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MALE PARTNERS' INVOLVEMENT IN MATERNAL HEALTH CARE IN KPONE SUB-MUNICIPALITY

BY

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DECLARATION

I, Otchere-Keelson Dorothea hereby declare that apart from references to other people's works which have been duly acknowledged, this dissertation is as a result of my own independent work and has not been submitted for the award of any degree in any institution.

..... Date: 28th September, 2020.

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(Supervisor)

DEDICATION

I dedicate my dissertation to the Almighty God, Jehovah Jireh. I dedicate my work to my lovely husband, Mr. Barnabas Otchere-Keelson, my children, Hezekiah and Jeshaiah Otchere-Keelson, my father Mr. David Obeng Adofo-Kissi (of blessed memory).

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LIST OF ABBREVIATIONS

ANC	Antenatal Care
CHPS	Community-based Health Planning and Services
DHIMS	District Health Information Management Systems
Hb	Hemoglobin
HIV	Human Immuno-Deficiency Virus
ICPD	International Conference of Population and Development
IPT	Intermittent Presumptive Therapy
MCH	Maternal and Child Health
MMR	Maternal Mortality Ratio
MHC	Maternal Health Care
PNC	Postnatal Care
SDG	Sustainable Development Goal
SRH	Sexual and Reproductive Health
TB	Tuberculosis
UN	United Nations
URTI	Upper Respiratory Tract Infection
USA	United States of America
USAID	United States Agency for International Development

UTI	Urinary Tract Infection
WHO	World Health Organization
WIFA	Women In Fertility Age

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ABSTRACT

Background

Male involvement in maternal healthcare has become critical given that men as the heads of the family control the finances, are decision-makers and provide emotional and social support which directly influence the antenatal, delivery, and post-natal care. Male involvement can, therefore, have diverse positive effects on maternal health in the form of reduction of maternal morbidity and mortality. In Kpone Sub-Municipality where poor maternal outcomes are still recorded, it is imperative to quantify the level of male involvement in maternal healthcare and examine the factors influencing male involvement in maternal healthcare.

Objective

This study, therefore, sought to quantify the level of male involvement and to evaluate the factors influencing male involvement during the antenatal, intrapartum, and postnatal periods.

Methods

A quantitative cross-sectional study was conducted through a community-based survey in the Kpone Sub-Municipality. Three hundred and ninety-one (391) women were selected through a two-staged sampling technique and interviewed using a structured questionnaire.

Sociodemographic characteristics of respondents and their male partners were studied. A Pearson Chi-square test was used to determine the association between sociodemographic characteristics of male partners and their involvement in maternal healthcare.

Results

The modal age group of respondents was 18-29 years recording about 56% and that of the male partners 30-39 years representing about 48%. Sociodemographic characteristics example age,

educational level, marital status, number of children, religion and employment status, all had statistical significance (p-value of ≤ 0.001) with level of male partner involvement during antenatal care, intrapartum care and postnatal care period. About 15% of male partners had low level of involvement in antenatal care, about 50% of men had moderate level of involvement in antenatal care and about 36 % of male partners had high level of involvement in antenatal care. During the intrapartum care period, the proportion of men involved was about 12% for low involvement, about 25% for moderate level of involvement and about 62% for high level of male involvement. In the postnatal care period, about 13% of men were graded as having low level of male involvement, about 29% recorded moderate level of male involvement and about 58% recorded high level of male involvement.

Conclusion

The proportion of men in male involvement in maternal healthcare was highest during the intrapartum care period in Kpone Sub-Municipality. Sociodemographic characteristics of male partners are critical in the determination of male support towards maternal health during antenatal care, intrapartum care and postnatal care periods and these can possibly serve as tools through which men could be encouraged to offer support towards reproductive health issues of women and family to a large extent.

CHAPTER ONE

INTRODUCTION

1.0 Background

Male involvement in maternal healthcare refers to participatory roles, behaviours or activities of men required to support women to meet their needs during the antenatal, perinatal, and postnatal periods in order to ensure the wellbeing of the mother and child. In developing countries like Ghana, poor maternal outcomes are still a challenge. The WHO in efforts to improve maternal health has identified male involvement as one of the key strategies (The WHO Reproductive Library, 2015).

Maternal healthcare refers to healthcare given to women during pregnancy, labour, and delivery and after delivery in order to achieve a fulfilling and positive health outcome (WHO, 2020). This has a direct effect on a mother's health and indirectly on the health of the family and society. During the antenatal period, good medical care is vital for the proper development of the foetus. However, social, emotional, and financial support is equally important. Indeed, a woman's relationship with health care providers, interactions with the family, and society are all very important in keeping the pregnancy safe and improving maternal health outcomes as well as preventing maternal morbidity, morbidity complications, and mortalities (Mannava, Durrant, Fisher, Chersich, & Luchters, 2015).

Many stakeholders of health care have been concerned about the rising maternal health problems in developing countries. Three hundred and three thousand maternal deaths occur annually worldwide, most of which have maternal health challenges such as haemorrhage, hypertension in

pregnancy, anaemia in pregnancy, cardiac problems, diabetes, sepsis, and eclampsia (WHO, 2019). The Sustainable Development Agenda seeks to reduce the burden to maternal health challenges to achieve maternal mortality rate of less than 70 per 100,000 live births (WHO, 2020). Four main factors have been recognized to enable the prevention of maternal mortality: Prenatal care, Skilled birth attendance, Preparedness for obstetric emergencies, and Postnatal care (Kakaire, Kaye, & Osinde, 2011; WHO, 2020). All these factors hinge on the pregnant woman deciding to have prenatal care, to have a supervised delivery, and to attend postnatal care together with the financial and physical access to these services.

In Ghana, men are the heads of families, breadwinners, and decision-makers. The decisions women take are guided or dictated by men. In addition, men are likely to finance all the costs associated with prenatal, antenatal, perinatal, and postnatal care. Therefore, their active participation in maternal healthcare can help bridge the gap to good access and utilization of maternal healthcare services. In fact, research studies have shown male partners' active involvement in maternal healthcare is associated with good maternal outcomes, and the reduction of maternal morbidity and mortality (Mersha, 2018).

The highest maternal deaths were recorded in the Greater Accra Region in Ghana in the year 2016 (GNA, 2017). In 2016 a total of 955 died from pregnancy-related causes which is an increase over that recorded in 2015 (Ghana Health Service, 2017). The maternal mortality ratio in Ghana is 319 per 100,000 live births and this makes the achievement of SDG target of 70/100,000 live births look a bit unattainable (Gudu & Addo, 2017; The World Bank, 2019). The Tema General Hospital is the most immediate receiving government facility for receiving referred cases from Kpone Sub-Municipality. For example, in 2016, 127 clients in labour were referred to Tema General Hospital with a total of 129 women in the antenatal period also referred

to Tema General Hospital (Ghana Health Service, 2020). In 2017, 93 women in labour were referred from Kpone Sub-Municipality to the Tema General Hospital while 113 women were referred to the Tema General Hospital during the antenatal period to continue care (Ghana Health Service, 2020). In 2018, the total number of cases of women in labour referred to Tema General Hospital was 137 and those referred during the antenatal period were 107 (Ghana Health Service, 2020). In 2016, Kpone Health Centre recorded 813 registrants as having anaemia in pregnancy (Ghana Health Service, 2020). Also in 2017, 2018 and 2019, Kpone Health Centre recorded 898 registrants, 841 registrants, 1020 registrants respectively having aneamia in pregnancy (Ghana Health Service, 2020). It was also noted that anaemia in pregnancy was prevalent among maternity clients in Kpone Sub-Municipality recording 509 cases of anaemia in pregnancy at gestation 36 weeks (Ghana Health Service, 2020). In 2017 anaemia in pregnancy among maternity clients was a total of 285 at the gestation 36 weeks (Ghana Health Service, 2020). In 2018 and 2019, anaemia in pregnancy at gestation were 352 and 427 respectively (Ghana Health Service, 2020). Male partners' involvement in maternal healthcare has been identified as a key component in addressing reproductive health issues of women (Davis, Vyankandondera, Luchters, Simon, & Holmes, 2016). Women in Kpone Sub-Municipality in Accra have several maternal health challenges, most of which are preventable or can easily be managed. Anaemia and hypertension in pregnancy are the most prevalent maternal health challenges in Kpone according to the DHIMS. Anaemia in pregnancy is an indicator of poor nutrition and health in pregnancy. If male partners provided enough money for food, ensured that women purchased and took their iron and vitamin supplements, and ensured that they sleep under mosquito nets and attend antenatal care regularly, anemia in pregnancy would be a thing of the past. When

adequate care or attention is not given, a medical condition like anemia could result in maternal mortality.

The three delays regarding maternal health-seeking behaviour are common in this Sub Municipality. First, there is a delay in the decision of reaching out to receiving healthcare. Second, the delay in access/transport to a health facility for obstetric help and third, the delay in getting the needed care when clients reach the health facility. The first two delays which hinge on social and financial support can be solved with active male involvement in maternal healthcare. These three delays are not limited to Kpone Sub-Municipality. In 2017, there were 44 maternal deaths in Tema while in 2018, 36 women died from birth-related health problems in Tema out of which 32 were recorded at the Tema General Hospital (GNA, 2020). Notably, it was stated that more than 70% of these maternal deaths were related to inadequate knowledge and skills, delay in pregnant women seeking help, and lack of transport from home to health facilities. If expectant mothers or women in their postpartum period are not supported by their spouses in gaining access and utilizing healthcare services as well as complying with treatment and health plans provided by health care staff, it could lead to maternal morbidity and mortality (Ganle & Dery, 2015; Yarney, 2019).

Many maternity clients have been referred from Kpone to Tema General Hospital. Below are recorded referrals from Kpone Health Centre to Tema General Hospital, stillbirths at Kpone Health Centre, anaemia in pregnancy at Kpone Health Centre, and brought-in-dead to the Kpone Health Centre (Ghana Health Service, 2020). Tables 1.1, 1.2, 1.3 and 1.4 give summary records of referrals from Kpone Health Centre to Tema General Hospital, stillbirths, anaemia in pregnancy and brought-in-dead (relating to maternal death) recorded at Kpone Health Centre.

PERIOD	YEAR			
	2016	**2017**	**2018**	**2019**
Intrapartum	127	93	137	107
Antenatal	129	113	107	88
TOTAL	**256**	**203**	**244**	**195**

Table 1.1: Referrals from Kpone Health Centre to Tema General Hospital

TYPE OF STILLBIRTH	YEAR			
	2016	**2017**	**2018**	**2019**
Fresh	1	0	2	0
Macerated	1	2	1	0
TOTAL	**2**	**2**	**3**	**0**

Table 1.2: Stillbirths reported at Kpone Health Centre

GESTATION	YEAR			
	2016	**2017**	**2018**	**2019**

At booking	813	898	841	1020
At 36 weeks	509	285	352	427
TOTAL	**1322**	**1183**	**1193**	**1447**

Table 1.3: Anaemia in Pregnancy reported at Kpone Health Centre

	YEAR			
	2016	**2017**	**2018**	**2019**
TOTAL	0	0	0	1

Table 1.4: Brought-in-dead (relating to maternal death) reported at Kpone Health Centre

Preventing maternal mortality is not a simple thing of medical know-how but a complex journey of understanding the nuances and the intricacies of reasons why maternal morbidity and mortality continue to occur despite improvement in the quality of healthcare. Comprehensive male involvement in maternal healthcare would allow men to share appropriate responsibilities with women and to help them make better choices, meet their needs and rights in reproductive health, and may well be the answer to this pervasive challenge.

1.1 Problem Statement

Maternal morbidity and mortality are still high in Africa despite some improvement in the quality of healthcare. The WHO estimated that 303,000 women lost their lives during pregnancy and delivery in 2015 (Black, Laxminarayan, Temmerman, & Walker, 2016). Out of this, 99%

occurred in developing countries and more than half of these deaths occurred in Sub-Saharan Africa. The most common pathologies or disorders are related to haemorrhage, hypertension, and other related factors that could have been prevented. Several attempts have been made by the health community and health systems to bring maternal mortality to a drastic decline (Bale, Stoll, & Lucas, 2003). For instance, maternal health education, organizing pregnancy school, holding training sessions on safe motherhood, and practical lessons on management of obstetric emergencies, under the initiative of Ghana Health Service, the PROMISE Initiative, some training by the USAID and the SDG agenda (Blampied et al., 2018). An important focus of recent initiatives such as Ending Preventable Maternal Mortality is quality of care (WHO, 2020).

In spite of these efforts, every day, about 810 women die from challenges/causes that could be prevented or managed in pregnancy or during childbirth (WHO, 2019). Ghana is one of the countries in Sub-Saharan Africa still recording high maternal deaths, 310/100000 live births as at 2017 (UNFPA Ghana, 2018).

Traditionally in Africa, male partners wield a greater authority in the home. As the final decision-makers, they determine to a large extent the maternal health of their spouses by influencing their health-seeking behaviour and providing or restricting financial, social, and emotional supports (Davis et al., 2016).

Given these facts, little or no male involvement could worsen maternal disease conditions and their complications. In the Kpone Sub-Municipality, anecdotal evidence suggests that the involvement of men in maternal health issues is limited. With the increasing number of pregnant women presenting with anemia (prevalence of anaemia in pregnancy in Kpone Sub-Municipality is about 60%, Ghana Health Service, (2020), poor compliance to health management plans and the rising incidence of sepsis in Kpone Health Centre, it has become imperative to explore and

quantify the extent of male involvement in maternal healthcare in the Kpone Sub-Municipality, and to evaluate the factors that determine male involvement as currently, no study has delved into this matter in the Kpone Sub-Municipality. Low literacy is one of the risk factors of maternal health challenges in Ghana. It is highest in Greater Accra Region at 77.6%. Although this is not the only risk factor the existing literature shows a strong association between maternal health and literacy levels (Atuoye et al., 2015). In Kpone Sub-Municipality it is known that there are low literacy and low-income levels which have been shown to have a relationship with maternal healthcare (Tetteh, 2019).

It is known that means of transport to a health facility for antenatal care have an influence on those utilizing skilled delivery services (Tetteh, 2019).

Maternal mortality is a problem. With the introduction of free maternal health services and the utilization of health services through the National Health Insurance scheme, it is expected that more women would have access to care through attendance to antenatal care clinic, delivery in the health facility as well as attend postnatal care clinic to enhance early detection of co-morbid conditions in pregnancy, labour and postpartum period with timely management of the co-morbid state in pregnancy. Unfortunately, this is not the situation, there still exist women who have challenges with poor support (transport, birth preparedness, compliance) towards maternal health care. These go a long way to affect skilled delivery services. Maternal mortality and morbidity are maternal health challenges in Ghana and Kpone Sub-Municipality in the Greater Accra Region (DHS Final Reports, 2014).

Male partners' involvement in maternal health is recommended as one of the means to improve maternal health however there are still challenges in achieving this. A recent study in Kpone

Katamanso Municipality revealed vital findings suggesting that there are barriers to men's involvement in maternal healthcare in Kpone Katamanso (Odjoh-Anyomi, 2017).

1.2 Justification of Study

The findings from this study can influence or strengthen health systems through improvement in maternal healthcare by engaging male partners, coordinated by health care providers as a strategy to reduce maternal morbidity and mortality. Furthermore, the information generated from this research may help health care providers to actively involve men. Finally, this research can bring to the attention of community members the effect and importance of male involvement in maternal healthcare.

1.3 General and Specific Objectives

1.3.1 General Objective

To quantify male involvement in maternal healthcare and to evaluate factors influencing male involvement during the antenatal, perinatal, and postnatal periods.

1.3.2 Specific Objectives

1. To estimate the proportion of men involved in maternal healthcare during the antenatal, perinatal, and postnatal periods in the Kpone Sub-Municipality.
2. To determine the relationship (association) between sociodemographic characteristics of male partners and forms of male partners' involvement in maternal healthcare during the antenatal period, intrapartum period, and postnatal period.
3. To determine the factors associated with male partners' involvement in maternal healthcare.

1.4 Research Questions

In order to achieve the study objectives, the following research questions were posed:

a) What proportion of men are involved in maternal health care during the antenatal, perinatal, and postnatal periods?
b) To what extent do male partners in Kpone Sub-Municipality involve themselves in maternal health issues?
c) What are the factors that influence male involvement in maternal health care?

1.5 Organization of Study

The study was organized into six chapters. Chapter One contains the background of the study, problem statement, research objectives, research question, the scope of the study, limitation of the study, and the organization of the study. Chapter Two covers the literature review. Chapter Three covers the methodology which discusses the data collection technique, data collection process, and data collection tool. Chapter Four comprises the results from the data analysis while Chapter Five covers the summary and discussion of the findings. Chapter Six summarizes the conclusions, recommendations as well as suggestions for further research.

1.6 Conceptual Framework

Pregnant women's health is affected significantly by their families, the community, and health staff who offer services to them. There are therefore factors within these relations and interactions that are known to enhance good health outcomes. Receiving care or help should be mutual among spouses but it is critical to give needed/due attention to the woman during pregnancy, during delivery, and after delivery for a healthy maternal state as well as that of

foetus. Male involvement in maternal health care is also strongly affected by the relationship with health staff or engagements of male partners by health staff. Good societal practices could improve maternal health through gender norms and roles of male partners who contribute towards improving maternal health care utilization aside their own male natural characteristics.

Male partners' involvement in maternal healthcare cannot be overemphasized. With the changes that occur in pregnant women which may be physiological or pathological, women undergo various forms of adaptations which may require support to the health of the mother, the unborn baby, and the newborn for a healthy family. In order to achieve this, the leadership of the family which we all know is patriarchal has a great role or could be employed to ensure that the female spouse is on good nutrition, has good access to healthcare as well as utilizes healthcare services appropriately. Though health issues of individuals are confidential during these periods of antenatal, intrapartum and postpartum care, male involvement can be used to mediate, facilitate or ensure compliance to the healthcare plan of a spouse and this is very vital to state or identify the means by which male involvement in maternal healthcare can be practiced.

For the purpose of this study the following factors have been identified to be measures through which male involvement could be employed to support maternal healthcare; financial assistance, communication with the spouse on maternal health issues, engagement in decision making with spouse and health staff on issues of maternal health relevant to the individual, supporting spouse towards birth preparedness and where necessary honouring attendance to a health facility with a spouse during antenatal care, labour and delivery as well as attendance to postnatal care clinic. Even in situations where both spouses face financial challenges, it would be easier for a male partner to seek financial assistance considering maternal health state.

Communication on maternal health issues with a spouse by a male partner could strengthen the health system of which a patient is a unit. Communication encourages spouses to express their challenges. Communication can strengthen compliance with healthcare plans through reinforcement even outside the health facility. Male partners can offer moral support to spouses during labour and delivery, antenatal care, and postnatal care periods. Examples of such support are being present to offer care such as running errands within the facility for the spouse.

Visiting the facility with a spouse by the male partner is important. Though male partners may not have to attend antenatal care always with partner studies show that women who attend antenatal care with their spouses receive preferential treatment (Muloongo, Sitali, Zulu, Hazemba, & Mweemba, 2019). Though maternity patients may involve some close relations especially during hospitalization the roles played by male partners are key, bearing in mind that both partners are expected to share responsibilities for a healthy baby, healthy mother, and healthy family. It is very significant to note that there are factors that affect male partners' involvement in maternal health. These factors can strengthen or serve as barriers in male partner involvement in maternal healthcare. For the purpose of this study, the following factors would be investigated as well as establish their association with male partners' involvement; age, educational status, occupational status, marital status, and religion.

Independent Variable Dependent Variable

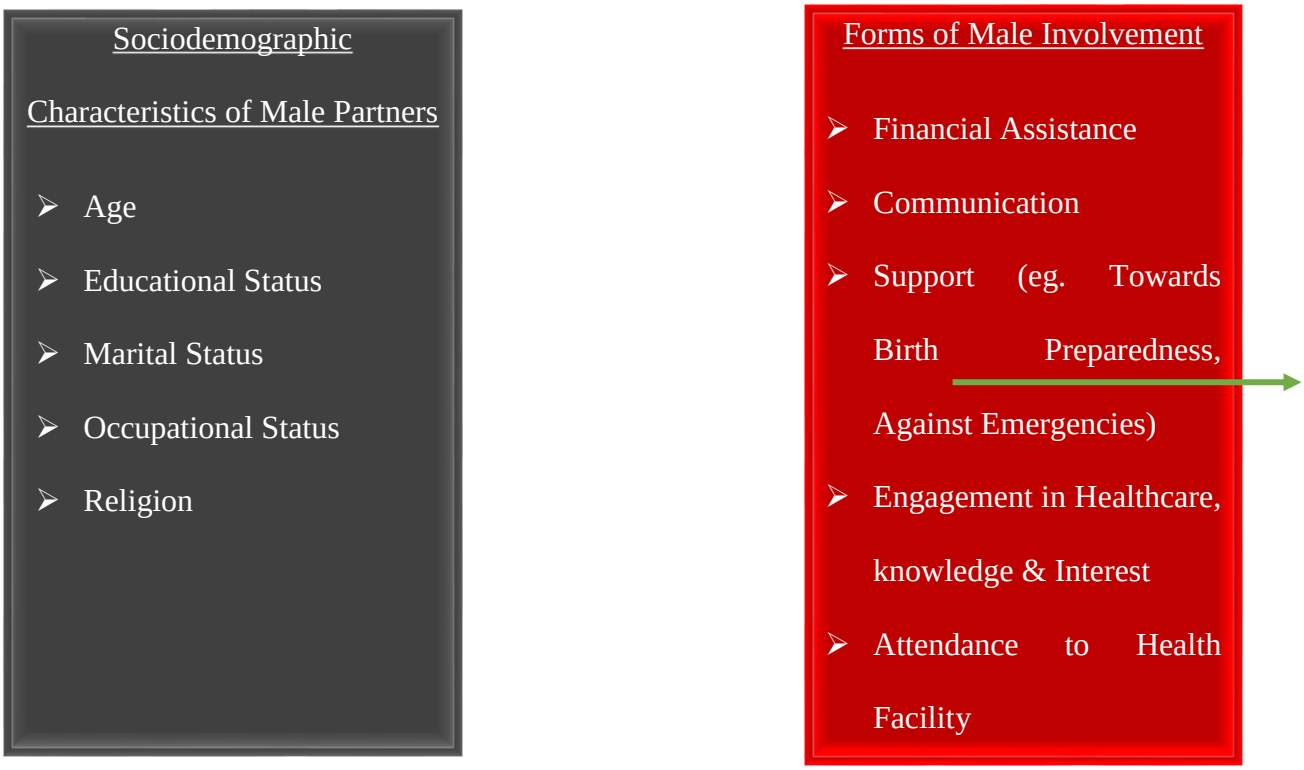
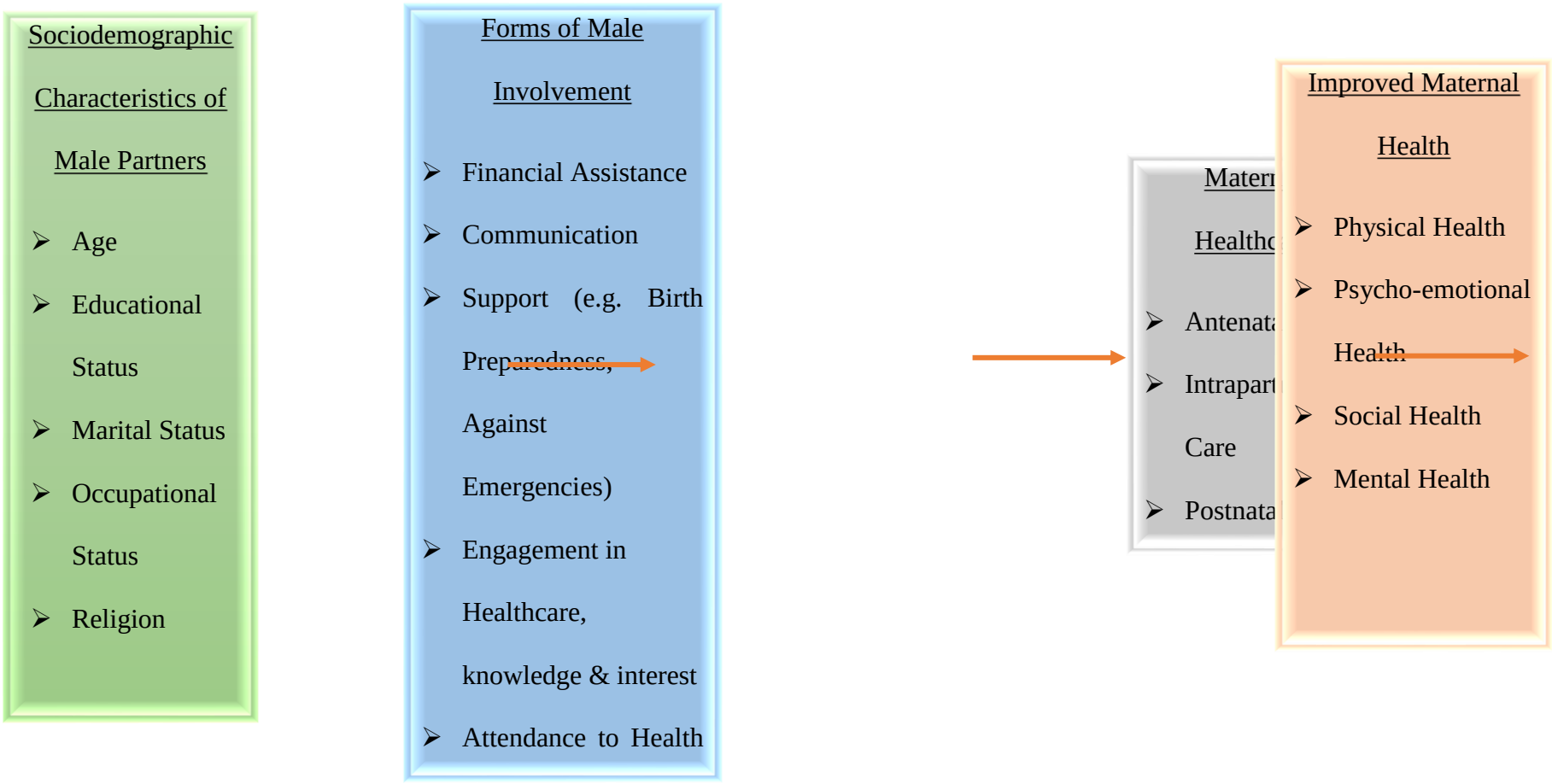


Figure 1: Factors Affecting Male Involvement in Maternal Healthcare



Conceptual framework (Author's construct, 2020)

Figure 2: Conceptual framework for Male Partner's Involvement in Maternal Health Care

Conceptual framework (Author's construct, 2020)

Figure 3: Conceptual framework for Male Partner's Involvement in Maternal Health Care (Graphic)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses the relevant literature on the subject matter. It explores various articles and papers on male involvement in maternal healthcare. It also examines levels of male involvement in Africa and Ghana and the efforts being made to improve this involvement.

2.1 Concept of Male Involvement in Maternal Healthcare

The United Nations Organization has described male partner's involvement in MHC as steps taken in social and behavioural change that is needed for men to play more responsible roles in MHC with the purpose of ensuring women's and children's wellbeing. In other words, the male partner's involvement in maternity care involves a behavioural and social change to enable men to encourage or support their partners adequately to ensure good maternal health outcomes. These stimulate interest in maternal health because more specific attention is directed towards antenatal care, intrapartum and postpartum periods.

For instance, according to Aborigo, Reidpath, Oduro, & Allotey, (2018), as leaders in their family homes, men control resources and determine health-seeking behaviour or care for pregnant women and are seen as the final authorities in deciding the place and period when women should seek care. The role of men can be seen as complex and societal norms may conflict with public health recommendations for women (Aborigo et al., 2018). When men accompany their partners for ANC, they also have the opportunity to meet the medical doctor(s),

midwives, and public health personnel with their partners for effective decision-making concerning mother and foetus in preparation for safe delivery, especially in high-risk pregnancies. Therefore, the main idea behind male involvement in maternal healthcare is to have a holistic approach to maternal healthcare by recognizing and acknowledging the critical roles men play in giving women financial and physical access to healthcare facilities as well as influencing decision making and ensuring compliance of health-related advice given by healthcare staff.

2.2 Importance of Male Involvement in Maternal Healthcare

Many studies have explored the role of men in Maternal Healthcare. Some studies have reported better treatment of women by healthcare staff when they were accompanied by their male partners whiles others have reported better healthcare services utilization and better pregnancy outcomes. A study in Malawi revealed that women who were always reporting by to the health care facility (with their male partners) seeking especially antenatal services had better services rendered to them. This is because the health personnel gave preferential treatment to women who accessed maternal health services with their male partners according to Kululanga, Sundby, & Chirwa, (2012); Machira & Palamuleni, (2018). Male involvement was also shown to be associated with better health care services utilization (Yargawa & Leonardi-bee, 2015). According to Mullany, (2006), male involvement could be a leveraging mechanism working in connection with improved female autonomy to improve maternal health services utilization.

Male partners' active involvement in reproductive health care has been shown to be positively associated with maternal outcomes (Ghose et al., 2017; Yaya et al., 2017). Yargawa & Leonardi-bee, (2015), in a systematic review and meta-analysis found that male involvement during

pregnancy was significantly associated with a reduced odd of postpartum depression. Cheng, Rifas-shiman, Perkins, & Wright, (2016) also reported that low partner support was associated with high pregnancy-related anxiety.

Maternal mortality is known worldwide as a key indicator of population health and as such considered an important determinant in the socio-economic development of a nation (Wilmoth et al., 2014). In 2015, only 40% of all pregnant women in low-income countries had the recommended ANC visits (WHO, 2019). It is known worldwide that every day, 810 women die from pregnancy-related causes during pregnancy, childbirth, and during postpartum period. Out of this, over 99% occur in developing countries with 56% of the deaths occurring in Sub-Saharan African (WHO, 2019). Indeed, many of these deaths are avoidable and men have been identified as key to reducing maternal mortality and improving maternal health in developing countries (USAID, 2014). The WHO also echoes the importance of men in maternal healthcare by stating that male involvement in maternity care can improve support for compliance with preventative treatments (WHO, 2019). The importance of male partners involvement in maternal healthcare should therefore not be trivialized because improving utilization of health care service, birth preparedness, better compliance with health-related advice and improved financial and physical access to health care services are all benefits that would go a long way to decrease maternal morbidity and mortality.

A number of studies have been conducted recently. Among these studies include Aborigo et al., (2018), who stated that there have been conflicting views about whether men needed to provide extra support in their homes. With reference to these studies, health workers interviewed agreed that men provide no support or little help towards their partners. There was, however, little evidence of the effect of antenatal support though health workers facilitated the formation of

father support groups (Aborigo et al., 2018). Aborigo et al., (2018) concluded in their studies that, an initiative to help promote male partners' involvement in maternal health should be focused on young men and use leaders in the communities e.g. various community leaders could reorient men towards a more proactive partners involvement in ensuring maternal health. Male partners in some studies showed that they had adequate knowledge of the type of help they ought to offer to their partners before delivery and claimed to do it (Aborigo et al., 2018).

It is important to make mention that father support groups that have taken place in other settings have proven to be effective (Kululanga et al., 2012). Father support groups could serve as channels through which maternal health could be improved by providing adequate information through health talk, delivery of series of materials for more health education, and periodic scheduling to attend pregnancy school with their spouses. Challenges in maternal health issues can be very well addressed when male partners are well engaged by the health team.

Birth preparedness and its readiness against complications are very important components of antenatal care and therefore expectant mothers should not be the only ones to be involved in their care especially if they are in risk group e.g. mothers with health challenges like chronic non-communicable diseases, mothers with vital organs dysfunction. Strengthening these components against the incidence of poor maternal health outcome serve as main strategies in reducing maternal morbidity, morbidity complication as well as maternal mortality (Mersha, 2018).

A randomized-controlled trial conducted by Daniele et al., (2018), sought to determine whether an intervention to involve male partners of pregnant women in maternal healthcare influenced care-seeking, healthy breastfeeding as well as contraceptive practices after delivery in urban Burkina Faso. This was a randomized, multicenter, superiority trial with study participants recruited at the five largest primary health centers in one of the three health districts in the city of

Bobo-Dioulasso, where each centre served a majority of urban settlers about 20,000 and where antenatal care, delivery, postnatal care as well as family planning services were offered. In their conclusion, male partners' involvement in maternal healthcare was associated with increased adherence to recommended healthy maternal health practices after delivery.

It is of great essence to engage families concerned and modify factors that are modifiable when managing maternal health issues to prevent maternal morbidity and maternal deaths. Male partners influence women's accessibility to reproductive health services as well as play a great role in decision making in health care plans of their partners during the antenatal period, intrapartum care, and postdelivery. Male partners especially influence women's use of reproductive services and participate in decisions that affect the health outcomes of their women. Also, surveys conducted in Sub-Saharan Africa revealed, most women with their male partners would be willing for them (male partners) to be involved in maternal health care. It was noted that few men join their pregnant partners during ANC or PNC appointments at health facilities. This was because often the men have a perception that this is not their role though some staff attitude could also be a problem related to this.

With regard to this, the WHO has adopted strategic measures to promote male partners' involvement in reproductive health services Daniele et al., (2018) and there has been an improvement in the recognition of the need to involve male partners in maternal and child health programmes, given the important role men play as partners, fathers and other members of the community. This serves as a way of the promotion of decision making towards maternal health. Notable is the International Conference on Population and Development (ICPD) Programme of Action which basically calls for comprehension and promotion of the joint responsibilities of

men and women to work as equal partners in the community, to improve and enable men to make decisions in reproductive and sexual health issues.

There are other health systems that have directed efforts to help support as well as engage men to improve maternal health outcomes. These include strategic measures seeking to involve men, including men's view as gatekeepers, decision-makers for prompt access to maternal and neonatal health services at all levels, male partners as responsible men and as an important specific population within the community, these form the need to address issues pertaining to men's own health and men's preference of choice to be involved in maternal health care (WHO, 2015). Additionally, health facilities should be male partner-friendly and health systems should be strengthened towards handling men as well as women especially during the prenatal period.

In the International Conference on Population and Development (ICPD) Programme of Action, it was noted that communities should improve reproductive health care programmes by providing health to women and their partners in a more holistic approach. In view of this, programmes have been put in place and being implemented to improve reproductive health services and increase male partners' involvement (United Nations Department of Economic and Social Affairs Population Division, 2013). Family health programmes within facilities could also intensify education by also modifying some societal norms to yield good maternal health outcomes. With supportive supervision, all healthcare givers (who attend to maternity clients) could also be encouraged to improve their skills in health communication, maternal healthcare delivery as well as developing strategies to make a follow-up on the women and their partners' involvement in healthcare.

With reference to Yargawa & Leonardi-bee, (2015), a systematic review and meta-analysis were conducted to find the impact of male partners' involvement on the health of women in the

developing world. In these studies, two reviewers screened independently, and both did assess the quality of studies based on prespecified criteria. With 14 studies meeting the selection, male partner's involvement was determined to have a significant association with reduced odds of postpartum depression. It was also observed that there was an improvement in maternal health services utilization.

Overall, male partners' involvement was realized to have an association with improved spouses' health outcomes in low-middle income countries. This is however not the case in reports from developed countries because there was small evidence of improved efforts of husbands' presence in delivery rooms. The study was conducted by assessing the effects of male involvement on maternal health outcomes in women aged 15-49yrs, from the developing countries. Three broad categories of male partners' involvement were spelt out as;

- strong participation in maternal health care services during ANC, male partners support in the labour room, husband's support towards the expectant wife and husband support after the delivery
- provision of financial support towards pregnancy-related and delivery issues
- communication by male partners with their female partners on maternal health issues.

In the study, outcome measures were also classified as primary and secondary outcomes. Primary outcomes included;

- Complications during pregnancy and delivery
- Period of stay after a stay at the hospital after delivery
- Maternal depression (both antenatal and postpartum).

Secondary outcomes involved;

- Maternal health care or services utilization, postpartum care, and emergency obstetric care services as well as maternal mortality.

Notably was an analysis conducted on a subgroup based on the timing of male involvement i.e. during pregnancy, delivery, and postdelivery. This was done to investigate any descriptive differences in maternal health outcomes. Findings made from studies by primary outcome suggested that

- Male partners' involvement in maternal health care did not have a significant association with the risk of delivery complications (OR = 0.58, 95% CI 0.28 to 1.21)
- Husbands' presence was reported not to have any significant relation to the risk of developing non-spontaneous vaginal deliveries (OR = 0.85, 95% CI 0.45 to 1.58).

There was no report on the duration of stay at hospitals by any of the studies in the systematic review and meta-analysis. There was a significant reduction in the number of childbirth complications with increasing male partners' involvement (p=0.0181). It was revealed from these studies that, women with depression in the antepartum period had significantly lower physical and emotional support from their male partners than women without male partners' support. Male partners' involvement significantly reduced incidence in postpartum depression by about 70% (OR = 0.34, 95% CI 0.19 to 0.62).

In the secondary outcomes, none of the studies included maternal mortality in their reports. It was also reported that maternal health care services utilization as a secondary outcome had husbands' attendance of antepartum appointment did not have a significant association with women's ANC attendance (OR = 0.97). One of the studies found out that male partners' attendance to ANC was significantly associated with having a skilled attendant at birth while the

other study revealed a “borderline” no significant association (OR =1.09, 95% CI 0.99 to 1.2). Additionally, it was revealed in these studies that women whose male partners attended ANC were significantly more likely to receive postpartum care than women who either received health education alone or no education.

Yargawa & Leonardi-bee, (2015), reported that it is of general evidence that male involvement affects maternal health outcomes in the developing world. Male partners’ involvement during pregnancy and the postnatal period may offer more benefits than male involvement during childbirth. Male partners’ involvement significantly reduced the odds of depression during the postpartum period in women and also improved the overall utilization of maternity care.

Male partners' involvement is used widely in various ways by which men relate to their female partners in reproductive health issues, maternal health problems, and reproductive behaviour (Mangeni, Mwangi, Mbugua, & Mukthar, 2013). It is known that men’s involvement in reproductive health can be viewed in these two ways: the way men understand/appreciate and support their partners’ reproductive health issues and decision making as well as men’s sexual and reproductive behaviour. However, the nature of male involvement and value attached to male involvement may vary from society to society.

2.3 Level of Male Partner Involvement in Maternal Healthcare in Africa

Generally, male involvement in maternal healthcare is low in Africa. Babalola & Fatusi, (2009), noted that a male accompanying his partner for an antenatal visit is rare in sub-Saharan Africa, and in several communities in Africa it is a taboo to see a male spouse accompanying his pregnant wife to labour. Some studies have sought to explain the reasons behind this practice. Craymah, Oppong, & Tuoyire, (2017), in their research paper “Male Involvement in Maternal

Health Care at Anomabo, Central Region, Ghana", purported that the tendency to perceive maternal health as a woman's issue is narrowed specifically to mothers in efforts concerning interventions. They place the blame squarely on public health practitioners and other stakeholders of health for failing to broaden the scope of MHC interventions to include men. "Most Maternal and Child Health (MCH) programmes seek to address the health needs of women and children by engaging and educating pregnant women and mothers in care-seeking practices for themselves and their children. This has contributed to men being sidelined as far as reproductive health and MCH matters are concerned" (Iliyasu, Abubakar, Galadanci, & Aliyu, 2010).

A research study in Kenya also ascribed the low involvement of men in MHC to the possibly unaccepted attitude of some healthcare workers (Mannava et al., 2015). They stated that although men are aware of the benefits of their participation in their female partners' health, the bad attitude of some health workers discouraged male involvement (Aborigo et al., 2018).

It was further stated that some male partners actually perceived maternal health problems as women's matters and they should, therefore, be solved among women. This has been one of the challenges as inadequate male partner's support experienced by these women in their country is a major barrier affecting the optimum use of maternity care services available (Machira & Palamuleni, 2018).

Also, according to Ditekemena et al., (2012), men's participatory roles are essential in optimizing maternal health and even including a child's health. Studies have shown that it is necessary to make antenatal care services male partner-friendly to extend and improve health education to male spouses to improve maternal health outcomes. It is crucial to note that the responsibilities honored by men in society affect maternal health outcomes as well. Furthermore,

according to Kalisa & Malande, (2016), it was revealed that there exist prevailing sociocultural practices pertaining to gender roles and norms which affect male involvement in maternal health. This is related to the perception of pregnancy and delivery as women's domain.

Ensuring sustenance of male involvement is necessary for homes and districts for the improvement of maternal health with good planning and means of implementing maternal health programmes by the health sector by involving professionals and policymakers through traditional gender roles played by spouses (Bougangue & Ling, 2017).

Although measures are being put in place to reduce maternal morbidity and mortality globally, there still exists targets that have not been met especially in Sub-Saharan Africa (Kyei-nimakoh, Carolan-olah, & Mccann, 2017). For the world to attain the point where maternal morbidity and mortality are reduced to the barest minimum the SDG targets to obtain a global average ratio of less than 70 deaths per 100,000 births by the year 2030 and also bringing to the accomplishment of universal health coverage (WHO, 2020).

2.4 Composition of Male Involvement

Male involvement is a composite variable for which no simple one standard scale is used in measurement (Byamugisha, Tumwine, Semiyaga, & Tylleskär, 2010). The term male involvement is subjective and has multiple-constituent engagements.

Three (3) broad categories of male involvement in maternal health are known (Yargawa & Leonardi-bee, 2015).

These are;

1. Active male activities in maternal health services and care – husbands' attendance of ANC, husbands' presence at the delivery room, husbands' support/help of wife during pregnancy, during delivery, and post-delivery.
2. Financial help towards pregnancy and delivery including birth preparedness
3. Sharing of information and communicating with wife on maternal health issues

Factors that affect male involvement in maternal health can be associated with socio-demographic characteristics and health professional relationships with male partners as well as socio-cultural norms or practices.

Having said all the above, male involvement in maternal health though helps in improving access and utilization of services by improving universal health coverage, it is very important to note that male involvement however, could have indirect means of improving maternal health needs and addressing challenges in maternal health. The characteristics of male involvement can pose as barriers to improving maternal health if the components of socio-demographic characteristics are not helpful. An example is a male partner with a poor interest in actively participating in maternal health issues or not having adequate knowledge of maternal health and appreciating and providing the necessary supports.

2.5 Factors Influencing Male Involvement in Maternal Healthcare

Male partners' involvement in maternal health is affected by many factors (Lowe, 2017). For example, some traditional concepts and knowledge in relation to pregnancy and delivery. These factors are socio-cultural practices or norms which have strong relation with gender issues in maternal health. For instance, some of these factors serve as barriers to improving male partners knowledge in maternal health. Some men have developed the fear that they would be laughed at

in attempt to assist in maternal health in certain communities with strong beliefs against male involvement in maternal health issues. In some studies done by Nesane, Maputle, & Shilubane, (2016), participants expressed concerns about difficulties encountered in male involvement in maternal health. They stated that their employment status posed a challenge of male involvement in maternal health. Being that the distance from their houses to the health facility was too long and as such was difficult to accompany their spouse and come back before going back to work. Others also stated that they would offer support towards ANC attendance only when they are home from work. So, distance to the healthcare facility was a challenge to the men in the study.

In research study done by Ongolly & Bukachi, (2019), participants informed that there exist health systems barriers that discourage them from being involved in antenatal and postnatal care clinic. The challenge observed was that the male partners complained that they were only spectators when they attended antenatal and postnatal care clinic since the health staff did not involve them in any discussions.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methods and techniques that were used for the study. It describes the study design, the study population, sampling method, sample size, data collection techniques, the dependent and independent variables, and how the analysis was done after data collection.

3.1 Setting

The study was conducted in Kpone Sub-Municipality in the Kpone Katamanso Municipality. Kpone Katamanso Municipality is partly urban, rural, and partly peri-urban. Currently, the estimated population of the Kpone Sub-Municipality is 26,438 (Ghana Health Service, 2020). Out of this, women's infertility age (WIFA, 15 – 49 years) is about 4,521 and the expected pregnancy is 603 (Ghana Health Service, 2020).

The main occupations of the indigenous settlers in Kpone are small scale farming and fishing. Literacy rates are comparatively higher in Kpone than in many towns in Greater Accra. Adult literacy is 73% for women and 87% among men and among people (aged 11 years and above), the literacy rate is 49.3% referring to those who can read and write English and Ghanaian Language only, however, only 44% are literate in English (Ghana Statistical Service, 2014).

There are 10 Community-based Health Planning and Services (CHPS) zones in Kpone Sub-Municipality; out of which, Kpone Township, Apemami, and Shanghai are the main communities. There are two main health facilities in Kpone Sub-Municipality. These are Kpone

Health Centre (government-owned that runs clinical care and public health services) and Faith Medical Centre (private health facility). There are however many stations for child welfare services including Kpone Health Centre which is the main facility for maternal health services.

Within Kpone Sub-Municipality are many industrial and manufacturing companies.

3.2 Scope of the Study

The study involved women 18 years or above who have been living in Kpone Sub-Municipality and whose last child was not more than 2 years old at the time of the research interview. Questions regarding their male partners' involvement in their maternal health were asked. Three communities in Kpone Sub-Municipality including Kpone were selected for the study. These three communities are representative of Kpone Sub-Municipality. These three areas are distinct with respect to maternal health issues.

3.2.1 Shanghai

This community is a bit distant from the Kpone Health Centre. There have been records of several mothers from here who had challenges with access and utilization of health services as recorded at the facility level.

3.2.2 Apemami

This community is not very far from the Kpone Health Centre but has many women in their reproductive age. There is a scheduled healthcare delivery service in Apemami on child welfare service.

3.2.3 Kpone

Kpone township as a community in Kpone Sub-Municipality is the capital town of Kpone Katamanso. Many women in Kpone Katamanso and neighbouring communities report here especially for antenatal care, delivery, and postnatal care as well as bring their children to the child welfare clinic as per the Kpone Health Centre records. Public health services in maternal healthcare example family planning services are offered in Kpone Health Centre. Quite a number of late ANC bookers and poor attendance to ANC at Kpone Health Centre were reported to have been living in Kpone township.

3.3 Study Design

The study design for this research was a descriptive cross-sectional study.

3.4 Study Population

The study population targeted only women aged 18 years and above whose last child is not more than 2 years at the time of the survey.

- **Inclusion criteria**
  1. Women aged 18 years and more.
  2. Women whose last delivery or child/children were not more than 2 years of age at the time of the study.
  3. Respondents should have lived in Kpone Sub-Municipality.
- **Exclusion criteria**
  1. All women who never attended ANC services
  2. Women who could not speak English, Twi or Ga

3.5 Study Variables

3.5.1 Dependent Variable

- Male partner involvement in
  - Antenatal care
  - Labour and Delivery
  - Postnatal care

3.5.1.1 Measurement of Dependent Variable

Male partner involvement during the ANC, labour and delivery and Postnatal period was measured using responses to five (5) No/Yes statements; where No = 0 and Yes = 1. The statements were:

1. The man accompanies partner to the health facility
2. The man discusses maternal issues with partner
3. The man discusses maternal issues with her health care provider
4. The man provides financial and physical support to the partner
5. The man is involved in planning for antenatal care, intrapartum car/delivery, and postnatal care

Responses to these statements were summed to create composite variable ranging from 0 to 5. The scale was then categorized into tertiles (low, moderate and high), where 0-1 was labeled how involvement; 2-3 meant moderate involvement, and 4-5 denoting a high level of male involvement.

3.5.2 Independent Variable

1. Age
2. Marital status
3. Religion
4. Educational level
5. Occupation
6. Number of children

3.6 Sample Size

The sample size for the cross-sectional survey was calculated using the Cochrane's formula:

Sample size computation = N

$$N = \frac{Z^2 \times p(1-p)}{d^2}$$

Where:

N = Sample Size

Z = 95% confidence level

p = Proportion of men involved in maternal health issues

d = Margin of error

Thus, based on the following conditions:

Prevalence of involvement (p) = 59.1% (A recent study in Kpone Katamanso revealed 59.1% of prevalence of male partner involvement in maternal healthcare, (Odjoh-Anyomi, 2017).

95% Confidence interval (Z) = 1.96, alpha 0.05

Power =8 0%, beta 0.8

Margin of error (d) = 5%

$$N = \frac{(1.96)^2 \times 0.591(1-0.591)}{(0.05)^2}$$

N = 372

The computed figure 372 was adjusted upwards by 5% non-respondent rate arriving at the sample size of 391.

Using proportionate sampling, the sample size was distributed amongst the selected communities as follows:

$$\text{Apemami} = \frac{2412}{12755} \times 391 = 73.94 \approx \mathbf{74}$$

$$\text{Kpone} = \frac{7842}{12755} \times 391 = 240.39 \approx \mathbf{240}$$

$$\text{Shanghai} = \frac{2501}{12755} \times 391 = 76.67 \approx \mathbf{77}$$

3.7 Sampling Procedures

As a community- based study, we set out into these communities Apemami, Shanghai, and Kpone Township. A two-stage sampling technique was used. First by the selection of communities and obtaining a proportionate sample for each community and the second selection of individuals using a simple random sampling technique sought consent from women aged 18 years and more, whose last delivery or child/children were not more than 2 years of age at the time of the study and are living in Kpone Sub-Municipality. A brief introduction and explanation of the research was given to the people we met in the community. Those who consented were then engaged to fill the interviewer structured questionnaire. The selection of participants was by the inclusion criteria.

3.8 Data Collection Process

The interviewer-administered questionnaire method was used to collect data. Interviews and informed consent were carried out in a language that participants understood. After consent given by women (inclusion criteria) who expressed interest in the research, the interviewer structured questionnaires were filled. Respondents signed or thumb printed the consent forms. Confidentiality and anonymity were ensured throughout by coding each of the questionnaires.

3.9 Data Processing and Analysis

Data collected were entered into Microsoft Excel. Data went through cleaning, validation and was exported to SPSS Version 20.0 and STATA 15 for data analysis. Simple frequency and percentage were used for categorical variables. For continuous variables, the mean and standard deviation was calculated. Descriptive statistics (frequency with percentage) and independent Chi-square test were used to ascertain the level of male involvement at the various stages and the association between their socio-demographic characteristics. In determining the relationship between sociodemographic characteristics of male partners and forms of male partners' involvement in maternal healthcare during the antenatal period, intrapartum period, and postnatal period, descriptive statistics (frequency with percentage), independent Chi-square test and ordinal logistic regression were used. In determine the factors associated with male partners' involvement in maternal healthcare ordinal logistic regression was used.

3.10 Training of Research Assistants

Twelve data collectors were trained on data collection and ethical issues. All the twelve research assistants were trained by the principal investigator to understand the objectives of the study and

how to use the questionnaires. All the twelve research assistants were health workers who work within the sub-municipality.

3.11 Data Collection Tools

The questionnaire used was adopted and developed from a previous study (Doe, 2013).

Quantitative data collected through the use of a structured questionnaire (see Appendix 3) to collect information that included socio-demographic characteristics of respondents as well as their male partners, assessment, and grading of the level of male involvement during the ANC period, Intrapartum Care and Postpartum.

Research assistants helped with data collection after training by Principal Investigator. Though questionnaires were solely written in English, interviewers communicated in languages that they and respondents could speak and understand.

3.12 Quality Control

Effective mechanisms to enable the collection of quality data and completion of the research study within 6 weeks were used. This was done by the Principal Investigator and Research Assistants within Kpone Sub-Municipality. Training of research assistants was done in Kpone and time was allowed for research assistants to discuss and give feedback on the training of quality data collection for the study. Debriefing was done daily to ensure the collection of quality data from respondents using good communication skills. Submission of the filled questionnaires and timely reporting of challenges from fieldwork and finding appropriate solutions to challenges were done on a daily basis. Field procedures were revised weekly and clear communication was ensured by research assistants to respondents. Were inconsistent or

uncomplete questionnaires were submitted to the Principal Investigator from particular communities, the Research Assistant were sent back to these communities to solicit new completed questionnaires from those communities from respondents who meet the criteria and were not previously interviewed.

3.13 Pretesting

Few eligible candidates who consented were pretested after recruitment and necessary changes in questionnaires and procedures in the research were made. The essence of the pretesting was to ensure that the questionnaires were void of mistakes and ambiguity and to see how readily the respondents would understand and respond to questions. Any obstacles identified caused us to revise the questionnaires before the actual research work began.

3.14 Conflict of Interest

There is no conflict of interest in this research study.

3.15 Funding

The research study was fully funded by the Principal Investigator.

3.16 Ethical Issues

The following ethical considerations were observed.

1. Ethical approval was obtained from the Ghana Health Service Ethics Review Committee (GHS/RDD/ERC/Admin/App18/419).
2. Informed consent was obtained from all the study participants.

3. The Municipal Health Director for Kpone Katamanso was informed officially. This was clarified to the respective respondents that the study was purposely for research and usefulness in healthcare.
4. Information obtained from the study was strictly confidential and no information received was disclosed to any other person. Data collected was kept under lock.
5. The respondents were assured of confidentiality and anonymity throughout and no name was recorded in data processing, analysis, reporting, conclusion, and recommendations.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the findings of the study. The baseline sociodemographic characteristics of participants and their spouses are presented in Tables. Factors that affect the level of male involvement during the antenatal, perinatal, and post-natal period are also presented in Tables. The level of Male involvement was assessed using a 5-point index: performed activity = 1, did not perform activity = 0. A total of 4-5 meant a high level of male involvement. A total of 2-3 meant a moderate level of involvement and a total of 0-1 meant a low level of involvement. Below are the activities upon which the assessment was done;

1) The man sometimes accompanies partner to a health facility
2) The man discusses maternal issues with partner
3) The man discusses household issues with his wife
4) The man provides financial and physical support
5) The man is involved in planning for labour and delivery

Descriptive statistics (frequency with percentage) and independent Chi-square test were used to ascertain the level of male involvement at the various stages. The study had variables measuring the overall level of male involvement in ANC, intrapartum and PNC. The descriptive statistics (frequency with percent) was used to determine the distribution of the respondents' partners involvement; thus, either had low, moderate or high involvement. Hence the method of variable inclusion was entered.

In addition, crosstabulation with chi-square test was used to determine the association between their socio-demographic characteristics (age, marital status, education and occupation of partners). The test used the key variables of involvement like planned pregnancy, attended ANC and present at ANC facility for involvement in ANC; partner at health facility, male partner allowed to enter labour room and discussion made on health-related issue during delivery for intrapartum and partner lived with partner after delivery, agreed to attend PNC, accompanied for PNC and discussed family related health issues for postnatal care.

In determining the relationship between sociodemographic characteristics of male partners and forms of male partners' involvement in maternal healthcare during the antenatal period, intrapartum period, and postnatal period, descriptive statistics (frequency with percentage), independent Chi-square test and ordinal logistic regression were used.

In determine the factors associated with male partners' involvement in maternal healthcare ordinal logistic regression was used.

4.1 Socio-Demographic Factors

This section measured the socio-demographic characteristics of the respondents and male partners in the study. From Table 4.1a, the modal age group of the respondents was 18-29 years (55.50%). The majority were married (44.25%) and Christian (81.59%). The modal age group of male partners was 30-39 years (47.83%). Most of the partners had 2-4 (48.6%) number of children and about (43.7%) also had one child.

From Table 4.1b, the majority of male partners (41.43%) had completed junior secondary school. More women (37.60%) were unemployed compared to their male partners (18.67%). For those

who were employed, self-employment was predominant among both women 48.34% and their spouses 56.27%.

	Frequency	Percent
Age of female partner	-	
18-29	217	55.5
30-39	148	37.9
40-49	23	5.9
>49	3	0.8
Number of children per participant	-	
1	171	43.7
2-4	190	48.6
5 or more	30	7.7
Age of last child	-	
<6 months	48	12.3
6 months-1	94	24.0
1-2	249	63.7
Marital status	-	
Married	173	44.2
Single	39	10.0
Cohabiting	165	42.2
Divorced	14	3.6
Occupation	-	
Unemployed	147	37.6
Self-employment	189	48.3
Civil/public servant	55	14.1

Table 4.1a: Baseline Socio-demographic Characteristics of Participants

	Frequency	Percent
Age of male partner	-	-
18-29	114	29.2
30-39	187	47.8
40-49	79	20.2
>49	11	2.8
Education level	-	
No formal Education	17	4.3
Primary	32	8.2
Junior secondary	162	41.4
Senior secondary	103	26.3
Tertiary	77	19.7
Religion	-	
Christian	319	81.6
Muslim	41	10.5
Traditionalist	26	6.6
Other	5	1.3
Male Partner's occupation	-	
Unemployed	73	18.7
Self-employment	220	56.3
Civil/Public Servant	98	25.1

Table 4.1b: Baseline Socio-demographic Characteristics of Male partners

4.2 The Proportion of Men Involved in Maternal Healthcare During the Antenatal, Perinatal and Post-natal Periods in the Kpone Sub-Municipality

4.2.1 Male Involvement in Maternal Healthcare during the Antenatal Care

The spouse who lived together during pregnancy was (69.8%) while (30.2%) did not live with their spouse during pregnancy. About (41.1%) lived with other family members during pregnancy; it was observed that 49.1% of the respondents who live with their spouse also lived with other family members during pregnancy. The respondents who lived with family members indicated the following family members: mother, mother-in-law, and siblings.

It was observed that 33.2% of the respondents said they planned the pregnancy with their spouse, 38.4% attended antenatal care with a partner during pregnancy. Out of the 150 women who said

their spouse attended antenatal care with them indicated that the partners companied them 2-3 times (58.7%). During antenatal visits.

The majority of the women (96.9%) said that the antenatal care facility they attended was decided by their spouse. About 66.2% of the spouse decided where the women should go in case of an emergency. There was also a standby transport arrangement decided by 69.1% of the spouse (Table 4.2a).

The results (Table 4.2) revealed also that, the male partners did not demonstrate; busy at work, unconcerned, absent from home, the spouse did not see the need to be at the antenatal and feeling shy to be in the midst of the women.

	Planned Pregnancy		Attended ANC		ANC Facility	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
Age of Male Partner	-					
18-29	27(20.8)	87(33.3)	30(20.0)	84(34.9)	111(29.3)	3(25.0)
30-39	79(60.8)	108(41.4)	92(61.3)	95(39.4)	182(48.0)	5(41.7)
40-49	21(16.2)	58(22.2)	28(18.7)	51(21.2)	75(19.8)	4(33.3)
>49	3(2.3)	8(3.1)	0(0.0)	11(4.6)	11(2.9)	0(0.0)
Chi-Square (p-value)	13.279 (0.004)		23.412 (0.000)		1.576 (0.665)	
Marital Status	-					
Married	96(73.8)	77(29.5)	97(64.7)	76(31.5)	171(45.1)	2(16.7)
Single	8(6.2)	31(11.9)	3(2.0)	36(14.9)	36(9.5)	3(25.0)
Cohabiting	23(17.7)	142(54.4)	47(31.3)	118(49.0)	160(42.2)	5(41.7)
Divorced	3(2.3)	11(4.2)	3(2.0)	11(4.6)	12(3.2)	2(16.7)
Chi-Square (p-value)	70.016 (0.000)		46.960 (0.000)		10.852 (0.013)	
Educational Level of Male Partner	-					
No Formal Education	2(1.5)	15(5.7)	2(1.3)	15(6.2)	13(3.4)	4(33.3)
Primary	14(10.8)	18(6.9)	11(7.3)	21(8.7)	32(8.4)	0(0.0)
Junior Secondary	32(24.6)	130(49.8)	40(26.7)	122(50.6)	157(41.4)	5(41.7)
Senior Secondary	37(28.5)	66(25.3)	53(35.3)	50(20.7)	100(26.4)	3(25.0)
Tertiary	45(34.6)	32(12.3)	44(29.3)	33(13.7)	77(20.3)	0(0.0)
Chi-Square (p-value)	40.772 (0.000)		37.060 (0.000)		27.382 (0.000)	
Male Partner's Occupational Status	-					
Unemployed	5(3.8)	68(26.1)	21(14.0)	52(21.6)	69(18.2)	4(33.3)
Employed	69(53.1)	151(57.9)	63(42.0)	157(65.1)	212(55.9)	8(66.7)
Civil/Public Servant	56(43.1)	42(16.1)	66(44.0)	32(13.3)	98(25.9)	0(0.0)
Chi-Square (p-value)	48.486 (0.000)		46.462 (0.000)		4.767 (0.092)	

Table 4.2: Socio-Demographic Characteristics and Antenatal Care

From Table 4.2, out of 130 male partners who planned the pregnancy with their spouses 60.8% were within the age bracket of 30-39. Within this number of male partners who planned the pregnancy with their spouses, 73.9% of them were married to their spouses while the highest educational level obtained for those who planned their pregnancy were male partners who had completed their tertiary education, 34.62%. Respondents who were self-employed, 47.7% planned their pregnancies with their spouses. Similarly, male partners (53.1) who were self-

employed planned the pregnancies with their spouses with the least being those who were unemployed, 13.85%, and 3.85% of respondents and male partners respectively.

Male partners within the same age bracket of 30-39 were the majority (61.33%) when it came to those who attended antenatal care with the spouses even though no male partner always attended antenatal care (Table 4.2). Of the 150 male partners who attended ANC with their spouses, 64.7% of them were married to their spouses while 2% being in the least of attendance were either single or divorced. Male partners who had completed Senior Secondary school were in the majority (35.3%) when it came to male partners who attended ANC with the least being those with no formal education (1.3%). Self-employed respondents (43.3%) and Civil/Public Service male partners (44%) were in the majority with regard to those who attended ANC.

From 391 respondents, the majority of them being 379 (96.9%) stated that their male partners decided on which health facility they had to attend ANC (Table 4.2). Of this majority, male partners within the age bracket of 30-39 were the highest (48.0%) when it came to those who decided on the facility their spouses should attend ANC. In the same regard, when the marital status was considered in relation to male partners' decision on which antenatal care facility married couples (45.1%) were the highest with the least being divorced couples (3.2%). Male partners who had completed the Junior Secondary School education were the highest (41.4%) when it came to deciding on which antenatal care facility their spouse should attend while those with no formal education (3.4%) were the lowest in deciding with their spouses. Both self-employed respondents (48.5%) and male partners (55.9%) were in the majority in deciding the antenatal care facility to be attended while the least in deciding on such were 14.5% for civil/public servant employed respondents and 18.2% for unemployed male partners. Fig. 2 below shows the level of male involvement during Antenatal Care.

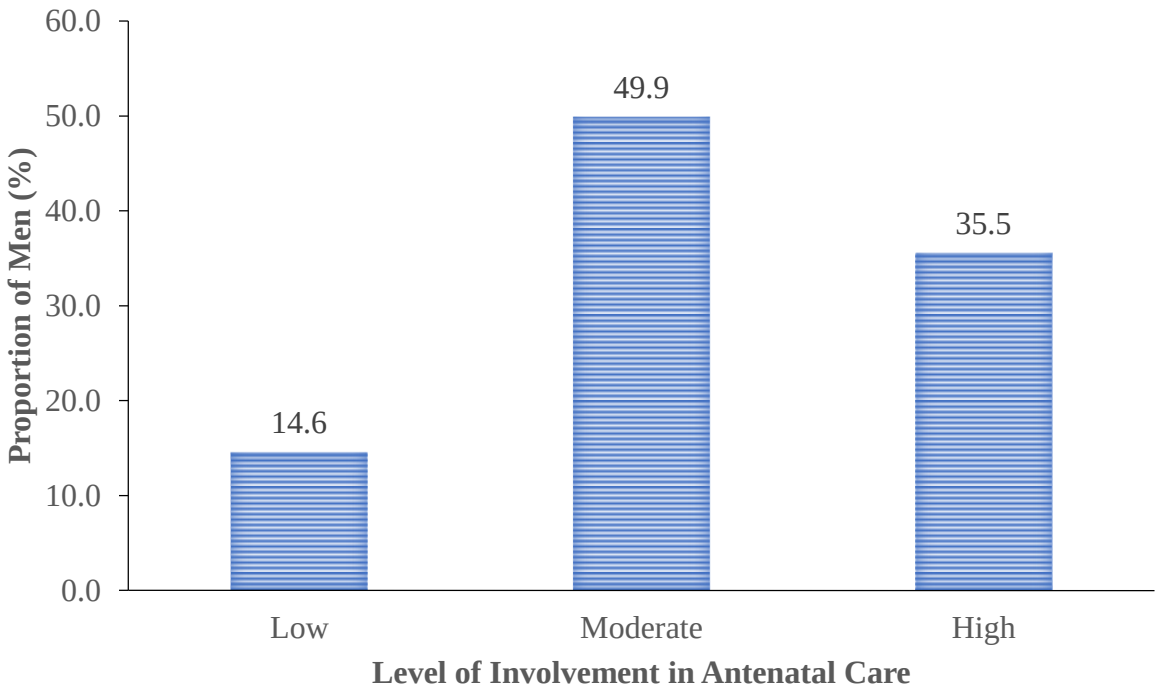


Figure 4.1: Level of Male Involvement during Antenatal Care

Figure 4.1 showed the level of male involvement in antenatal care, measured from a low level of involvement to a high level of involvement. This was ascertained using a 5-point index; a total of 4-5 score meant a high level of male involvement, a total of 2-3 meant a moderate level of involvement, and a total of 0-1 meant a low level of involvement. The assessment was based on the following activities; men sometimes accompany partner to the health facility, the man discusses maternal issues with a partner, the man discusses household issues with the wife, and men provided financial and physical support and men involved in planning for labour and delivery.

From Figure 4.1, about 50.1% of the male partners scored a low level of involvement in antenatal care. Also, 49.9% were moderately involved in antenatal care., 35.5% were highly involved in antenatal care of their female partners.

4.2.2 Male Involvement in Maternal Healthcare during the Labour and Delivery

	Partner at Health Facility		Male Partners allowed to enter		Discussed Delivery Health-Related Issue	
	Yes	No	Yes	No	Yes	No
Age of Male Partner	-					
18-29	50(21.5)	64(40.5)	8(10.0)	106(34.1)	17(19.1)	97(32.1)
30-39	134(57.5)	53(33.5)	47(58.8)	140(45.0)	52(58.4)	135(44.7)
40-49	38(16.3)	41(25.9)	22(27.5)	57(18.3)	20(22.5)	59(19.5)
>49	11(4.7)	0(0.0)	3(3.8)	8(2.6)	0(0.0)	11(3.6)
Chi-Square (p-value)	34.813 (0.000)		18.131 (0.000)		10.238 (0.017)	
Marital Status	-					
Married	121(51.9)	52(32.9)	41(51.2)	132(42.4)	59(66.3)	114(37.7)
Single	12(5.2)	27(17.1)	12(15.0)	27(8.7)	3(3.4)	36(11.9)
Cohabiting	97(41.6)	68(43.0)	24(30.0)	141(45.3)	24(27.0)	141(46.7)
Divorced	3(1.3)	11(7.0)	3(3.8)	11(3.5)	3(3.4)	11(3.6)
Chi-Square (p-value)	29.663 (0.000)		7.217 (0.065)		24.046 (0.000)	
Educational Level of Male Partner	-					
No Formal Education	2(0.9)	15(9.5)	0(0.0)	17(5.5)	0(0.0)	17(5.6)
Primary	11(4.7)	21(13.3)	12(15.0)	20(6.4)	9(10.1)	23(7.6)
Junior Secondary	92(39.5)	70(44.3)	28(32.5)	136(43.7)	18(20.2)	144(47.7)
Senior Secondary	76(32.6)	27(17.1)	31(38.8)	72(23.2)	19(21.3)	84(27.8)
Tertiary	52(23.3)	25(15.8)	11(13.8)	66(21.2)	43(48.3)	34(11.3)
Chi-Square (p-value)	35.762 (0.000)		19.701 (0.001)		67.065 (0.000)	
Male Partner's Occupational Status	-					
Unemployed	26(11.2)	47(29.7)	15(18.8)	58(18.6)	13(14.6)	60(19.9)
Employed	141(60.5)	79(50.0)	45(56.3)	175(56.3)	35(39.3)	185(61.3)
Civil/Public Servant	66(28.3)	32(20.3)	20(25.0)	78(25.1)	41(46.1)	57(18.9)
Chi-Square (p-value)	21.723 (0.000)		0.001 (1.000)		27.177 (0.000)	

Table 4.3: Socio-Demographic Characteristics and Labour and Delivery

From Table 4.3, 233 (59.6%) respondents out of the 391 male partners, went to the health facility with their spouses during the time of labour and delivery and the majority were within the age bracket of 30-39 years (57.5%). Within the same number of respondents who went with their spouses to the health facility at the time of labour and delivery the majority, 51.9%, were married. Those who had completed their Junior Secondary School were in the majority, 39.5%, amongst those who went to the health facility with their spouses during labour and delivery

whereas the minority had no formal education (0.9%). With respect to occupation, respondents who were self-employed (52.4%) stated that their male partners went to the health facility during the time of labour and delivery whereas those who were civil/public servants were in the minimum (22.3%) in the same regard. Male partners who were self-employed were in the majority (60.5%) when it came to those who went to the health facility during labour and delivery whereas unemployed male partners were in the minority (11.2%).

Of the total number of 391 respondents, only 80 (20.5%) stated that the maternity staff allowed their male partners into the delivery room. Of this number, the majority (58.8%) of the male partners were between the age of 30-39 years. The majority (51.2%) of these respondents were also married with the minority (3.8%) being divorced. 38.8% of the male respondents who had completed Senior Secondary School were allowed into the delivery room with those who had no formal education not being allowed at all. Self-employed respondents were the majority (56.3%) of those whose male partners were allowed into the delivery room and those who were civil/public servants in the minority (21.3%). Of the male partners allowed into the delivery room, the majority were self-employed (56.3%) and the minority were unemployed (18.8%).

Out of 391 respondents, 283 representing 72.38% stated they had discussions with their male partners with regard to labour and delivery health-related issues such as fear of delivery and preferred type of delivery. Amongst such, male partners within the age bracket of 30-39 years were of the majority, 51.94%. The majority representing 49.82% of the respondents who discussed with their male partners were married and the minority were divorced, 1.77%. The highest level of education for male partners who discussed delivery health-related issues with their spouses was Junior Secondary School, 39.93%, whereas those with no formal education, 1.41%, were in the minority in the same regard. Self-employed respondents, 49.82%, were in the

majority amongst those who discussed delivery health-related issues with their male partners whereas the civil/public servant respondents were in the minority, 15.90%. Self-employed male partners, 52.65%, were also in the majority in discussing delivery health-related issues with their spouses while unemployed male respondents, 23.32%, were in the minority.

Though a high proportion, 283, of respondents, discussed delivery health-related issues with their male partners the numbers fell to 89, representing 22.8% when it came to discussing delivery health-related issues in conjunction with health care providers. Male partners within the age brackets of 30-39 years were in the majority when it came to those who discussed labour and delivery health-related issues with health care providers in conjunction with their spouses. Married couples were in the majority, 66.3%, in the same light whereas couples who were either single or divorced, 3.4%, were in the minority. It was very evident that male partners who had completed tertiary were in the majority,48.3%, when discussing labour and delivery health-related issues with their spouses and health care providers, while male partners with no formal education, 0.00%, had no discussions in conjunction with their spouses and health care providers. Self-employed respondents, 44.9%, discussed labour and delivery health-related issues with their male partners and health care providers were in the majority and unemployed respondents, 16.9%, were in the minority in same regard. Civil/public servant male partners representing 46.1% were those in the majority when regarding those who discussed labour and delivery health-related issues with their spouses and health care providers and the unemployed male partners were in the minority, 14.6%.

Fig. 4.2 below shows the level of male involvement during Labour and Delivery.

Figure 4.2: Level of Male Involvement during Labour and Delivery

4.2.3 Male Involvement in Maternal Healthcare during the Postnatal Care

	Live with partner after delivery		Agreed to Attend Postnatal Care		Partner Accompanying for Postnatal Care		Discussed Family Related Health Issues (Family Planning)		Discussed Family Related Health Issues (Family Planning) providers	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Age of Male Partner	-									
18-29	62(23.7)	52(40.3)	83(25.1)	31(51.7)	30(20.4)	84(34.4)	59(25.8)	55(34.0)	9(15.3)	105(31.6)
30-39	134(51.1)	53(41.1)	165(49.8)	22(36.7)	86(58.5)	101(41.4)	106(46.3)	81(50.0)	30(50.8)	157(47.3)
40-49	55(21.0)	24(18.6)	72(21.8)	7(11.7)	28(19.0)	51(20.9)	53(23.1)	26(16.0)	17(28.8)	62(18.7)
>49	11(4.2)	0(0.0)	11(3.3)	0(0.0)	3(2.0)	8(3.3)	11(4.8)	0(0.0)	3(5.1)	8(2.4)
Chi-Square (p-value)	15.704 (0.001)		18.715 (0.000)		12.454 (0.006)		12.600 (0.000)		8.562 (0.036)	
Marital Status										
Married	123(46.9)	50(38.8)	149(45.0)	24(40.0)	88(59.9)	85(34.8)	106(46.3)	67(41.4)	42(71.2)	131(39.5)
Single	9(3.4)	30(23.3)	28(8.5)	11(18.3)	12(8.2)	27(11.1)	6(2.6)	33(20.4)	0(0.0)	39(11.7)
Cohibiting	118(45.0)	47(36.4)	140(42.3)	25(41.7)	44(29.9)	121(49.6)	112(48.9)	53(32.7)	14(23.7)	151(45.5)
Divorced	12(4.6)	2(1.6)	14(4.2)	0(0.0)	3(2.0)	11(4.5)	5(2.2)	9(5.6)	3(5.1)	11(3.3)
Chi-Square (p-value)	39.088 (0.000)		7.796 (0.050)		23.722 (0.000)		39.400 (0.000)		24.386 (0.000)	
Educational Level of Male Partner										
No Formal Education	13(5.0)	4(3.1)	15(4.5)	2(3.3)	2(1.4)	15(6.1)	4(1.7)	13(8.0)	0(0.0)	17(5.1)
Primary	17(6.5)	15(11.6)	25(7.6)	7(11.7)	11(7.5)	21(8.6)	29(12.7)	3(1.9)	9(15.3)	23(6.9)
Junior Secondary	108(41.2)	54(41.9)	125(37.8)	37(61.7)	40(27.2)	122(50.0)	105(45.9)	57(35.2)	3(5.1)	159(47.9)
Senior Secondary	64(24.4)	39(30.2)	99(29.9)	4(6.7)	54(36.7)	49(20.1)	44(19.2)	59(36.4)	12(20.3)	91(27.4)
Tertiary	60(22.9)	17(13.2)	67(20.2)	10(16.7)	40(27.2)	37(15.2)	47(20.5)	30(18.5)	35(59.3)	42(12.7)
Chi-Square (p-value)	8.742 (0.068)		18.966 (0.001)		32.892 (0.000)		35.615 (0.000)		85.784 (0.000)	
Male Partner's Occupational Status										
Unemployed	32(12.2)	41(31.8)	66(19.9)	7(11.7)	21(14.3)	52(21.3)	44(19.2)	29(17.9)	3(5.1)	70(21.1)
Employed	153(58.4)	67(51.9)	181(54.7)	39(65.0)	71(48.3)	149(61.1)	143(62.4)	77(47.5)	26(44.1)	194(58.4)
Civil/Public Servant	77(29.4)	21(16.3)	84(25.4)	14(23.3)	55(37.4)	43(17.6)	42(18.3)	56(34.6)	30(50.8)	68(20.5)
Chi-Square (p-value)	24.299 (0.000)		2.908 (0.234)		19.420 (0.000)		13.807 (0.000)		27.136 (0.000)	

Table 4.4: Socio-Demographic Characteristics and Postnatal Care

From Table 4.4, Out of 391 male partners, 262 (67.0%) of the male partners lived with their spouses after delivery of which the majority were within the age bracket of 30-39 years (51.1%). Of the respondents who indicated they lived with their male partners after delivery, the majority were married (46.9%) whereas the minority were single (3.4%). The highest education level obtained by male partners who were in the majority was Junior Secondary School (41.2%) and the minority had no formal education (5.0%). Self-employed respondents (55.7%) were the majority of those who indicated they lived with their male partners after delivery and those who were civil/public servants (16.0%) were in the minority. Self-employed male partners (58.4%) being in the majority of those who lived with their spouses while those with no formal education (12.2%) were in the minority of those who lived with their spouses after delivery.

331 male partners agreed with their spouses on the attendance of postnatal care of which 49.8% were within the age brackets of 30-39. The majority of the respondents who agreed with their male partners on the attendance of postnatal care were married (45.0%) and the minority were divorced (4.2%). Male partners who had their education level up to Junior Secondary School were the majority (37.8%) with respect to those who agreed with their spouses on the attendance of postnatal care whereas those with no formal education were in the minority (4.5%). Self-employed respondents were the majority (48.9%) amongst those agreed with their male partners on the attendance of postnatal care whereas civil/public servant respondents were in the minority (15.4%). Male partners who were self-employed were in the majority (54.7%) in agreeing with their spouses to attend postnatal care while the minority in agreeing for their spouses to attend postnatal care were unemployed (19.5%).

Only 37.6% (147) of the respondents actually had their male partners accompanying them to the health facility for postnatal care though no male always attended. Of the male partners who

attended postnatal care with their spouses, 58.5% being the majority were within the age bracket of 30-39 years. The majority of the respondents who had their male partners accompanying them for postnatal care were married (59.9%) whereas the minority were divorced (2.0%). Male partners who had completed Senior Secondary School were in the majority (36.7%) amongst those who accompanied their spouses for postnatal care and those with no formal education were in the minority (1.4%). Self-employed respondents were the majority (47.6%) of those who had their male partners accompany them to the health facility for postnatal care and those who were unemployed (25.9%) were in the minority. With respect to male partners' employment, those who were self-employed were in the majority, 48.3% and unemployed male partners were in the minority, 14.3%, with respect to those who accompanied their spouses to the health facility for postnatal care.

The respondents indicated that above the average, 58.6% of them had discussions concerning family-related health issues with their male partners out of which the majority, 46.3%, of them were married. Male partners within the age bracket of 30-39yrs were the majority, 46.3%, with respect to those who had family-related health issue discussions with their spouses. Of the male partners who had discussions with the spouses those who had their highest level of education as completing Junior Secondary School were of the majority, 45.9%. Of the respondents who discussed family-related health issues with their male partners, the majority, 54.1%, of them were self-employed with the minority, 17.0%, being civil/public servants with the same situation occurring for male partners, the majority, 62.4%, being self-employed and the minority, 18.3%, being civil/public servants.

There was a sharp decline of 15.09% when it came to those who discussed family-related health issues such as family planning with their male partners and health care providers from 58.57%

being those who had discussed with only their male partners. Male partners who were within the age bracket of 30-39yrs were of the majority, 50.85%, amongst the male partners who had family-related health discussions with their spouses and health care provider. The majority, 71.19%, of the respondents who stated they had family-related health discussions with male partners and health care providers were married whereas the respondents who were single did not record, 0.00%, any such discussions with their male partners and health care providers. With regard to the occupation of respondents in relation to whether they had discussions with their male partners and health care providers on family-related health issues both those who were self-employed and civil/public servants were in the majority, 47.46% each. In the case of the male partners' occupation with regard to discussing family-related health issues with their spouses and health care providers, the majority, 50.85% were civil/public servant employed. Fig. 4 below shows the level of male involvement during Postnatal Care.

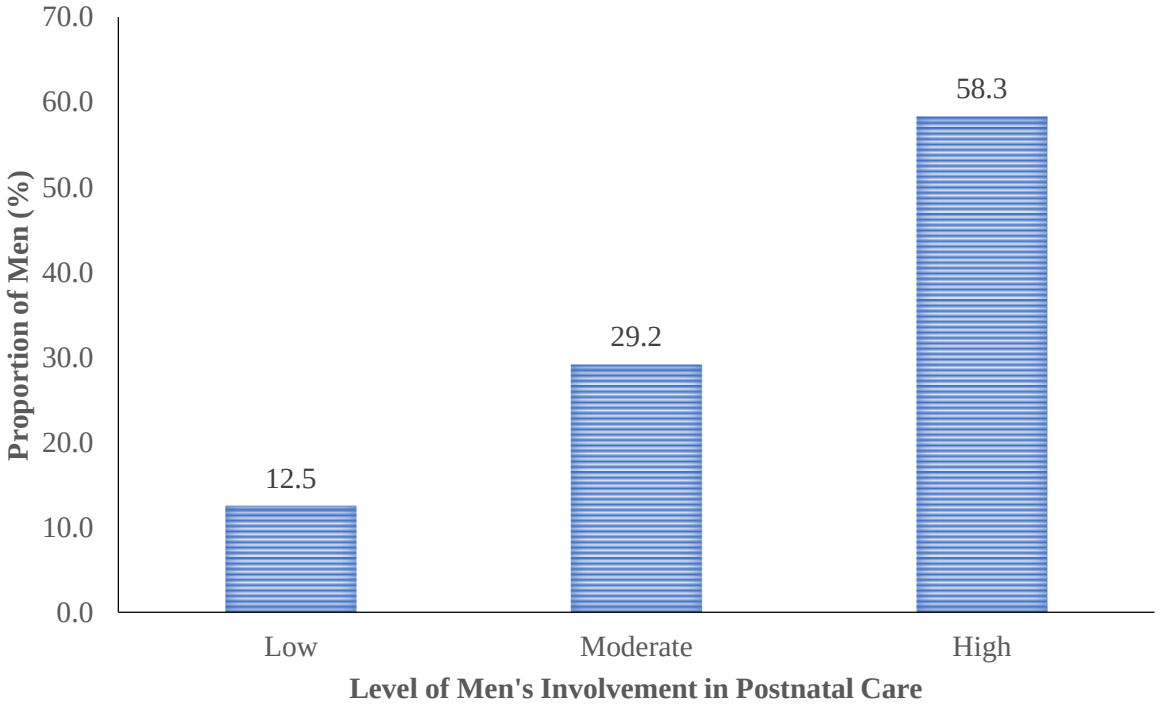


Figure 4.3: Level of Male Involvement during Postnatal Care

4.3 Factors Associated with Male Partners' Involvement in Maternal Healthcare

The study examined the association between the level of male involvement and their ages, the number of children they had with respondents, their marital status, their educational level completed, their religion, the occupation of their spouses then their occupation.

From Table 4.5, there was a significant association between age of male partners and involvement in antenatal care (χ^2=63.030, p-value < 0.05). From the distribution, male partners at the age bracket of 18-29 had a high percentage with a low level of involvement, while age 40 years and above recorded zero. The age brackets 40-49 years and above 49 years had the highest frequencies in moderate involvement. Male partners within the age bracket of 30-39 years recorded the highest proportion (43.9%) of high male involvement. From Table 4.5b, with reference to the age bracket > 49 years, all the age brackets were less likely to involve themselves in antenatal care, coefficients were negative and p-value < 0.05.

Partners with 1 child recorded the highest proportion (32.2%) of low male involvement whereas no proportion was for those who had 5 or more children. The Chi-square value of 78.499, p-value < 0.05 showed a significant association between the number of children of partners. The Cramer's V showed moderate involvement in antenatal care. Respondents who had 2-4 children recorded the highest proportion (40.0%) of high male involvement whereas the lowest proportion (30.0%) were among those who had 5 or more children. The coefficient of partners with 2-4 number of children was more likely to have high involvement in antenatal care than partners with 5 or more children, though statistically insignificant. Partners with one child were less likely to have high involvement in antenatal care (not significant) than partners with 5 or more children (Table 4.5b).

The Partners who were single recorded the highest proportion (43.6%) of low male involvement, married partners recorded the highest proportion (50.3%) of high male involvement whereas the lowest proportion (21.4%) were those who were divorced. There was a significant association between marital status and male partners involvement in antenatal care, (χ^2=59.962, p-value < 0.05).

Male partners who had completed their tertiary level of education recorded the highest proportion (31.2%) of low male involvement. And also, male partners who had completed their tertiary level of education recorded the highest proportion (51.9%) of high male involvement whereas the lowest proportion (23.5%) was recorded with male partners who had no formal education. The distribution showed an association between the educational level of male partners and level of male partners involvement in antenatal care (χ^2=59.715, p-value < 0.05). from Table 4.5b ordered regression model, male partners with primary education, junior and secondary education were more likely to be involved in antenatal care than partners with tertiary education, (p-values < 0.05).

Male partners who were Christians recorded the highest proportion (17.9%) of low male involvement. Male partners who were Moslems recorded the highest proportion (56.1%) of high male involvement. There was a significant association between the religion of male partners and involvement in antenatal care.

Respondents who were unemployed recorded the highest proportion (17.7%) of low male involvement Respondents who were civil/public servants recorded the highest proportion (67.3%) of high male involvement whereas the lowest proportion (29.1%) was recorded with respondents who were self-employed. There was a significant association between employment status and involvement in antenatal care, (χ^2=47.944, p-value < 0.05). Male partners who were

civil/public servants recorded the highest proportion (22.4%) of low male involvement. They also recorded the highest proportion (54.1%) of high male involvement whereas self-employed male partners recorded the lowest proportion (26.8%) of male involvement. Male partners who were unemployed were more likely to be involved in antenatal care reference to civil/public servant workers (coefficient of 1.219, p-value of 0.010 < 0.05).

Table 4.5a and Table 4.5b showed the results of the socio-demographic factors associated with the level of male involvement during ANC.

	Level of Partner Involvement in Antenatal			Chi-Square and Effect Size		
	Low	Moderate	High	Chi-square	P-value	Cramer's V
Age of Male Partner	-					
18-29	36(31.6)	44(38.6)	34(29.8)	63.030	0.000	0.284
30-39	21(11.2)	84(44.9)	82(43.9)			
40-49	0(0.0)	56(70.9)	23(29.1)			
>49	0(0.0)	11(100.0)	0(0.0)			
Number of Children Per Participant						
1	55(32.2)	62(36.3)	54(31.6)	78.499	0.000	0.317
2-4	2(1.1)	112(58.9)	76(40.0)			
5 or more	0(0.0)	21(70.0)	9(30.0)			
Marital Status						
Married	12(6.9)	74(42.8)	87(50.3)	59.962	0.000	2.77
Single	17(43.6)	13(33.3)	9(23.1)			
Cohabiting	28(17.0)	97(58.8)	40(24.2)			
Divorced	0(0.0)	11(78.6)	3(21.4)			
Education Level of male partner						
No formal Education	0(0.0)	13(76.5)	4(23.5)	59.715	0.000	0.276
Primary	0(0.0)	20(62.5)	12(37.5)			
Junior Secondary	24(14.8)	97(59.9)	41(25.3)			
Senior Secondary	9(8.7)	52(50.5)	42(40.8)			
Tertiary	24(31.2)	13(16.9)	40(51.9)			
Religion (Male Partner)						
Christian	57(17.9)	154(48.3)	108(33.9)	19.584	0.001	0.159
Muslim	0(0.0)	18(43.9)	23(56.1)			
Traditionalist	0(0.0)	18(69.2)	8(30.8)			
Male Partner's Occupational Status						
Unemployed	0(0.0)	46(63.0)	27(37.0)	47.944	0.000	0.248
Employed	35(15.9)	126(57.3)	59(26.8)			

Civil/Public servant	22(22.4)	23(23.5)	53(54.1)

Table 4.5a: Socio-Demographic Characteristics and Partners' Involvement in Antenatal Care

Variables / Categories	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Age of Male Partner							
18-29	0.389	0.680	0.327	1	0.568	-0.945	1.723
30-39	0.779	0.659	1.397	1	0.237	-0.513	2.070
40-49	0.092	0.702	0.017	1	0.896	-1.284	1.467
> 49	0[a]			0			
Number Of Children Per Participant							
1	-1.133	0.533	4.517	1	0.034	-2.178	-0.088
2-4	-0.011	0.514	0.000	1	0.982	-1.020	0.997
5 or more	0[a]			0			
Marital Status							
Married	0.747	0.882	0.719	1	0.397	-0.981	2.475
Single	-0.854	0.969	0.777	1	0.378	-2.753	1.045
Cohabiting	-0.526	0.907	0.337	1	0.562	-2.304	1.252
Divorced	0[a]			0			
Education Level of male Partner							
No formal Education	0.211	0.850	0.061	1	0.804	-1.455	1.876
Primary	0.558	0.522	1.140	1	0.286	-0.466	1.581
Junior Secondary	0.178	0.358	0.247	1	0.619	-0.524	0.880
Senior Secondary	0.101	0.340	0.088	1	0.766	-0.566	0.768
Tertiary	0[a]			0			
Religion of Male Partner							
Christian	-0.191	0.526	0.132	1	0.716	-1.222	0.840
Muslim	1.097	0.619	3.141	1	0.076	-0.116	2.309
Traditionalist							
Male Partner's Occupational Status							
Unemployed	0.517	0.415	1.553	1	0.213	-0.296	1.331
Employed	-0.550	0.328	2.810	1	0.094	-1.193	0.093
Civil/Public servant	0[a]			0			
Threshold: [ANC = 1]	-2.213	1.239	3.191	1	0.074	-4.642	0.215
Threshold: [ANC = 2]	0.676	1.236	0.299	1	0.584	-1.746	3.098
LogLikelihood with zero coefficient	684.803						
Final LogLikelihood	584.881						
R-square of Nagelkerke	0.264						

Table 4.5b: Socio-Demographic Characteristics and Partners' Involvement in Antenatal Care (Parameter Estimates)

4.4 Socio-Demographic Factors Affecting Level of Male Partners' Involvement in Labour and Delivery

This section measured the sociodemographic factors affecting the level of male partners' involvement in labour and delivery of their female partners. The results showed that there existed a significant association between the level of male involvement and their ages, the number of children they had with respondents, their marital status, their educational level completed, their religion, the occupation of their spouses then their occupation.

Male partners within the age bracket of 18-29 years recorded the highest proportion (31.6%) of low male involvement. Male partners within the age bracket of 40-49yrs recorded the highest proportion (78.5%) of high male involvement whereas the lowest proportion (27.27%) were those who were above the age of 49 years. The chi-square value of 65.787, p-value of 0.000 < 0.05 showed a significant association between the age of male partners and their involvement in labour and delivery. Male partners with the age bracket of 30-39 and 40-49 years were more likely to involve in labour and delivery of their female partners (Table 4.6b).

Respondents who had 1 child recorded the highest proportion (26.9%) of low male involvement. Male partners who had 5 or more children recorded the highest proportion (76.7%) of high male involvement whereas the lowest proportion (43.3%) were among those who had 1 child. This showed a significant association between the number of children partners have and male partners involvement in labour and delivery, (χ^2=71.872, p-value < 0.05). There was a significant effect

of having one child and having high involvement in labour and delivery referenced having 5 or more children (p-value < 0.05).

Respondents who were single recorded the highest proportion (20.5%) of low male involvement. Respondents who were married recorded the highest proportion (78.0%) of high male involvement whereas the lowest proportion (23.1%) were those who were single. A significant association between marital status and male partners involvement in labour and delivery was found (χ^2=59.987, p-value < 0.05). There was a significant effect of the marital status of male partners on labour and delivery involvement. From Table 4.6b, male partners who were married were more likely to have a high level of involvement in labour and delivery than male partners divorced (p-value < 0.05).

There was a significant likelihood of male partners with primary education been highly involved in labour and delivery than male partners with tertiary education (p-value < 0.05). From Table 4.6b, male partners who were married were more likely to have a high level of involvement in labour and delivery than male partners divorced (p-value < 0.05). from the distribution, male partners who had completed their tertiary level of education recorded the highest proportion (28.6%) of low male involvement. Male partners who had completed education up to primary recorded the highest proportion (93.75%) of high male involvement, followed by senior secondary education (84.5%), whereas the lowest proportion (23.5%) was recorded with male partners who had no formal education.

Male partners who were Traditionalists recorded the highest proportion (88.5%) of high male involvement whereas the lowest proportion (57.4%) was recorded with male partners who belonged to were Christians. There was a significant association between religion and male partners involvement in labour and delivery, (χ^2=19.301, p-value < 0.05).

Respondents who were unemployed recorded the highest proportion (17.7%) of low male involvement. Partners who were civil/public servants recorded the highest proportion (83.6%) of high male involvement whereas the lowest proportion (48.3%) was recorded with respondents who were unemployed. This showed a significant association between partners' occupation and male partner involvement in labour and delivery (χ^2=31.427, p-value < 0.05). From Table 4.6b, the unemployment male partners were more likely to be involved in labour and delivery than male partners working as civil/public servants (p-value < 0.05). Male partners who were civil/public servants recorded the highest proportion (22.45%) of low male involvement whereas unemployment recorded no low involvement. Male partners who were unemployed recorded the highest proportion (75.34%) of high male involvement whereas self-employed male partners recorded the lowest proportion (55.9%) of male involvement.

Table 4.6 showed the result of the socio-demographic factors associated with the level of male involvement during Labour and delivery.

	Level of Partner Involvement in Labour and Delivery			Chi-Square and Effect Size		
	Low	Moderate	High	Chi-square	P-value	Cramer's V
Age of Male Partner	-					
18-29	36(31.6)	34(29.8)	44(38.6)			
30-39	12(6.4)	42(22.5)	133(71.1)	65.787	0.000	0.294
40-49	0(0)	17(21.5)	62(78.5)			
Number of Children	-					
1	46(26.9)	51(29.8)	74(43.3)			
2-4	2(1.1)	43(22.6)	145(76.3)	71.872	0.000	0.303
5 or more	0(0)	7(23.3)	23(76.7)			
Marital Status						
Married	12(6.9)	26(15.0)	135(78.0)			
Single	8(20.5)	22(56.4)	9(23.1)	59.987	0.000	0.277
Cohabiting	28(17.0)	44(26.7)	93(56.4)			
Divorced	0(0)	9(64.3)	5(35.7)			
Educational Level male Partner	-					
No Formal Education	2(11.8)	11(64.7)	4(23.5)			
Primary	0(0)	2(6.3)	30(93.7)			
Junior Secondary	24(14.8)	67(41.4)	71(43.8)	105.699	0.000	0.368
Senior Secondary	0(0)	16(15.5)	87(84.5)			
Tertiary	22(28.6)	5(6.5)	50(64.90			
Religion						
Christian	46(14.4)	90(28.2)	183(57.4)			
Muslim	0(0)	8(19.5)	33(80.5)	19.301	0.001	0.224
Traditionalist	0(0)	3(11.5)	23(88.5)			
Male Partner's Occupational Status	-					
Unemployed	0(0)	18(24.7)	55(75.3)			
Employed	26(11.8)	71(32.3)	123(55.9)	31.427	0.000	0.200
Civil/Public Servant	22(22.4)	12(12.2)	64(65.3)			

Table 4.6a: Socio-Demographic Characteristics and Partners' Involvement in Labour and Delivery

Variables / Categories	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Age of Male Partner	-						
18-29	0.121	0.869	0.019	1	0.890	-1.582	1.823
30-39	1.112	0.860	1.671	1	0.196	-0.574	2.798
40-49	1.449	0.947	2.339	1	0.126	-0.408	3.306
> 49	**Ref.**						
Number of Children	-						
1	-1.999	0.928	4.645	1	0.031	-3.818	-0.181
2_4	0.249	0.899	0.077	1	0.781	-1.512	2.011
5 or more	**Ref.**						
Marital Status	-						
Married	2.092	1.032	4.113	1	0.043	0.070	4.114
Single	-0.743	1.116	0.443	1	0.505	-2.931	1.444
Cohabiting	-0.165	1.063	0.024	1	0.877	-2.248	1.918
Divorced	**Ref.**						
Education Level of male Partner	-						
No formal Education	-2.119	0.941	5.066	1	0.024	-3.964	-0.274
Primary	3.212	1.010	10.119	1	0.001	1.233	5.191
Junior Secondary	-0.623	0.448	1.937	1	0.164	-1.501	0.254
Senior Secondary	2.259	0.509	19.669	1	0.000	1.261	3.258
Tertiary	**Ref.**						
Religion of Male Partner	-						
Christian	-1.476	0.960	2.365	1	0.124	-3.357	0.405
Muslim	0.175	1.031	0.029	1	0.866	-1.847	2.196
Traditionalist	**Ref.**						
Male Partner's Occupational Status	-						
Unemployed	3.629	0.642	31.929	1	0.000	2.370	4.887
Employed	1.116	0.450	6.151	1	0.013	0.234	1.999
Civil/Public servant	**Ref.**						
Threshold: [ANC = 1]	-2.445	1.648	2.201	1	0.138	-5.675	0.785
Threshold: [ANC = 2]	0.353	1.646	0.046	1	0.830	-2.873	3.578
LogLikelihood with zero coefficient	*622.246*						
Final LogLikelihood	*357.271*						
R-square of Nagelkerke	*0.595*						

Table 4.6b: Socio-Demographic Characteristics and Partners' Involvement in Labour and Delivery (Parameter Estimates)

4.5 Socio-Demographic Factors Affecting Level of Male Partners' Involvement in Postnatal Care

The results showed that there existed a significant association between the level of male involvement and their ages, the number of children they had with respondents, their marital status, their educational level completed, their religion, the occupation of their spouses then their occupation.

Male partners within the age bracket of 18-29 years recorded the highest proportion (32.5%) of low male involvement, age brackets of 40-49yrs, and above 49 years. Male partners within the age bracket of 30-39 years recorded the highest proportion (68.4%) of high male involvement whereas the lowest proportion (27.3%) were those who were above the age of 49 years. The chi-square of 75.309, p-value of 0.000 < 0.05 showed a significant association between age bracket and male partners' involvement in postnatal care.

Male partners who had 1 child recorded the highest proportion (27.5%) of low male. Male partners who had 2-4 children recorded the highest proportion (64.7%) of high male involvement whereas the lowest proportion (50.3%) were among those who had 1 child. Table 4.6b showed significant and more likely to be involved in postnatal care by male partners with 2-4 children than those with 5 or more children (p-value < 0.05).

Male partners who were single recorded the highest proportion (20.5%) of low male involvement. Male partners who were married recorded the highest proportion (71.10%) of high male involvement whereas the lowest proportion (30.77%) were those who were single. There was a significant association between marital status and postnatal care (χ^2=37.373, p-value < 0.05).

Male partners who had completed their tertiary level of education recorded the highest proportion (28.6%) of low male involvement and male partners who had completed education up to senior secondary recorded the highest proportion (82.5%) of high male involvement whereas the lowest proportion (11.8%) was recorded with male partners who had no formal education. Male partners with the senior high school were more likely to be involved in postnatal care than male partners with tertiary education (p-value < 0.05) (Table 4.7b).

Male partners who were Traditionalist recorded the highest proportion (100.00%) of high male involvement of postnatal care while the lowest proportion (57.4%) was recorded with male partners who belonged to Christians. The results (Table 4.7b) showed that Christian male partners were less likely to be involved in postnatal care than Muslim male partners (p-value < 0.05).

The unemployed recorded the highest proportion (15.65%) of low male involvement whereas the lowest proportion (7.3%) was recorded with those who were civil/public servants. The odds of having a high level of male involvement among unemployed respondents were 0.88 times that of those who were civil/public servants, (OR=0.88, 95% CI: 0.43, 1.70). Respondents who were civil/public servants recorded the highest proportion (70.91%) of high male involvement whereas the lowest proportion (40.82%) was recorded with respondents who were unemployed. The unemployment male partners were more likely to be involved in postnatal care than male partners in civil/public service (p-value < 0.05) (Table 4.7b).

Male partners who were civil/public servants recorded the highest proportion (26.5%) of low male involvement of postnatal care, unemployed male partners recorded the highest proportion (64.4%) of high male involvement whereas civil/public servant male partners recorded the

lowest proportion (56.12%) of male involvement. The was a significant association between partners occupation and postnatal care (χ^2=32.278, p-value < 0.05).

	Level of Partner Involvement in Postnatal Care			Chi-Square and Effect Size		
	Low	Moderate	High	**Chi-Square**	**P-value**	**Cramer's V**
Age of Male Partner						
18-29	37(32.5)	33(28.9)	44(38.6)			
30-39	12(6.4)	47(25.1)	128(68.4)	**75.309**	**0.000**	**0.310**
40-49	0(0)	26(32.9)	53(67.1)			
>49	0(0)	8(72.7)	3(27.3)			
Number of Children Per Participant						
1	47(27.5)	38(22.2)	86(50.3)			
2-4	2(1.1)	65(34.2)	123(64.7)	**62.675**	**0.000**	**0.283**
5 or more	0(0)	11(36.7)	19(63.3)			
Marital Status						
Married	12(6.9)	38(22.0)	123(71.1)			
Single	8(20.5)	19(48.7)	12(30.8)	**37.373**	**0.000**	**0.219**
Cohabiting	29(17.6)	48(29.1)	88(53.3)			
Divorced	0(0)	9(64.3)	5(35.7)			
Educational Level of male partner						
No Formal Education	2(11.8)	13(76.5)	2(11.8)			
Primary	0(0)	10(31.3)	22(68.8)			
Junior Secondary	21(13.0)	64(39.5)	77(47.5)	**78.271**	**0.000**	**0.316**
Senior Secondary	4(3.9)	14(13.6)	77(47.5)			
Tertiary	22(28.6)	13(16.9)	42(54.5)			
Religion						
Christian	43(13.5)	103(32.3)	173(54.2)			
Muslim	4(9.8)	11(26.8)	26(63.4)	**25.782**	**0.000**	**0.182**
Traditionalist	0(0)	0(0)	26(100)			
Other	2(40.0)	0(0.0)	3(60.0)			
Male Partner's Occupational Status						
Unemployment	0(0)	26(35.6)	47(64.4)			
Employment	23(10.5)	71(32.3)	126(57.3)	**32.278**	**0.000**	**0.203**
Civil/public servant	26(26.5)	17(17.3)	55(56.1)			

Table 4.7a: Socio-Demographic Characteristics and Partners' Involvement in Postnatal Care

Variables / Categories	Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Age of Male Partner	-						
18-29	-0.636	0.767	0.688	1	0.407	-2.140	0.868
30-39	0.485	0.772	0.394	1	0.530	-1.029	1.999
40-49	0.576	0.849	0.460	1	0.498	-1.089	2.241
> 49							
Number of Children Per Participant	-						
1	0.884	0.627	1.986	1	0.159	-0.345	2.114
2-4	1.624	0.637	6.491	1	0.011	0.375	2.873
5 or more							
Marital Status	-						
Married	0.224	1.031	0.047	1	0.828	-1.798	2.245
Single	-2.117	1.129	3.512	1	0.061	-4.331	0.097
Cohabiting	-1.452	1.073	1.833	1	0.176	-3.554	0.650
Divorced							
Education Level of male Partner	-						
No formal Education	-2.694	0.965	7.793	1	0.005	-4.585	-0.802
Primary	-0.189	0.626	0.091	1	0.763	-1.416	1.038
Junior Secondary	-0.187	0.400	0.218	1	0.640	-0.970	0.596
Senior Secondary	1.807	0.418	18.687	1	0.000	0.988	2.626
Tertiary							
Religion of Male Partner	-						
Christian	-21.382	0.411	2712.033	1	0.000	-22.186	-20.577
Muslim	-21.417	0.000		1		-21.417	-21.417
Traditionalist	-						
Male Partner's Occupational Status	-						
Unemployed	2.987	0.537	30.944	1	0.000	1.934	4.039
Employed	1.915	0.407	22.175	1	0.000	1.118	2.713
Civil/Public servant	-						
Threshold: [PNC = 1]	-21.522	1.423	228.863	1	0.000	-24.310	-18.734
Threshold: [PNC = 2]	-19.140	1.431	178.795	1	0.000	-21.945	-16.334
LogLikelihood with zero coefficient	596.167						
Final LogLikelihood	411.546						
R-square of Nagelkerke	0.450						

Table 4.7b: Socio-Demographic Characteristics and Partners' Involvement in Postnatal Care (Parameter Estimate)

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter summarizes the findings observed and reasons attributable. It also explores the consistency or otherwise of the findings with existing literature. Finally, it offers suggestions for policy direction and further research as well as the strengths and limitations of the study.

5.1 Sociodemographic Factors

Vital to the factors affecting male involvement in maternal health are sociodemographic characteristics of male partners, e.g. age, employment status, religion, marital status, educational level, and so on. Generally, out of the 391 participants, 217 were in the age group 18-29 years, 148 of the women were in their age group 30-39years and 23 respondents in the age group 40-49years, and 3 women more than the age 49 years resulting in the following proportions 55.5%, 37.9%, 5.9%, and 0.8% respectively.

5.1.1 Age

From the results, the modal age group of male partners of respondents in the study was 30-39 years (about 48%), followed by those within the 18-29 age group recording about 29.2%, then

those in the 40-49 years age group were about 20% of the male partners of the study participants. These groups are all known to fall within the working age.

5.1.2 Parity of Respondents

Among participants studied, it was revealed that about 44% of women had one child with their male partner, about 49% had between 2-4 children count with their male partner, and about 8% have 5 or more children with their male partners.

5.1.3 Education

About 41% of male partners of the study participants had junior high school education, about 26% had had their senior high school education, 20% of male partners of the study participants had tertiary education with less than 5% having no formal education and about 8% had primary education. In Sharma et al., (2018), lack of education was one of the negative factors affecting male partner's involvement in maternal healthcare.

5.1.4 Marital Status

About 44% of the respondents were married to their male partners while 42% were cohabiting while about 40% were single and about 4% had divorced.

5.1.5 Religious Status

More than 80% of male partners of the respondents are Christians, followed by about 11% being Muslims, with about 7% being Traditionalists. These show that almost 99% of the male partners of the respondents belonged to a religious group.

5.1.6 Living with Partner

About 70% of respondents lived with their male partners during pregnancy. Among the respondents, about 41% were noted to have lived with other family members during pregnancy, with about 50% of respondents living with their male partners and with other family members.

Antenatal care is an aspect of maternal healthcare before labour. It has been shown that having the necessary support and care during this period and beyond can give rise to early detection and management of any health problems if present as well as enable improvement in pregnancy health outcomes.

5.1.7 Occupational Status of Male Partners and Their Female Partners

As categorized, though the individual age of corresponding partners may differ, generally it is good to have a fair idea of the occupational status of male and female partners. More women were self-employed as compared to male partners. The number of men who were unemployed was about twice the number of women who were unemployed. About 98 women were employed in public service while 55 men were employed in the public service. Looking at the status of employment, more women were unemployed compared to their male partners. This could probably increase the chances of women making or having more time on their hands to make room or honor antenatal care visits but in the face of financial challenges, access to healthcare may be a problem if there is poor support from the male partner.

5.2 Level of Male Involvement During Antenatal Care

About 15% of male partners had a low level of involvement, about 50% had a moderate level of involvement in maternal healthcare, and about 36% of male partners rated as having a high level of male involvement in maternal health.

During antenatal care, the proportion of men who lived with their spouses was 69.8%. The proportion of those who planned pregnancy was 33.2% and the proportion of those who attended antenatal care with their partner was 38.4%. The proportion of male partners who decided on the choice of facility for an antenatal clinic with their partners was 96.9%. The proportion of male partners who planned towards birth preparedness and made provision for access to the health facility against emergency was 66.2%.

There was a strong association between the age of partner and male involvement in maternal healthcare during the antenatal period. Marital status, educational level, occupational status had a strong association with male involvement in maternal healthcare.

Among male partners within the age group of 18-29 years, about 21% planned pregnancy with their female partners, 20% attended antenatal care with their partners, and about 29% decided on which facility their partners should attend antenatal care.

Male partners within the age group of 30-39 years, had the highest proportion, 61%, of those who

planned pregnancy with their partners at a level of significance, with about 61% attending antenatal care with partners as well as about 49% making decision with a partner on which facility to attend antenatal care.

As male involvement in maternal healthcare has been shown to improve maternal health outcomes, for the purpose of this study it is also important to quantify the level of male involvement and to identify the common characteristics of male partners involved in maternal healthcare. More than 50% of men had a low level of involvement in antenatal care.

5.3 Level of Male Involvement During Labour and Delivery

During labour, about 10% of the male partners had a low level of involvement in maternal health, 20% had a moderate level of involvement in maternal health and 60% of male partners had a high level of male involvement in maternal health. During the postnatal period, about 13% of male partners had a low level of involvement in maternal health. From the study, the age of male partners had a strong association with the level of male involvement in maternal healthcare especially during labour. Marital status, educational level of the male partner, religion, and partner's occupational status had a strong association with male involvement in maternal health during labour.

5.4 Level of Male Involvement During Postnatal Care

During the postnatal period, age of male partner, number of children per participant, marital status of male, educational level of male partner as well as partner's occupational status had statistical significance with the level of male involvement in maternal health.

5.5 Relationship Between Sociodemographic Characteristics and Forms of Involvement in Maternal Health – Antenatal Period

There is a strong association between the age of male partners with the planning of pregnancy with female partners. There is a strong association between the age of male partners and support through attendance to antenatal care. There is a strong association between marital status and planning of pregnancy with male partners. There is a strong association between marital status and attendance to antenatal care with male partners. Also, there exists a strong association between marital status and choice of antenatal care clinic by male partners.

5.6 Relationship Between Sociodemographic Characteristics and Forms of Involvement in Maternal Health – Intrapartum Period

From this study, age is strongly associated with the male partner being present at the health facility to offer support during labour. Age has an association also with male partners who are allowed to be in the labour ward by health staff. The age of male partners has a strong association with male partners discussing labour-related health issues with partners.

The marital status of the male partner has a significant association with a male partner at a health facility during labour. There is a strong association between marital status of the male partner and male partner discussing labour related health issues with the female partner.

There is statistical significance between the educational level of the male partner and male partner presenting at the health facility during labour as well as a significant association between the educational level of the male partner and male partner being allowed into labour ward during labour. Furthermore, there exists a statistically significant association between the educational status of male partners and male partners discussing labour-related health issues with female partners.

There is a statistical significance between male partners' occupational status and being present at the health facility during labour. There is a statistically significant association between the male partner’s occupational status and male partner discussing labour related health issues with health staff during labour.

5.7 Relationship Between Sociodemographic Characteristics and Forms of Involvement in Maternal Health – Postnatal Period

The age of the male partner has a statistically significant association with a male partner living with a female partner after delivery. Age has an association with the male partner's agreement with a female partner to attend the postnatal care clinic. The age of male partners has a significant association with male partners accompanying female partner to postnatal care clinic. The age of male partners has statistical significance with male partners discussing family-related health issues with a female partner.

5.8 Strengths of the Study

- Information was taken from women, the recipients of the maternal health and they are actually the individuals who are likely to know or experience the effects of the actions of male involvement, e.g. healthy communication, financial assistance towards them.
- Women who took part of the study included respondents whose last child was up to 2 years which was very good because we did not limit the study to 6 weeks postpartum (end of the postnatal clinic) taking into consideration support from male partner involvement can be used as a proxy to establish support towards women's health even beyond the reproductive age. Focused antenatal care services can be strengthened in areas where male involvement in maternal healthcare has positively strong effects on maternal health.

5.9 Limitation of the Study

- The temporality of the exposure and outcome cannot be verified
- Recall bias could be introduced by any of the respondents

- The study may not be generalizable to women below 18 years and those whose last child is above 2 years old.
- Not all forms of care or involvement by male partners were used in the conceptual framework and in the questionnaire in grading the level of male partner involvement.

CHAPTER SIX

CONCLUSIONS

6.0 Conclusions

Sociodemographic characteristics of male partners have a strong association with the male partner's involvement in maternal healthcare. The level (extent) of the various forms of male involvement in maternal health is critical in ensuring female partner's health for safe motherhood (i.e. even beyond the first year after delivery).

The proportion of men involved in maternal healthcare was highest (70%) during labour, followed by 58.3% during postnatal care and 35.5% during the antenatal care period. From the study, about 99 percent were women in their fertility age. With the low level of education in the face of unemployment, maternal health support from male partners may be challenging especially under the areas of finance and appreciation and having the right knowledge in making a timely decision with a female partner and health staff even beyond the first year after delivery and these could affect future pregnancies or other reproductive health issues if male partners are not well or actively engaged in understanding issues at hand.

From the study, it is possible to engage men in maternal healthcare but since the female partners are the recipients of the support or care given, the interpretation and appreciation of the quality and content of male involvement in maternal healthcare may vary from community to community, household or from person to persons.

There exists a strong association or significance between the various forms or components of male involvement in maternal health and sociodemographic characteristics of male partners. For

example, improving financial assistance towards maternal health care by a male partner could improve access utilization of health care services.

In Ayalew, Gebrie, Geja, & Beyene, (2020), there were significant determinants of male partner involvement in prevention of mother to child transmission of HIV and these factors were a number of antenatal care visits, birthplace interest, awareness about partner's monthly income, source of family support scheme, maternal perception about the importance of consulting partner before HIV testing and the kind of partner support.

6.1 Recommendations

- The Ministry of Health, The Ghana Health Service, and other stakeholders of health should strengthen education on the essence of male partner involvement in maternal healthcare to help reduce maternal morbidity and mortality.
- It is very important to strengthen measures to increase the capacity of men through education and employment to enable them to develop to a large extent male partner support in maternal healthcare during antenatal care, delivery and postnatal period and this could be used as a proxy to ensuring safe motherhood beyond the first year of childbirth by their female partners.
- Education in maternal health should be intensified among all men especially those about to marry and those who have low levels of education. This is to enable early detection of any disease before pregnancy, during pregnancy, and after delivery. Recognition of this role of men will help in reducing the 3 delays of maternal mortality, maternal outcomes could be markedly improved.

6.2 Suggestions for Further Research

- More quantitative studies should be conducted in urban, peri-urban, and rural areas of Ghana to measure the effect of male involvement on maternal and foetal outcomes. Areas to be explored include its effect in preventing anaemia in pregnancy, hypertension in pregnancy, and other obstetric emergencies in order to enhance Ghana's health care system.

REFERENCES

Aborigo, R. A., Reidpath, D. D., Oduro, A. R., & Allotey, P. (2018). Male involvement in maternal health: perspectives of opinion leaders. *BMC Pregnancy and Childbirth*, 1–10. https://doi.org/10.1186/s12884-017-1641-9

Atuoye, K. N., Dixon, J., Rishworth, A., Galaa, S. Z., Boamah, S. A., & Luginaah, I. (2015). Can she make it ? Transportation barriers to accessing maternal and child health care services in rural Ghana. *BMC Health Services Research*, 1–10. https://doi.org/10.1186/s12913-015-1005-y

Ayalew, M., Gebrie, M., Geja, E., & Beyene, B. (2020). Determinants of Male Partner Involvement Towards Prevention of Mother to Child Transmission Service Utilization Among Pregnant Women Who Attended Focused Antenatal Care in Southern Ethiopia. *Dove Press Journal*, 87–95.

Babalola, S., & Fatusi, A. (2009). Pregnancy and Childbirth beyond individual and household factors. *BMC Pregnancy and Childbirth*, *13*, 1–13. https://doi.org/10.1186/1471-2393-9-43

Bale, J. R., Stoll, B. J., & Lucas, A. O. (2003). *Improving Birth Outcomes: Meeting the Challenge in the Developing World*. National Academy of Sciences.

Black, R. E., Laxminarayan, R., Temmerman, M., & Walker, N. (2016). Reproductive, Maternal, Newborn, and Child Health (3rd Edition). *Disease Control Priorities*.

Blampied, C., Chattopadhyay, S., Romilly, G., Aziz, I., Ellison, C., Thompson, R., … Salifu, A. (2018). *Leaving no one behind in the health and education sectors. An SDG stocktake in Ghana*.

Bougangue, B., & Ling, H. K. (2017). Male involvement in maternal healthcare through Community-based Health Planning and Services: the views of the men in rural Ghana. *BMC Public Health*, 1–10. https://doi.org/10.1186/s12889-017-4680-2

Byamugisha, R., Tumwine, J. K., Semiyaga, N., & Tylleskär, T. (2010). Determinants of male

involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda : a cross-sectional survey. *Reproductive Health*, 1–9.

Cheng, E. R., Rifas-shiman, S. L., Perkins, M. E., & Wright, R. (2016). The Influence of Antenatal Partner Support on Pregnancy Outcomes. *Journal of Women's Health*, *25*(7), 672–679. https://doi.org/10.1089/jwh.2015.5462

Craymah, J. P., Oppong, R. K., & Tuoyire, D. A. (2017). Male Involvement in Maternal Health Care at Anomabo , Central Region , Ghana. *International Journal of Reproductive Medicine*, *2017*. https://doi.org/10.1155/2017/2929013

Daniele, M. A. S., Ganaba, R., Sarrassat, S., Cousens, S., Rossier, C., & Drabo, S. (2018). Involving male partners in maternity care in Burkina Faso : a randomized controlled trial. *Bulletin of the World Health Organisation*, (July). https://doi.org/10.2471/BLT.17.206466

Davis, J., Vyankandondera, J., Luchters, S., Simon, D., & Holmes, W. (2016). Male involvement in reproductive , maternal and child health : a qualitative study of policymaker and practitioner perspectives in the Pacific. *Reproductive Health*, 1–11. https://doi.org/10.1186/s12978-016-0184-2

DHS Final Reports. (2014). Ghana Demographic and Health Survey 2014. *GSS, GHS, and ICF International*.

Ditekemena, J., Koole, O., Engmann, C., Matendo, R., Tshefu, A., Ryder, R., & Colebunders, R. (2012). Determinants of male involvement in maternal and child health services in sub-Saharan Africa : a review. *Reproductive Health*, 1–8.

Doe, R. D. (2013). *Male Partner Involvement in Maternity Care in Ablekuma South District, Accra, Ghana*. University of Ghana.

Ganle, J. K., & Dery, I. (2015). 'What men don't know can hurt women's health': a qualitative study of the barriers to and opportunities for men's involvement in maternal healthcare in Ghana.

Reproductive Health, 1–13. https://doi.org/10.1186/s12978-015-0083-y

Ghana Health Service. (2017). *Ghana Health Service 2016 Annual Report*.

Ghana Health Service. (2020). Center for Health Information Managment Portal. Retrieved August 26, 2020, from http://www.findglocal.com/GH/Accra/621998974644830/Centre-for-Health-Information-Management%2C-Ghana

Ghana Statistical Service. (2014). *District Analytical Report - Kpone-Katamanso District*.

Ghose, B., Feng, D., Tang, S., Yaya, S., He, Z., Udenigwe, O., … Feng, Z. (2017). Women's decision-making autonomy and utilisation of maternal healthcare services: results from the Bangladesh Demographic and Health Survey. *BMJ Open*, 1–8. https://doi.org/10.1136/bmjopen-2017-017142

GNA. (2017). Greater Accra Tops in Maternal Deaths in Ghana - GHS. Retrieved August 24, 2020, from https://www.ghanabusinessnews.com/2017/04/07/greater-accra-region-tops-maternal-deaths-in-ghana-ghs/

GNA. (2020). Tema Halves Maternal Mortality. Retrieved August 24, 2020, from http://www.businessghana.com/site/news/general/205578/Tema-halves-maternal-mortality

Gudu, W., & Addo, B. (2017). Factors associated with utilization of skilled service delivery among women in rural Northern Ghana: a cross sectional study. *BMC Pregnancy and Childbirth*, 1–10. https://doi.org/10.1186/s12884-017-1344-2

Iliyasu, Z., Abubakar, I. S., Galadanci, H. S., & Aliyu, M. H. (2010). Birth Preparedness, Complication Readiness and Fathers' Participation in Maternity Care in a Northern Nigerian Community. *African Journal of Reproductive Health*, *14*(1), 21–32.

Kakaire, O., Kaye, D. K., & Osinde, M. O. (2011). Male involvement in birth preparedness and complication readiness for emergency obstetric referrals in rural Uganda. *Reproductive Health*, 1–7.

Kalisa, R., & Malande, O. O. (2016). Birth preparedness, complication readiness and male partner involvement for obstetric emergencies in rural Rwanda. *Pan African Medical Journal*, *8688*, 1–7. https://doi.org/10.11604/pamj.2016.25.91.9710

Kululanga, L. I., Sundby, J., & Chirwa, E. (2012). Male involvement in maternity health care in Malawi/La Participation des hommes au soin de sante maternelle au Malawi. ... *Journal of Reproductive Health*. Retrieved from https://go.gale.com/ps/i.do?id=GALE%7CA349608058&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=11184841&p=AONE&sw=w

Kyei-nimakoh, M., Carolan-olah, M., & Mccann, T. V. (2017). Access barriers to obstetric care at health facilities in sub-Saharan Africa — a systematic review. *Systematic Reviews*, 1–16. https://doi.org/10.1186/s13643-017-0503-x

Lowe, M. (2017). Social and cultural barriers to husbands' involvement in maternal health in rural Gambia. *Pan African Medical Journal*, *8688*, 1–7. https://doi.org/10.11604/pamj.2017.27.255.11378

Machira, K., & Palamuleni, M. (2018). Women's perspectives on quality of maternal health care services in Malawi. *International Journal of Women's Health*, 25–34.

Mangeni, J. N., Mwangi, A., Mbugua, S., & Mukthar, V. (2013). Male Involvement in Maternal Health Care Skilled Birth Attendants in Kenya. *Demographic and Health Surveys*, *93*(February).

Mannava, P., Durrant, K., Fisher, J., Chersich, M., & Luchters, S. (2015). Attitudes and behaviours of maternal health care providers in interactions with clients: a systematic review. *Globalization and Health*, 1–17. https://doi.org/10.1186/s12992-015-0117-9

Mersha, A. G. (2018). Male involvement in the maternal health care system : implication towards decreasing the high burden of maternal mortality. *BMC Pregnancy and Childbirth*, 1–8. https://doi.org/https://doi.org/10.1186/s12884-018-2139-9

Mullany, B. C. (2006). Barriers to and attitudes towards promoting husbands' involvement in maternal health in Katmandu, Nepal. *Social Science & Medicine*, *62*(11), 2798–2809. https://doi.org/https://doi.org/10.1016/j.socscimed.2005.11.013

Muloongo, H., Sitali, D., Zulu, J. M., Hazemba, A. N., & Mweemba, O. (2019). Men's perspectives on male participation in antenatal care with their pregnant wives: a case of a military hospital in Lusaka, Zambia. *BMC Health Services Research*, *8*, 1–9. https://doi.org/https://doi.org/10.1186/s12913-019-4294-8

Nesane, K., Maputle, S. M., & Shilubane, H. (2016). Male partners' views of involvement in maternal healthcare services at Makhado Municipality clinics, Limpopo Province, South Africa. *African Journal of Primary Health Care & Family Medicine*, 1–5. https://doi.org/http://dx.doi.org/10.4102/phcfm.v8i2.929

Odjoh-Anyomi, S. (2017). *Factors Affecting Men's Involvement in Maternal Health at the Kpone Katamanso District*. University of Ghana.

Ongolly, F. K., & Bukachi, S. A. (2019). Barriers to men's involvement in antenatal and postnatal care in Butula, western Kenya. *African Journal of Primary Health Care & Family Medicine*, 1–7. https://doi.org/https://doi.org/10.4102/phcfm.v11i1.1911

Sharma, U., Armstrong, A. C., Merumeru, L., Simi, J., & Yared, H. (2018). Addressing barriers to implementing inclusive education in the Pacific. *International Journal of Inclusive Education*, *0*(0), 1–14. https://doi.org/10.1080/13603116.2018.1514751

Tetteh, E. N. O. (2019). *Assessment of Utilization of Skilled Delivery Services and Associated Factors among Women at Kpone, in Kpone Katamanso Municipality, Ghana*. University of Ghana.

The WHO Reproductive Library. (2015). WHO recommendation on male involvement interventions for maternal and neonatal health. *The WHO Reproductive Health Library*, (May), 1–9.

The World Bank. (2019). Maternal mortality ratio (modeled estimate, per 100,000 live births) - Ghana. Retrieved August 24, 2020, from https://data.worldbank.org/indicator/SH.STA.MMRT?locations=GH

UNFPA Ghana. (2018). Beyond a decade's survey - Progressing in Maternal Health Delivery. Retrieved August 24, 2020, from https://ghana.unfps.org/en/news/beyond-decades-survey-…progressing-maternal-health-delivery

United Nations Department of Economic and Social Affairs Population Division. (2013). *World Mortality Report 2013*.

USAID. (2014). Ending Preventable Maternal Mortality: USAID Maternal Health Vision for Action. *U.S. Agency for International Development*, (June 2014).

WHO. (2015). Why do so many women still die in pregnancy or childbirth? Retrieved August 24, 2020, from https://www.who.int/westernpacific/news/q-a-detail/why-do-so-many-women-still-die-in-pregnancy-or-childbirth

WHO. (2019). World Maternal Mortality. Retrieved August 24, 2020, from https://www.who.int/news-room/fact-sheets/detail/maternal-mortality

WHO. (2020). Maternal Health. Retrieved August 24, 2020, from https://www.who.int/health-topics/maternal-health#tab=tab_1

Wilmoth, J. R., Mizoguchi, N., Oestergaard, M. Z., Say, L., Mathers, C. D., Zureick-brown, S., … Chou, D. (2014). A New Method for Deriving Global Estimates of Maternal Mortality. *National Institutes of Health*, *3*.

Yargawa, J., & Leonardi-bee, J. (2015). Male involvement and maternal health outcomes: systematic review and meta-analysis. *J Epidemiol Community Health*, 604–612. https://doi.org/10.1136/jech-2014-204784

Yarney, L. (2019). Does knowledge on socio-cultural factors associated with maternal mortality affect maternal health decisions? A cross- sectional study of the Greater Accra region of Ghana. *BMC Pregnancy and Childbirth*, 1–12. https://doi.org/https://doi.org/10.1186/s12884-019-2197-7

Yaya, S., Bishwajit, G., Ekholuenetale, M., Shah, V., Kadio, B., & Udenigwe, O. (2017). Timing and adequate attendance of antenatal care visits among women in Ethiopia. *PLoS ONE*, 1–16. https://doi.org/https://doi.org/10.1371/journal.pone.0184934

APPENDICES

APPENDIX 1: INFORMATION SHEET

Research Topic

Male Partners' Involvement in Maternal Health Care in Kpone Sub-Municipality

Participation

Voluntary answering of questions in questionnaire.

Risk

There might be discomfort in answering some of the sensitive questions or respondents might feel tired.

Benefits

No benefit to individuals.

Rights

- Respondents have the rights to withdraw from participation at any point in time without any penalty.
- Respective respondents were communicated on the full description of the nature, sequence, and frequency of questions.

- Respective respondents were made to know that the research is free of adverse effects, it was voluntary and any participant who wished to exit would be allowed to do so and would not be deprived of any necessary health care.
- Respondents were briefed about a research study in terms of time and travel.
- The study was communicated to research respondents in English, Ga, or Twi where necessary.
- Respondents were informed about the confidentiality of the information received and information to be written had no name attached in the research study.
- Respondents signed or thumb printed after their informed consent.
- The research did not pose any danger or injury to participants.
- Information obtained from the study was strictly confidential and no information received was disclosed to any other person. Data collected was kept under lock.
- The respondents were assured of confidentiality and anonymity throughout and no name was to be recorded in data processing, analysis, reporting, conclusion, and recommendations.

Privacy and Confidentiality

Any information provided will be kept strictly confidential and will not be disclosed to any other person. In view of this, names of participants will not be needed as is not going to be used in the analysis.

Additional Information

For questions, further clarifications or any challenges relating to participation, the below could be contacted:

Dorothea Otchere-Keelson

School of Public Health, University of Ghana – Legon

Mobile: +233262148947 **Email:** dorothyalugansk@yahoo.com

APPENDIX 2: INFORMED CONSENT FORM

I have been informed about the nature and purpose of the research, Male Partners' Involvement in Maternal Health Care in Kpone Sub-Municipality and I give voluntary consent for participation. I have been made aware that the research would cause no harm to me. I have been informed that at any point in time I can opt out of taking part of the research if I wish to do so and would not lose any medical benefit in that process. I have also been informed that this would take part of my time.

I have been told that the purpose of the research is to find out whether and how are mothers supported by male partners in terms of their health. Recruitment of respondents in the community, households, house. Translation to be done for those who cannot read or write.

I have been informed that this research is for the purpose of study only. My name would not be written or communicated to anybody. Information received from the individual would have no name attached. There may be some embarrassing questions. I understand that I have the right to withdraw from the study at any time and it is voluntary to answer any question.

…… ……..

Date Signature/Thumbprint

I certify that the nature and purpose, the potential benefits and possible risks associated with participating in this research have been explained to participants. Again, all questions and classifications raised by participants have been well addressed to help participant make informed decision concerning this study.

…… ……..

Date Signature (Data Collector)

APPENDIX 3: QUESTIONNAIRE

TITLE: MALE PARTNERS' INVOLVEMENT IN MATERNAL HEALTH CARE IN KPONE SUB-MUNICIPALITY

STUDY ID: ……..…….....…….....……..…….. HOUSE NUMBER: ……..……

INTERVIEWER: ……...……..…… DATE: ……..……..……..

Male Partner Is Used Interchangeably With Husband or Man For The Purpose Of This Study

SOCIO-DEMOGRAPHIC CHARACTERISTICS

1a. Age of Respondent: (as at last birthday) ☐☐

1b. Age of Male Partner: (as at last birthday) ☐☐

2. Number of Children Per Participant ☐☐

3. Age of last child (in months) ☐☐

4. Marital Status

1. Married 2. Single 3. Cohabiting 4. Divorced

5. Education Level Completed (Male Partner)

1. No Formal Education 2. Primary 3. Junior Secondary 4. Senior Secondary

5. Tertiary

6. Religion (Male Partner)

1. Christianity 2. Islamic 3.Traditionalist 4. Other (Specify)……

7. Occupation

1. Unemployed 2. Self Employed 3. Private / Public Office Servant

8. Partner's occupation

1. Unemployed 2. Self Employed 3. Private / Public Office Servant

ANTENATAL CARE

9. Did you live with your partner during pregnancy?

1. Yes 2. No

10. Did other family members live with your spouse during pregnancy?

1. Yes 2. No

11. If no to question 9, who were you living with during pregnancy?

1. Mother 2. Mother In-law 3. Siblings 4. Other (Specify)……..…

12. Did you plan the pregnancy with your spouse?

1. Yes 2.No

13. During pregnancy were there times that you attended antenatal care with your partner?

1. Yes 2. No

14. How often did your partner accompany you to antenatal care? ☐☐

15. Did your partner know the antenatal care facility that you attended?

1. Yes 2. No

16. Did your spouse help you plan for emergencies?

1. Decide on where to go in case of an emergency
2. Standby transport arrangement
3. Funds put aside for emergencies
4. Others (specify) …….

17. If no to Question 13, why didn't your partner attend antenatal care with you?

1. Busy with work
2. Did not see the need to be there
3. Unconcerned
4. Absent from home / travelled
5. There were others available to handle that
6. He was shy to be in the midst of all the women

18. What kind of support did your partner provide for you during the pregnancy?

1. Assisted with household chores
2. Brought in other family members to support
3. Provided funds for antenatal care
4. Scheduled antenatal clinic dates and reminders
5. Others (specify) …….

19. Did you discuss health-related issues with your partner such as discomfort and changes in eating habits?

1. Yes 2. No

20. Did your partner discuss health-related issues with the health care providers?

1. Yes 2. No

21. **Level of Partner Involvement - Summary**

Male involvement in antenatal care was assessed using a five-point index which included:

Question on Activities: NO = 0 YES= 1

QUESTION	NO	YES
1) The man accompanied partner to health facility.		
2) The man discussed maternal issues with partner.		
3) The man discussed maternal issues with her health care provider.		
4) The man provided financial and physical support to partner.		
5) The man was involved in planning for emergency during the antenatal care period.		

LABOUR AND DELIVERY

22. Did you live with your partner during labour and delivery?

1. Yes 2. No

23. Did your partner go to the health facility with you at the time of labour and delivery?

1. Yes 2. No

24. Did the maternity staff at the facility allow Male Partner into the delivery room?

1. Yes 2. No

25. Were other family members in the labour/delivery room?

1. Yes 2. No

26. If someone were to be present in the delivery room who would you have preferred?

1. Only you
2. Health workers only
3. Health worker with partner
4. Other (specify) ……

27. What kind of support did your partner provide for you during labour and delivery?

1. Assisted with household chores
2. Brought in other family members to support
3. Provided funds for labour and delivery
4. Scheduled labour and delivery date and reminder
5. Others (specify) ……

28. Did you discuss health-related issues with your partner such as fear of delivery and preferred type of delivery?

1. Yes 2. No

29. Did you and your partner discuss labour and delivery health-related issues with the health care providers?

1. Yes 2. No

30. **Level of Partner Involvement – Summary**

Male involvement during labour and pregnancy was assessed using a five-point index which included:

Question on Activities: NO = 0 YES= 1

QUESTION	NO	YES
1) The man accompanied partner to the health facility during labour.		
2) The man discussed maternal issues with partner.		
3) The man discussed maternal issue with the Health Care Provider.		
4) The man provided financial and physical support to partner.		
5) The man was involved in planning for intrapartum care.		

POSTNATAL CARE

31. Did you live with your partner after delivery?

1. Yes 2. No

32. If No, who did you live with after delivery?

1. Mother
2. Siblings
3. Mother-in-law

4. Other (specify) ……

33. Did you agree with your partner on attendances of postnatal care?

1. Yes 2. No

34. What kind of support did your partner provide for you during postnatal care?

1. Assisted with household chores
2. Brought in other family members to support
3. Provided funds for postnatal care
4. Did the male partner attend postnatal care clinic with you or served you reminder
5. Others (specify) …….

35. Did your partner accompany you to the health facility for postnatal care?

1. Yes 2. No

36. If No, did someone else accompany you to the postnatal clinic?

1. Yes 2. No

37. If No to Question 36, for what reason(s) did your partner not attend PNC with you?

1. Busy with work
2. Did not see the need to be there
3. Unconcerned
4. Absent from home / travelled
5. There were others available to handle that
6. I prefer to go with others
7. He was shy to be in the midst of all the women
8. Others (specify) …….

38. Did you discuss other family related health issues with your partner such as family planning?

1. Yes 2. No

39. Did you and your partner discuss other family health issues with the health care provider such as family planning?

1. Yes 2. No

40. **Level of Partner Involvement – Summary**

Male involvement during postnatal care was assessed using a five-point index which included:

Question on Activities: NO = 0 YES= 1

QUESTION	NO	YES
1) The man accompanied partner to health facility during PNC period.		
2) The man discussed maternal issues with partner		
3) The man discussed household issues with the Health Care Provider.		
4) The man provided financial and physical support to partner.		
5) The man was involved in planning for postnatal care.		

THANK YOU

APPENDIX 4: ETHICAL REVIEW APPROVAL

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

Research & Development Division
Ghana Health Service
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MyRef. GHS/RDD/ERC/Admin/App 15/419
Your Ref. No.
19th October, 2018

Dr. Otchere-Keelson Dorothea
Kpong Health Centre
P.O. Box SC 234
Tema

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

GHS-ERC Number	**GHS-ERC015/09/18**
Project Title	Male Partners Involvement in Maternal Health Care in Kpone Sub-Municipality
Approval Date	19th October,2018
Expiry Date	18th October, 2019
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

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

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

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

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

SIGNED.....
for DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

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