

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
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**MALE PARTNER INVOLVEMENT IN MATERNAL HEALTH CARE IN THE
EFFUTU MUNICIPALITY OF THE CENTRAL REGION OF GHANA**

BY

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DECLARATION

I, Rebecca Ofosua, declare that this work is the result of my own original research and that this dissertation, either in whole or in part has not been presented elsewhere for another degree. All references to the work of others have been duly acknowledged. I have no conflict of interest in this research.

SIGNATURE: _____ DATE: _____

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SIGNATURE: _____ DATE: _____

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DEDICATION

I dedicate this dissertation work to my family and friends. A special gratitude to my husband, Esidu Moro Asante, whose words of encouragement and advice have been an ever present phenomenon in my life and have served as a driving force and direction to all I have achieved in my life. I also dedicate it to my parents, Victor Owusu Asante and Emelia Sakyi, who have never left my side and are very special. Again, I dedicate this work to my loving son and perfect gift from God, Ayaan Moro Asante.

Furthermore, I sincerely dedicate this dissertation to my many friends who have supported me throughout this work, most notably Basaw Sam my research assistant who has supported me in various ways during my course of study.

My dedications will not be complete without the mention of kindhearted friend, Comfort Amuzu for all her care and concern.

May this work stand as a gesture of my immense gratitude to all the names mentioned above.

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ABSTRACT

BACKGROUND

Globally, men play critical role in women's ability to seek health care, including maternal health care. Male partner involvement is a key factor that cannot be ignored in the quest for improvement in maternal health. Male participation has been shown to yield substantial influence in decisions and health outcomes in several other areas of maternal health care, including antenatal, labour and delivery and postnatal care. However, male involvement has been found to be affected by men's low knowledge of women's reproductive health issues and cultural restrictions. The study assessed the level of male partner involvement in maternal health care and identifies factors that influence their involvement.

METHOD

This was a cross-sectional study involving 201 men whose partners had given birth within the last 12 months and had lived in the municipality for not less than 12 months. A Multistage sampling technique was employed in this study and data were collected using structured questionnaire and analysis was done using STATA version 15. Pearson Chi-square test was used to determine the associations of independent variables on the dependent variables. Multiple logistic regressions were conducted to determine the strength of associations. All p-values <0.05 were considered statistically significant.

RESULTS

The mean age of participants was 33.79 (SD = ± 7.28). Overall, 32.0% had high level of involvement, 28.0% had moderate level of involvement and 40.0% had low level of involvement. The period with the highest proportion of male involvement was during labour and

delivery. A greater number (86.57%) of the couples reported that male partners accompany the female partner to antenatal care, 82.09% of the couples reported that male partner accompany the female partner to postnatal care and 73.13% of them agreed in their response of the male partner supporting the female partner financially during maternal health care. From the multiple binary logistic regression model (Adjusted model), age, marital status, age of last child and knowledge level had significant influence on high level of male involvement in maternal health care (p-value <0.05).

CONCLUSION

The level of male involvement in maternal health care in Effutu Municipality was found to be low. Although, male partners provide financial support to their wives or partners during their maternity periods, their involvement is not sufficient enough since maternal health goes beyond only financial support. Several factors appeared to have contributed to the low level of male involvement. These include knowledge of women maternal health needs, socio-demographic characteristics such as age group, marital status, income and level of educational. Effective public education of the community members, especially men to sensitize them on the importance of involving themselves in their partners' maternal health care.

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LIST OF ABBREVIATIONS

ANC	Antenatal Care
CHPS	Community-based health planning and services
GDHS	Ghana Demographic and Health Survey
GMHS	Ghana Maternal Health Survey
GSS	Ghana Statistical Service
LB	Live Birth
MCH	Maternal and Child Health
MHC	Maternal Health Care
MDGs	Millennium Development Goals
MMR	Maternal Mortality Ratio
PNC	Postnatal care
SD	Standard deviation
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WIFA	Women in Fertile Age

DEFINITION OF TERMS

Antenatal care: The care given to a woman during her pregnancy by a health care professional.

Intrapartum care: The care given to a woman during labour and delivery by a health care professional.

Male involvement: Refers to men participating in and having joint responsibility with women in all areas of maternity care.

Male partner: The man biologically responsible for the pregnancy of a woman.

Maternal health: Refers to the health of women during pregnancy, childbirth and the postpartum period.

Maternity care: Refers to the care given to a woman during her pregnancy, labour, delivery and the postpartum period by a health professional.

Postnatal care: The care given to a woman from the delivery of the placenta up to six weeks after delivery by a health care professional.

Skilled Attendance: Refers to childbirth managed by a skilled attendant under the enabling conditions of a functional emergency obstetric care and referral system.

Skilled Attendant: Refers to an accredited health professional such as a licensed midwife, doctor or nurse who has adequate proficiency and the skills to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and also in the identification, management and referral of complication in women and newborns.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

Maternal Health Care (MHC) services are provided for women during pregnancy, delivery and after pregnancy (Craymah, Oppong, & Tuoyire, 2017). Antenatal Care (ANC), a care offered while pregnant sets the tone for maternal health. Usage of ANC services is crucial and a major determinant of birth outcomes. It is associated with reductions in maternal-child morbidity and mortality (Audet et al., 2016; Brown, Sohani, Khan, Lilford, & Mukhwana, 2008). In that regard, the World Health Organization (WHO) now advocates that pregnant women seek a minimum of eight ANC contacts before delivery (Lougue, 2013). Unfortunately, majority of pregnant mothers do not adhere to this recommendation due to issues pertinent to them, cultural beliefs, health system factors among others. In some low-income and developing countries, pregnant women attending ANC is an issue of concern. As at 2010, only 36% of pregnant women completed at least four ANC visits in low-income countries (Audet et al., 2016) and 44% in developing countries.

In order to address this burden, joint partnership responsibility which constitutes male involvement in maternal health care (MHC) issues was found to be productive in health outcomes such as high level of contraceptive use and improved maternal health outcomes (Aborigo, Reidpath, Oduro, & Allotey, 2018). Among all conferences held to promote male involvement, the 1994 International Conference on Population Development in Cairo laid greater emphasis on the fact that, men tremendously impact not only women's reproductive health but

also simultaneously play the role of partners at the same time fathers and healthcare workers (Singh, Lample, & Earnest, 2014).

In Ghana, maternal mortality cannot be underestimated. As at 2015 Ghana's maternal mortality ratio (MMR) stood at 350 per 100, 000 live births making illusory of achieving 185 per 100, 000 live birth (Fotso, Ezeh, & Essendi, 2009). However, skilled attendant at birth, during and after pregnancy were found to be contributing factors leading to low male involvement (Campbell & Graham, 2006). Unfortunately, issues relating to seeking these services are not well understood and most often ignored. These sideline steps are required to promote health of the woman and child. MCH is seen as a feminine affair, hence majority of interventions are directed towards empowering women, promote their decision making ability and autonomy. However, societal and factors harnessing these important variables are completely ignored.. Although it is a great to focus on women, it might however, leave issues of MCH partly addressed as women's autonomy is not always associated with service utilization (Fotso, Ezeh, & Essendi, 2009; Mistry, Galal, & Lu, 2009).

Traditionally, men are the yardstick for decision-making, especially in typical rural settings; Women's health seeking behavior is somehow dependent on their partners. Men are key decision makers, and chief providers and are often responsible for influencing women's access to economic resources (Yargawa & Leonardi-Bee, 2015). It is therefore logical that involving men in MCH creates an atmosphere for positive health seeking behavior. It will also promote greater health service utilization and subsequent improved maternal outcomes (Story & Burgard, 2012). It will also abolish the perception that pregnancy and childbirth process are preserved feminine responsibility.

Male involvement in maternal issues is described as social and behavioral shift that men required to exhibit a more accountable attitude towards MHC with the ultimate aim of ensuring the wellbeing of the child and mother (Audet et al., 2016). As a way of complement to men involvement in MHC, the government of Ghana sought to extend MHC services to the door steps of rural families and into the roots of communities and at the same time maintaining quality of services. This led to service integration at community-based health planning and services (CHPS). With the help of community health nurses, the CHPS program offer ANC services, postnatal care services (PNC) and sometimes emergency delivery, thus enhancing skilled delivery even at the community level (Bougangue & Ling, 2017). In Kenya, there was a clear empirical association between male attendance to at least one ANC visit and delivery by a skilled birth attendant, which is a major determinant in addressing maternal mortality (Mangeni, Mwangi, Mbugua, & Mukthar, 2013). This empirical relationship is however missing in Ghana.

Delays in seeking health services by women can be viewed from three dynamics. Firstly, delay in deciding to receive care, delay in reaching health facility and delay in receiving care at the facility (Singh et al., 2014). Male partners of women significantly influence the first two delays. The Ghana Demographic and Health Survey (GDHS) has documented that among women who delivered at home, 7% stated lack of permission as a reason for not patronizing health service (GDHS,2018). In Ghana, cultural norms and gender roles are crucial in determining male involvement in MCH (Craymah et al., 2017). Men identified involvement in MCH as an issue which women need to worry about and often see it as lose in strength (Mullick & Goodman, 2005).

1.2 Problem statement

The United Nations Department of Public Information estimates that more than half a million women lose their lives due to pregnancy related complications globally every year. Out of this proportion, 99% occur in less developed countries (United Nations Department of Public Information, 2009). In Sub-Saharan Africa, one in thirteen women dies of pregnancy-related causes (Craymah et al., 2017). In Ghana, the story is not much different. Ghana's maternal mortality was 319 per 100,000 live births in 2015 with 2.6% annual rate of reduction (UNICEF, WHO, 2016; United Nations, 2016). In Africa, death due to pregnancy related complications in a women's lifetime is as high as 1 in 40 as compared to 1 in 33000 in Europe and 1 in 190 globally (Dickson, Darteh, & Kumi - Kyereme, 2017). ANC offers window of opportunity for reducing maternal mortality as it sets the pace for better maternal health outcome. Unfortunately, the proportion of women making at least eight ANC visits in Ghana is of public health concern. This underperformance in the country is attributed to poor performance of some districts of which Effutu Municipal is not an exception. This underperformance in the Effutu Municipality continuously undermines efforts made by both governmental and non-governmental organizations to reduce maternal mortality and enhance ANC attendance.

In the Effutu Municipality, little is done on maternal health. However, the little documented evidence indicates a decrease in skilled delivery and ANC attendance (Amoussou-Gohoungo, n.d.). Again, In the Effutu Municipality, there was an increase in maternal mortality ratio (MMR) from 92 per 100, 000 live births in 2011 to 161 per 100, 000 live births in 2012 (Amoussou-Gohoungo, n.d.). Effutu Municipality is recognized as a major contributor to Ghana's maternal mortality. Proportion of male involve in ANC stands at 17% out of 18,752 registrants, 20% out of 19,204 registrants and 24% out of 25,610 registrants in 2015, 2016 and 2017 respectively. In

terms of delivery in the municipality, proportion of male seen at delivery in 2015 was 37% out of 3,828 registrants, 55% out of 4,192 registrants in 2016 and 42% out 5,199 registrants in 2017. Lastly, the proportion of male seen at postnatal care in stands at 9% out of 4,432 registrants, 8% out of 4,672 registrants and 10% out of 4,459 registrants in 2015, 2016 and 2017 respectively in the Effutu Municipality.

Again, providing quality ANC services has an additional benefit in preventing stillbirths. Unfortunately, in Ghana, still birth is high, ranging from 13 to 22 per 1000 births(Lawn, Blencowe, Oza, You, Lee, Waiswa, & Mathers, 2014). This research therefore seeks to identify that factors influencing male involvement in MH.

1.3 Objectives of the study

1.3.1 General objectives

To examine male partner involvement in maternal health care and identify factors that influences their involvement.

1.3.2 Specific objectives

1. To determine the level of male involvement in antenatal, delivery and postnatal care of their partners.
2. To assess the level of agreement between the couples about male involvement in MHC.
3. To determine the extent to which knowledge of the importance of ANC, Labour and delivery and PNC influence male involvement.
4. To determine factors associated with male involvement in maternal issues.

1.4 Research questions

To address the above objectives, the following question were posed

1. What is the level of male involvement in ANC, labour and delivery, and PNC of their partners?
2. What is the level of agreement between the couples about male involvement in MHC?
3. To what extent does knowledge of the importance of ANC, labour and delivery and PNC influence male involvement?
4. What factors influence male involvement?

1.5 Justification of the study

Findings of this research will give the male perspective factors that determine their involvement in MHC in Effutu Municipality. These factors when taken into consideration will lead to planning appropriate programmes that will cause more male involvement in MHC. Based on this information, service providers can provide more male friendly service which includes men in all operations. It is predicted that results from this research will take critical problems link to male involvement in MHC to the forefront and how they can be addressed to help inform on strategies to improve male involvement. It will help formulate policies that remove barriers to male participation. This will translate into greater usage of health services by women resulting in a decrease in maternal mortality and help speed up the attainment of the SDG3.1. Given the varied nature of Effutu Municipal's population, the outcome of this study could also notify MHC in other districts and the nation as a whole of policy-making and service provision. Information from this research will also contribute to existing understanding in this field and will form the basis for further study. On the whole, this research will provide baseline information on policy formulation on how to further strengthen male involvement in maternal health care.

1.6 Conceptual framework

This study adopted the Health belief model (HBM) and the Healthcare utilization model (HUM) as the conceptual framework. The two models were adapted because, they are important to the research and address the objectives of the research: determine the level of male involvement in ANC, delivery and PNC of their partners; assess the level of agreement between the couples about male involvement in MHC and to determine the extent to which knowledge of the importance of ANC, labour and delivery and PNC influence male involvement in MHC. Male partner perceptions about maternity care and the involvement in the processes are linked to the

Health belief Model. Both the HBM and HUM recognized the role of male partner's knowledge as an influence in their involvement in the maternity care processes. The study also seeks to determine the factors influencing male partner involvement in MHC which the HUM has classified it into three: socio-demographic factors such as (age, educational level, marital status; health related (enabling) factors and sociologic (reinforcing) factors. The type of marital union (formally married, unmarried or cohabiting), and whether or not they live together may also be important factors in determining the level of involvement. Factors within the health facility may or may not encourage male involvement in maternity care. Health facilities readiness to accommodate men who accompany their partners, male friendliness of services and restrictions on the areas in the facility that can be accessed by men may influence male involvement. Cultural norms that segregate gender roles may not encourage men to take part in activities that are tagged as feminine. This factors shape the roles of male involvement in the maternity processes right from pregnancy (ANC) to postnatal care services. The cues to action from the HUM are also relevant to the factors contributing to the male involvement in maternity care. Advice from family and friends, mass media campaign about maternity care processes and its importance and the support from health care professionals may also influence male involvement in maternity care (Figure 1.1)

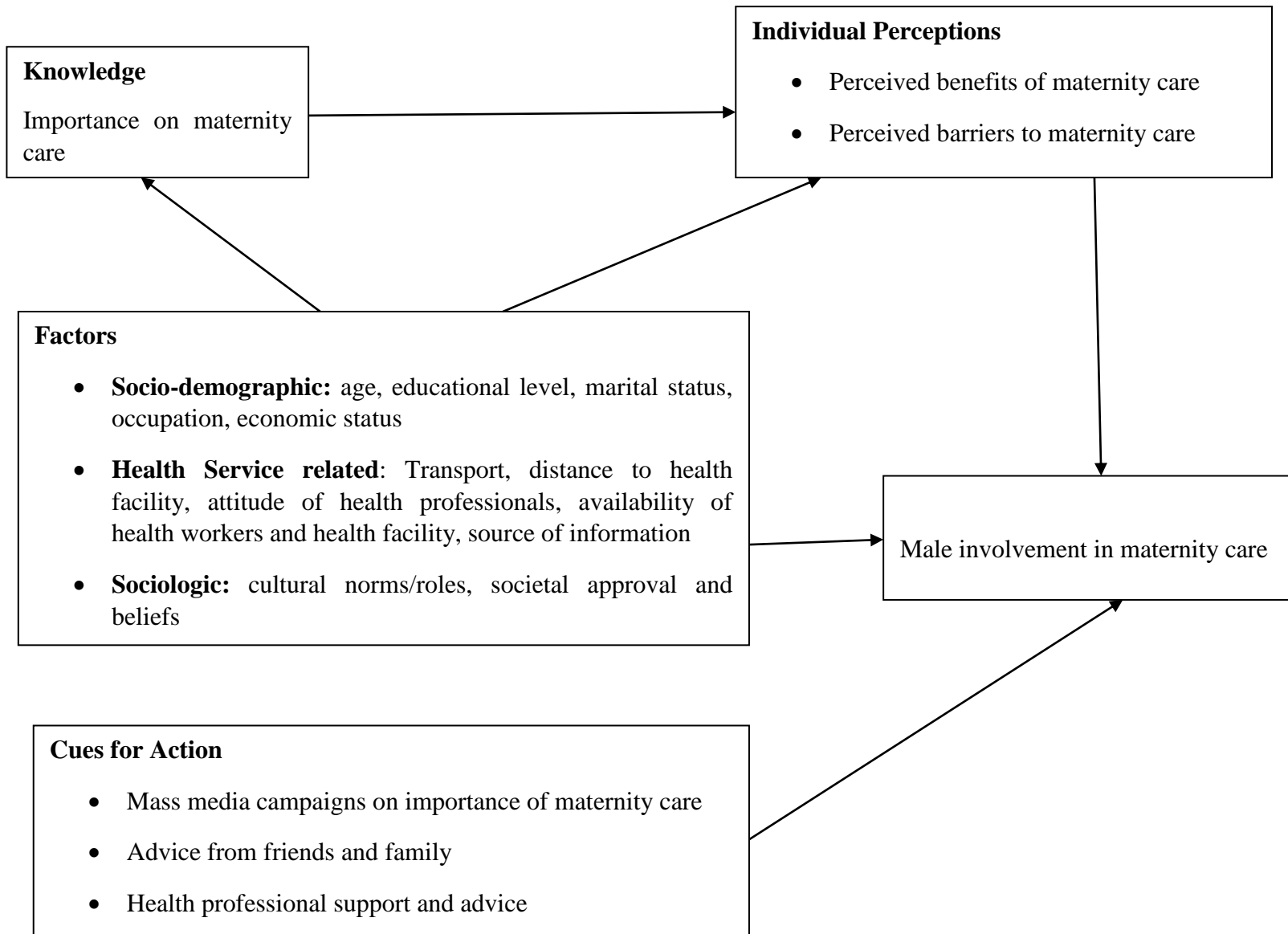


Figure 1 Conceptual Framework

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses relevant literature related to male involvement in maternal health care and the factors influencing their involvement. This section seeks to present relevant information pertaining to the specific objectives of the study

2.2 Level of male involvement in ANC, labour and delivery and PNC of their partners

The definition and concept of ‘male involvement’ remains open to widely divergent interpretations (Comrie-Thomson et al., 2015). Male involvement in reproductive health is defined as the involvement, participation, commitment and combined responsibility of men with their partners in all areas of sexual and reproductive health, as well as reproductive health particular to men (Dudgeon, & Inhorn, 2004). Despite the low levels of health knowledge, men act as gatekeepers to women’s health-seeking behaviour and utilization of health services in many settings (Singh et al., 2014). A cross sectional study conducted to assess male involvement in MHC services and associated factors in Anomabo in the Central Region of Ghana showed that male involvement was low (Craymah et al., 2017). The results of their research indicated that, only 35% and 20% of the males accompanied their wives to ANC and PNC respectively (Craymah et al., 2017). Another community based cross sectional study conducted to assess male involvement during maternal care revealed that, only 18.33% of the husbands accompanied wives to ANC checkups. Furthermore, only 23.61 % of husbands were aware of problems and complications during pregnancy of their wives in spite of the fact that 58.3% of women had

experienced at least one health problem during antenatal period (Awasthi, Nandan, Mehrotra, & Shankar, 2008).

A similar cross sectional study carried out in Kathmandu, Nepal to explore the factors associated with male involvement in ANC, birth plans, exclusive breastfeeding and immunization of children demonstrated that, 39.3% of the men accompanied their partners for antenatal clinic and 10.9% accompanied them for postnatal clinic specifically for immunization (Bhatta, 2013).

Another study conducted in Magu District, rural Tanzania corroborates with findings obtained in the study conducted by Craymah and colleagues in the Central Region of Ghana and Nepal. They also found that, male involvement in pregnancy and ANC in Magu district, rural Tanzania was low. Although the men perceive ANC as important for pregnant women, most husbands had a passive attitude concerning their own involvement (Vermeulen, Miltenburg, Barras, Maselle, van Elteren, & Van Roosmalen, 2016). Findings from the studies conducted in Ghana, Nigeria and Nepal on male involvement in antenatal and postnatal services is very low (Awasthi et al., 2008; Bhatta, 2013; Craymah et al., 2017). This agrees with the conclusion drawn by other authors that, male partner involvement in MCH to be low in many sub-Saharan African countries (Adams, Stommel, Ayoola, Horodyski, Malata, & Smith, 2018; Ditekemena, Koole, Engmann, Matendo, Tshetu, Ryder, & Colebunders, 2012).

A study carried out in Mumias East and West Sub-Counties, Kakamega County, Kenya to assess the level of male participation in ANC indicated that, the males were indirectly engaged in the health care of their spouse. They were impressively aware of the services offered and other activities carried out at the antenatal clinic (Kiptoo & Kipmerewo, 2017).

Another descriptive cross sectional study carried out in Nigeria on male participation in pregnancy and delivery showed similar findings to the results obtained in the study conducted by (Kiptoo & Kipmerewo, 2017). They found also in their study that, the men indirectly contributed to their wives obtaining antenatal care services during pregnancy. The findings again stated that, nearly all husbands (97.4%) encouraged their wives to attend ANC, paid antenatal service bills (96.5%), paid for transport to the clinic (94.6%) and reminded them of their clinic visits (83.3%) (Yidana, Ziblim & Yamusah, 2018).

A study conducted in Western Kenya which sought to examine the male spousal participation in antenatal services with their wives indicated that, of 2104 pregnant women who accepted voluntary counseling and testing (VCT), 15% of these women and their male spouses received testing, while only 5% of couples received counseling together (Thapa & Niehof, 2013). A qualitative study conducted by Bougangue and Ling (2017) on male involvement in MHC in rural Ghana showed that, there were varying level of involvement of men, some were directly involved in feminine gender roles while others used their female relatives and co-wives to perform the women's roles that did not have space for them. The study again stated that, the men were mostly involved in supporting their spouses financially to seek ANC but their direct involvement in delivery and PNC care was low (Bougangue, & Ling, 2017).

The participation of men in skilled delivery is seen in diverse ways such as; the decision on where to deliver, birth preparedness as well as the cost of transportation to a health facility for delivery and any other cost that may arise (Ditekemena et al.,2012). A qualitative study conducted by Nyandieka and colleagues in MalindiSub County, Kenya to assess obstetric services and male involvement revealed that, the husband was the one who decides on the place of birth for the wife. This means that the husbands are very influential in regard to decisions on

skilled birth service utilization in this community (Mwije, 2018). Same to the findings obtained in the study conducted in Kenya, a community based cross sectional study conducted to assess male involvement during maternal care indicated that, majority of couples (71.39 %) did not take decision together about delivery. The results of their study again added that, more of them (87.5%) were present during delivery. However 18.1% of husbands were aware of complications during delivery of their wives, and 20% of women had actually experienced natal complications (Awasthi et al 2008). A cross sectional study carried out in Kathmandu, Nepal also demonstrated that, 47.9% male partners arranged for skilled birth attendants for their wives (Bhatta, 2013). The findings obtained by Bhatta (2013) do not agree with the results obtained by Nyandieka et al., (2016) and Awasthi et al (2008). A descriptive cross-sectional study aimed at establishing the level of male partner involvement and influence of couple knowledge and perception on male involvement argues that, 40.6% of male partners were involved in choice of delivery site (De Irala, Osorio, Carlos, & Lopez-del Burgo 2011). The results obtained by (Bhatta, 2013) agrees to the findings obtained by (Dziekpor, 2018). Findings from a descriptive cross sectional study done in Nigeria on male involvement in pregnancy and delivery showed that, (72.5%) of husbands accompanied their wives to the hospital for their last delivery, while 63.9% were present at last delivery (Olayemi, Bello, Aimakhu, Obajimi & Adekunle, 2009).

Another research done in Ghana by Aborigo et al., (2018) identified 35%, 44% and 20% of men accompanied their partners to ANC, delivery, and PNC respectively.

2.3 The level of agreement between the couples about male involvement

Positive agreement between couples is an important indicator for male involvement in MHC. A man can positively influence the pregnancy of his partner in numerous ways, including: giving financial and logistical support to his wife in seeking ANC, helping with housework/physical work so that his wife can rest during pregnancy, ensuring that his wife's delivery is professionally attended, making birth preparations with his wife, etc. (Isiugo-Abanihe, 2003).

A study conducted by Becker, (1996) identified concordance between partners on the subjective matters is in the range of 60 to 70%. Also data based reports of reproductive intentions from both partners have been shown to lead to better predictions of behaviour than have data from only one partner. Finally, reproductive health interventions that together with couples are found to be more effective than those directed to only one sex. Evidence clearly justifies a focus on couples.

The term "male involvement" is used in this context to refer to men having knowledge of and participating in maternal health issues. That is, acting together with women as partners and supporting decisions and activities that will improve women's health (Byamugisha et al., 2011; Nguku, n.d.).

It encourages communication and negotiation among couples. It does not imply male dominance (exclusive male control) and does not seek to decrease female autonomy. In fact male unilateral decision-making may reduce healthcare utilization among women (Mullany, Hindin & Becker, 2005). There has been fear that male involvement may lead to patriarchal domination and decrease female autonomy.

Male involvement is a composite variable with no single standard scale of measurement (Byamugisha et al., 2011). Within different socio-cultural settings, what is considered as male

involvement may vary and even within the same setting, what men and women consider as male involvement may vary. There is therefore an inherent difficulty in categorizing and measuring male involvement. Various key points have been put together as a summary measure for male involvement.

Byamugisha et al., (2011) used a six-point involvement index:

1. The man attends ante-natal clinic with his partner
2. The man knows partner's ante-natal clinic appointments
3. The man discusses ante-natal interventions with his partner
4. The man supports partner's ante-natal visits financially
5. The man has taken time to find out what happens in the ante-natal clinic
6. The man has sought permission to use condoms during the current pregnancy

Each activity was given a score of one (1) if performed and zero (0) if not performed. A score of 4-6 was considered as high involvement and a score of 0-3 was seen as low involvement.

Mullany, Hindin & Becker,(2005) used four points in their work:

1. Discussion on maternal health
2. Helping with household chores
3. Jointly making arrangement for delivery
4. being present at the hospital

High involvement: the man performs 2 or more of the above activities.

Low involvement: the man performs one or none of the above activities.

Such key measures have been used by other researchers, demonstrating varying levels of male involvement. Majority (74%) of the men in the study by Byamugisha et al., (2011) in Eastern

Uganda had low involvement index. Only 5% accompanied their partner to the ante-natal clinic but Tweheyo, Konde-Lule, Tumwesigye & Sekandi, (2010) had a high percentage of 65.4% accompanying their partners in Northern Uganda. In Kathmandu in Nepal, Mullany et al., (2005) found that 40% of male partners accompanied their partners to ante-natal clinic, 57% helped reduce work load at home, 74% per cent were involved in making at least one fixed arrangement for birth and 75% had discussions on the woman's health. Husbands in Guatemala showed high male participation during delivery of their babies, 78% either accompanied their wives to the health facility or were present during the delivery.

Given that a lot of health facilities in our sub region do not allow men to be present during delivery, accompanying the wife to the hospital is considered adequate participation.

Various methodologies have been employed in research in this area. They include both quantitative and qualitative methods. A lot of research on male involvement has focused on women's point of view, but women's memories and their reports of their husband's participation in their pregnancy could be just a reflection of their feelings about the quality of their relationships (Manandhar, Osrin, Shrestha, Mesko, Morrison, Tumbahangphe, & Shrestha, 2004). A few have focused on men which gives a reflection of their point of view. For most studies, participants with children aged 5years or less were included to allow adequate recall of what happened during the pregnancy.

2.4 Knowledge on the importance of antenatal care, delivery and postnatal care

Knowledge on antenatal care is the information, understanding and skills that were gained through education or experience that supports or deters the involvement of males in antenatal delivery, and postnatal periods. While men's knowledge of and attitude towards women's reproductive health needs are themselves influenced by socio-cultural and demographic factors, they affect male participation in maternal health. Males' knowledge or misconceptions about their partner's maternal health needs determine, to a large extent, how they respond financially, physically, and emotionally to those needs. According to Jooste & Amukugo, (2013), much of the reproductive health problems women face could be prevented if male partners were equipped with adequate knowledge and skills in respect of RH.

Like knowledge, attitude, on the other hand, can either be positive or negative as far as male involvement in maternal health issues is concerned. It also determines how men respond to the reproductive health needs of their partners and heavily influenced by the socio-cultural environment of the male. For instance, Chankapa, Pal & Tsering,(2010) found that negative attitude is more prevalent among men in rural settings. Their study showed that those who live in rural areas tend to manifest negative attitudes towards RH as compared with young, the educated and those who live in the city. In Uganda, a study that investigated perceived benefits of male attendance of antenatal care (ANC) found that knowledge of three or more antenatal care services, obtaining health information from facility health workers, and a spouse having skilled attendance at last childbirth were all predictive of increased male attendance at ANC Tweheyo et al.,(2010)Studies show that lack of knowledge about maternal health pose a significant challenge to positive male involvement. A study conducted in Rwanda by Manzi et al., (2014) also established in his study that educating women and their spouse about the complications of

pregnancy and child birth leads to increased uptake of maternal and child health services. it also reported that most women (60.1%) and most male partners (62.3%) had poor knowledge of male involvement in choice of delivery site and its benefits. this is possibly as a result of low standards of education and poor or lack of programs with deliberate efforts to create awareness in the community on male partner involvement in child birth –related activities.

DeJong et al., (2007) found that senior citizens, illiterate people, and those who live in rural areas tend to manifest negative attitudes towards RH, compared with the young, the educated, and those who live in the city.

Kakaire et al.,(2011) in Uganda which also identified that high level of education has a strong association with male involvement. Lassi and Bhutta, (2015) also identified in their study conducted in rural districts of Bangladesh that giving men educational messages using their informal gatherings was effective in increasing their knowledge on maternal health care issues.

2.5 Factors influencing male partner involvement in maternity care

A cross sectional study conducted to assess male involvement in maternal health care services and associated factors in Anomabo in the Central Region of Ghana demonstrated that, male involvement in antenatal care and delivery was influenced by socio-demographic factors such as partner's education, type of marriage, living arrangements, and number of children. In addition, some enabling/disabling factors also influenced male involvement were distance to health facility, attitude of health workers, prohibitive cultural norms, unfavorable health policies, and gender roles factors (Craymah et al., 2017). A qualitative study conducted to explore factors that influence male involvement in reproductive health in western Kenya revealed that, factors that influenced male involvement in maternal care were gender norms and the traditional approaches used to implement reproductive health and family planning programs. They stated clearly the four factors men exhibit to show the norms, which were: negative cultural practices, parenting practices in relation to reproductive health, prevention and treatment of sexually transmitted infections (STIs), and accompanying/not accompanying female partners to the health facilities (Onyango, Owoko, & Oguttu, 2010).

A study conducted by Bhatta, (2013) in Kathmandu, Nepal, found some factors associated with male involvement to maternal care activities. Regarding partners who accompanied their partners to ANC, the predictors were uneducated or primary level education, income NPR 5001 or above and age above 25 years. Also for those who gave their spouse money and arranged for skilled delivery for their wives had factors such as uneducated or primary level education, income NPR 5001 or above and aged above Bhatta, (2013).

Another study carried out by Vermeulen and colleagues also elicited some factors that influenced male involvement during pregnancy and antenatal care using a qualitative method

design. They identified some barriers for male involvement which included: traditional gender roles, lack of knowledge, perceived low accessibility to join antenatal care visits and previous negative experiences in health facilities (Vermeulen, Miltenburg, Barras, Maselle, van Elteren & Van Roosmalen, 2016a). Another qualitative evidence revealed that the perpetuation and reinforcement of traditional gender norms around pregnancy and childbirth influenced the nature and level of male involvement (Mullany, 2006). Findings from the qualitative studies conducted by Onyang and colleagues in Rwanda by Vermeulen et al., (2016b) and Mullany, (2006) and in rural Ghana had similar findings where gender norms/roles greatly influenced male involvement during maternal care. Results from a descriptive cross-sectional study conducted to establish the level of male partner involvement in maternal care presents women knowledge, women and male partners' perception as factors that influenced male partner involvement. Their results concluded that empowering women and encouraging positive perception among women and male partners will enhance male partner involvement in choice of delivery site (Onchong'a, Were, & Osero, 2016).

The findings from a study conducted in Nigeria revealed that the predictors associated with male involvement on maternal care issues were that, more educated men were more likely to accompany their wives to receive health services. The findings is similar to the results obtained in the study conducted by Clark and colleagues who conducted the study in rural Ghana also found that, women with male partners who have formal education are more likely to seek skilled delivery than those with partners who have no formal education (Clark et al., 2016). The findings of the study also further added that, monogamous unions and increasing level of husbands' education were associated with spousal presence at delivery. The study then concluded that, male participation is satisfactory in some aspects, but increased attendance antenatal services and

delivery would be desirable (Olayemi et al., 2009). Concerning employment, Nyandieka et al., (2016) also found that, women with male partners who were formally employed are more likely to seek skilled delivery than those with partners who were not employed in the formal sector (Nyandieka et al., 2016). The factors that influence male involvement during maternal care could be socio economic factor, cultural norms and roles as well as individual perceptions.

In conclusion, various studies have showed results on the level of male involvement and the factors influencing their involvement. This study however seeks to determine the level of male involvement in antenatal care, delivery, postnatal care and the factors influencing the level of male involvement in maternity care in Effutu Municipality in the Central Region of Ghana.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the design of the study. It is made up of a brief description of the study site, type of study, detailed sample size calculation, sampling and recruitment process. It also provides how data was managed and analyzed from collection to final reporting. Lastly ethical issues relating to the study is strictly addressed.

3.2 Study type

The study was a cross sectional quantitative survey which was conducted in April 2019. This study design provided in-depth information of male involvement in maternal health. Since the time frame for the study was within a short and specific point in time hence it was appropriate to use descriptive cross sectional study design. This study also allowed the measurement of both exposure and outcome variable at the same.

3.3 Study site description

The study was conducted in the Effutu Municipality located in the Central Region of Ghana. The municipality is one of the 20 administrative districts in the region with Winneba as administrative capital. It is located between latitudes 5°16' and 20.18" N and longitudes 0°32' and 48.32" W of the eastern part of Central region. The municipality is situated between the Gomoa East District to western, northern and eastern flanks (Ghana Population and Housing Census). Per the 2010 population and housing census the municipality is made up of a total population of 68, 597 representing 3.1% of the population of Central Region and has 14 settlements which are clustered in nature. Females form majority (51.2%) of the population of Effutu Municipality and majority of the population live in urban settings. Total Fertility Rate (TFR) for the municipality is 2.8 which is far low than the regional average TFR, of 3.6. About 36.9% of the population 12 years and above are married and majorities (47%) of the males are married compared to females (31.7%)

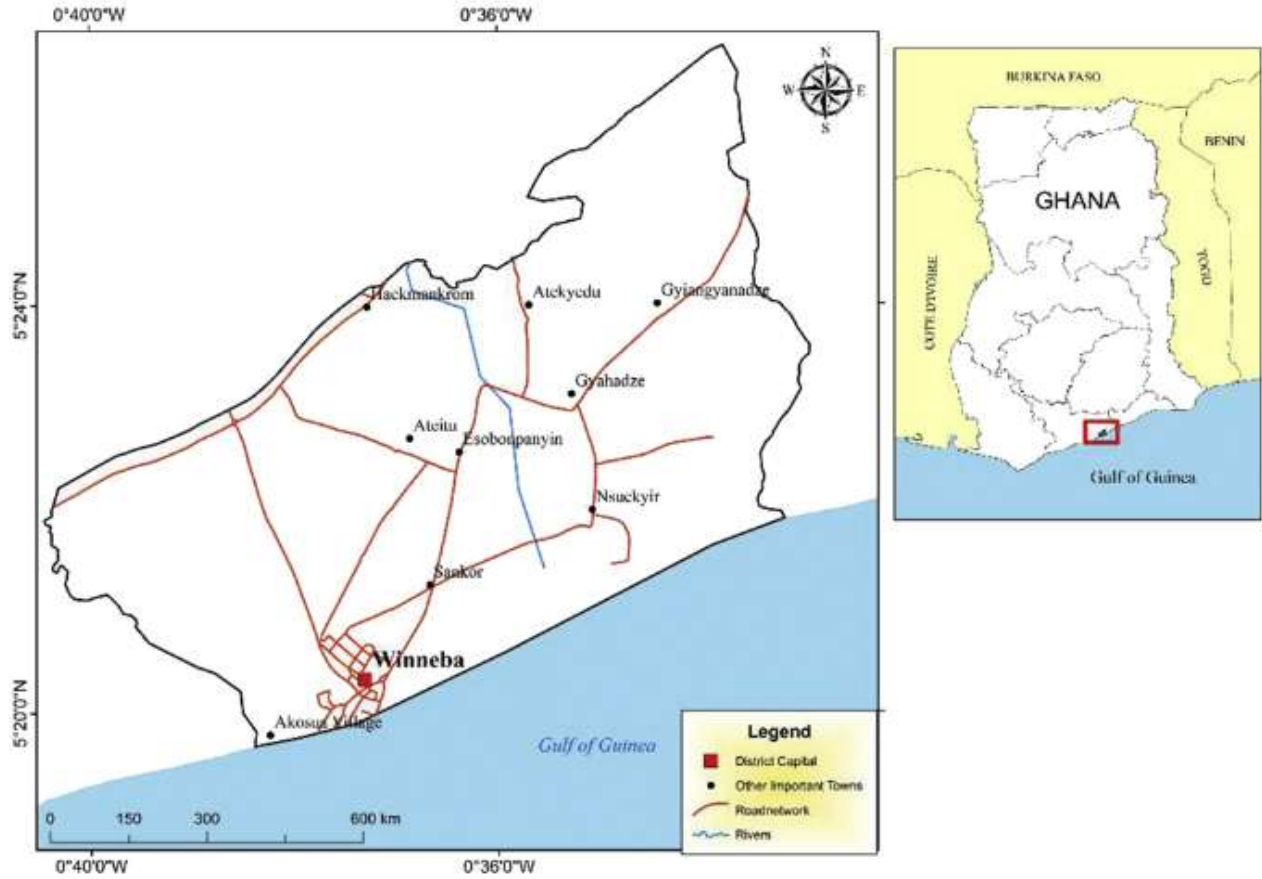


Figure 3.1 Map of study site (Ankrah, 2018)

3.4 Study population

This study population was made up of men of all ages whose partners have delivered in the past 12 months and lived in the Effutu Municipality for not less than a year.

3.5 Inclusion criteria

The study only included men whose partners have given birth in the past 12 months and live in the municipality for not less than 12 months.

3.6 Exclusion criteria

This study excluded men who have more than one wife because it will be very difficult to determine the level of agreement between such couples since there would be some level of inconsistency between the responses of the wives.

3.7 Sample size calculation

The sample size required for the study was 200. This was based on the postulation of a margin of error of 0.05, 95% confidence level and an estimated population proportion of 14% and 8% non-response rate. The minimum sample size was obtained for this study by using Cochran formula (Cochran, 1977):

3.8 Sample size estimation

$$n = \frac{(Z_{\alpha/2})^2 pq}{d^2}$$

Where;

n= sample size required

Z = Z score

p = Proportion population= the prevalence or proportion of male involvement in MHC is 14% (Ghana Demographic and Health and Survey, 2018)

q = 1-p

d = margin of error

Where $z=1.96$ at 95% confidence level, $p=0.14$, $q=1-0.14=0.86$ and $d=0.05$

$$n = \frac{1.96^2 * 0.14(0.86)}{0.05^2} = 185.01$$

Non response rate of 8% (0.08) gives: $0.08 \times 185.01 = 14.80 \approx 15$

Adding 15 to the sample size (n) of 185 gives, (*i.e.* $15 + 185 = 200$) Hence, the sample size for male partners was **200**.

3.9 Data collection

The data was collected using interviewer - administered structured questionnaire. The researcher and trained research assistants administered the questionnaire to each participant and filled in their responses on the questionnaire. The questionnaire was designed making reference to questionnaires used by other researchers. Information in the questionnaire included:

- Socio demographic characteristic like age, educational level completed, occupation, marital status, living together, religion and number of children.
- Involvement in ANC: e.g accompanying the partner to health facility, making joint plans for ANC and emergency, providing physical and financial support and having discussions on issues relating to the pregnancy.
- Involvement in labour and delivery: e.g making joint plans for the labour and delivery, accompanying the partner to health facility, being present in the labour and delivery room, giving physical and financial support and having discussions on issues relating to labour and delivery.
- Involvement in postnatal care: for instance, accompanying the partner to health facility, making joint plans for the PNC, giving physical and financial support and discussing matters pertaining to the postnatal period.
- Knowledge item question on the importance of ANC, receiving skilled delivery and postnatal care.

3.10 Variables

3.10.1 Dependent variable

Dependent variables in this study male involvement which was a composite measure using the following five Yes/No items:

1. The male partner accompany the partner to ANC
2. The male partner accompany the partner to delivery
3. The male partner accompany the partner to postnatal
4. The male partner discusses maternal health issues with his partner
5. The male partner provides financial support to his partner

Each of these five items was allotted a score of one (1) when a male participant performed the activity and zero (0) when the activity will not be performed. The scores were summed to generate a scale ranging from 0 – 5. Participant and the level of involvement was categorized as high, moderate or low as follows; a score of 4 – 5 was considered as high level of involvement, a score of 2 – 3 was considered as moderate level of involvement and a score of 0 -1 was considered low level of involvement. The participants' level of involvement in each aspect of maternity care that was antenatal, labour and delivery and postnatal care was similarly assessed.

3.10.2 Independent variables

Knowledge on the importance of antenatal, labour and delivery as well as postnatal.

Occupation,

Educational level,

Marital status,

Number of children,

Place of residence,

Intended or Unintended pregnancies,

Socio-economic status,

Structural factors, staff attitude, quality of services and availability of services

These variables were described as independent variables because; they have the possibility of influencing male involvement in MHC.

3.11 Sampling procedure

Multistage sampling technique was used in this study. Stage one involves the selection of sub-district. There were four sub-districts in the Effutu Municipality. Out of these four, two sub-districts were selected using simple random sampling technique. Within the selected sub-districts, sampling frame for all communities was created. Stage two involves selection of communities. Simple random sampling by balloting was used to select two communities each from the two selected sub-districts. Selected communities were serving as study communities for sampling male partners for interview. To get the males in these communities, the researcher selected one health facility from each of the selected communities and then visited the postnatal clinics, where women were recruited and interviewed. The researcher then took the details of the women; these will include their address, residential area and telephone numbers and then traced them to their houses and interview their male partners.

3.12 Data quality

For the purposes of data quality, data collection tools were pre-tested in one community which was not selected during balloting for the actual study. Pre-testing was only done after research assistants were trained by the researcher. The purpose of the pre-testing was to identify and correct inconsistencies and errors that might be encountered during actual data collection. It also served as an experience for research assistants to familiarize themselves with data collection tools before actual data collection. Also, during data collection, names of participants were not collected. Analysis and reporting were done anonymously by using only codes and identity numbers. The principal investigator supervised the data collection process. After each session of

data collection, the researcher thoroughly went through filled questionnaires to correct any errors during the data collection process.

3.13 Data management and analysis

Data were entered into Epi Data version 3.1 and exported to Stata version 15 for cleaning and analysis. Descriptive statistics were conducted mainly on the demographics using frequencies, percentages, means and standard deviation. Pearson Chi-square test was used to determine association between independent variables. Multiple logistic regressions were conducted to determine the strength of associations. All p-values <0.05 were considered statistically significant. The Kappa test statistics was used to test the level of agreement in the responses of the couples about the male involvement in maternal health care. A significant of positive Kappa test indicates high level of agreement in the responses of the couples whereas a negative Kappa test statistics indicates a high level of disagreement in the couple's responses about the male partners' involvement maternal health care.

3.14 Ethical considerations

Ethical clearance for the study was obtained from the Ghana Health Service Ethics Review Committee (GHS-ERC). The approval number for the study was GHS-ERC **027/03/19**. Permission was sought from the Municipal Health Directorates. Inform Consent Form was obtained from all participants. Also, detailed ethical issues on the study such as benefits, risks, confidentiality and privacy, data storage and usage, conflict of interest were provided at the appendix section.

3.15 Limitation and Strength of the study

The findings of the current study should be interpreted in the light of some limitations. First, because the study was conducted for a short duration of about four months, only few households were included in this study. Also, Interviewer bias and recall bias might have been encountered in this study in trying to explain the questions to the respondents especially in the local dialect. However, the purpose of the study has been well explained to the respondents, hence these limitations should not undermine the validity and reliability of this study.

CHAPTER FOUR

RESULTS

4.0 Introduction

In this chapter, the data collected were carefully analyzed and discussed. The researchers' main concern was to analyze and offer explanation and generalization on the data. The information obtained was kept under four sections. This includes socio-demographic features of the study participants, level of male involvement in MHC, level of agreement between the couples about male involvement in MHC and extent to which knowledge of the importance of ANC, labour and delivery and PNC influence male involvement.

4.1 Socio-demographic characteristics of study participants

A total of 201 participants were involved in the study with a mean age of 33.79 (± 7.28) years. Less than half (43.78%) were between 30 and 39 years inclusive. Majority (79.60%) of the study participants were Christians. More than a third (71.64%) of them were married or cohabiting with 17.91% of them being never married. More than half (56.72%) of them had tertiary level of education, 23.88% with SHS/Technical education, 13.43% with Primary/JHS/Middle school education and 5.97% with no formal education. Majority (53.23%) of them had family size of 4 to 6 with the average number of family members being 4.1 (± 3.58) members as indicated (Table1).

Table 1: Socio-demographic characteristics of study participants

Variables	Frequency (N=201)	Percentage
Age (mean ± SD)	33.79 ± 7.28	
Age group		
<29 years	64	31.84
30-39 years	88	43.78
≥40 years	47	23.38
Religion		
Christians	160	79.60
Muslims	29	14.43
Traditional/others	12	5.97
Marital status		
Never married	36	17.91
Married/Cohabiting	144	71.64
Divorced/Widow/Widower	21	10.45
Highest level of education		
No formal education	12	5.97
Primary/JHS/Middle	27	13.43
SHS/Technical	48	23.88
Tertiary	114	56.72
Income level		
100-500	49	26.87
501-1000	59	28.36
1001-1500	59	27.36
>1500	34	13.43
Missing	8	3.98
Occupation		
Trader	34	16.92
Farmer	23	11.44
Civil servant	62	30.85
Others	82	40.8
Family size (Mean ± SD)	4.53 ± 1.59	
Family size		
<4 members	64	31.84
4 to 6 members	107	53.23
>6 members	27	13.43
Number of children (mean ± SD)	2.47 ± 1.45	
Number of children		
1 child	62	30.85
2 children	57	28.36
3 children	35	17.41
≥4 children	45	22.39
Age of last child (mean ±SD)	4.10 ± 3.58	
Age of last child		
<3 months	99	49.25
3-6 months	48	23.88
7-12 months	51	25.37

SD: standard deviation.

4.2 Male involvement in MHC

Figure 4.1 presents information on male involvement in MHC. 48.3% of the male respondents accompanied the partners to ANC visits, 48.3% of them accompanied their partners during delivery and labor ward and 40.3% accompanied their partner to PNC visits. 28.9% of the male partners discuss maternal health issues with their female partner whilst 63.2% of them provided financial support to their female partner from ANC visits through to PNC visits.

Overall, 40.0% of the male respondents had a low level of MHC involvement, 28.0% were moderately involved in the MHC of their respondents and 32.0% were highly involved in the MHC of their female pregnant partners (Figure 4.1)

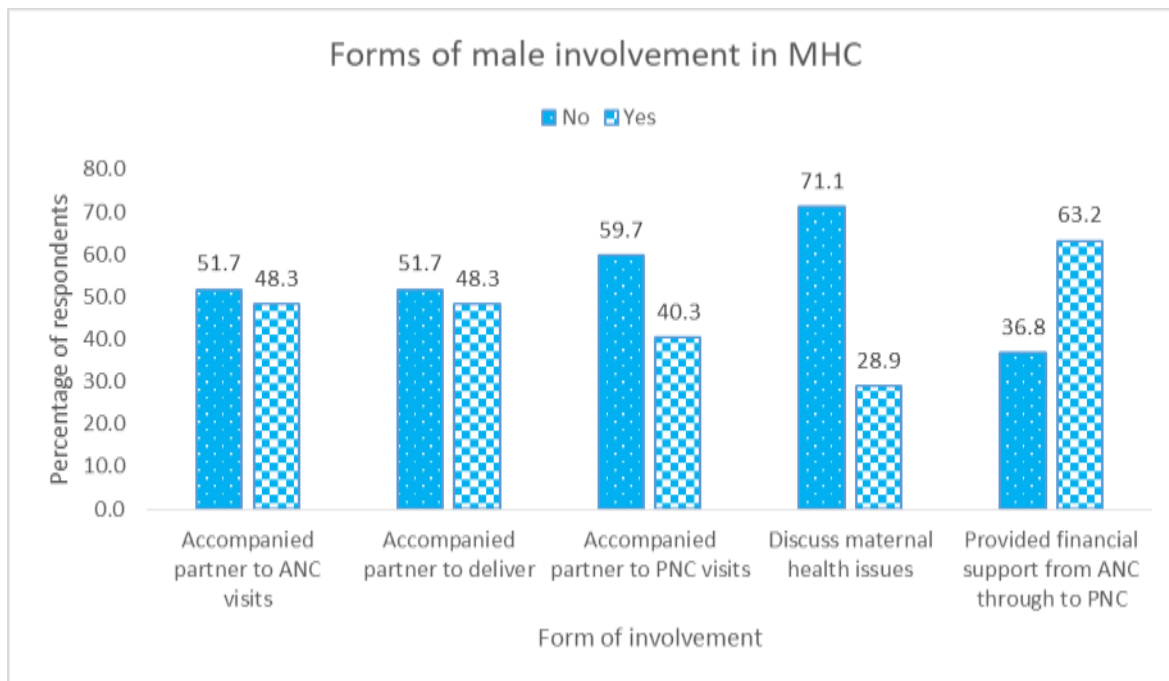


Figure 4.1 Forms of male involvement in partner's MHC

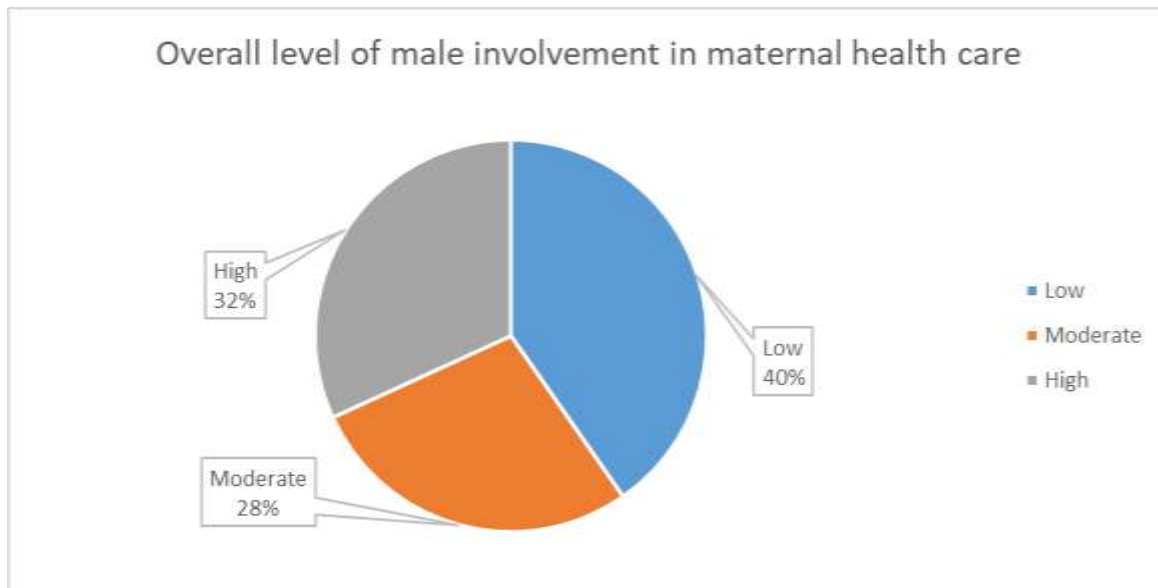


Figure 2.2 Overall level of male involvement in partner's MHC.

4.2.1 Level of male satisfaction during anc and pnc visits

Figure 4.3 shows the level of male satisfaction with health care during ANC and PNC visits to the health facility. Two-third (66.9%) of the male were satisfied with health care during their ANC visits, 14.9% were indifferent and 18.2% were not satisfied. During their PNC visits to the health facility, 67.8% were satisfied with PNC services, 14.8% were indifferent and 17.5% were not satisfied.

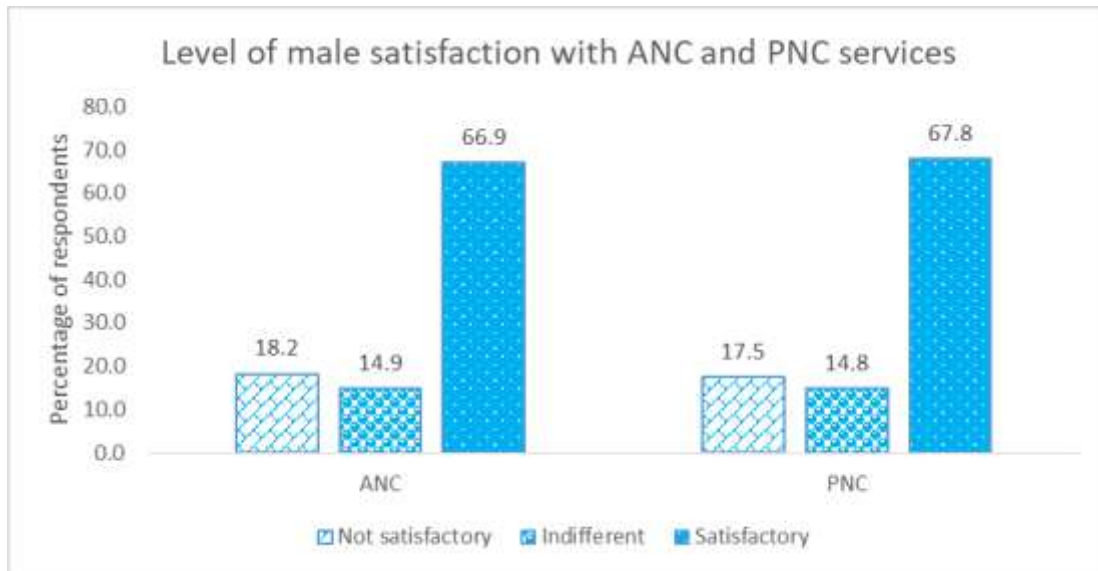


Figure 4.3 level of male partner satisfaction during ANC and PNC visits.

4.2.2 Association between demographic characteristics and level of male involvement in MHC

The Pearson's chi-square test was used to assess socio-demographic factors that were significantly associated with male involvement in MHC. From Table 2, age, marital status, level of education, Income level, occupation and age of last child of the male were the factors that had significant association with the level of male involvement in MHC of their partners (p-value <0.05).

The percentage of high level of male involvement in MHC was significantly higher among those male respondents within the age range 30-39 years (39.77%) compared to those less than 30 years (28.13%) and those more than 39 years (21.28%). Among those who were never married, 22.221% of the male partners were highly involved in the maternal health care, 38.19% of those who were married or cohabiting were highly involved in the maternal care of their female partners whilst 4.76% of the males who were divorced or widowed were highly involved in the MHC of their female partners.

None of those male partners who had no formal education were highly involved in the MHC of their female partners. Among those with primary/JHS/middle school level of education, 18.52% were highly involved in MHC. Also among those with SHS/technical level of education 27.08% were involved in the maternal health care whilst 40.35% of those with tertiary level of education were involved in MHC of their female partners.

The percentage of respondents who were highly involved in the MHC was higher among those male participants who earn higher income as 18.52% of those who earn between 100 to 500 cedis, 19.30% of those who earn between 501 to 1000 cedis, 41.82% of those who earn between

1001 and 1500 cedis and 59.26% of those who earn above 1500 cedis were highly involved in MHC of their female partners.

Table 2 reports more on demographic factors associated with level of male involvement in the MHC of female partners.

Table 2: Association between demographic characteristics and level of male involvement

Variables	Total	Level of male involvement			Chi-square	P-value
		Low	Moderate	High		
Age group					10.75	0.03*
<29 years	64	27 (42.19)	19 (29.69)	18 (28.13)		
30-39 years	88	26 (29.55)	27 (30.68)	35 (39.77)		
>39 years	47	27 (57.45)	10 (21.28)	10 (21.28)		
Religion					2.14	0.71
Christians	160	68 (42.5)	44 (27.5)	48 (30)		
Muslims	29	10 (34.48)	8 (27.59)	11 (37.93)		
Traditionalist/others	12	3 (25)	4 (33.33)	5 (41.67)		
Marital status					37.79	<0.001***
Never married	36	27 (75)	1 (2.78)	8 (22.22)		
Married/Cohabiting	144	40 (27.78)	49 (34.03)	55 (38.19)		
Divorced/Widow/Widower	21	14 (66.67)	6 (28.57)	1 (4.76)		
Highest level of education					14.7	0.023*
No formal education	12	7 (58.33)	5 (41.67)	0 (0)		
Primary/JHS/Middle	27	16 (59.26)	6 (22.22)	5 (18.52)		
SHS/Technical	48	21 (43.75)	14 (29.17)	13 (27.08)		
Tertiary	114	37 (32.46)	31 (27.19)	46 (40.35)		
Income level					35.39	<0.001***
100-500	54	34 (62.96)	10 (18.52)	10 (18.52)		
501-1000	57	19 (33.33)	27 (47.37)	11 (19.3)		
1001-1500	55	20 (36.36)	12 (21.82)	23 (41.82)		
>1500	27	5 (18.52)	6 (22.22)	16 (59.26)		
Occupation					15.92	0.014*
Trader	34	16 (47.06)	15 (44.12)	3 (8.82)		
Farmer	23	13 (56.52)	2 (8.7)	8 (34.78)		
Civil servant	62	21 (33.87)	18 (29.03)	23 (37.1)		
Others	82	31 (37.8)	21 (25.61)	30 (36.59)		
Household size					4.2	0.38
<4	64	30 (46.88)	13 (20.31)	21 (32.81)		
4 to 6	107	38 (35.51)	36 (33.64)	33 (30.84)		
>6	27	10 (37.04)	7 (25.93)	10 (37.04)		
Number of children					7.71	0.26
1 child	62	29 (46.77)	13 (20.97)	20 (32.26)		
2 children	57	16 (28.07)	18 (31.58)	23 (40.35)		
3 children	35	16 (45.71)	12 (34.29)	7 (20)		
>3 children	45	18 (40)	13 (28.89)	14 (31.11)		
Age of last child					14.42	0.006**
<3 months	99	45 (45.45)	30 (30.3)	24 (24.24)		
3-6 months	48	18 (37.5)	17 (35.42)	13 (27.08)		
7-12 months	51	15 (29.41)	9 (17.65)	27 (52.94)		

n: frequency. %: row percentage. *: p-value <0.05. **: p-value<0.01. ***: p-value <0.001.

4.3 Level of agreement between partners on male involvement in MHC

Both couples were asked about the involvement of the male partner in the MHC, and the level of agreement was assessed. In terms of the male partner accompanying the female pregnant partner to ANC, 48.26% of couples both agreed that the males were involved and 38.31% of them agreed that the males were not involved whilst the remaining 13.43% (7.46%+5.97%) of couples disagreed that the male accompanied the female pregnant woman to ANC visits. In all, 86.57% of the couples agreed in their response on the involvement of male partner accompanying the female partner to ANC.

In terms of the male partner accompanying the female partner to deliver, 48.26% of couples both agreed that the male was involved in accompanying the female partner to deliver, 34.3% of the couples both agreed that the male partner did not accompany the female to deliver. 16.91% (6.97%+9.95%) of the couples did not agree on their response on the involvement of the male partner in accompanying the female partner to deliver.

82.09% of the couples agreed in the response in the male partner accompanying the female partner to PNC, 74.63% of the couples agreed in their response with male partner discussing maternal issues with the female partner and 73.13% of them agreed in their response of the male partner supporting the female partner financial during MHC (Table 3).

For all the five components of male involvement in maternal health care measured in the study, Kappa test statistics were all positive values and were also significant (p-value <0.05). This indicates a significantly high level of agreement among the couples in their responses about the involvement of male partner in maternal health care.

Table 3: Level of agreement of partners on male involvement in MHC

Male responses	Female responses		Level of Agreement (%)	Kappa test Statistic	P-Value
	Yes (%)	No (%)			
Accompanied partner to ANC					
Yes	97 (48.26)	12 (5.97)	174 (86.57)	0.73	<0.001***
No	15 (7.46)	77 (38.31)			
Accompanied partner to deliver					
Yes	97 (48.26)	20 (9.95)	167 (83.09)	0.66	<0.001***
No	14 (6.97)	70 (34.83)			
Accompanied partner to PNC					
Yes	81 (40.3)	27 (13.43)	165 (82.09)	0.65	<0.001***
No	9 (4.48)	84 (41.79)			
Discussed maternal health issues with partner					
Yes	58 (28.86)	25 (12.44)	150 (74.63)	0.48	<0.001***
No	26 (12.94)	92 (45.77)			
Male provided financial support					
Yes	127 (63.18)	34 (16.92)	147 (73.13)	0.26	<0.001***
No	20 (9.95)	20 (9.95)			

n: frequency. %: cell percentage. P-value <0.05.** : p-value <0.01.*** : p-value <0.001***

4.4 Level of knowledge of male involvement in MHC

Figure 6 shows distribution of the level of knowledge by the level of male involvement in MHC. Among those with low level of male involvement in MHC, 43.2% had high level of knowledge on MHC whilst 22.2% had low level of knowledge. Among those with high level of male involvement in MHC, majority (54.7%) had high level of MHC knowledge whilst 3.1% had low level of MHC knowledge.

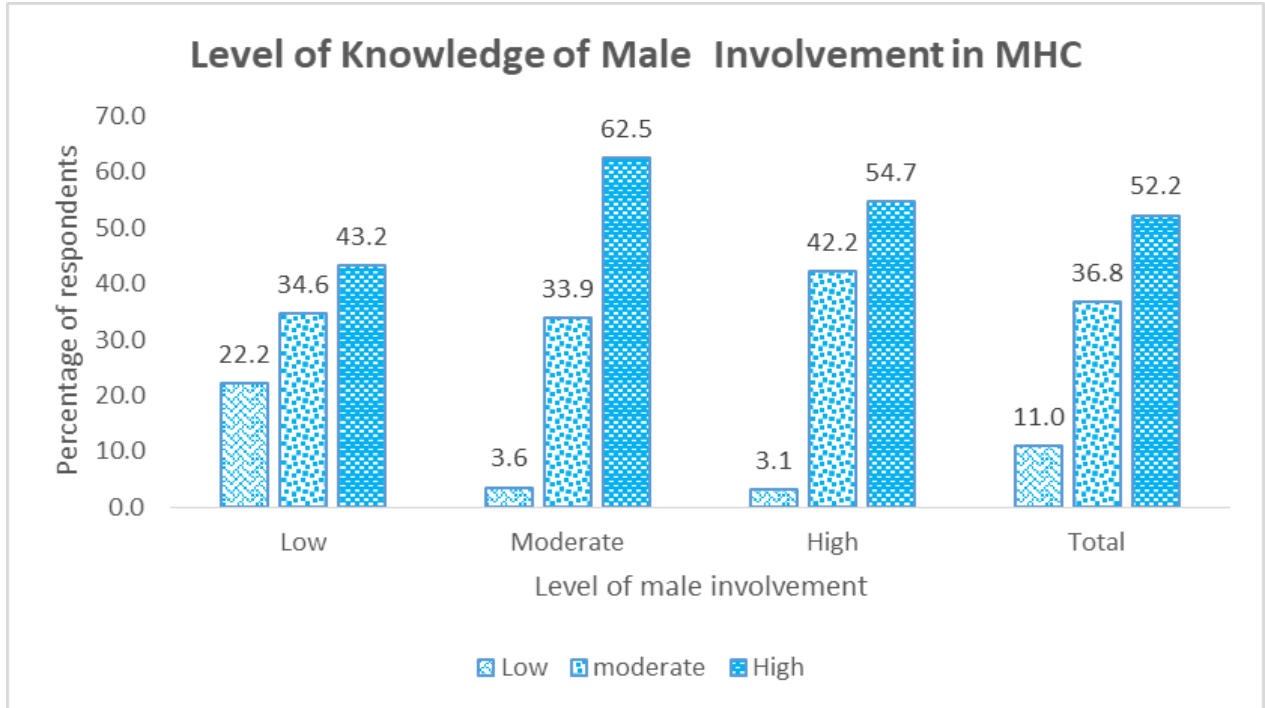


Figure 3 Level of knowledge by level of male involvement in MHC

4.4.1 Association between male knowledge on mhc and level of male involvement in MHC.

The Pearson's chi-square was used to test the association between male knowledge on maternal health care and their level of involvement in MHC. Most of the knowledge items considered in the study were significantly associated with the level of male involvement in MHC (p-value <0.05).

About one - third (36.26%) of the males partners who had heard about ANC were highly involved in maternal health care whereas only few (6.67%) of those who had heard about ANC were highly involved in MHC of their female partners.

Overall, knowledge level, only few (10.53%) of those male partners with low level of knowledge on MHC were highly involved in maternal health care. 34.88% of those with moderate knowledge on maternal health care were highly involved in MHC of their female partners whilst 33.81% of those who had high knowledge in maternal health care were highly involved in MHC of their female partners.

Table 4, reports more details on the association between male knowledge on MHC issues and level of male involvement in MHC of their female partners.

Table 4: Association between knowledge items and level of involvement in MHC.

Variable	Total	Level of male involvement			chi-square	P-value
		Low	Moderate	high		
Heard of ANC					27.26	<0.001***
No	30	25 (83.33)	3 (10)	2 (6.67)		
Yes	171	56 (32.75)	53 (30.99)	62 (36.26)		
ANC is care given to pregnant women and her unborn baby before onset of labour.					12.97	0.002**
Wrong answer	59	31 (52.54)	20 (33.9)	8 (13.56)		
Correct answer	142	50 (35.21)	36 (25.35)	56 (39.44)		
Pregnant women start ANC immediately she realizes she is pregnant.					1.61	0.448
Wrong answer	85	36 (42.35)	26 (30.59)	23 (27.06)		
Correct answer	116	45 (38.79)	30 (25.86)	41 (35.34)		
Pregnant women should visit ANC 8 times during pregnancy					5.27	0.072
Wrong answer	194	80 (41.24)	55 (28.35)	59 (30.41)		
Correct answer	7	1 (14.29)	1 (14.29)	5 (71.43)		
Promotion of maternal well-being and that of unborn baby is an advantage of ANC					5.1	0.078
Wrong answer	44	24 (54.55)	8 (18.18)	12 (27.27)		
Correct answer	157	57 (36.31)	48 (30.57)	52 (33.12)		
A trained health professional who provides emergency care to pregnant women and their unborn baby is a killed birth attendant					12.6	0.002**
Wrong answer	32	21 (65.63)	2 (6.25)	9 (28.13)		
Correct answer	169	60 (35.5)	54 (31.95)	55 (32.54)		
Safer child birth and reduction of maternal mortality is a benefit of pregnant women being attended by skilled birth attendants during delivery					9.73	0.008**
Wrong answer	45	27 (60)	7 (15.56)	11 (24.44)		
Correct answer	156	54 (34.62)	49 (31.41)	53 (33.97)		
Postnatal care start immediately after birth					1.38	0.502
Wrong answer	56	26 (46.43)	13 (23.21)	17 (30.36)		
Correct answer	145	55 (37.93)	43 (29.66)	47 (32.41)		
Positive maternal and neonatal care is a benefit of postnatal care					16.21	<0.001***
Wrong answer	77	42 (54.55)	10 (12.99)	25 (32.47)		
Correct answer	124	39 (31.45)	46 (37.1)	39 (31.45)		
Overall knowledge level					14.32	0.006**
Low	19	15 (78.95)	2 (10.53)	2 (10.53)		
moderate	43	18 (41.86)	10 (23.26)	15 (34.88)		
High	139	48 (34.53)	44 (31.65)	47 (33.81)		

n: frequency. %: row percentage. *: p-value <0.05. **: p-value<0.01. ***: p-value <0.001.

4.5 Extent to which knowledge on ANC, delivery and PNC affect high level of male involvement in MHC

Binary logistic regression model was used to assess how knowledge level and the demographic characteristics influence the level of male involvement in MHC. Age, marital status, highest level of education, monthly income and age of last child were adjusted for in the multiple binary logistic regression models. Results from the multiple binary logistic regression model shows that age, marital status, age of last child and knowledge level had significant influence on high level of male involvement in MHC (p-value <0.05).

From the simple binary logistic regression model, the odds of high male involvement in MHC was about 5 times significantly higher for males with moderate level of knowledge on the importance of ANC, Deliveries and PNC (COR: 4.75, 95% CI: 1.18-19.15, p= 0.029) and 4 times significantly higher for those with high level of knowledge on the importance of ANC , Deliveries and PNC (COR: 4.13, 95% CI: 1.05-16.31, p= 0.043) when both levels are compared to males with low level of knowledge on the importance of ANC, Deliveries and PNC.

From the multiple binary logistic regression model, the Adjusted odds of high level of male involvement was 19 times more likely for males with moderate level of knowledge on the importance of ANC , Deliveries and PNC (AOR: 18.64, 95% CI: 1.03-337.36, p= 0.048) compared to those with low level of knowledge on the importance of ANC, Deliveries and PNC. However, the Adjusted odds of high level of male involvement was not significantly different from those with level of knowledge compared to those with low level of knowledge (AOR: 15.46, 95% CI: 0.87-276.16, p= 0.063) (Table 5).

Table 5: factors associated with male involvement in maternal health care

Variables	Crude odds ratio		Adjusted odds ratio	
	COR (95% CI)	P-value	AOR (95% CI)	P-value
Age group				
<30 years	1.42 (0.59 - 3.39)	0.429	3.11 (1.06 - 9.13)	0.039*
30-39 years	2.37 (1.06 - 5.3)	0.036*	3.04 (1.1 - 8.4)	0.032*
>39 years	1.00 (reference)		1.00 (reference)	
Marital status				
Single/Divorced/widow	1.00 (reference)		1.00 (reference)	
Married/Cohabiting	3.17 (1.46 - 6.85)	0.003**	3.01 (1.19 - 7.63)	0.020*
Highest education				
No formal education	1.00 (reference)		1.00 (reference)	
Primary/JHS/Middle	6.11 (0.31 - 119.89)	0.233	2.69 (0.1 - 73.94)	0.558
SHS/Technical	9.51 (0.53 - 171.98)	0.127	12.61 (0.54 - 292.39)	0.114
Tertiary	16.97 (0.98 - 293.71)	0.052	15.6 (0.64 - 380.16)	0.092
Monthly income				
100-500	1.00 (reference)		1.00 (reference)	
501-1000	1.05 (0.41 - 2.66)	0.921	0.54 (0.15 - 1.9)	0.337
1001-1500	3.06 (1.3 - 7.22)	0.01*	1.47 (0.43 - 4.98)	0.54
>1500	6.08 (2.22 - 16.69)	<0.001***	2.27 (0.55 - 9.3)	0.254
Age of last child				
<3 months	1.00 (reference)		1.00 (reference)	
3-6 months	1.17 (0.54 - 2.54)	0.688	0.78 (0.31 - 1.99)	0.607
7-12 months	3.46 (1.7 - 7.04)	0.001**	3.73 (1.52 - 9.16)	0.004**
Knowledge level				
Low	1.00 (reference)		1.00 (reference)	
Moderate	4.75 (1.18 - 19.15)	0.029*	18.64 (1.03 - 337.36)	0.048*
High	4.13 (1.05 - 16.31)	0.043*	15.46 (0.87 - 276.16)	0.063

COR: crude odds ratio. AOR: adjusted odds ratio. (*: p<0.05), (**: p<0.01), (***: p<0.001)

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses key results of the study in the light of the study objectives. The level of male involvement in MHC was found to be low in Effutu Municipality. According to the results, males provide financial support to their wives or partners during their maternity periods, but not sufficient emotional and physical support. There was high level of agreement between the couples. Among those with high level of male involvement in MHC, majority (54.7%) had high level of MHC knowledge. This implies that males who have attained high education status involved themselves much in their partners' maternal health issues.

5.2 Level of male partner involvement in MHC

The research showed that majority thus forty percent of the study participants in Effutu Municipality had low level of participation in the MHC of their partners and more than thirty-two percent of them were highly involved with few moderately involved. The proportion of high level male involvement in MHC in this study was similar to findings in a study conducted by Byamugisha et al., (2011) in Mbale district, Uganda, who found 36.0% of the participants to have a high male involvement. The activities with the highest proportion of high male involvement were during ANC and labour and delivery as 48.3 % of them accompanied their partner to ANC visits and labour and delivery. This is probably due to the fact that these periods are seen as a crucial durations and rightly so because most maternal complications and mortalities occur during these periods. This finding of the study was slightly higher than findings made in the study of Kakaire et al., (2011) in Kabale, Uganda, who identified 42.9% of the

women had been escorted by their husbands to the ANC and 43.4 % to the labour ward. In this current study, postnatal period had the lowest level of male participation and this can be due to the perception people have when a woman had a safe delivery of a healthy baby. It is often considered the end of her pregnancy period and so less attention is given to the postnatal period. Also, the finding of this study was however different from the study conducted by Craymah et al., (2017) in Anomabo Central of Ghana, where it was revealed that, only 35% and 20% of the males escort their wives to ANC and PNC respectively.

Furthermore, the study identified that a significant number thus 7 in 10 of the male respondents support their female partners financially from ANC to PNC periods. However, it was revealed that more than seventy-one percent of the male partners do not discuss maternal health care issues with their female partners even though they provide financial support. This is contrary to a study conducted by Mullany et al., (2005) in Kathmandu in Nepal which identified that 75% of the men discussed maternal health issues with partners. This difference between this finding and that of Mullany could be ascertained to culture and demographic differences. And this might be the reason why some men in the study do not involve fully in their female partners maternal health issues because they think providing financial support to their partners' to sort out their health needs is enough. The finding was also identified in a study conducted in Cameroun in which 64.7% of the participants indicated that financial support was all that was required of the man (Nkuoh et al., 2010). But maternal health care services go beyond provision of only financial support to female partners.

Another study conducted by Onyango et al., (2010) believed that men only used their economic responsibilities as an excuse for not attending antenatal clinic with their partners. Discussions are crucial in equipping the male partners to offer appropriate, adequate and

effective support to their female partners. Hence, this is a cause for concern because it is during contact and discussions with the female partners that men can acquire the needed knowledge, behavioural and attitudinal changes pertaining to the health of their partners so that necessary actions could be taken to prevent any form of maternal health complications such as morbidity and mortality.

Also, results of the research indicated that the percentage of high level of male involvement in MHC was significantly higher among those male respondents within the age range 30-39 years compared to those less than 30 years. Male partners who were married or cohabiting and staying together were identified to be highly involved in the MHC of their female partners as compared to those divorced or widowed.

In nut shell, the study further determined the level of satisfaction during antenatal and postnatal care and it was revealed that two-third of the male partners were satisfied with health care services delivered by health professionals whilst few were not satisfied and fifteen percent were indifferent about the health services rendered. Client satisfaction is considered as one of the desired outcomes of health care and it is directly related with utilization of health services. Asking males what they think about the care and treatment they have received is an important step towards improving the quality of care and ensure local health services are meeting the health needs of people. Since the males who involved themselves in MHC of their female partners are much satisfied with the service rendered at ANC, labour, delivery and PNC at the selected health facilities, then it can be concluded that the services rendered are meeting the health needs of people.

5.2.1 Factors influencing male partners involvement MHC

On the whole, it was revealed that there are several factors that affect male involvement in MHC. The barriers that hinder male participation in maternal health were linked to cultural beliefs, socio-economic and poor health system. Younger age groups less than 30years were found to be less likely to be highly involved. These younger ones are more likely to be unmarried, students or unemployed and the pregnancies are more likely to be unplanned. This may account for their low level of involvement. It was not in line with studies conducted by Byamugisha et al., (2011) and Dessie, Dingeta, & Assefa, (2018) did not find any significant association between age and male involvement. The research also disclosed that the males officially married are more likely to participate in maternity care for their partner. Such males perceive some form of obligation towards their partners, giving assistance and showing greater interest in what happens during their pregnancy. This is in line with a research by Tweheyo et al. (2010) that discovered those males who were officially married to be more probable to attend ANC with their partners than males who were not officially married.

Also, the study identified knowledge as one of the factors that influence male involvement in MHC. Higher level of understanding on the importance of MHC was discovered to be associated with higher level of male involvement in MHC. This finding is similar to a research conducted by Kakaire et al.,(2011) in Uganda which also identified that high level of knowledge has a strong association with male involvement. This implies that knowledge about maternal health can lead to high level of male involvement in maternal health. Males who have adequate or moderate knowledge about maternal health of their partners are more likely to involve themselves in maternal health issues of their partner. In conclusion, more educational

programmes on maternal health should involve more males so as to increase their knowledge on maternal health issues.

5.3 Level of agreement between partners on male involvement in MHC

In order to ascertain as to whether there is some level of agreement between the couples responses, couples were both interviewed to ascertain the agreement between their responses in terms of male participation in MHC. Kappa test statistics were all positive values and were also significant (p-value <0.05). This indicates a significantly high level of agreement among the couples in their responses about the involvement of male partner in maternal health care.

On the whole, the research showed that the level of agreement between the couples was 76%. This is also consistent with a research undertaken by Becker in 1996, which found that agreement between partners on subjective issues is between 60 and 70%. It has been shown that data-based reproductive intentions reports from both partners lead to better behavior projections than data from just one partner.

The beneficial associations between joint decision-making and male participation indicate that communication between couples and mutual negotiation strategies can enhance health procedures. These findings show that programs designed to boost the empowerment of women and/or the health of women must take into account the dynamics and ramifications of including men in their attempts. The involvement of married couples and the encouragement of joint decision-making in reproductive and family health can be an important strategy for attaining women's empowerment and maternal health objectives. The study was in agreement with another study conducted by Mullany, Hindin & Becker, (2005) in Katmandu, Nepal which identified each additional decision in which a woman had response agree with her husband

response was associated with a significantly high likelihood of her husband accompanying her to ANC (OR=0.70, $p<0.01$). In a nut shell, agreement level between couples was associated with significantly higher levels of male involvement in MHC. Therefore, it is discovered that reproductive health interventions aimed at couples are more efficient than those aimed at one sex only. Clearly, the proof justifies a couple focuses.

5.4 The extent to which knowledge of the importance of maternal health care influence male involvement

The study found statistically significant relationship between knowledge on the importance of ANC, labour, delivery and PNC and the level of male involvement in MHC as indicated in the last part of table 5.

It is evident that knowledge on the importance on maternal health influences male involvement in MHC. For instance, high and moderate level of knowledge on maternal health has strong association with high level of male involvement as compare to that low level of knowledge on maternal health. The crude odds ratio of high level of knowledge on the importance of maternal health was 4.13 (95% CI: 1.05 - 16.31 $p= 0.043^*$) times for those with high level of male involvement in MHC. This implies that males with high level of knowledge on maternal health issues are 4.13 times more likely to involve themselves partners' maternal health issues as compare to those with low level of knowledge on maternal health issues and this may be relate to the fact those males already the know the importance and risk of not involving themselves in their partners' maternal health issues. Also, the crude odds ratio of moderate level of knowledge on the importance of maternal health was 4.75 (95% CI: 1.18 - 19.15 $p= 0.029^*$) times for those with moderate level of male involvement in MHC. This is a clear evident that males with at least

moderate level of knowledge on importance of maternal health are 4.75 times more possibility of involving themselves in their partners' maternal health issues as compare with those with low level of knowledge.

This is an indication that much of the reproductive and maternal health problems women face could be prevented if male partners were equipped with adequate knowledge and skills in respect of RH. Lack of knowledge about maternal health pose a significant challenge to positive male involvement.

Higher level of knowledge on the importance of MHC was seen to be connected with higher level of male involvement in MHC. This finding corroborate with a research conducted by Kakaire et al.,(2011) in Uganda which also identified that high level of knowledge on maternal health issues has a strong connection with male participation. This implies that knowledge about MHC can lead to high level of male involvement in maternal health. Males who have adequate or moderate knowledge about maternal health of their partners are more likely to involve themselves in maternal health issues of their partner.

Another study conducted by Byamugisha et al., (2011) also found that men who had attained secondary education or higher, two times more likely to have a high male involvement index. This is because men with high education level are much curious about their partner's maternal health especially during the ANC, labour, delivery and PNC periods. Hence some educated men with adequate knowledge on maternal health sometimes try to assist their partners in some activities in order not to expose them to pregnancy related complications.

Furthermore, Onchong'a et al., (2016) and Tweheyo et al., (2010) also identified significant associations between knowledge on importance of maternal health and level of male

involvement. They identified that males with high level of education on maternal health and also have high income-earning potential normally patronize private health facilities where men are more welcome to participate in their partner's maternity care. They may also have better access to information concerning pregnancy outside the health facility, for example via the Internet and mass media due to their level of education as well. Education may also enable them to discard negative cultural norms and attitudes. Closely associated with this finding was the statistical analysis that showed that men who had high knowledge of their partners' maternal health needs were found more likely to be involved in other ways other than financially, compared to those with low knowledge. This basically indicates that knowledge did translate to practice. For instance, DeJong et al., (2007) found that senior citizens, illiterate people, and those who live in rural areas tend to manifest negative attitudes towards maternal health compared with the young, the educated, and those who live in the city. Educating men within communities and in formal settings about the importance of male involvement on maternal health will help sustain men's interest and involvement even in the absence of incentives and coercion as the health facilities come up with sustainable strategies.

Lassi, & Bhutta (2015) also identified in their study conducted in rural districts of Bangladesh that giving men educational messages using their informal gatherings was effective in increasing their knowledge on importance of maternal health care issues. Concrete and effective strategies such as sensitization and education of men through conferences and training sessions can be implemented by the health care professionals to increase their knowledge about maternal health care issues which of course may increase male involvement.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The level of male involvement in MHC was found to be low in Effutu Municipality. Males provide financial support to their wives or partners during their maternity periods, but not sufficient emotional and physical support. This explains that the kind and level of support males gave was influenced more by their sense of obligation than an overall understanding and acceptance of the idea of supporting their partners' maternal health needs. The men believed that their only responsibility was to provide only financial support hence majority of them do not discuss maternal health issues with their partner which is a cause for concern.

Several factors appeared to have contributed to this low level of male involvement. They included knowledge of women maternal health needs and the role of male partners; attitude towards participation in maternal health issues, influenced by cultural considerations regarding the role of men in such issues; socio-economic characteristics such as age, marital status, income, occupation and level of educational; and health system factors. There was high level of agreement between the couples. Among those with high level of male involvement in MHC, majority(54.7%) had high level of MHC knowledge. These outcomes should help improve our understanding of the subject and define the overall approach we take to increase male involvement in maternal health, particularly in Effutu Municipality as well as others settings facing the same problem.

6.2 Recommendations

Based on the findings of this study, the following are recommended to improve male participation in MHC decision making:

- i. The Municipal Health Management Team in collaboration with the community leaders should organize educational campaigns within the communities to educate community members especially men, on the importance and benefits of male involvement in MHC. Such campaigns can also address negative sociocultural norms and attitudes. Satisfied peer teachers can also be used to encourage their peers to engage in maternal health issues.
- ii. The men and women in the district should get more involved in spousal communication in order for them to understand each other especially regarding maternal health issues. This is because study revealed elements of poor communication between partners pertaining to maternal health care issues. Men must make efforts to improve their emotional and physical contacts with their partners, especially during maternity periods. Women must also make efforts to encourage their men and discuss maternal issues with them so they will understand that maternal health issues go beyond provision of financial support.
- iii. The value of male participation to women's maternal health is indisputably significant accordingly, the Ghana Health Service must deliberately include male involvement in its overall strategy for maternal health improvement and maternal mortality reduction in Ghana.

- iv. Given the sociocultural diversity in the country, more research must be encouraged in this important area to enable the design of culturally appropriate and sensitive male friendly services throughout the country.

Recommendations for further studies on the subject

Male involvement has been proven to be a critical element in maternal health outcomes, yet male involvement in Ghana, like in many other African countries; it is assessed to be generally low. Surprisingly, there is not much research done in this area of importance or investigation on the subject. Therefore, these are proposed research for further studies that could be undertaken.

1. An intervention study employing the above recommendations in order to evaluate what the impact of these recommendations will be on male involvement and maternal health when implemented.

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APPENDICES

Appendix A: Informed consent form

**UNIVERSITY OF GHANA, LEGON
SCHOOL OF PUBLIC HEALTH
PARTICIPANT INFORMATION SHEET**

TITLE: MALE PARTNER INVOLVEMENT IN MATERNAL HEALTH CARE IN EFFUTU MUNICIPALITY IN THE CENTRAL REGION OF GHANA

PRINCIPAL INVESTIGATOR:

REBECCA OFOSUA

School of Public Health

University of Ghana

Email: rebecofosua@gmail.com

Telephone: +233242031844

INTRODUCTION: I am [**Name of Research Assistant**] and also part of a team of research assistants working with Ms Rebecca Ofosua, a final year MPH student of the School of Public Health, University of Ghana, and Legon. (From Department of Population, Family, and Reproductive Health) conducting a research on the topic: Male Partner Involvement in Maternal Health Care in Effutu Municipality in the Central Region of Ghana

You are kindly requested to volunteer to participate in this study. Please read through the following information on the research carefully to know why the research is being conducted and what will be involved before making your decision to participate. You can listen as I read

through the information for you or you may also give it to somebody to read it to you. If you have any questions or need any clarification on any aspect of the study, please do not hesitate to ask. If you decide to participate in this research, you will be required to indicate your voluntary consent by signing or thumb printing an informed consent form. You will be given a copy of the signed informed consent form.

PURPOSE OF THE STUDY: This study seeks to determine the level of male involvement in maternal health care and the factors that influence their involvement in the Effutu Municipality.

THE NATURE OF THE STUDY :The study will be cross sectional survey which will includes 200 men whose partners have given birth 12 months apart and lives in the Effutu municipality for not less than 12 months and are willing to participate in the study. The study will be conducted in April 2019.

WHAT PARTICIPATION INVOLVES: If you agree to participate in the study, you will be required to fill a questionnaire with or without assistance from an investigator. You are also required to ask any question bothering your understanding about the questionnaire for further clarification.

STUDY PROCEDURE: You have been asked to participate in this study because you are a man whose partner has a child who was five years or younger at the last birthday. Participating in this research will involve a one-time answering of a questionnaire which will last about 20 minutes. Information this questionnaire seek to acquire from you include your demographic data and your involvement during the pregnancy, labour, delivery and the postpartum care of your last child.

POTENTIAL RISKS. This study will not collect any sensitive information. However, anonymity will be highly maintained by ensuring that, no information collected from you will be linked to you. However invading of your privacy may pose minimal risk

BENEFITS: There is no immediate direct benefit to you but the information obtained will help in planning maternity care services that will encourage greater male involvement and remove barriers to their participation in maternity care and ultimately help to reduce maternal mortality in Ghana.

COSTS: There are no financial costs involved on your part but you have to sacrifice some of your time to participate in the research. The study will also pose no risk at all to you. No invasive procedures will be carried out on you but some of the questions asked may be personal and private in nature.

CONFIDENTIALITY: The researcher and her team will make every effort to ensure that all information obtained from you is held in the strictest confidence. The data from this study can only be accessed by the research team. The report from the research will not be linked to your identity or person.

PRIVACY: Interviews will be conducted in a quiet and isolated environment having mind the comfort of the participants.

COMPENSATION: There will be no compensation for participating in the study. You will not be given any cash for participating in the study because; this work is solely for academic purpose. However we are thankful for your time spent inmaking this study happens.

VOLUNTARINESS: Your participation in the study is encouraged but it is completely voluntary. You are at liberty to participate or to refuse to participate in the research. You are also

free to withdraw from the study at any time without penalty. Either way there will be no consequence to you.

You may contact the principal investigator if you have any further questions or concerns.

If you have read and understood the information above and are willing to participate in the research, please indicate by signing or thumb printing below. Thank you very much.

INFORMED CONSENT

I have read the foregoing information / the foregoing information has been read to me or interpreted to me in the language I understand (Fante/Twi/English) and I have fully understood the purpose, procedures, benefits and cost of this research. I understand that I can withdraw from the study at any time without any consequence to me. I have been given opportunity to ask questions I had and they have been satisfactorily answered.

I consent voluntarily to participate in this study titled:

MALE PARTNER INVOLVEMENT IN MATERNAL HEALTH CARE IN EFFUTU MUNICIPALITY, CENTRAL, GHANA

Name of participant: -----

Signature/thumbprint: -----Date-----

PRINCIPAL INVESTIGATOR OR RESEARCH ASSISTANT

I have explained the purpose, procedures, benefits and cost of this research as well as the confidentiality of participants' information.

Name -----

Signature of Interviewer-----Date: -----

Please, If you have any questions about this study, you can kindly contact:

The Principal Investigator

Name: Rebecca Ofosua

Telephone: +233242031844

Email: rebecofosua@gmail.com

The Supervisor

Name: Dr., Samuel Dery

Telephone: +233244868703

Email: samuelderry@gmail.com

PLEASE NOTE

This research will be reviewed and approved by Ghana Health Service Ethical Review Committee. If you have any questions about your rights as a research participant or you have any complaints about how you have been handled during this research and any ethical concerns regarding this work, you may contact the administrator of the Ghana Health Service Ethics Review Committee.

CONTACT PERSON

Ms. Frimpong Hannah.

Telephone number: +233302681109 / +233507041223

Email: hannah.frimpong@ghamail.org

Appendix B: Questionnaire for respondents

PROJECT TITLE: MALE INVOLVEMENT IN MATERNITY HEALTH CARE IN EFFUTU MUNICIPALITY IN THE CENTRAL REGION OF GHANA

QUESTIONNAIRE FOR FEMALE PARTNER

SECTION I: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS	
PARTICIPANT CODE:	
1. Age (in years)	.....
2. Place of resident	.....
3. Religion	1. Christian 2. Muslim 3. Traditional 4. Other, Specify
4. Marital Status	1. Never married 2. Married 3. Divorced 4. Co-habiting 5. Widow/widower
5. Level of education	1. No formal education 2. Primary 3. JHS/Middle school 4. SHS/Technical 5. Tertiary
6. Income per month (GHC)	1. 100-500 2. 501-1000 3. 1001-1500 4. > 1500

7. Occupation	1. No occupation 2. Trader 3. Farmer 4. Civil servant 5. Others
8. Family size	.....
9. Age of last child (years)	
10. Was your recent pregnancy planned or unplanned?	1. Planned 2. Unplanned
SESSION II: ANTENATAL CARE	
11. How many times have you been pregnant?	.....times
12. How many children do you have?	.....
13. What was the mode of delivery during your recent pregnancy?	1. Caesarean section 2. Spontaneous vaginal delivery
14. Did you attend Antenatal care during your recent pregnancy? If yes	1. Yes 2. No
15. How many times did you visit ANC during your recent pregnancy?	.....times
16. Did your partner ever accompany you to ANC? If yes move to Q15 and if no move to Q16	1. Yes 2. No
17. How many times?	.....times
18. If No, why?	..... .....

19. Was your partner involved in the decision to attend Antenatal care?	1 Yes 2 No
20. How many midwives attended to you during your recent pregnancy?	.....
21. Was there a particular midwife who provided care to you during your recent pregnancy?	1. Yes 2. No
22. If yes to Q21 , how many times did you see that particular midwife?	.....
23. Does your partner know your regular midwife?	1. Yes 2. No 3. Don't know
24. During your visit, how will you describe the attitude of the staff during service delivery?	1. Satisfactory 2. Not satisfactory 3. Indifferent
25. Were you satisfied with the care received at ANC during your recent visit?	1. Satisfactory 2. Not satisfactory 3. Indifferent
26. How would you describe the length of time you spent during your ANC visit?	1. Too long 2. Just enough 3. Too short
27. Do you and your partner discuss health issues relating to the pregnancy?	1. Yes 2. No
28. Did your partner provide you with financial support during your recent pregnancy?	1. Yes 2. No
SECTION III: LABOUR AND DELIVERY	

29. Were you living with your partner at the time of labour and delivery?	1. Yes 2. No
30. If No, why	.........................
31. If yes, did he accompany you to the health facility at the time of labour and deliver?	1.Yes 2.No 3. Did not deliver at the health facility
32. If no, why?	..... ..... ..... .....
33. If no, how did you get to the health facility?	..... ..... .....
34. Prior to labour and delivery, did you make plans with your partner for labour and delivery during pregnancy?	1. Yes 2. No
35. Did your partner provide you with financially support during delivery?	1. Yes 2. No
36. Were you delivered by your regular midwife?	1. Yes 2. No
37. If yes to 36 , did she discuss health related issues on labour and delivery with you?	1.Yes

	2. No
38. Did your partner discuss health related issues on labour and delivery with you?	1. Yes 2. No 3. Don't know
39. Do you think males are allowed to be present in the delivery room?	1. Yes 2. No
40. If No, why?	..... .....
41. If No, do you wish your partner to be present in the delivery room?	1. Yes 2. No
42. Was your partner present during delivery?	1 Yes 2 No
43. In your opinion, if one person should be allowed in the delivery room, who should it be?	..... .....
44. Were you satisfied with the care received at the labour ward during your recent delivery?	1. Satisfactory 2. Not satisfactory 3. Indifferent
SESSION III: POSTNATAL CARE	
45. How many weeks are you after delivery?	1. Less than One week 2. One week 3. Less than two weeks 4. Less than two weeks 5. More than two weeks
46. How many times have you visited the clinic after delivery?	..... times
47. Did you live with your partner after delivery?	1. Yes 2. No
48. If No, why?	.....

49. If No, who did you live with?	1. Her mother 2. My mother 3. Others (specify)
50. If yes, for how long (in months)	.....
51. Did your partner accompany you to postnatal visits?	1.Yes 2.No
52. If no, why?	..... ..... ..... .....
53. If yes, how many times?	.....times
54. Did your partner discuss health issues relating to postnatal period and family planning with you?	1. Yes 2. No
55. Were you satisfied with the care received at PNC during your recent visit?	1. Satisfactory 2. Not satisfactory 3. Indifferent
KNOWLEDGE ITEM QUESTIONS ON THE IMPORTANCE OF ANC ,RECEIVING SKILLED DELIVERY AND POSTNATAL CARE	
56. Have you heard about ANC?	1. Yes 2. No

57. What is ANC?	<ol style="list-style-type: none"> 1. Care given to the pregnant woman during breastfeeding 2. Care given to pregnant woman and her unborn baby before onset of labour 3. Care given to the foetus
58. When does a pregnant woman start ANC?	<ol style="list-style-type: none"> 1. Immediately the woman realize she is pregnant 2. Two months 3. Three months and above
59. How many times should a pregnant women visit ANC?	..... times
60. What goes into ANC?	<p>.....</p> <p>.....</p> <p>.....</p>
61. Which of the following is an advantage of starting ANC early?	<ol style="list-style-type: none"> 1. To promote maternal well-being and that of the unborn baby 2. Late detection of pregnancy complications and deviation from normal 3. To improve maternal and child dead
62. What are some of the factors that hinder pregnant women from attending ANC?	<ol style="list-style-type: none"> 1. Lack of financial support from partners 2. Culture/religion 3. Lack of health facilities in some remote areas 4. Distance 5. Illiteracy 6. Attitude of health personnel

63. Who is a skilled birth attendant?	<ol style="list-style-type: none"> 1. A trained health professional who provides emergency care pregnant women and their unborn baby 2. A person who renders general health services 3. Untrained person who assist a pregnant woman during delivery
64. Do you prefer to be delivered by a skilled birth attendant?	<ol style="list-style-type: none"> 1. Yes 2. No
65. What benefit will you get from being attended to by a skilled birth attendant during delivery?	<ol style="list-style-type: none"> 1. It provides safer child birth and reduces maternal mortality 2. It reduces morbidity 3. It provides proper nutrition to both caregiver and her baby
66. What is postnatal care?	<p>.....</p> <p>.....</p> <p>.....</p>
67. When do we start postnatal care?	<ol style="list-style-type: none"> 1. Immediately after delivery 2. First six weeks after delivery 3. Exactly one month
68. What benefit will you get when you attend postnatal?	<ol style="list-style-type: none"> 1. Positive maternal and neonatal outcome 2. To improve maternal and child mortality 3. To maintain a stable family relation
THANK YOU FOR YOUR TIME	

QUESTIONNAIRE FOR MALE PARTNER

SECTION I: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT	
PARTICIPANT CODE :	
PARTNER CODE:	
1. Age (in years)	.....
2. Place of resident	.....
3. Religion	1. Christian 2. Muslim 3. Traditional 4. Other, Specify
4. Marital Status	1. Never married 2. Married 3. Divorced 4. Co-habiting 5. Widow/widower
5. Level of education	1. No formal education 2. Primary 3. JHS/Middle school 4. SHS/Technical 5. Tertiary
6. Income per month (GHC)	1. 100-500 2. 501-1000 3. 1001-1500 4. > 1500
7. Occupation	1. No occupation 2. Trader 3. Farmer 4. Civil servant 5. Others

8. Family size	.....
9. Number of children	
10. Age of last child (years)	
SESSION II: ANTENATAL CARE	
11. Did your partner attend Antenatal care during her recent pregnancy? If yes	1. Yes 2. No 3. Don't know
12. How many times did your partner visit ANC during her recent pregnancy?	..... times
13. Did you ever accompany your partner to ANC? If yes move to Q14 and if no move to Q15	1. Yes 2. No
14. How many times?	.....times
15. If No, why?	..... ..... ..... .....
16. Were you involved in the decision to attend Antenatal care?	1. Yes 2. No
17. How many midwives attended to your partner during her recent pregnancy?	.....
18. Was there a particular midwife who provided care to your partner during her recent pregnancy?	1. Yes 2. No
19. If yes to Q18 , how many times did your	

partner see the particular midwife?	.....times
20. Do you know your partner's regular midwife?	1. Yes 2. No 3. Don't know
21. During your visit, how will you describe the attitude of the staff during service delivery?	1. Satisfactory 2. Not satisfactory 3. Indifferent
22. How would you describe the length of time you spent at ANC when you accompanied your partner?	1. Too long 2. Just enough 3. Too short
23. Did you and your partner discuss health issues relating to her pregnancy? If yes move to Q24	1. Yes 2. No
24. How often did you and your partner discuss health issues relating to her pregnancy?	.....times
25. Did you provide financial support to your partner during her pregnancy?	1. Yes 2. No
SECTION III: LABOUR AND DELIVERY	
26. Were you living with your partner at the time of delivery?	1. Yes 2. No
27. If No, why	.........................
28. If yes, did you accompany your wife to the health facility at the time of delivery?	1. Yes 2. No 3. Did not deliver at the health facility

29. If no, why?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
30. If no, how did she get to the health facility?	<p>.....</p> <p>.....</p> <p>.....</p>
31. Prior to labour and delivery, did you make plans for your partner's labour and delivery during her recent pregnancy?	<p>1. Yes</p> <p>2. No</p>
32. Was your partner delivered by her regular midwife?	<p>1. Yes</p> <p>2. No</p> <p>3. Don't know</p>
33. If yes to Q32 , did she discuss health related issues on labour and delivery with your partner?	<p>1. Yes</p> <p>2. No</p> <p>3. Don't know</p>
34. Did you provide financial support to your partner during delivery?	<p>1. Yes</p> <p>2. No</p>
35. Did you discuss health related issues on labour and delivery with your partner?	<p>1. Yes</p> <p>2. No</p>
36. Do you think males are allowed to be present during labour and delivery?	<p>1. Yes</p> <p>2. No</p>
37. If No , why?	<p>.....</p> <p>.....</p>
38. If No , do you wish to be present?	<p>1. Yes</p> <p>2. No</p>
39. Were you present in the delivery room during delivery?	<p>1. Yes</p> <p>2. No</p>

40. In your opinion, if one person should be allowed in the delivery room, who should it be?	..... .....
SESSION III: POSTNATAL CARE	
41. Did you live with your partner after delivery?	1. Yes 2. No
42. If No, why?	..... ..... .....
43. If No , who did she live with?	1. Her mother 2. My mother 3. Others (specify)
44. If yes , for how long (in months)	.....
45. Did you accompany your partner to postnatal visits?	1. Yes 2. No
46. If no , why?	..... ..... ..... .....
47. If yes , how many times?	.....times
48. Did you discuss health issues relating to postnatal period and family planning with your partner?	1. Yes 2. No
49. Were you satisfied with the services	1. Satisfactory

received at the PNC when you accompanied your partner for care?	<ol style="list-style-type: none"> 2. Non satisfactory 3. Indifferent
KNOWLEDGE ITEM QUESTIONS ON THE IMPORTANCE OF ANC ,RECEIVING SKILLED DELIVERY AND POSTNATAL CARE	
50. Have you heard about ANC?	<ol style="list-style-type: none"> 1. Yes 2. No
51. What is ANC?	<ol style="list-style-type: none"> 1. Care given to the pregnant woman during breastfeeding 2. Care given to pregnant woman and her unborn baby before onset of labour 3. Care given to the foetus
52. When does a pregnant woman start ANC?	<ol style="list-style-type: none"> 1.Immediately the woman realize she is pregnant 2. Two months 3.Three months and above
53. How many times should a pregnant visit ANC?	..... times
54. What goes into ANC?	1.
55. Which of the following is an advantage of starting ANC early?	<ol style="list-style-type: none"> 1.To promote maternal well-being and that of the unborn baby 2. Late detection of pregnancy complications and deviation from normal 3.To improve maternal and child dead
56. What are some of the factors will hinder you from attending ANC with your partner?	<ol style="list-style-type: none"> 1. Lack of financial support from partners 2. Culture/religion 3. Lack of health facilities in some remote areas 4. Distance

	<ol style="list-style-type: none"> 5. Illiteracy 6. Negative attitude of the health personnel
57. Who is a skilled birth attendant?	<ol style="list-style-type: none"> 1. A trained health professional who provides emergency care pregnant women and their unborn baby 2. A person who renders general health services 3. Untrained person who assist a pregnant woman during delivery
58. Will you prefer your partner to be delivered by a skilled birth attendant?	<ol style="list-style-type: none"> 1. Yes 2. No
59. What benefit will your partner get when being attended to by a skilled birth attendant during delivery?	<ol style="list-style-type: none"> 1. It provides safer child birth and reduces maternal mortality 2. It reduces morbidity 3. It provides proper nutrition to both caregiver and her baby
60. What is postnatal care?	<p>.....</p> <p>.....</p> <p>.....</p>
61. When do we start postnatal care?	<ol style="list-style-type: none"> 1. Immediately after delivery 2. First six weeks after delivery 3. Exactly one month
62. What benefit will your partners get from postnatal?	<ol style="list-style-type: none"> 1 Positive maternal and neonatal outcome 2 To prevent maternal and child mortality 3 To maintain a stable family relation
THANK YOU FOR YOUR TIME	