sale in the markets include vegetables, tubers and grains from the adjoining rural communities and semi-processed food products such as palm oil, corn dough, cassava dough, flour and others. There are few commodities exported from the municipality to neighbouring Accra, Tema and Togo.

### 3.4 Study Population and inclusion criteria

The study population consisted of men between the ages of 18-60 years whose partners were ANC attendants and were pregnant or had delivered in the last 24 months. This 24-month duration was employed to prevent recall bias from participants.

Men whose partners delivered more than 24months ago were not included in study. Also, men whose partners were not ANC attendants were excluded from study.

### 3.5 Sample Size

This study employed the Yamane's (1967) technique for sample size determination. According to Yamane (1967), the sample size of a population may be estimated as follows:

$$n = \frac{N}{1+Ne^2}$$

Where n is the sample size, N is the population of the study and e is the assumed error margin. Assuming a 95% confidence level, the margin of error is estimated as 0.05. in this regard, the sample size was estimated as follows:

$$n = \frac{1343}{1+1343(0.05)^2}$$

The sample size was estimated at 308. The estimated sample size was increased to 340 to cater for an estimated 10 percent non-response rate. However, 310 respondents eventually participated in the study.

### 3.6 Sampling Technique

The district has 5 sub-districts with a total of 53 communities, all of which have similar characteristics. Ten communities (2 from each of the 5 sub-district) were selected randomly. To do this, the geographical names given to these communities were recorded on pieces of paper and kept in a container labeled according to their sub-districts. Each container and its contents

were shaken several times to ensure it had mixed well. Two communities were picked from each container representing the sub-districts.

Following the selection of the 10 communities which included Effiduase-Sukuumu, Effiduase-Oguaa, Gyamfikrom, Fofie-Asokore, Asamang, Adaneagya, Ahenebronum, Asikasu, Eddiemensah and Faoman, the total sample size of 340 was allocated in equal proportion among the 10 communities, yielding approximately 34 respondents per community.

In order to achieve this, houses in each chosen community were given numbers ranging from H1 (representing first house on entering community) to H(n) (representing last house) to create a sequential system of numbering and counting. The lists of all the numbered houses within the selected communities were compiled in excel, and the required number of houses were chosen at random using computer-based random number-generator software.

Selected houses were visited for the interviews with the help of the research assistants and local informants. If a selected house had only one household with a male member who satisfies the requirements for inclusion, that household was accepted. However, in cases where there were multiple men in the house meeting the inclusion criteria, just one was chosen by balloting. But if no male in the selected house matched the requirements for inclusion, it was replaced with the next house.

### **3.7 Data Collection Method and tool**

Semi-structured interviewer administered questionnaires were used to collect primary data for analysis. The questionnaire for the study had a 5-point Likert scale questions in which respondents chose how strongly they agree, agree, neutral, disagree, or strongly disagree with statements. There were both open-ended questions and Likert-scale items on the questionnaire. Where clarification in the local language (Asante and Akuapem) Twi was required, queries were posed and answered orally. To guarantee that questions were explained consistently to respondents in either English or local dialects, field workers who were engaged in the data

collection were trained in the local dialect and reverse translation was performed. The questionnaires aided in gathering the opinions of a large number of male partners for this study.

### 3.8 Data Analysis

The study used the data collected from the questionnaire to generate results with SPSS version 27. The data was inputted into SPSS and it provided means and standard deviations. The mean and standard deviation were interpreted using a scale developed to match the results to the responses of the Likert scale. The results were analysed and discussed to make conclusions and recommendations.

The linear regression model was used to assess the effect of male involvement on birth preparedness. The linear regression used primary data collected from the responses to the questionnaires as the source of data. The responses on male involvement served as the independent variable and the responses on birth preparedness and complication readiness served as the dependent variable. The study used the responses from primary data for the analysis due to the lack of secondary data. The responses on male involvement served as the independent variable and the response on birth preparedness served as the dependent variable. The variables used for the regression analysis was generated from the responses of each respondent under the corresponding subsection. The averages of the respondents were used as the representation of the outcome under each variable. As a result, the mean of responses calculated from the data collected was translated into variables and their results used for the regression analysis.

The study used the Ordinary least squares model. The linear model will be specified as:

$$BP = B_0 + B_1MI + \epsilon \dots\dots\dots (1)$$

BP – Birth Preparedness, MI – Male Involvement,  $\epsilon$  – Error term, B – Coefficient

The analysis was done using SPSS version 27.



## CHAPTER FOUR

### RESULTS

#### 4.0 Introduction

This chapter presents results of the data collected. The data was tabulated using descriptive statistics such as means, standard deviations, frequencies, and percentages.

#### 4.1 Background characteristics of respondents

The respondents' background characteristics include age, education, education of respondents' partner and marital status.

##### 4.1.1 Age

According to the results of the study, participants aged between 18 – 20 years make up 19% (59) of the total number of respondents, 31% (96) of the participants were between the ages of 21 – 30 years, while 39% (121) of the participants were between 31 – 40 years. 23 of the participants representing 7.4% were between 41 – 50 years and 3.6% of the participants (i.e., 11 persons) were more than 50 years.

##### 4.1.2 Participant's Education

The findings revealed the following as the participants' educational background: 5.2% (16) participants had no formal education, 7.7% (24) had studied up to primary level, 56.4% (175) had secondary education, while 20.3% (63) of the respondents had attained a diploma. 9.4% consisting of 29 respondents had first degree. Only 3 respondents (1%) of the research participants had master's degree (Table 1.)

**Table 1 Background Characteristics of Respondents**

Background characteristics	Frequency (n)	Percentages (%)
<b>Age</b>		
18 – 20	59	19.0
21 – 30	96	31.0
31 – 40	121	39.0
41 – 50	23	7.4
51 – 60	11	3.6
<b>Total</b>	<b>310</b>	<b>100.0</b>
<b>Education</b>		
Primary	24	7.7
Secondary	175	56.4
Degree	29	9.4
Diploma	63	20.3
Masters	3	1.0
No Formal Education	16	5.2
<b>Total</b>	<b>310</b>	<b>100.0</b>
<b>Partner's Education</b>		
Primary	142	45.8
Secondary	126	40.6
Degree	5	1.6
Diploma	25	8.1
Masters	1	.3
No Formal Education	11	3.6
<b>Total</b>	<b>310</b>	<b>100.0</b>
<b>Marital Status</b>		
Single	25	8.1
Married	228	73.6
Divorced	2	.6
Co-Habiting	54	17.4
Widowed	1	.3
<b>Total</b>	<b>310</b>	<b>100.0</b>

#### 4.2 The Prevalence of Male Partners' Involvement in Antenatal Care Utilization

In this section, the study sort to find out how frequently male partners accompany their partners to prenatal care clinics in the New Juaben North Municipality. The tables below show the study's findings, which were given as frequencies and percentages.

#### 4.2.1 Antenatal Care Attendance

The results show that 41.3% (128) participants did not attend ANC with their partners, 33.6% (104) attended 1 – 3 times, 17.4% (54) attended 4 – 6 times, 7.7% (24) attended 6 -9 times and nobody attended more than 9 times. This showed that majority of the respondents (58.7%) attended ANC at least once.

**Table 2: Attendance of Male Respondents to Antenatal Care**

Attendance to Antenatal	Frequency (n)	Percentage (%)
0	128	41.3
1 – 3	104	33.6
4 – 6	54	17.4
7 – 9	24	7.7
9 plus	0	0
<b>Total</b>	<b>310</b>	<b>100.0</b>

#### 4.2.2 Male Partners' Involvement (Active Participation)

The results presented in Table 3 show the prevalence of male partners' involvement in the processes at the antenatal clinic. The research aimed to determine the number of male spouses who actively participated in their female partners' ANC procedures (including seeing health professional, listening to health and nutrition educations and asking questions). According to the data gathered 73.5% of the respondents said 'No' on their active participation while 26.5% of the recorded responses said 'Yes'. This comprised of 228 and 82 of the overall respondents respectively.

**Table 3 Male Partner Involvement**

Statement	Options			
	No		Yes	
	Frequency	Percentage	Frequency	Percentage
Did you participate actively in the processes at the antenatal clinic?	228	73.5	82	26.5

#### 4.3 Factors That Influence Male Partners’ Involvement in Antenatal Care

This section attempts to address the objective on determining the sociocultural, economic and health system factors that influence male partners’ involvement in antenatal care. To rate each statement on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree), respondents were given the options of 1-5. The study employed a survey with the following ratings: 1.0 = Strongly disagree, 1.01-2.0 = Disagree, 2.01-3.0 = Neutral, 3.01-4.0 = Agree, and =>4.01 = Strongly Agree. The results for this section were presented in means and standard deviation. The results are presented in Table 4.

This study classifies the determinants of Male Involvement (MI) in ANC across four levels: economic, social, health system-influenced, and cultural. Accessibility of services, suitable and private clinic space for male partners, and gender equality in programming are all factors that may be influenced at the level of the health care system.

**Table 4 Factors Influencing Male Involvement (MI) in Antenatal Care**

Statement	Mean	Standard deviation
Living with my spouse/partner influenced my involvement in ANC.	3.11	1.339
The distance to the health facility influenced my involvement in ANC.	3.09	1.293
My perception of Maternal Health Clinic influenced my involvement in ANC.	2.68	.991
My spouse's/partner's communication influenced my involvement in ANC.	3.89	.408
Some of my cultural norms influenced my involvement in ANC.	3.30	.919
My work schedule influenced my involvement in ANC.	3.95	.237
The health policies influenced my involvement in ANC.	4.06	.325
My financial problems influenced my involvement in ANC.	4.09	.497
The attitudes of health workers influenced my involvement in ANC.	3.97	.568
Waiting time at health facilities before ANC starts as well the length of the class influenced my involvement in ANC.	2.78	1.111
My role as the soon to be father of the child influenced my involvement in ANC.	4.01	.414

#### **4.3.1 Social Factors Influencing Male Partners' Involvement in ANC**

The study investigated several social factors that could influence male involvement in ANC. More than half of the respondents stated that living together with a spouse influenced their involvement in ANC activities, recording a mean of  $3.11 \pm 1.34$ . Majority of the respondents held to the subject of spousal communication as one of the main factors that influenced their involvement in ANC. A mean of 3.89 and SD of 0.408 was recorded by participants during the data analysis. Role as the father of the child is also one of the major factors that influenced male partners' involvement. This recorded a mean of 4.01 and SD of 0.414 as seen in table 4 above. Hence, most of the participants were influenced by the anticipation to be fathers.

#### **4.3.2 Cultural Factors Influencing Male Partners' Involvement in ANC**

The respondents were asked to provide the cultural norms that influenced their involvement in ANC. The results, showed that 60.00% of the respondents mentioned "proper social conduct – a man should not be in the midst of women" and 55.48% of the respondents chose "sex related conversations are not for public discussion" as another cultural factor. These results had more than 50%, meaning majority agreed with them being cultural norms that affected their ANC attendance.

Out of the number of respondents surveyed, half of them claimed that their earlier perception of Maternal Health Clinic and the experiences of others were key in their decision, with a recorded average of 2.68 and SD of 0.991 among this group.

A higher number cited that at community level, community leaders influenced their ability to accommodate issues of MI at all levels including ANC, hence, attributing their participation to cultural norms within their communities. They shared experiences of what they observed from their forebearers. This group averaged 3.30 and an SD of 0.919.

**Table 5 Cultural Factors Influencing Male Partners' Involvement in ANC**

<b>Cultural Norms Influenced Male Involvement In ANC</b>	<b>Respondents</b>	
<b>Responses</b>	<b>Frequency</b>	<b>Percentages (%)</b>
Proper social conduct – a man should not be in the midst of women.	186	60.00%
Proper social conduct – sex related conversations are not for public discussion.	172	55.48%

#### 4.3.3 Health System Factors Influencing Male Partners' Involvement in ANC

**Table 6 Health Policies Influence in Male Partners' Involvement**

<b>Health Policies Influenced Male Involvement In ANC</b>	<b>Respondents</b>	
<b>Responses</b>	<b>Frequency</b>	<b>Percentages (%)</b>
Free Access to ANC	245	79.03%
Free Reproductive Health Education	208	67.10%
Mandatory Partner involvement policy by Health facility.	278	89.68%
Free health screening for both partners policy by Health facility.	105	33.87%

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Familiarisation with health professionals’

policy by Health facility. 75 24.19%

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The respondents were asked to mention the health policies that influenced their involvement in ANC. Based on the results, 79.03% of the respondents mentioned free access to ANC, 67.10% mentioned free reproductive health education and 89.68% and mandatory involvement of partner in ANC.

The studies also sought to understand the health system factors and how they influence male partners’ involvement in ANC services or attendance. According to some of the respondents, healthcare delivery system offers structures and spaces that are conventionally viewed as a woman’s domain. Some also saw the roles of health workers in the maternal care as gender defined. The study hence recorded a high mean of 4.06 and SD of 0.325 as those influenced by health policy issues.

A good number of the respondents blamed their influence on the attitude of health workers in rendering care to couples. They reported issues related to the lack of professionalism on the part of health workers in previous visits to these facilities, with a mean of 3.97 recorded.

Regarding response to waiting time being an influencing factor, a mean of 2.78 representing neutrality was recorded as shown in table 4.

#### 4.3.4 Economic Factors Influencing Male Partners’ Involvement in ANC

**Table 7: Economic Factors Influencing Male Partners’ Involvement**

Economic Factors	Respondents	
Responses	Frequency (n)	Percentages (%)
Unexpected expenses	259	83.54%

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Lack of savings	152	49.03%
Too much debt.	32	10.32%
Poor income.	75	24.19%
Unemployment	15	4.84%

The respondents were asked to mention the economic factors that influenced their involvement in ANC. The results showed that 83.54% of the respondents mentioned unexpected expenses as a major economic factor that influenced their involvement in ANC. Although other economic problems affected male involvement they were not shared by majority of the respondents.

According to this group of respondents, their decision to accompany their spouses for ANC services was heavily influenced by several additional factors, including financial assistance for ANC, transportation arrangements for delivery, preparations for a prospective blood donor, and participation in the site decision-making process. A mean of 4.09 on a scale of 5 indicating majority strongly agreed with this.

Most of the respondents cited the unfavorable work schedule which proved difficult for their involvement in ANC.

#### **4.4 The Impact of Male Partners' Involvement in Antenatal Care on Birth Preparedness**

This section seeks to determine the impact of male partner involvement in antenatal care on birth preparedness in New Juaben North Municipality. The study used the respondents' knowledge about birth preparedness and the number of times they accompanied their partners to antenatal as a basis for assessing the impact of male partner involvement on ANC. The results of the knowledge of respondents on birth preparedness are presented below.

**Table 8 Knowledge on Birth Preparedness and Complication Readiness**

Questions	Options			
	No		Yes	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Did you know vaginal bleeding during pregnancy is a sign of possible complication?	75	<b>24.2</b>	235	<b>75.8</b>
Did you know swollen hand/feet is a during pregnancy is a sign of possible complication?	74	<b>23.9</b>	236	<b>76.1</b>
Did you know vision blurring during pregnancy is a sign of possible complication?	72	<b>23.2</b>	238	<b>76.8</b>
Did you know that dizziness during pregnancy is a sign of possible complication?	75	<b>24.2</b>	235	<b>75.8</b>
Did you know that loss of pregnancy fluid before labor is a sign of possible complication?	55	<b>17.7</b>	255	<b>82.3</b>
Did you know foul smelling vaginal discharge after delivery is a sign of possible complication?	57	<b>18.4</b>	253	<b>81.6</b>
Did you know severe vaginal bleeding after delivery is a sign of possible complication?	54	<b>17.4</b>	256	<b>82.6</b>
Did you know there is a need to arrange for funds to support delivery before delivery?	48	<b>15.5</b>	262	<b>84.5</b>
Did you know there is a need to arrange transport before delivery?	58	<b>18.7</b>	252	<b>81.3</b>
Did you know there is a need to arrange skilled care before delivery?	62	<b>20.0</b>	248	<b>80.0</b>

Did you know there is a need to arrange potential blood donor before delivery?	65	<b>21.0</b>	245	<b>79.0</b>
Did you know there is a need to identify a person to accompany a pregnant woman to the health facility for delivery before delivery?	69	<b>22.3</b>	241	<b>77.7</b>
Did you know there is a need to prepare essential items for the mother and baby before delivery?	73	<b>23.5</b>	237	<b>76.5</b>

The respondents were asked questions that showed their knowledge on related issues that are usually taught during ANC about birth preparedness and complication readiness. Also, this served as a proxy for the knowledge of respondents on birth preparedness and complication readiness.

Overall, a high number of respondents gave a positive understanding or knowledge on birth preparedness. The research showed that 75.8% to 84.5% of the respondents provided correct answers to questions asked, thereby depicting a high knowledge and understanding of maternal issues. A low number of respondents ranging between 15.5% -24.2% of the total respondents, lacked adequate knowledge and understanding on the issues of birth preparedness of their partners.

The results also showed that there is a positive effect of male partner involvement in antenatal care on birth preparedness. This is depicted in the coefficient of the relations where the outcome of the regression analysis was 0.031 and significant at 10%. The outcome is significant at 10% because the probability of the effect was 0.091 which is below 0.1.

**Table 9 Regression analysis showing relationship between Knowledge on Birth Preparedness and Complication Readiness and Male Partner Involvement in ANC**

Variable	Coefficient	Standard Error	T-statistic	Probability
MPI	0.031	0.016	1.895	0.091
Constant	1.689	0.058	29.133	0.000
R <sup>2</sup>	0.285			
Adjusted R <sup>2</sup>	0.206			

\* Significant at 10%\*



## CHAPTER FIVE

### DISCUSSIONS

#### 5.0 Introduction

This chapter discusses the results presented in the previous chapter.

#### 5.1 Sociodemographic characteristics of respondents

The respondents' background profiles, which were collected through administration of questionnaires included age, education of respondents, education of respondents' partner and marital status.

Findings revealed that 70% of all respondents were aged between 21 and 40, making up the majority of the respondents. This demonstrates that the majority of respondents are in the prime childbearing years.

According to the study's findings, the majority of male respondents had at least a secondary education, which indicates that they had the necessary background knowledge to comprehend the extent of the questions and offer thoughtful responses for the study. It is also an indicator that during the time of their childbirth, they must have been well prepared. This finding confirms the study of Kalisa & Malande (2016) that having a secondary education or higher was associated with being well prepared to assist in the process of ANC. Zhao et. al, (2012) also revealed that higher levels of education tend to have a good effect on health-seeking behaviours.

The majority (45.8%) of the participants' spouses had at least primary level of formal education, which indicated that they had the necessary knowledge to comprehend the importance of prenatal care. It must be stressed that this is not a large majority, implying that many of the participants' spouses may lack the knowledge necessary to recognise the value of prenatal care for themselves, regardless of their educational level.

The data analysis reveals that most of the respondents were in committed relationships of some kind. This indicated that their spouses had some kind of established relationship with them that would allow them to share prenatal care. This is consistent with the study of Sakeah et al., (2017) that found out that women who have strong relationships with their partners are more committed to ANC than uncommitted ones. Additionally, research by Ziblim et al. (2018) demonstrates a substantial correlation between marital status and the use of ANC.

## **5.2 Prevalence of Male Partners' Involvement in Antenatal Care Utilisation**

The findings in Table 2 revealed that the majority of respondents (58.7%) attended ANC once or more. This indicated that the participants made some effort to attend ANC, however the majority did not actively participate in the processes. This is in contrast with the work done by Craymah et al., (2017) where there was a low turnout of male involvement in ANC in Anomabo in the Central Region of Ghana.

A majority of the participants did not actively participate in the ANC, according to the data shown in Table 3. In correspondence, Ganle & Dery (2015) pointed out that even while most men are aware of the significance and advantages of their engagement in matters about maternal health care, their degree of involvement still falls short of expectations. Also, as depicted by Hartmann et al. (2012), male partner involvement has been connected to enhanced couple communication and shared decision-making. This result emphasises the necessity for male active engagement. If a pregnancy-related emergency arises, not participating actively results in poor communication and bad decision-making.

### **5.3 Social Factors Influencing Male Partners' Involvement in Antenatal Care**

The study identified several social variables that could affect MI in ANC. Results indicated that more than half of the respondents (55%) felt that the degree of marital attachment—i.e., the presence of cohabitation—influenced their participation in ANC activities. The majority of respondents cited communication as the primary element influencing their participation in ANC. Others who participated in the study shared the belief that thinking about playing the role of the child's father, spousal communication and staying with partner had an impact on their choice. The study of Lowe (2017) found that social factors such as the degree of marital attachment, including cohabitation and the desire for involvement in pregnancy and childbirth, can motivate men to participate in ANC. Another study conducted in Nigeria by Iliyasu et al. (2014) found that communication between partners was a significant predictor of male involvement in ANC. The study found that men who had discussed pregnancy-related issues with their partners were more likely to attend ANC visits.

### **5.4 Cultural Factors Influencing Male Partners Involvement in Antenatal Care**

Out of the total number of respondents, about half (49%) indicated that their prior opinions about the maternal health clinic and the opinions of others had a significant role in their choice. A recorded mean of 2.68 with an SD of 0.991 was obtained among the respondents who were questioned. Many respondents (mean = 3.30) said that cultural norms influenced the extent of involvement of local leaders in addressing MI problems at all levels, including ANC. The study's results showed that men were worried that their wives would think they were controlling if they accompanied them to ANC. This conclusion is consistent with research by Ditekemena et al. (2012), who linked low male engagement in ANC to cultural bias against male participants. These findings corroborate those of Nanjala, M., and Wamalwa, D. (2012) from Kenya, who asked married men if they would be considered as submissive to their spouses if they accompanied them to a medical institution. These results implies that respondents felt

cultural norms is a factor that influences male involvement in ANC. This outcome also aligns with the work done by Feijen-de Jong et. al, (2012) in high income countries such as USA, UK, and Canada, suggesting that cultural norms affect attendance to ANC.

In Table 5, some of the cultural norms that the respondents believed influence their decision to be involved in ANC are the perception that men should not be amongst women and the perception that sex-related conversations are not for public discussion. This likewise confirms the study of Kalisa & Malande (2016) that men should not be around their women in times of ANC and childbirth, and it is even considered taboo in some cultural jurisdictions in rural Rwanda.

According to these individuals, barriers related to culture and gender still exist. Participants stated that culturally speaking, pregnancy and childbearing concerns are a woman's duty and that males are only somewhat involved. This is secondary to the separation of roles according to gender. Men finding a way to participate is consequently challenging due to cultural attitudes about pregnancy.

### **5.5 Health System factors Influencing Male Partners' Involvement in ANC**

Most respondents agreed with the health system variables, such as distance to the facility, the typical duration of hospital stay, professionalism of medical staff, etc. According to the results, the majority of respondents said that a key factor affecting men's involvement in ANC was their proximity to a health facility.

Additionally, participants believed that the time spent during maternal consultation within the hospital discouraged them for future participation in such visits. This finding confirms Kumbeni et al. study where the majority of their participants, 204 (70.1%), agreed that the time they spent at the ANC clinics with their partners was appropriate, while almost a third, 87 (29.9%), disagreed.

Males were less likely to participate in ANC because they viewed health care providers to be unprofessional and unwelcoming. A high proportion (mean of 3.97) of the respondents attributed their influence in involvement in ANC to the way medical professionals treated couples. In past trips to these facilities, they complained that the medical staff lacked professionalism. These individuals scored on average 3.97 in the survey. A little over half of the total respondents who were interviewed—an average of 2.78—reported that their experience with health workers in these facilities influenced their decisions. This confirms the study of Gopal et al., (2020), and as a result, the majority of health care personnel surveyed reported receiving insufficient training in male-friendly service provision and male mobilisation.

Partner involvement in ANC services was hindered by a facility's lack of privacy in its design. According to the participants, the clinic lacked enough room for all the services it provides. As a result, three to four services were provided closely. In this regard, some participants said it would be uncomfortable to be in a public place where one may be readily observed by others, jeopardising one's privacy.

Nyondo et al. (2014) found that lack of privacy in the design of a facility was a barrier to male partner engagement in ANC services, and our findings corroborate this. Participants in that survey expressed concern that the clinic lacked the necessary space to provide all the services it advertises. Some respondents agreed, saying it would be awkward to be in a public place where one's privacy may be readily invaded by onlookers.

### **5.6 Economic factors Influencing Male Partners' Involvement in ANC**

The majority of respondents strongly agreed—as indicated by the mean score in table 4—that financial difficulties had an impact on men's participation in ANC. Unexpected costs are among the issues that respondents said affected their choice to participate in ANC. This result is

consistent with Birmeta et al.(2013) assertion that the amount of ANC attendance was impacted by financial issues.

The data shown in Table 4 with a mean score result of 4.09 on a scale of 5, suggested that the statement was accepted by the majority of respondents. The findings led to the conclusion that respondents believed work schedules to be a factor influencing male p in ANC participation

### **5.7 The Impact of Male Partner Involvement in Antenatal Care on Birth Preparedness**

This section addresses the impact of male partner involvement in antenatal care on birth preparedness in New Juaben North Municipality. Based on the results in Table 8, the issues the males were least aware of were vaginal bleeding during pregnancy and dizziness during pregnancy as signs of possible complication. Regarding birth preparedness and complication outcome, respondents were most aware of the need to arrange for funds to support delivery before delivery. Also, majority of the respondents were aware of all the birth preparedness.

The findings of the respondents' awareness of birth readiness and the frequency with which they accompanied their spouses to prenatal care were used to evaluate the effect of male partner engagement in antenatal care on birth preparedness. The findings in Table 8 demonstrate that male partner participation in prenatal care has a favourable effect on birth readiness.

This is shown in the coefficient of the relations, where 0.031 was the result of the regression analysis. In other words, birth preparedness would improve by 0.031 units when male partner engagement in ANC increased by one unit. At a 10% level of significance, this connection was significant. The R-squared also assessed how well the regression was able to forecast the values of the dependent variable inside the sample. Therefore, the R-squared was 0.285, indicating that male engagement accounted for 28.5% of the variance in birth preparation and complication awareness, whereas the remaining 72.5% was the consequence of other variables. In correspondence, a systematic review and meta-analysis conducted by Tokhi et al. (2018) found that male partner involvement in antenatal care improved birth preparedness and

complication readiness. Male partner participation in antenatal care showed a strong correlation with birth preparedness and readiness for possible complications. The odds ratio for birth preparedness was 1.76 (95% CI, 1.57-1.97), while that for complication readiness was 1.48 (95% CI, 1.30-1.68).



## CHAPTER SIX

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### 6.0 Introduction

The study's findings, interpretations, and suggestions are presented in this chapter. The researcher also draws some inferences based on the data and offers some suggestions.

#### 6.1 Summary

The study assessed the determinants of male partner involvement in ANC and its impact on birth preparedness. The study sought to achieve the following specific objectives; (i) determine the prevalence of male partners' involvement in antenatal care utilisation in New Juaben North Municipality; (ii) identify the social, cultural and economic factors that influence male partners involvement in ANC in New Juaben North Municipality and (iii) Ascertain the impact of male partner involvement in ANC on birth preparedness in New Juaben North Municipality.

The results of the study revealed that 41.3% (128) participants did not attend ANC with their partners, 33.6% (104) attended 1 – 3 times, 17.4% (54) attended 4 – 6 times, 7.7% (24) attended 6 -9 times and 0% (0) attended more than 9 times. This showed that the majority of the respondents (58.7%) attended at least once. This meant that the participants made some attempt to attend the ANC, but most did not attend all the ANC visits. In addition, 73.5% (228) responded negatively when asked about their level of participation during ANC visits. This meant that most of the respondents did not actively participate in the ANC.

Also, our study identified the social, cultural and economic factors that influence male partners involvement in antenatal care in New Juaben North Municipality. The analysis revealed that majority of the respondents felt living with a partner, being far away from the health facility, partner's communication, work schedule, and fatherly role were key factors that influenced male partner involvement in ANC. In addition, the study found that the majority of the respondents mentioned that men should not be amidst women and sex-related conversations

are not for public discussion as the most influential cultural norm that affected their involvement in ANC. The health policies mentioned to have influenced male involvement in ANC were free access to ANC, free reproductive health education, and mandatory involvement of the partner in ANC. It was also discovered that unexpected expenses are the financial problem that affected male involvement in ANC.

Lastly, the study assessed the impact of male partner involvement in antenatal care on birth preparedness in New Juaben North Municipality. The survey found that there is a positive effect of male partner involvement in antenatal care on birth preparedness. The coefficient from the regression analysis on the relationship between MPI in ANC and birth preparedness was 0.031. This meant that when male partner involvement in ANC improves by 1 unit, birth preparedness and complication awareness would improve by 0.031 units. This relationship was significant at a 10% significant level. Also, the R-squared measures the success of the regression in predicting the values of the dependent variable within the sample. Thus, the R-squared was 0.285 meaning that male involvement was responsible for 28.5% of the variance of birth preparedness and complication awareness and the residual 72.5% was a result of other factors.



## 6.2 Conclusion

According to the findings of this study, males in New Juaben North Municipality made some effort to attend the ANC, although the majority of them did not attend all visits with their female partners. Furthermore, the majority of them did not take an active role in the ANC.

The study also found that factors such as living with a spouse, distance from a health facility, communication between partners, job schedules, and fatherly responsibilities affect men's participation in ANC. Males are also influenced by societal norms that men should not be

around women and that sex-related issues should not be spoken about in public. Free access to ANC, free education on reproductive health, and partner participation in ANC are all factors influencing men's participation in ANC. Unexpected expenditures are the economic issue that hinders male participation in ANC.

Finally, the study concludes that there is a positive impact of male partner involvement in ANC on birth preparedness. This relationship is significant.

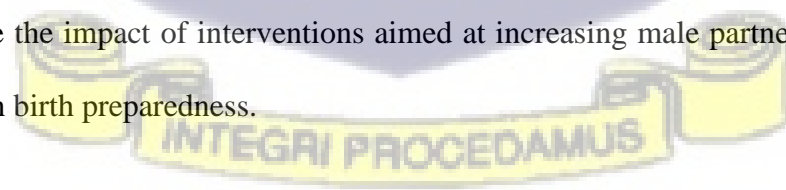
### 6.3 Recommendation

The methodological approach details the steps used to systematically carry out the research among the public. Thus, the study paves the way for future studies with bigger samples to be conducted by quantitative researchers in order to generalise the results to particular groups. In addition, the following suggestions are made for further thought and potential action:

1. Increase awareness and education: The study showed that free education on reproductive health and partner participation in ANC can increase male involvement. Therefore, health officials and community leaders should provide education to both men and women about the importance of male partner involvement in ANC and encourage them to attend ANC together.
2. Improve accessibility: The distance from health facilities and unexpected expenditures were identified as barriers to male participation in ANC. To address this, the government and stakeholders like the Ministry of Health, District Health Directorate and transport service providers should provide free access to ANC services and reduce the cost of transportation to health facilities.
3. Encourage communication between partners: Communication between partners was identified as a determinant of male partner involvement in ANC. Therefore, health officials and community leaders should encourage open communication between

partners and provide a safe and supportive environment for both men and women to discuss pregnancy-related issues.

4. **Modify societal norms:** The study showed that societal norms play a significant role in men's participation in ANC. Health officials and community leaders should challenge these norms and promote gender equality in ANC.
5. **Involve men in fatherly responsibilities:** The study found that fatherly responsibilities affect men's participation in ANC. Therefore, health officials and community leaders should encourage men to participate in fatherly responsibilities, including attending ANC, supporting their partners during pregnancy, and taking care of their newborns.
6. **Incorporate men in ANC services:** Health officials should design and implement ANC services that cater to the needs of both men and women. This could include providing male-friendly waiting areas, designing educational materials that appeal to men, and involving men in decision-making processes related to ANC.
7. **Monitor and evaluate:** The impact of male partner involvement in ANC on birth preparedness was highly significant. Therefore, health officials should monitor and evaluate the impact of interventions aimed at increasing male partner involvement in ANC on birth preparedness.



## References

- Aborigo, R. A., Reidpath, D. D., Oduro, A. R., & Allotey, P. (2018). Male involvement in maternal health: perspectives of opinion leaders. *BMC pregnancy and childbirth*, 18(1), 1-10.
- Adongo, P., Stone, A., Adongo, P. B., Tapsoba, P., Phillips, J. F., Tabong, P. T., & Stone, A. (2013). The role of community-based health planning and services strategy in involving males in the provision of family planning services : A qualitative study in Southern Ghana The role of community-based health planning and services strategy in involving males , (February 2016). <https://doi.org/10.1186/1742-4755-10-36>
- Adu, J., Tenkorang E, Banchani E, Allison J, Mulay S. (2018) The effects of individual and community-level factors on maternal health outcomes in Ghana. *PloS one*;13(11): e0207942
- Ali, N., Elbarazi, I., Alabboud, S., Al-Maskari, F., Loney, T., & Ahmed, L. A. (2020). Antenatal care initiation among pregnant women in the United Arab Emirates: the Mutaba'ah study. *Frontiers in Public Health*, 8, 211.
- Alio, A. P., Lewis, C. A., Scarborough, K., Harris, K., & Fiscella, K. (2013). A community perspective on the role of fathers during pregnancy: a qualitative study. *BMC pregnancy and childbirth*, 13(1), 1-11.
- Alliance, M., & Women, U. N. (2016). Men, masculinities, and changing power: A discussion paper on engaging men in gender equality from Beijing 1995 to 2015.
- Aluisio, A. R., Bosire, R., Bourke, B., Gatuguta, A., Kiarie, J. N., Nduati, R., John-Stewart, G., & Farquhar, C. (2016). Male Partner Participation in Antenatal Clinic Services is Associated With Improved HIV-Free Survival Among Infants in Nairobi, Kenya: A Prospective Cohort Study. *Journal of acquired immune deficiency syndromes* (1999), 73(2), 169–176. <https://doi.org/10.1097/QAI.0000000000001038>
- Atuahene, M. D., Arde-Acquah, S., Atuahene, N. F., Adjuik, M., & Ganle, J. K. (2017). Inclusion of men in maternal and safe motherhood services in inner-city communities in Ghana: Evidence from a descriptive cross-sectional survey. *BMC Pregnancy and Childbirth*, 17(1), 1–10. <https://doi.org/10.1186/s12884-017-1590-3>
- Austin A, Gulema H, Belizan M, Colaci D. S, Kendall T, Tebeka M, et al. Barriers to providing quality emergency obstetric care in Addis Ababa, Ethiopia: healthcare providers' perspectives on training, referrals and supervision, a mixed methods study. *BMC pregnancy and childbirth*. 2015 Dec;15:74

- Ayalew, M., Gebrie, M., Geja, E., & Beyene, B. (2020). Determinants of Male Partner Involvement Towards Prevention of Mother to Child Transmission Service Utilization Among Pregnant Women Who Attended Focused Antenatal Care in Southern Ethiopia. *HIV/AIDS (Auckland, N.Z.)*, 12, 87–95. <https://doi.org/10.2147/HIV.S233786>.
- Bhatta, D. N. (2013). Involvement of males in antenatal care, birth preparedness, exclusive breastfeeding and immunizations for children in Kathmandu, Nepal. *BMC pregnancy and childbirth*, 13(1), 1-7.
- Birmeta, K., Dibaba, Y., & Woldeyohannes, D. (2013). Determinants of maternal health care utilization in Holeta town, central Ethiopia. *BMC health services research*, 13(1), 1-10.
- Boerleider, A. W., Wiegers, T. A., Manniën, J., Francke, A. L., & Devillé, W. L. (2013). Factors affecting the use of prenatal care by non-western women in industrialized western countries: a systematic review. *BMC pregnancy and childbirth*, 13(1), 1-11.
- Byamugisha, R., Strøm, A. N., Ndeezi, G., Karamagi, C. A. S., Tylleskär, T., & Tumwine, J. K. (2011). Male partner antenatal attendance and HIV testing in eastern Uganda: A randomized facility-based intervention trial. *Journal of the International AIDS Society*, 14(1), 43. <https://doi.org/10.1186/1758-2652-14-43>
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education*. London: Routledge
- Comrie-Thomson, L., Mavhu, W., Makungu, C., Nahar, Q., Khan, R., Davis, J., ... & Vaughan, C. (2020). Male involvement interventions and improved couples' emotional relationships in Tanzania and Zimbabwe: 'When we are walking together, I feel happy'. *Culture, health & sexuality*, 22(6), 722-739.
- Craymah, J. P., Oppong, R. K., & Tuoyire, D. A. (2017). Male Involvement in Maternal Health Care at Anomabo, Central Region, Ghana. *International journal of reproductive medicine*, 2017, 2929013. <https://doi.org/10.1155/2017/2929013>
- Creswell, J. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California: SAGE Publications, Inc.
- David, R., Evans, R., & Fraser, H. S. (2021). Modelling Prenatal Care Pathways at a Central Hospital in Zimbabwe. *Health services insights*, 14, 11786329211062742. <https://doi.org/10.1177/11786329211062742>
- Debelie, T. Z., Abdo, A. A., Anteneh, K. T., Limenih, M. A., Asaye, M. M., Lake Aynalem, G., ... & Abebe, S. M. (2021). Birth preparedness and complication

readiness practice and associated factors among pregnant women in Northwest Ethiopia: 2018. *Plos one*, 16(4), e0249083.

- Dickson, K. S., & Amu, H. (2017). Determinants of skilled birth attendance in the northern parts of Ghana. *Advances in Public Health*, 2017. incomplete
- Ditekemena, J., Koole, O., Engmann, C., Matendo, R., Tshefu, A., Ryder, R., & Colebunders, R. (2012). Determinants of male involvement in maternal and child health services in sub-Saharan Africa: a review. *Reproductive health*, 9(1), 1-8.
- Dixon-Mueller R. and Germain A. (2007). Fertility regulation and reproductive health in the Millennium Development Goals: the search for a perfect indicator. *American Journal of Public Health*. 97 (1): 45–51.
- Dowswell, T., Carroli, G., Duley, L., Gates, S., Gülmezoglu, A. M., Khan-Neelofur, D., & Piaggio, G. (2015). Alternative versus standard packages of antenatal care for low-risk pregnancy. *Cochrane Database of Systematic Reviews*, (7).
- Dumbaugh, M., Tawiah-Agyemang, C., Manu, A., ten Asbroek, G. H., Kirkwood, B., & Hill, Z. (2014). Perceptions of, attitudes towards and barriers to male involvement in newborn care in rural Ghana, West Africa: a qualitative analysis. *BMC Pregnancy and Childbirth*, 14(1). <https://doi.org/10.1186/1471-2393-14-269>
- Dzakpasu S, Soremekun S, Manu A, Ten Asbroek G, Tawiah C, Hurt Let al. Impact of free delivery care on health facility delivery and insurance coverage in Ghana's Brong Ahafo Region. *PloS one*. 2012 Nov 16;7(11): e49430
- Efendi, F., Chen, C. M., Kurniati, A., & Berliana, S. M. (2017). Determinants of utilization of antenatal care services among adolescent girls and young women in Indonesia. *Women & health*, 57(5), 614-629.
- Eiland, E.; Nzerue, C.; Faulkner, M. (2012). Preeclampsia 2012. *Journal of Pregnancy*. 2012: 586578.
- Farah, S., & Karim, M. (2015). Determinants of utilization of antenatal care services in rural area of Bangladesh. *Bangladesh Medical Journal*, 44(2), 67-71.
- Feijen-de Jong, E. I., Jansen, D. E., Baarveld, F., van der Schans, C. P., Schellevis, F. G., & Reijneveld, S. A. (2012). Determinants of late and/or inadequate use of prenatal healthcare in high-income countries: a systematic review. *The European Journal of Public Health*, 22(6), 904-913.
- Feijen-de Jong, E. I., Jansen, D. E., Baarveld, F., van der Schans, C. P., Schellevis, F. G., & Reijneveld, S. A. (2012). Determinants of late and/or inadequate use of

prenatal healthcare in high-income countries: a systematic review. *The European Journal of Public Health*, 22(6), 904-913.

- Forbes, F., Wynter, K., Wade, C., Zeleke, B. M., & Fisher, J. (2018). Male partner attendance at antenatal care and adherence to antenatal care guidelines: secondary analysis of 2011 Ethiopian demographic and health survey data. *BMC pregnancy and childbirth*, 18(1), 1-11.
- Gerds, C., Tunçalp, O., Johnston, H., & Ganatra, B. (2015). Measuring abortion-related mortality: challenges and opportunities. *Reproductive health*, 12(1), 1-3.
- Gething, P. W., Johnson, F. A., Frempong-Ainguah, F., Nyarko, P., Baschieri, A., Aboagye, P., ... & Atkinson, P. M. (2012). Geographical access to care at birth in Ghana: a barrier to safe motherhood. *BMC public health*, 12(1), 1-13.
- GSS, G. (2016). Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF. 2017. *Ghana malaria Indicator survey*.
- Ganle JK, Dery I. 'What men don't know can hurt women's health': a qualitative study of the barriers to and opportunities for men's involvement in maternal healthcare in Ghana. *Reproductive Health*. 2015;12:93.
- Gathuto, M. N. (2014). Factors influencing male participation in antenatal care in Kenya: a case of Kenyatta national hospital, Nairobi, Kenya. *University of Nairobi Digital Repository*. Retrieved from <http://hdl.handle.net/11295/74173>
- Gibore, N. S., Bali, T. A. L., & Kibusi, S. M. (2019). Factors influencing men's involvement in antenatal care services: A cross-sectional study in a low resource setting, Central Tanzania. *Reproductive Health*, 16(1), 1-10. <https://doi.org/10.1186/s12978-019-0721-x>
- Gopal, P., Fisher, D., Seruwagi, G., & Taddese, H. B. (2020). Male involvement in reproductive, maternal, newborn, and child health: evaluating gaps between policy and practice in Uganda. *Reproductive Health*, 17(1), 1-9.
- Gross, K., Alba, S., Glass, T. R., Schellenberg, J. A., & Obrist, B. (2012). Timing of antenatal care for adolescent and adult pregnant women in south-eastern Tanzania. *BMC pregnancy and childbirth*, 12(1), 1-12.
- Gülmezoglu A. M, Lawrie TA, Hezelgrave N, Oladapo OT, Souza JP, Gielen M et al (2016). Interventions to reduce maternal and newborn morbidity and mortality. *Reproductive, maternal, newborn , and child health: disease control priorities* 2:115-36

- Haddad L. B and Nour N. M (2009). Unsafe abortion: unnecessary maternal mortality. *Reviews in Obstetrics & Gynecology* 2 (2): 122–6
- Heaman, M., Bayrampour, H., Kingston, D., Blondel, B., Gissler, M., Roth, C., ... & Gagnon, A. (2013). Migrant women's utilization of prenatal care: a systematic review. *Maternal and child health journal*, 17(5), 816-836.
- Imo, C. K., Isiugo-Abanihe, U. C., & Chikezie, D. C. (2016). Perception of childbearing women on gender roles in reproductive decision making and under-five children health status in Abia State, Nigeria. *Gender and Behaviour*, 14(1), 7040-7056.
- Jackson, R., Tesfay, F. H., Godefay, H., & Gebrehiwot, T. G. (2016). Health extension workers' and mothers' attitudes to maternal health service utilization and acceptance in Adwa Woreda, Tigray Region, Ethiopia. *PLoS One*, 11(3), e0150747.
- Jennings, L., Na, M., Cherewick, M., Hindin, M., Mullany, B., & Ahmed, S. (2014). Women's empowerment and male involvement in antenatal care: Analyses of Demographic and Health Surveys (DHS) in selected African countries. *BMC Pregnancy and Childbirth*, 14(1), 1–11. <https://doi.org/10.1186/1471-2393-14-297>
- Kabanga, E., Chibwae, A., Basinda, N., & Morona, D. (2019). Prevalence of male partners involvement in antenatal care visits—in Kyela district, Mbeya. *BMC pregnancy and childbirth*, 19(1), 1-6.
- Kalisa, R., & Malande, O. O. (2016). Birth preparedness, complication readiness and male partner involvement for obstetric emergencies in rural Rwanda. *The Pan African medical journal*, 25
- Kariuki, K., & Seruwagi, G. (2016). Determinants of Male Partner Involvement in Antenatal Care in Wakiso District, Uganda. *British Journal of Medicine and Medical Research*, 18(7), 1–15. <https://doi.org/10.9734/bjmmr/2016/28056>
- Kilpatrick S. K and Ecker JL (2016). Severe maternal morbidity: screening and review. *American Journal of Obstetrics and Gynecology*. 215 (3): B17–22.
- Kirshenblatt-Gimblett, B. (2006). *What is research design? The context of design*. Performance Studies Methods Course Syllabus.
- Kululanga, L. I., Sundby, J., Malata, A., Chirwa, E., Asefa, F., To, S., ... Mukthar, V. (2014). Male Partners Involvement in Maternal ANC Care: The View of Women Attending A NC in Hararipublic Health Institutions, Eastern Ethiopia. *Science Journal of Public Health*, 2(3), 182. <https://doi.org/10.11648/j.sjph.20140203.17>

- Kumbeni, M. T., Ziba, F. A., Alem, J. N., & Nborah, S. A. (2019). Factors influencing male involvement in antenatal care in the Kassena Nankana Municipal in the Upper East Region, Ghana. *European Scientific Journal*, 15(21), 3
- Main E. K (2018). Reducing Maternal Mortality and Severe Maternal Morbidity Through State-based Quality Improvement Initiatives. *Clinical Obstetrics and Gynecology*. 61 (2): 319–331
- Mamo, Z. B., Kebede, S. S., Agidew, S. D., & Belay, M. M. (2021). Determinants of male partner involvement during antenatal care among pregnant women in gedeo zone, South Ethiopia: A case-control study. *Annals of Global Health*, 87(1), 1–12. <https://doi.org/10.5334/aogh.3003>
- Mersha, A. G. (2018). Male involvement in the maternal health care system: implication towards decreasing the high burden of maternal mortality. *BMC pregnancy and childbirth*, 18(1), 1-8.
- Miller S, Turan J. M, Dau K, Fathalla M, Mourad M, Sutherland T, et al. (2007). Use of the non-pneumatic anti-shock garment (NASG) to reduce blood loss and time to recovery from shock for women with obstetric haemorrhage in Egypt. *Global Public Health*. 2 (2): 110–24.
- Montagu D, Sudhinaraset M, Diamond-Smith N, Campbell O, Gabrysch S, Freedman L et al. Where women go to deliver: understanding the changing landscape of childbirth in Africa and Asia. *Health policy and planning*. 2017 Oct 1;32(8):1146-52
- Natai, C. C., Gervas, N., Sikira, F. M., Leyaro, B. J., Mfanga, J., Yussuf, M. H., & Msuya, S. E. (2020). Association between male involvement during antenatal care and use of maternal health services in Mwanza City, Northwestern Tanzania: a cross-sectional study. *BMJ open*, 10(9), e036211. <https://doi.org/10.1136/bmjopen-2019-036211>
- Nketiah-Amponsah, E., Senadza, B., & Arthur, E. (2013). Determinants of utilization of antenatal care services in developing countries: recent evidence from Ghana. *African Journal of Economic and Management Studies*.
- Nurse-Findlay, S., Kuruvilla, S., Festin, M., Bloem, P., Svanemyr, J., & Vogelsong, K. (2013). Engaging men and boys in RMNCH knowledge summary: women's & children's health. *Partnership Maternal Newborn Child Health*, 1-4.
- Nyondo, A.L., Chimwaza, A.F. & Muula, A.S. Stakeholders' perceptions on factors influencing male involvement in prevention of mother to child transmission of HIV services in Blantyre, Malawi. *BMC Public Health* 14, 691 (2014). <https://doi.org/10.1186/1471-2458-14-691>

- Onasoga, O. A., Afolayan, J. A., & Oladimeij, B. D. (2012). Factor's influencing utilization of antenatal care services among pregnant women in Ife Central LGA, Osun State Nigeria. *Advances in Applied Science Research*, 3(3), 1309-1315.
- Ozimek, J. A. and Kilpatrick, S. J. (2018). Maternal Mortality in the Twenty-First Century. *Obstetrics and Gynecology Clinics*. 45 (2): 175–186
- Parahoo, K. (2014). *Nursing Research: Principles, Process and Issues*: Palgrave Macmillan.
- Rai S. K, Anand K, Misra P, Kant S, Upadhyay R. P (2012). Public health approach to address maternal mortality. *Indian Journal of Public Health*. 56 (3): 196–203.
- Roy, M. P., Mohan, U., Singh, S. K., Singh, V. K., & Srivastava, A. K. (2013). Determinants of utilization of antenatal care services in rural Lucknow, India. *Journal of family medicine and primary care*, 2(1), 55.
- Shah, Monjri; Wright, Jason D. (2009). Surgical intervention in the management of postpartum hemorrhage". *Seminars in Perinatology*. 33 (2): 109–115
- Small, Maria J.; Allen, Terrence K.; Brown, Haywood L. (August 2017). "Global disparities in maternal morbidity and mortality". *Seminars in Perinatology*. 41 (5): 318–322.
- To, T., Stanojevic, S., Moores, G., Gershon, A. S., Bateman, E. D., Cruz, A. A., & Boulet, L. P. (2012). Global asthma prevalence in adults: findings from the cross-sectional world health survey. *BMC public health*, 12(1), 1-8.
- Tokhi, M., Comrie-Thomson, L., Davis, J., Portela, A., Chersich, M., & Luchters, S. (2018). Involving men to improve maternal and newborn health: a systematic review of the effectiveness of interventions. *PloS one*, 13(1), e0191620.
- Tran, T. K., Gottvall, K., Nguyen, H. D., Ascher, H., & Petzold, M. (2012). Factors associated with antenatal care adequacy in rural and urban contexts-results from two health and demographic surveillance sites in Vietnam. *BMC health services research*, 12(1), 1-10.
- Tura, G., Afework, M. F., & Yalew, A. W. (2014). The effect of birth preparedness and complication readiness on skilled care use: a prospective follow-up study in Southwest Ethiopia. *Reproductive health*, 11(1), 1-10.
- Villarosa, L. (2018). Why America's Black Mothers and Babies Are in a Life-or-Death Crisis. *The New York Times Magazine*
- WHO (2022). Maternal deaths. WHO. <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4622>

- Worku, A. G., Yalew, A. W., & Afework, M. F. (2013). Factors affecting utilization of skilled maternal care in Northwest Ethiopia: a multilevel analysis. *BMC international health and human rights*, 13(1), 1-11.
- Yamashita, T., & Kunkel, S. R. (2010). The association between heart disease mortality and geographic access to hospitals: county level comparisons in Ohio, USA. *Social Science & Medicine*, 70(8), 1211-1218.
- Yargawa, J., & Leonardi-Bee, J. (2015). Male involvement and maternal health outcomes: systematic review and meta-analysis. *J Epidemiol Community Health*, 69(6), 604-612.
- Yidana, A., Ziblim, S. D., & Yamusah, B. (2018). Male partner involvement in birth preparedness and utilization of antenatal care services: a study in the West Mamprusi municipality of northern Ghana. *World J Public Health*, 3(3), 69.
- Zhao, Q., Huang, Z. J., Yang, S., Pan, J., Smith, B., & Xu, B. (2012). The utilization of antenatal care among rural-to-urban migrant women in Shanghai: a hospital-based cross-sectional study. *BMC public health*, 12(1), 1-10.
- Zikmund, W. G., & Babin, B. J. (2010). *Exploring marketing research (10th edn)* South Western Cengage Learning.



**APPENDICES**

**Appendix 1: Questionnaire**

**RESPONDENT NUMBER** \_\_\_\_\_

**TOPIC: DETERMINANTS OF MALE PARTNER INVOLVEMENT IN ANTENATAL CARE AND ITS EFFECT ON BIRTH PREPAREDNESS AND COMPLICATION READINES IN NEW JUABEN NORTH MUNICIPALITY**

The questionnaire seeks to assess the determinants of male partner involvement in antenatal care and its impact on birth preparedness. Answers to the question would help achieve the objectives of the study. Anonymity and confidentiality are assured. Under no circumstance would responses be traced to source.

Thank you for your participation.

**Please you are advised to circle appropriately against the desired option in all sections.**

**Thank you**

<b>PANEL A: Bio Data</b>		
1.	Gender	A. Male    B. Female
2.	Age (years)	_____
3.	Name of the location you currently live?	_____
4.	Highest Education	A. Primary B. Junior High School C. Senior High School D. Diploma/HND    E. Bachelor's Degree    F. Masters Degree G. PhD    F. No Formal Education
5.	Partners' education	A. Primary B. Junior High School C. Senior High School D. Diploma/HND    E. Bachelor's Degree    F. Masters Degree

		G. PhD F. No Formal Education
6.	Religion	A. Christian B. Muslim C. African Traditional Religion
7.	Occupation	_____
8.	Marital Status	A. Single B. Married C. Divorced/Separated D. Co-habiting E. Widowed
9.	How many children do you have?	_____

<b>Panel B:Antenatal attendance</b>		
10.	How many times did your spouse/partner attend antenatal care during your most recent pregnancy?	_____
11.	Did you/have you ever accompanied your spouse/partner for antenatal care?	A.YES B. NO
12.	How many times did you accompany your spouse/partner for antenatal care during her last pregnancy?	_____
13.	Did you see the health worker (nurse/midwife/Doctor) with your spouse/partner?	A.YES B.NO
	Did you participate actively in the processes at the antenatal clinic?	A.YES B.NO
	Please list the some of the topic areas that you gathered during the antenatal (at least three)	_____

		_____
		_____
		_____
		_____
		_____
		_____

**Panel C requires you to circle the answer that matches your view on the various statements. Please note that: 5=Strongly Agree, 4= Agree, 3=Neutral, 2=Disagree, 1= Strongly Disagree**

<b>PANEL C: The Social, Cultural, Economic and Health System Factors That Influence Male Partners Involvement in Antenatal Care</b>						
	Statement	Options				
		5	4	3	2	1
14.	Living with my spouse/partner influenced my involvement in ANC.	5	4	3	2	1
15.	The distance to the health facility influenced my involvement in ANC.	5	4	3	2	1
16.	My perception of Maternal Health Clinic influenced my involvement in ANC.	5	4	3	2	1
17.	My spouse's/partner's communication influenced my involvement in ANC.	5	4	3	2	1

18.	Some of my cultural norms influenced my involvement in ANC.	5	4	3	2	1
19.	If cultural norms influenced your involvement in ANC. Please specify those norms (specify not more than three (3)).	<hr/> <hr/> <hr/>				
20.	My work schedule allowed for my involvement in ANC.	5	4	3	2	1
21.	The health policies influenced my involvement in ANC.	5	4	3	2	1
22.	If health policies influenced your involvement in ANC. Please specify those policies (specify not more than three (3)).	<hr/> <hr/> <hr/>				
23.	My financial problems influenced my involvement in ANC. Specify .....	5	4	3	2	1

	<p>If financial problems influenced your involvement in ANC. Please specify those problems (specify not more than three (3)).</p>	<hr/> <hr/> <hr/>				
<p>24.</p>	<p>The attitudes of health workers influenced my involvement in ANC. Specify .....</p>	<p>5</p>	<p>4</p>	<p>3</p>	<p>2</p>	<p>1</p>
<p>25.</p>	<p>If financial problems influenced your involvement in ANC. Please tell us those problems (specify not more than three (3)).</p>	<hr/> <hr/> <hr/>				
<p>26.</p>	<p>The long waiting time at health facilities before ANC starts as well the length of the session influenced my involvement in ANC.</p>	<p>5</p>	<p>4</p>	<p>3</p>	<p>2</p>	<p>1</p>
<p>27.</p>	<p>My role as the soon to be father of the child influenced my involvement in ANC.</p>	<p>5</p>	<p>4</p>	<p>3</p>	<p>2</p>	<p>1</p>

**Panel D** requires you to circle the answer that matches your view on the various statements.

<b>PANEL C: KNOWLEDGE ON BIRTH PREPAREDNESS AND COMPLICATION READINESS</b>		
25.	Did you know vaginal bleeding during pregnancy is a sign of possible complication?	A. Yes B. No
26.	Did you know swollen hand/feet is a during pregnancy is a sign of possible complication?	A. Yes B. No
27.	Did you know vision blurring during pregnancy is a sign of possible complication?	A. Yes B. No
28.	Did you know that dizziness during pregnancy is a sign of possible complication?	A. Yes B. No
29.	Did you know that loss of pregnancy fluid before labour is a sign of possible complication?	A. Yes B. No
30.	Did you know foul smelling vaginal discharge after delivery is a sign of possible complication?	A. Yes B. No
31.	Did you know severe vaginal bleeding after delivery is a sign of possible complication?	A. Yes B. No
32.	Did you know there is a need to make arrangement for funds to support delivery before delivery?	A. Yes B. No
33.	Did you know there is a need to make arrangement for transport before delivery?	A. Yes B. No
34.	Did you know there is a need to make arrangement for skilled care before delivery?	A. Yes B. No
35.	Did you know there is a need to make arrangement for potential blood donor before delivery?	A. Yes B. No
36.	Did you know there is a need to identify a person to accompany your partner to the health facility for delivery before delivery?	A. Yes B. No
37.	Did you know there is a need to prepare essential items for the mother and baby before delivery?	A. Yes B. No

**Appendix 2: Participant Information Sheet**

**PARTICIPANT INFORMATION SHEET**

There is information on the study in this fact sheet. We ask that you read (or have this information sheet read to you) this information sheet in order to make sure that you are properly informed prior to taking part in this study. Once you have finished reading, you will be required to sign or thumbprint this permission form. This signed form will be sent to you along with a copy. Please feel free to contact us for explanations and clarifications if any of the phrases mentioned in this form are foreign to you.

I. Title of Study: Determinants of Male Partner Involvement in Antenatal care and its effect on Birth Preparedness in the New Juaben North Municipality of the Eastern Region, Ghana

ii. Principal Investigator: Afua Boadi Blay

Email: fuadel73@gmail.com Telephone: (0246210425)

Place of work: St Joseph Orthopedic Hospital iii. Background and Purpose of research: Health organisations may design strategic methods to achieve the greatest birth preparation for pregnant women and dads with the help of the study on factors influencing male partner engagement in prenatal care and its impact on birth readiness. This research may be used as a resource by health professionals and other policymakers to better understand male partner involvement in ANC. The research would enable local and international health organisations, including the World Health Organisation, the Minister of Health, and others, understand how much male partner participation improves labour and delivery preparation. The research would also contribute to the growing body of

information on male partner involvement in ANC and labour preparation. It would act as a starting point for more research on the subject. The research will be of interest to academics since it is distinct from other studies that concentrated on the viewpoints of women.

iv. Nature of research: The study aims at assessing some of the issues or things that affect the participation of male partners of pregnant women in their antenatal attendance. Additionally, it will consider how this influences the couple's planning for a healthy mother and baby's birth. 340 males (18–60 years old) whose partners had a pregnancy or delivery during the previous 24 months and who had worked as ANC attendants would participate in the research. It will occur in Ghana's Eastern Region's New Juaben North District.

Participants will be needed to complete a questionnaire, which is anticipated to take around 15 minutes to complete. The survey will include both closed-ended and Likert scale questions, for which respondents will choose an answer from a list of possibilities.

Potential Risks: No potential risk associated with participation in this study. Nevertheless, you are free to omit any questions or withdraw your agreement if doing so makes you feel uncomfortable or troubled emotionally.

Benefits: The study is solely academic and may one day help with future maternal health policy decisions. However, there are no immediate advantages.

Costs: Participants will not suffer any direct or indirect costs as a consequence of taking part in this research, with the exception of the time spent completing the questionnaire.

Compensation: Unfortunately, participants will not be given any compensation in this study.

**Confidentiality:** Response from participants will be kept confidential. In order to do this, no information that might be used to individually identify respondents—such as names, phone numbers, or addresses—will be included in the survey. To avoid being able to identify the questionnaire responders, pseudonyms will be utilised. Data will be maintained on password-protected devices, and completed survey forms will be kept on premises with only the lead investigator having access. Your identify won't be revealed in any manner by the study's findings. The study's data may be used into presentations or reports.

**Voluntary participation/withdrawal:** Because participation is entirely up to you, you are free to reject at any moment without incurring any penalties and without being required to offer a reason.

**Results and feedback:** The health directorate will notify the municipality of the findings, which may then be used to guide future policy decisions on maternal health. The study's findings will be shared with the municipality's healthcare facilities so they may make changes at the prenatal clinics for a better outcome.

**Funding information:** Research is self-funded by Principal Investigator.

**Participant exchange Information/Data:** The University of Ghana School of Public Health shall be the owner of the data produced throughout the study procedure.

**Informational disclosure and participant consent:** After you have signed or thumb-printed the information page and consent form, you will get a copy for your records.

Who to Contact for Further Clarification/Questions: Please feel free to ask the field staff questions and clarifications as they arise during the study. To get more information or to ask any questions, get in touch with the individual listed below.

1. Afua Boadi Blay is the principal investigator. Her contact information is 0246210425 and her email is [fuadel73@gmail.com](mailto:fuadel73@gmail.com).

2. Nana Abena Apatu is the administrator of the Ghana Health Service Ethics Review Committee. She may be reached at 0503539896 or [ethics.research@ghsmail.org](mailto:ethics.research@ghsmail.org).



**Appendix 3: Consent Form**

REQUEST FORM

Study Title: Determinants of Male Partner Involvement in Antenatalcare and its effect on Birth Preparedness and Complication Readiness in the New Juaben North Municipality in the Eastern Region, Ghana

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (*.....name of language*). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name of Participant.....

Participants' Signature.....OR Thumb Print.....

Date:.....



INTERPRETERS' STATEMENT

I interpreted the purpose and contents of the Participants' Information Sheet to the afore named participant to the best of my ability in the (*.....name of language*) language to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter.....

Signature.....OR Thumb Print .....

Date:.....

Contact Details

STATEMENT OF WITNESS

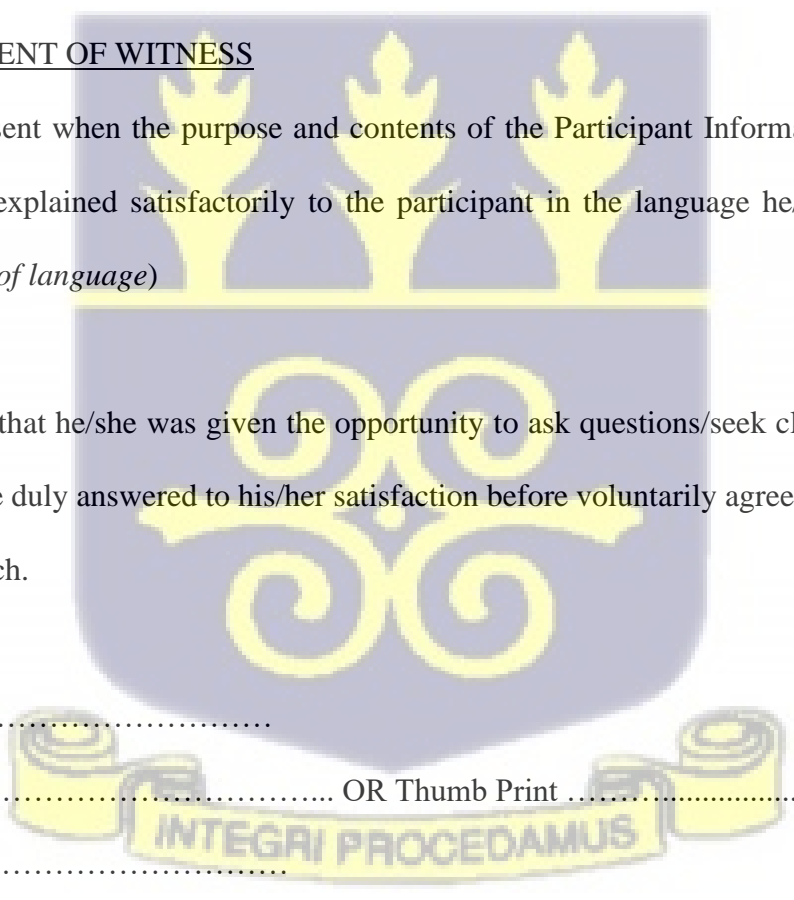
I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (*...name of language*)

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:.....

Signature..... OR Thumb Print .....

Date:.....



INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study.

All questions and clarifications raised by the participant have been addressed.

Researcher's name.....

Signature .....


Date.....



**Appendix 4: Ethical approval**

**GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE**

*In case of reply the number and date of this Letter should be quoted.*

  
Your Health Our Concern

Research & Development Division  
Ghana Health Service  
P. O. Box MB 190  
Accra  
Digital Address: GA-050-3303  
Mob: +233-50-3539896  
Tel: +233-302-681109  
Email: [ethics.research@ghsmai.org](mailto:ethics.research@ghsmai.org)  
26<sup>th</sup> September, 2022

My Ref. GHS/RDD/ERC/Admin/App (22/422)  
Your Ref. No.

Afua Boadi Blay  
St Joseph Hospital, P.O. Box KF40,  
Koforidua.

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC: 068/09/22
Study Title	Determinants of Male Partner Involvement in Antenatal care and its impact on Birth Preparedness in the New Juaben North Municipality of the Eastern Region, Ghana
Approval Date	26 <sup>th</sup> September, 2022
Expiry Date	25 <sup>th</sup> September, 2023
GHS-ERC Decision	Approved

**This approval requires the following from the Principal Investigator**

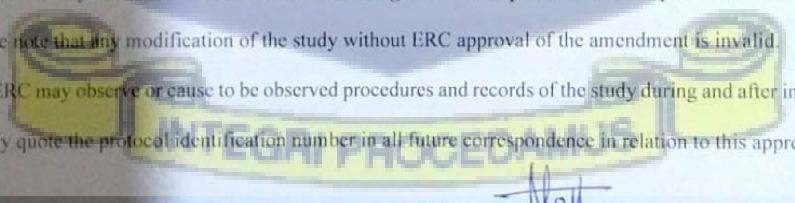
- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

**You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19**

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

  
SIGNED.....  
Mr. Kofi Wellington  
(GHS ERC Vice Chairperson)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

