ENSIGN GLOBAL UNIVERSITY, KPONG

EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

ASSESSING MALE INVOLVEMENT IN MATERNAL AND NEWBORN HEALTH IN GHANA

BY

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MASTER OF PUBLIC HEALTH DEGREE

DECLARATION

I, Safoaa Naana Adwoa, hereby certify that, except for references to other people's work, which I have duly cited, this project submitted to the Department of Community Health, Ensign Global University, Kpong is the result of my own investigation, and has not been presented for any other degree elsewhere.

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DEDICATION

This work is dedicated to God Almighty for His grace, strength, and guidance throughout this journey.

I dedicate this study to my family, whose unwavering support, encouragement, and sacrifices made this achievement possible. Your belief in me has been my greatest motivation.

I also dedicate this work to all men and women striving to improve maternal and newborn health in Ghana, and to the families whose experiences continue to inspire efforts toward more inclusive and equitable healthcare systems.

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DEFINITION OF TERMS

DEFINITION OF TERMS

Male Involvement in Maternal and Newborn Health (MNH): Refers to the participation of men in supporting maternal and newborn health through decision-making, emotional and financial support, and engagement in reproductive health-related activities.

Maternal and Newborn Health (MNH): Refers to the health of women during pregnancy, childbirth, and the postpartum period, as well as the health of newborns during the first 28 days of life.

Gender Norms: Socially constructed roles, expectations, and behaviours considered appropriate for men and women within a given society.

Gender-Equitable Attitudes: Beliefs and perspectives that support equality between men and women, including rejection of gender-based violence and support for women's autonomy in decision-making.

Women's Autonomy: The ability of women to make independent or joint decisions regarding their health, reproductive choices, and overall well-being.

Shared Decision-Making: A process in which both partners jointly participate in making decisions regarding healthcare, household matters, and reproductive issues.

Socio-Economic Status (SES): An individual's or household's social and economic position, commonly measured using indicators such as education, wealth, and place of residence.

Wealth Index: A composite measure of a household's cumulative living standard, calculated using asset ownership, housing characteristics, and access to services.

Social Ecological Model (SEM): A theoretical framework that explains how individual behaviour is influenced by multiple levels, including individual, interpersonal, community, organisational, and policy factors.

Demographic and Health Survey (DHS): A nationally representative survey that collects data on population health, fertility, family planning, and health-related behaviours.

LIST OF ABBREVIATIONS

Abbreviation	Full Meaning
ANC	Antenatal Care
AOR	Adjusted Odds Ratio
CHPS	Community-based Health Planning and Services
CI	Confidence Interval
COR	Crude Odds Ratio
DHS	Demographic and Health Surveys
GDHS	Ghana Demographic and Health Survey
GSS	Ghana Statistical Service
LMICs	Low- and Middle-Income Countries
MNH	Maternal and Newborn Health
OR	Odds Ratio
SDGs	Sustainable Development Goals
SEM	Social Ecological Model
SES	Socio-Economic Status
STI	Sexually Transmitted Infection
UN	United Nations
UNICEF	United Nations Children's Fund
WHO	World Health Organization

ABSTRACT

Background: Although global and national policies increasingly recognise the importance of involving men in maternal and newborn care, male participation continues to be limited due to socio-cultural beliefs and gendered decision-making structures. This study aims to assess men's involvement in MNH in Ghana by examining their attitudes toward gender norms and shared decision-making in in maternal and reproductive health within households.

Methodology: The adopted a cross-sectional secondary data analysis approach, drawing on nationally representative data from the men's questionnaire of the GDHS 2022. Measures of gender attitudes and participation in household decision-making were used to assess men's involvement in maternal and reproductive health. Descriptive statistics were used to summarize key attitudes, while chi-square tests and logistic regression will assess associations between socio-demographic characteristics and gender-equitable views. All analyses will be conducted using Stata version 18.

Results/Findings: A total of 3,726 men aged 15–59 years were included in the analysis. The majority of respondents (83.3%) exhibited gender-equitable attitudes, with over 90% rejecting the justification of wife-beating across all scenarios.

Gender-equitable attitudes were significantly associated with age, education, wealth status, place of residence, religion, and region ($p < 0.001$), with more equitable attitudes observed among older, more educated, and wealthier men. Male involvement in maternal health was relatively high, with 73.6% of respondents reporting participation. At the bivariate level, involvement was significantly associated with gender-equitable attitudes, age, education, place of residence, and region ($p < 0.05$), but not with wealth status.

Multivariate analysis showed that men with gender-equitable attitudes were significantly more likely to be involved in antenatal care (AOR = 1.65; 95% CI: 1.12–2.44). Increasing age was also associated with higher involvement, with men aged 35–44 years having the highest odds (AOR = 2.63; 95% CI: 1.37–5.03). Only tertiary education was significantly associated with involvement (AOR = 2.23; 95% CI: 1.18–4.20). Additionally, Muslim men (AOR = 1.74; 95% CI: 1.12–2.69) had higher odds of involvement compared to Christians.

Conclusion: The study demonstrates that while gender-equitable attitudes are prevalent among Ghanaian men, these do not fully translate into equitable household practices, particularly in decision-making. The findings highlight the critical role of gender norms in shaping male participation in maternal health and the need for gender-transformative interventions that address both individual attitudes and broader socio-cultural dynamics.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Maternal and newborn health (MNH) remains a pressing global public health concern, particularly in low- and middle-income countries (LMICs) where systemic barriers contribute to high rates of morbidity and mortality (WHO, 2023). According to the World Health Organization (WHO), approximately 287,000 women died due to complications related to pregnancy and childbirth in 2020, with 94% of these deaths occurring in LMICs (WHO, 2023). Similarly, the United Nations Children's Fund (UNICEF) reported that in 2021, 2.3 million newborns died within their first month of life, with the majority of these deaths occurring in sub-Saharan Africa and South Asia (UNICEF, 2024). These staggering figures underscore the urgent need for holistic strategies to improve maternal and newborn outcomes, including the integration of male partners in care processes.

Historically, maternal health initiatives have focused predominantly on women, often excluding men from interventions and discussions despite their potential to influence health-seeking behaviors, financial decision-making, and emotional support systems (Hay *et al.*, 2019). Emerging global research recognizes male involvement as a critical determinant in enhancing MNH outcomes. A systematic review by Comrie-Thomson et al., (2015a) highlighted that male involvement is positively associated with increased antenatal care (ANC) attendance, skilled birth attendance, and timely care-seeking during emergencies. Male participation has also been linked to reduced maternal stress, improved infant health, and shared decision-making around family planning and childbirth preparedness (Tokhi *et al.*, 2018).

The Sustainable Development Goals (SDGs), particularly SDG 3, aim to ensure healthy lives and promote well-being for all ages, with specific targets to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and end preventable deaths of newborns by 2030 (UN, 2022). Achieving these targets necessitates transformative approaches, including gender-sensitive strategies that promote male engagement across the maternal and newborn care continuum. The 2015 Global Strategy for Women's, Children's and Adolescents' Health emphasized the importance of engaging men and boys as partners in health and development, a position reaffirmed by subsequent WHO guidance (World Health Organization, 2015).

In sub-Saharan Africa, patriarchal gender norms continue to shape reproductive health behaviors and access to services. A recent multi-country study by Doyle et al., (2018) in eastern and southern Africa found that gender-transformative interventions that engage men in maternal and neonatal health resulted in increased use of maternal health services, improved couple communication, and more equitable division of household responsibilities. Although many low- and middle-income countries (LMICs) have made efforts to promote male involvement in maternal and newborn health, challenges remain in fully integrating men into service delivery. In some settings, health facilities still face limitations such as inadequate space for male participation, limited targeted health education for men, and service delivery models that are primarily oriented toward women (Ganle and Dery, 2015; Tokhi et al., 2018).

Ghana mirrors these global and regional trends. Despite notable progress in maternal and child health indicators, the country continues to face challenges in achieving equitable and comprehensive MNH services. According to the Ghana Statistical Service (GSS), the maternal mortality ratio stood at 308 per 100,000 live births in 2022, with wide disparities across regions

(GSS, 2021). Neonatal mortality also remains a concern, accounting for 48% of all under-five deaths (UNICEF, 2023).

Cultural perceptions of gender roles significantly influence men's involvement in maternal and newborn health (MNH) in Ghana. Ganle & Dery, (2015) found that in the Upper West Region of Ghana, many men perceived ANC and childbirth-related support as women's responsibility and feared social ridicule if they became actively involved. Similarly, Morgan *et al.*, (2022), in a study conducted in the Bosomtwe District, reported that although some men acknowledged the importance of supporting their partners, prevailing cultural expectations and peer pressure often served as barriers. Both studies underscore the need for culturally sensitive strategies and health system reforms that challenge restrictive gender norms and create space for meaningful male participation in MNH.

Institutional and systemic barriers also contribute to the limited participation of men in maternal health services. Facilities are often ill-equipped to accommodate men, lacking private consultation spaces and health education sessions that include or target them. Additionally, negative attitudes from healthcare workers further alienate men from engaging with the health system (Ganle and Dery, 2015a). These challenges highlight the need for health system reforms that create inclusive, respectful, and supportive environments for male involvement.

In this context, the role of Community-Based Health Planning and Services (CHPS) has been instrumental in bridging some of the access gaps in Ghana's rural and peri-urban communities (Elsey *et al.*, 2023). However, most CHPS interventions remain focused on maternal and child health from a woman-centric lens, often failing to incorporate men beyond the role of resource providers (Elsey *et al.*, 2023). A study by (Adusei *et al.*, 2024) recommended the expansion of

CHPS to include targeted male engagement strategies, emphasizing the importance of male-focused health education and community mobilization.

mpirical evidence on male involvement in maternal and newborn health in Ghana remains largely based on localized studies conducted in specific districts and regions. Much of the existing literature focuses on either rural or urban settings, with limited attention to variations across different socio-economic and geographic contexts at the national level. Ghana's diverse population reflects a mix of traditional and evolving social norms, where changing lifestyles coexist with persistent cultural expectations (Ganle and Dery, 2015b). As noted by Comrie-Thomson et al., (2015), men in such transitional contexts may demonstrate awareness of the importance of involvement in maternal and newborn health but remain constrained by entrenched gender norms and perceptions of masculinity.

Using nationally representative data provides an opportunity to examine these dynamics across regions and population groups, offering broader insights into the factors influencing male involvement. Understanding these patterns is essential for designing context-specific and culturally responsive interventions, as evidence suggests that approaches tailored to local social dynamics are more effective than generalized strategies (Kraft *et al.*, 2014).

Enhancing male involvement in MNH requires a dual approach: addressing individual and interpersonal beliefs while simultaneously reforming institutional practices and policies. Achieving equity in maternal and newborn health demands the active participation of all stakeholders, including men. This research aims to generate evidence to inform gender-sensitive health programming and support national efforts to improve MNH outcomes through inclusive, culturally responsive interventions.

1.2 Problem Statement

Despite global recognition of the pivotal role male involvement plays in enhancing MNH outcomes, significant gaps persist in the active participation of men in MNH services across Ghana (Roudsari, sharifi and Goudarzi, 2023). While international frameworks, such as the Sustainable Development Goals (SDGs), emphasize inclusive strategies to improve MNH, the translation of these frameworks into effective local practices remains inconsistent (UN, 2022).

In Ghana, although knowledge levels among men regarding maternal and reproductive health appear relatively high, their actual participation in service uptake remains limited. Reported barriers to involvement included negative attitudes from health workers, long waiting times, and socio-cultural beliefs that discourage male participation (Atuahene *et al.*, 2017). In many rural settings, men often play key roles as financial providers and household decision-makers, which are important contributions to family well-being. However, their active engagement in direct caregiving and participation in care-seeking behaviours remains limited, despite growing recognition of its importance in improving maternal and newborn health outcomes (Dumbaugh *et al.*, 2014).

Several factors contribute to this limited involvement. Cultural norms and gender roles often set reproductive health as a woman's domain, discouraging male participation. Men who attempt to engage more actively may face societal ridicule or be perceived as overstepping traditional boundaries (Roudsari, sharifi and Goudarzi, 2023). Additionally, health system barriers, such as unfriendly staff attitudes, lack of male-friendly infrastructure, and long waiting times at clinics, further deter men from participating (Mapunda *et al.*, 2022; Roudsari, sharifi and Goudarzi, 2023).

Across Ghana, improvements in infrastructure and service availability have contributed to increased access to maternal healthcare services. For instance, the 2022 Ghana Demographic and Health Survey (GDHS) reports that 89% of women received antenatal care (ANC) from a skilled provider, and 71% delivered in a health facility (GSS, 2022), yet regional and socio-economic disparities persist. Despite these gains, male engagement in the maternal healthcare continuum remains low, particularly in relation to decision-making and care-seeking support. Gender norms and socio-cultural expectations continue to influence how men perceive their roles in reproductive health. These dynamics are critical, as male involvement has been shown to positively affect timely care-seeking, adherence to ANC visits, and facility-based deliveries (Jennings *et al.*, 2017; Tokhi *et al.*, 2018). Evidence from Ghana shows that even where fathers are involved in childcare, their participation is often shaped by socially defined ideas of masculinity and domestic work. Kwansa (2012), for instance, observed that men's participation in childcare in Accra had to be understood within a context where childcare and domestic responsibilities were still commonly viewed as feminine domains, even though changing family and employment patterns were placing new expectations on fathers.

More recent evidence further shows that male involvement has practical implications for maternal, newborn and child health outcomes. In Northern Ghana, Saaka et al. (2023) found that fathers' involvement in childcare and feeding was associated with better child feeding outcomes, with children whose fathers were more involved being more likely to meet the minimum acceptable diet. The study also showed that fathers with positive attitudes toward childcare and feeding were more likely to be involved, suggesting that men's attitudes and gender-related beliefs can influence their actual participation in family health matters. Similarly, evidence on changing fatherhood and family patterns in urban Ghana shows that migration, urbanisation, changing marital arrangements

and multiple-partner fertility are reshaping men's family responsibilities, but not always in ways that guarantee consistent support for women and children (Hiadzi, Agyeman & Akrong, 2023).

These dynamics are critical because male involvement has been shown to positively affect timely care-seeking, adherence to antenatal care, birth preparedness, facility-based delivery and support for newborn care. However, where dominant gender norms limit men's roles to financial provision alone, male involvement may remain partial and may not translate into shared decision-making, emotional support or active participation in maternal health services. In the absence of targeted national interventions that address these normative barriers, efforts to achieve equitable maternal and newborn health outcomes risk being undermined.

1.3 Rationale

The persistent underrepresentation of men in maternal and newborn health (MNH) programs in Ghana has significant implications for public health outcomes. While global and national policies advocate for inclusive approaches, male participation in MNH remains minimal (Atuahene *et al.*, 2017; Mapunda *et al.*, 2022). Understanding and addressing this gap is not only a matter of gender equity but also a practical strategy for improving maternal and neonatal survival rates.

The 2022 Ghana Demographic and Health Survey (GDHS) provides an opportunity to explore this issue at a national scale. It includes men's responses to questions on gender norms (Q618) and decision-making dynamics (Q610), which offer valuable insight into the socio-cultural beliefs that shape male involvement. These gender-related attitudes are important determinants of whether men support their partners in accessing and utilizing skilled maternal healthcare services.

By conducting a secondary analysis of GDHS 2022 data, this study will address that gap and generate nationally representative insights into how men's demographic characteristics and gender-norms influence maternal health outcomes. Furthermore, findings will support healthcare providers and policymakers in creating male-friendly health environments and integrating gender-transformative strategies into existing maternal health programs.

1.4 Conceptual Framework

The Social Ecological Model (SEM) provides a comprehensive framework to understand the multi-level influences on health behaviors, including male involvement in maternal and newborn health (MNH). It acknowledges that individual actions are shaped not only by personal factors but also by relationships, community norms, organizational practices, and policy environments (CDC, 2022). Applying SEM to this study allows for a comprehensive examination of the factors affecting men's participation in MNH within the national context of Ghana.

Individual Level

At the individual level, male involvement in MNH is shaped by personal knowledge, attitudes, beliefs, and demographic characteristics such as age, education, and income. A man's understanding of maternal health, his perception of his role during pregnancy and childbirth, and his health-seeking behavior directly influence whether he supports or participates in MNH services (Comrie-Thomson et al., 2015). For instance, men with higher educational attainment are more likely to recognize the benefits of antenatal care and skilled delivery, thereby increasing their engagement (Atuahene *et al.*, 2017; Mapunda *et al.*, 2022). Addressing these elements is crucial for fostering behavior change at the most fundamental level.

Interpersonal Level

Interpersonal relationships, particularly those between spouses, play a significant role in shaping men's involvement in maternal health. Spousal communication, emotional support, and shared decision-making are powerful determinants of whether a man accompanies his partner to antenatal appointments or supports her during delivery (Jennings *et al.*, 2017). Social pressure from peers and extended family also affects male behavior. In many Ghanaian households, elder family members, especially mothers-in-law or clan elders, influence men's decisions related to childbirth (Okafor *et al.*, 2022). Programs aimed at strengthening couple communication and promoting positive peer norms could enhance male participation in MNH.

Community Level

The broader community context, including cultural beliefs, gender norms, and societal expectations, significantly influences male participation in maternal and newborn health. In many parts of Ghana, cultural norms position childbirth as a woman's affair, limiting men's visibility and involvement (Dumbaugh *et al.*, 2014). In many Ghanaian communities, such cultural beliefs remain strong. Men who attempt to break these norms may face ridicule or be perceived as weak. However, communities can also serve as a site of transformation. Community leaders, religious institutions, and local influencers can help shift collective attitudes by promoting narratives that normalize and value male involvement in reproductive health.

Organizational Level

Healthcare institutions and workplace environments also shape the extent to which men are involved in MNH. Male participation is often constrained by health facilities that are not designed to accommodate or welcome men (Roudsari, sharifi and Goudarzi, 2023). In Ghana, studies show

that healthcare workers may display dismissive attitudes towards men in maternal health settings, or that facility layouts do not offer men space to engage (Ganle and Dery, 2015b). In some health facilities across Ghana, organizational barriers such as long waiting times, lack of privacy, and inflexible operating hours may discourage men from accompanying their partners. Health systems that train staff on respectful care, design male-friendly spaces, and implement flexible service hours have shown promise in improving male involvement (Galle *et al.*, no date).

Policy Level

At the policy level, national health strategies and legal frameworks determine whether male involvement is supported or sidelined. While Ghana's health policies, such as the Reproductive Health Strategic Plan and the Free Maternal Health Policy, have improved access for women, they often lack explicit strategies for integrating men into maternal health services (Bougangue and Ling, 2017). Policies that mandate paternity leave, support male participation in antenatal care, and include gender-transformative health education in school curricula can create an enabling environment for change (Wood *et al.*, 2024). Therefore, advocating for policy revisions that recognize and formalize men's roles in reproductive health is critical for sustainable impact across Ghana.

By applying the Social Ecological Model, this conceptual framework underscores the complex, interconnected factors influencing male involvement in maternal and newborn health in Ghana. Understanding these influences allows for a more holistic and effective design of interventions.

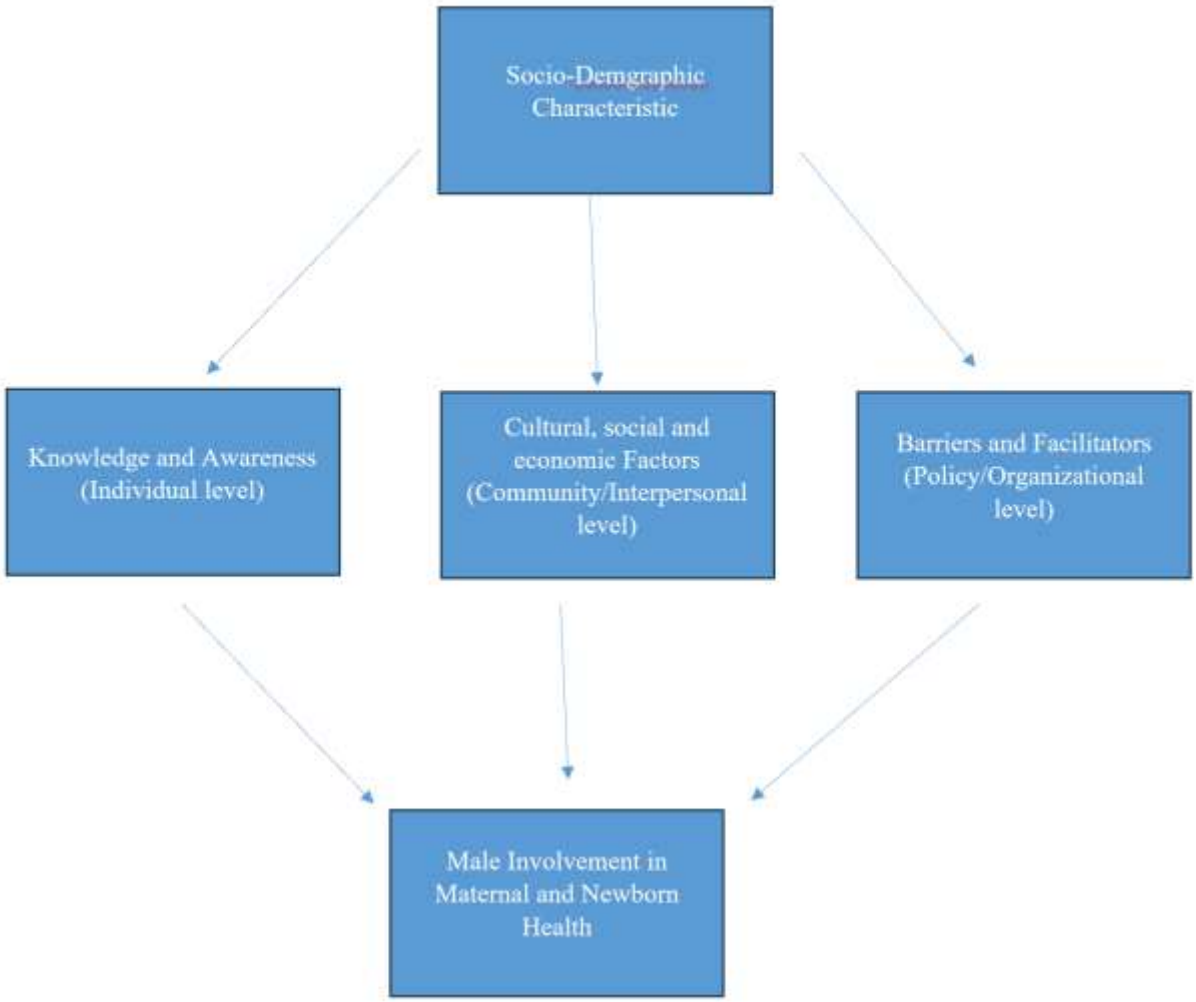

Figure 1.3 Conceptual Framework

Source: Adapted from the Social Ecological Model (Urie Bronfenbrenner, 1979; Centers for Disease Control and Prevention, 2022)

1.5 General Objective

To assess male involvement in maternal and newborn health in Ghana.

1.6 Specific Objectives

1. To estimate the rate of male involvement in maternal and reproductive health in Ghana,
2. To describe how men are involved in maternal health seeking.
3. To identify predictors of male involvement in maternal health.

1.7 Research Questions

1. What is the level of male involvement in maternal and newborn health in Ghana?
2. In what ways are men involved in maternal health-seeking activities in Ghana?
3. What factors are associated with male involvement in maternal and newborn health in Ghana?

1.8 Profile of the Study Area

This study covers the entire geographical area of Ghana, using data from the 2022 Ghana Demographic and Health Survey (GDHS), which was conducted across all 16 administrative regions of the country. Ghana is a West African nation bordered by Côte d'Ivoire to the west, Burkina Faso to the north, Togo to the east, and the Gulf of Guinea to the south. The country has a population of approximately 32 million people, with a nearly even distribution between males and females (GSS, 2021).

According to the 2021 Population and Housing Census, Ghana's population is predominantly youthful, with over 57% under the age of 25. Urbanisation is increasing steadily, with approximately 57% of the population residing in urban areas and 43% in rural areas. Regional population distribution is uneven, with the Greater Accra, Ashanti, Eastern, and Northern regions being the most populous. Ghana is culturally diverse, comprising multiple ethnic groups such as

Akan, Mole-Dagbani, Ewe, and Ga-Dangme, with English widely used as the official language. Religion also plays a significant role in social life, with Christianity, Islam, and traditional African beliefs being the most common (GSS, 2021).

Figure 4.4 Map of Ghana

1.9 Summary of thesis

This thesis is structured into six chapters.

Chapter One presents the introduction to the study, including the background, problem statement, rationale, conceptual framework, objectives, and research questions. It also provides a profile of the study area and outlines the significance of the study.

Chapter Two reviews relevant literature on male involvement in maternal and newborn health, gender norms, and shared decision-making. It examines global, regional, and Ghana-specific evidence, and identifies key gaps that the study seeks to address.

Chapter Three describes the methodology used in the study. It outlines the study design, data source, study population, sampling procedure, variables and measurements, and data analysis techniques, as well as ethical considerations and study limitations.

Chapter Four presents the results of the study. It includes descriptive statistics, bivariate analysis, and multivariate analysis examining the relationship between socio-demographic characteristics, gender attitudes, and male involvement in decision-making.

Chapter Five discusses the key findings in relation to existing literature and highlights the implications for policy and practice.

Chapter six provides conclusions and recommendations for improving male involvement in maternal and newborn health in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature on male involvement in maternal and newborn health (MNH), with particular emphasis on gender norms, women's autonomy, and shared decision-making. It draws on global, regional, and Ghana-specific evidence to examine how men's attitudes and socio-economic characteristics influence maternal and reproductive health outcomes.

2.2 Global and Ghanaian Context of Maternal and Newborn Health and Male Involvement

Improving maternal and newborn health (MNH) remains a central global public health priority, yet progress has been uneven and, in many settings, has slowed over the last decade. Recent global estimates indicate that approximately 287,000 women died from pregnancy-related causes in 2020, with the overwhelming majority occurring in low- and middle-income countries (LMICs), particularly in sub-Saharan Africa (WHO, 2023). Although maternal mortality declined substantially between 2000 and 2015, progress has largely stalled since 2016, reflecting persistent structural, health system, and socio-cultural barriers to effective maternal care (WHO, 2023). Neonatal mortality remains equally concerning, accounting for nearly half of all under-five deaths globally, with the highest burden concentrated in sub-Saharan Africa (UNICEF, 2023).

Beyond biomedical risk factors, there is growing recognition that social determinants, especially gender norms and household power relations play a decisive role in shaping maternal and newborn outcomes. In many LMIC contexts, men control household finances, transportation decisions, and access to healthcare, while also influencing reproductive choices and timing of care-seeking (Tokhi et al., 2018). Consequently, male partners' attitudes toward women's autonomy, intimate partner violence, contraception, and participation in maternal healthcare have direct implications

for women's ability to access antenatal care, deliver in health facilities, and receive timely emergency obstetric services (Roudsari et al., 2023).

Systematic reviews suggest that interventions engaging men can improve antenatal attendance, skilled birth utilization, postpartum practices, and couple communication, although evidence regarding long-term impacts on maternal and neonatal mortality remains limited (Tokhi et al., 2018). These findings highlight the importance of examining not only men's physical participation in MNH services but also their underlying beliefs and decision-making practices, which shape women's health-seeking behavior and autonomy within households.

Ghana reflects this broader global challenge. While national survey data demonstrate high coverage of antenatal care and increasing facility-based deliveries, maternal and neonatal mortality remain public health concerns, with pronounced regional and socio-economic inequalities (GSS et al., 2023). The 2022 Ghana Demographic and Health Survey (GDHS) is particularly significant because it includes a nationally representative men's questionnaire that captures attitudes toward gender norms and household decision-making, offering a unique opportunity to examine how male perspectives shape reproductive and maternal health dynamics (GSS et al., 2023).

Despite the growing policy emphasis on male engagement, empirical research in Ghana has largely relied on localized qualitative studies or women's self-reports, limiting the generalizability of findings and the ability to identify population-level patterns (Adusei et al., 2024; Ganle & Dery, 2015). Moreover, peri-urban municipalities such as Lower Manya Krobo remain under-represented in the literature, despite occupying a critical space between traditional rural norms and rapidly changing urban lifestyles.

This chapter therefore synthesizes conceptual and empirical literature on male involvement, gender norms, and shared decision-making in MNH.

2.3 Conceptualizing Male Involvement, Gender Norms, and Decision-Making in Maternal and Newborn Health

Male involvement in maternal and newborn health has evolved from a narrow focus on physical presence at health facilities to a multidimensional construct encompassing knowledge, attitudes, behaviors, and structural enabling factors. Contemporary scholarship emphasizes that male involvement includes emotional and financial support, participation in antenatal and postnatal care, engagement in newborn care, shared reproductive decision-making, and endorsement of gender-equitable norms (Galle et al., 2021). This broader conceptualization recognizes that men may contribute materially to maternal care while simultaneously holding beliefs that undermine women's autonomy or justify controlling behaviors, thereby producing contradictory effects on MNH outcomes.

Gender norms constitute the social expectations that define appropriate roles, responsibilities, and behaviors for men and women within a given society. In the context of MNH, such norms determine whether pregnancy and childbirth are perceived as exclusively women's responsibilities, whether men's presence in maternity wards is socially acceptable, and whether women are considered legitimate decision-makers regarding their own bodies and healthcare (Roudsari et al., 2023). Normative beliefs surrounding masculinity often portray men primarily as economic providers and household heads, while caregiving and reproductive health are framed as feminine domains. These constructions limit men's engagement in MNH and constrain women's bargaining power within intimate relationships.

Closely linked to gender norms is the concept of women's autonomy, which refers to the capacity to make independent or negotiated decisions regarding health care, fertility, mobility, and household resources. Empirical studies consistently demonstrate that women's autonomy is associated with increased use of antenatal services, facility-based delivery, and contraceptive uptake (Tokhi et al., 2018). However, autonomy rarely exists in isolation; in many settings it is mediated through joint or male-dominated decision-making structures, making the attitudes of male partners central to maternal health behavior.

Shared decision-making within couples represents a key pathway through which male attitudes translate into maternal and newborn health outcomes. In demographic surveys, this construct is typically measured through questions on who decides about healthcare utilization, family planning, and major household expenditures. Higher levels of reported joint decision-making are often associated with greater utilization of maternal health services and improved reproductive health outcomes (Tokhi et al., 2018). Nevertheless, scholars caution that "joint" decision-making does not necessarily imply equality; in patriarchal contexts, women may report joint decisions despite limited negotiation power or fear of conflict (Galle et al., 2021).

The interaction between male involvement, gender norms, and decision-making can be conceptualized as a dynamic pathway: socio-demographic factors and information exposure shape men's knowledge and beliefs; these beliefs influence household negotiations and behavioral support for maternal care; and such behaviors interact with health system characteristics and community norms to determine actual service utilization. Interventions that address only one component often yield limited or short-lived effects (Tokhi et al., 2018).

Evidence increasingly favors gender-transformative approaches, which seek to reshape unequal power relations and challenge harmful constructions of masculinity, rather than merely

incorporating men instrumentally into maternal health programs (Doyle et al., 2018). A randomized controlled trial in Rwanda demonstrated that participatory couple-based interventions targeting gender norms improved spousal communication, contraceptive use, and supportive behaviors during pregnancy (Doyle et al., 2018). Systematic reviews further suggest that interventions combining community dialogue, couple education, and health-system reform are more likely to produce sustainable changes in male engagement and maternal health practices (Tokhi et al., 2018).

Measurement challenges persist in this field. Definitions of male involvement vary widely across studies, ranging from single indicators such as accompaniment to antenatal clinics to composite indices integrating attitudes, behaviors, and decision-making patterns (Galle et al., 2021). Facility-based studies may overestimate male participation due to selection bias, while women's reports may under- or over-state male support depending on social desirability pressures. Nationally representative men's survey modules, such as those in the DHS program, therefore offer a valuable methodological advantage by enabling standardized measurement of gender attitudes and decision-making across diverse populations (GSS et al., 2023).

In the Ghanaian context, community-based health delivery platforms such as the Community-based Health Planning and Services (CHPS) system have been proposed as entry points for promoting male engagement in MNH. Recent systematic reviews indicate that CHPS has improved geographical access to maternal health services and community trust in formal healthcare, yet explicit strategies to integrate men as supportive and gender-equitable partners remain limited (Adusei et al., 2024; Elsey et al., 2023). These conceptual and programmatic considerations underscore the importance of examining men's gender norms and decision-making practices using

nationally representative data, while also accounting for regional heterogeneity and peri-urban dynamics such as those present in Lower Manya Krobo.

2.4 Global Evidence on Men's Gender Attitudes and Participation in Maternal and Reproductive Health

Globally, men's attitudes toward gender roles and women's autonomy have emerged as critical determinants of maternal and reproductive health behaviors. Contemporary public health scholarship increasingly recognizes that the benefits of skilled maternity care and modern contraception are mediated not only by service availability but also by intrahousehold power relations and normative expectations regarding masculinity and femininity (World Health Organization [WHO], 2019; Tokhi et al., 2018). As a result, male involvement is no longer conceptualized merely as physical accompaniment to clinics but as a broader construct encompassing gender-equitable beliefs, supportive practices, and shared decision-making.

Large-scale multi-country analyses using Demographic and Health Survey (DHS) data provide robust evidence that men's gender attitudes are strongly associated with maternal healthcare utilization. A pooled analysis of 24 LMICs by Jennings et al. (2018) found that women whose partners held gender-equitable views were significantly more likely to attend antenatal care and deliver in health facilities. Similar associations have been documented in subsequent DHS-based studies across Asia and Africa, indicating that male endorsement of women's autonomy is a consistent predictor of positive MNH behaviors across diverse cultural contexts (Wang et al., 2020).

Men's acceptance of intimate partner violence has also been identified as a powerful negative marker of maternal health outcomes. Using data from 36 countries, Yaya et al. (2020)

demonstrated that women whose partners justified wife-beating were significantly less likely to utilize skilled birth services or postnatal care. These findings align with broader evidence that tolerance of violence reflects deeply entrenched patriarchal norms that constrain women's mobility, suppress health-seeking behavior, and weaken negotiating power within relationships (WHO, 2019).

Beyond attitudes, men's direct participation in reproductive health decision-making and care processes has been linked to improved outcomes. A global systematic review by Tokhi et al. (2018) reported that male engagement interventions increased antenatal attendance, facility delivery, postpartum care uptake, and early newborn care practices such as thermal care and breastfeeding support. However, the review emphasized that effectiveness varied considerably depending on whether interventions addressed underlying gender norms or focused solely on instrumental involvement, such as escorting women to clinics.

More recent experimental evidence supports this distinction. A meta-analysis by Dworkin et al. (2020) of gender-transformative interventions targeting men found moderate but significant improvements in contraceptive uptake, partner communication, and equitable decision-making. Programs that explicitly challenged harmful norms were more successful than information-only approaches. This reinforces the conceptual argument that without normative change, increases in male presence at health facilities may not translate into sustained improvements in maternal autonomy or wellbeing.

Despite these promising findings, global evidence also highlights persistent structural and institutional barriers that limit men's engagement even when attitudes are favorable. Facility environments are frequently described as "female spaces," with limited privacy, inflexible visiting policies, and provider behaviors that implicitly or explicitly discourage male attendance (Roudsari

et al., 2023). Such constraints weaken the translation of supportive attitudes into active participation and contribute to the uneven effects observed across interventions.

Importantly, global studies reveal substantial heterogeneity in male involvement across regions and socio-economic groups. Education consistently emerges as one of the strongest predictors of gender-equitable attitudes and joint decision-making, while younger age, urban residence, and exposure to mass media are also associated with more progressive views (Wang et al., 2020; Yaya et al., 2020). These patterns suggest that structural development and access to information can shift norms over time, though such changes remain uneven and context-dependent.

From a methodological standpoint, global literature increasingly emphasizes the value of men's self-reported data in understanding reproductive health dynamics. Earlier research relied heavily on women's accounts of partner support, which, while valuable, may obscure men's own perceptions and motivations (Galle et al., 2021). The inclusion of standardized gender-norms modules in DHS men's questionnaires therefore represents a significant advance, enabling cross-country comparison and multilevel analysis of how male attitudes intersect with household decision-making and service use.

Taken together, global evidence establishes three critical points. First, men's gender attitudes are not peripheral but central to maternal and newborn health outcomes. Second, interventions that ignore underlying norms are unlikely to achieve sustained impact. Third, nationally representative male datasets offer a powerful but underutilized resource for identifying population-level determinants of equitable involvement. These insights provide an essential backdrop for examining how similar dynamics operate in sub-Saharan Africa and, more specifically, within Ghana's socio-cultural and health system context.

2.5 Male Involvement and Gender Norms in Sub-Saharan Africa

In sub-Saharan Africa, male involvement in maternal and reproductive health is deeply embedded within patriarchal social systems that assign reproductive responsibilities primarily to women while positioning men as household heads and principal decision-makers. These gendered role expectations shape men's perceptions of pregnancy and childbirth as feminine domains, often limiting their participation in maternal health services and constraining women's autonomy in healthcare decisions (Roudsari et al., 2023).

Recent multi-country analyses indicate that gender norms remain among the strongest predictors of maternal healthcare utilization across the region. A DHS-based study covering 33 African countries found that women whose partners endorsed gender-equitable norms were significantly more likely to complete four or more antenatal care visits and to deliver in health facilities, even after adjusting for education, wealth, and urban residence (Wang et al., 2020). Conversely, acceptance of wife-beating and beliefs in male dominance over household decisions were consistently associated with delayed care-seeking and lower odds of skilled birth attendance (Yaya et al., 2020).

Qualitative evidence further illuminates how these norms operate in everyday life. In rural and peri-urban communities across Ghana, Tanzania, Malawi, and Uganda, men frequently describe pregnancy care as "women's business," while clinic attendance is perceived as incompatible with masculine identity or productive labor roles (Dumbaugh et al., 2014; Morfaw et al., 2019). Men who accompany partners to antenatal clinics may face ridicule from peers or be labeled as submissive, reinforcing social sanctions against visible involvement (Morfaw et al., 2019).

Health system structures often reinforce these normative barriers. Facilities are commonly organized around women as the sole clients, with waiting areas, health talks, and consultation spaces that exclude or discourage male participation. A systematic review of facility-level barriers across 16 African countries identified provider hostility, lack of privacy, long waiting times, and rigid clinic schedules as key deterrents to male attendance (Roudsari et al., 2023). These institutional constraints weaken the translation of supportive attitudes into sustained engagement and contribute to the gap between stated approval of maternal healthcare and actual participation.

Nevertheless, there is growing evidence that gender norms in the region are not static and can be reshaped through deliberate intervention. Gender-transformative programs targeting couples and communities have demonstrated measurable improvements in male support behaviors and household decision-making patterns. In Rwanda, the Bandebereho intervention significantly increased men's accompaniment of partners to antenatal visits, participation in birth preparedness, and shared decision-making on family planning, while also reducing acceptance of intimate partner violence (Doyle et al., 2018). Similar effects have been reported in Malawi and Uganda, where participatory community dialogues and couple counseling improved spousal communication and women's negotiating power over reproductive choices (Dworkin et al., 2020).

However, regional evidence also highlights uneven progress across socio-economic and geographic strata. Education remains a dominant determinant of men's gender attitudes: men with secondary or higher education are substantially more likely to support women's autonomy and joint healthcare decision-making than men with no formal schooling (Wang et al., 2020). Urban residence and regular exposure to radio or television health messaging further predict more gender-equitable views, reflecting the role of information environments in reshaping social norms (Yaya

et al., 2020). In contrast, rural communities and poorer households continue to exhibit more restrictive attitudes and lower levels of male participation in maternal care (Roudsari et al., 2023).

Despite this expanding evidence base, important gaps remain. Many African studies rely on small, facility-based or community-specific samples, limiting generalizability and obscuring national-level patterns. Furthermore, the majority of quantitative analyses draw on women's reports of partner behavior rather than men's self-reported attitudes and decision-making roles, potentially misrepresenting male perspectives (Galle et al., 2021). Few studies exploit the full potential of recent DHS men's datasets to model how socio-demographic factors interact with gender norms to shape reproductive health behaviors at population scale.

For Ghana specifically, available evidence remains fragmented, dominated by localized qualitative studies in selected districts and regions, with limited integration into national policy discourse. The absence of comprehensive, men-focused analyses using the most recent GDHS constrains understanding of how regional diversity, urbanization, and socio-economic transitions influence male involvement patterns. This limitation is particularly salient for peri-urban municipalities such as Lower Manya Krobo, where traditional gender norms coexist with rapid social change, potentially producing distinct configurations of male attitudes and household decision-making that are not captured in broader rural–urban comparisons.

Taken together, the sub-Saharan African literature demonstrates that male involvement in MNH is shaped by a complex interplay of entrenched gender norms, educational and economic opportunities, and health system design. While transformative interventions show promise, their effectiveness depends on contextual adaptation and sustained institutional support. These insights underscore the need for nationally representative analyses of men's gender attitudes and decision-

making roles, as undertaken in the present study using the 2022 GDHS, to inform both national strategies and decentralized programming.

2.6 Evidence from Ghana on Male Involvement and Gender Norms

Empirical evidence from Ghana consistently demonstrates that male involvement in maternal and newborn health (MNH) is strongly shaped by socio-cultural norms, gendered role expectations, and health system constraints. Qualitative studies across different regions indicate that men are widely regarded as household heads and financial providers, while pregnancy, childbirth, and newborn care are perceived primarily as women's responsibilities (Ganle & Dery, 2015a; Dumbaugh et al., 2014). These normative expectations limit men's direct participation in maternal health services, even when men acknowledge the importance of supporting their partners.

In rural Ghana, male support is often expressed indirectly through the provision of financial resources or transportation rather than physical presence at antenatal clinics or delivery rooms (Dumbaugh et al., 2014). Although such support is valuable, it may not sufficiently enhance women's autonomy or emotional wellbeing during pregnancy and childbirth. In northern Ghana, Ganle and Dery (2015b) reported that men who accompanied their partners to health facilities risked social ridicule and were sometimes perceived as weak or overly submissive, reinforcing norms that discourage visible male involvement.

Evidence from peri-urban and urban settings suggests a gradual shift toward more supportive male attitudes, particularly among younger and more educated men. In the Bosomtwe District, Morgan et al. (2022) found that some men expressed willingness to accompany their partners to antenatal care and participate in birth preparedness. However, this willingness was frequently constrained by health system barriers, including long waiting times, unfriendly provider attitudes, and the

absence of male-inclusive spaces within health facilities. Quantitative evidence from coastal Ghana similarly indicates that although men recognize their role in maternal healthcare, actual participation remains limited, particularly in relation to clinic attendance and shared decision-making (Craymah et al., 2017).

At the national level, data from the 2022 Ghana Demographic and Health Survey (GDHS) reveal high levels of male knowledge regarding maternal health services and family planning, alongside persistent endorsement of restrictive gender norms related to women's autonomy and household decision-making (GSS et al., 2023). This gap between knowledge and practice reflects the continued influence of patriarchal norms and structural barriers on male involvement in MNH.

Community-based health initiatives, particularly the Community-based Health Planning and Services (CHPS) programme, have improved access to maternal healthcare across Ghana. However, systematic reviews of CHPS implementation highlight limited integration of men beyond their roles as financial supporters, with few interventions explicitly addressing men's gender norms or promoting equitable decision-making within households (Adusei et al., 2024; Elsey et al., 2023). Collectively, these findings underscore the need for nationally representative analyses that focus explicitly on men's attitudes toward gender norms and their roles in household decision-making.

2.7 Determinants of Male Involvement in Maternal and Newborn Health

The literature identifies several socio-demographic and contextual factors that shape male involvement in maternal and newborn health. Education is consistently one of the strongest predictors of gender-equitable attitudes and shared decision-making. Men with secondary or higher education are more likely to support women's autonomy, reject the justification of intimate

partner violence, and engage in joint reproductive health decisions (Jennings et al., 2017; Wang et al., 2020).

Wealth status and place of residence also play important roles. Men from wealthier households and urban areas tend to hold more gender-equitable views, partly due to increased exposure to education, media, and health information (Yaya et al., 2020). In contrast, men living in poorer or rural settings are more likely to adhere to traditional gender norms that prioritize male authority and limit women's participation in healthcare decision-making (Tokhi et al., 2018).

Age and marital status further influence male involvement patterns. Younger men are generally more receptive to shared decision-making and supportive roles during pregnancy and childbirth, reflecting generational shifts in gender attitudes (Tokhi et al., 2018). Married men, particularly those in stable unions, are more likely to report involvement in reproductive and maternal health decisions, although power asymmetries within relationships often persist.

Health system factors mediate the translation of supportive attitudes into active participation. Even when men express willingness to be involved, facility-level barriers—such as long waiting times, lack of privacy, rigid clinic schedules, and negative provider attitudes—can discourage engagement (Roudsari et al., 2023; Mapunda et al., 2022). These findings highlight that male involvement is not solely an individual choice but an outcome shaped by broader social, economic, and institutional environments.

2.8 Gaps in Existing Literature

Despite growing recognition of the importance of male involvement in MNH, several gaps remain in the Ghanaian literature. First, much of the existing evidence is based on localized qualitative studies conducted in selected districts or communities (Ganle & Dery, 2015a; Dumbaugh et al.,

2014; Morgan et al., 2022). While these studies provide valuable contextual insights, their findings are not easily generalizable at the national level.

Second, many studies rely on women's reports of partner support and involvement, with limited attention to men's self-reported attitudes, beliefs, and decision-making roles. This reliance may obscure how men themselves perceive gender norms, women's autonomy, and shared decision-making within households. Nationally representative men's survey data, such as those collected through the DHS programme, remain underutilized in Ghanaian research on MNH (GSS et al., 2023).

Third, relatively limited empirical attention has been paid to peri-urban contexts, where traditional gender norms coexist with rapid social and economic change. These transitional settings may exhibit distinct patterns of male involvement that are not adequately captured in conventional rural–urban comparisons (Ganle & Dery, 2015b).

Finally, although community-based platforms such as CHPS have expanded access to maternal healthcare, there is limited empirical evidence assessing their effectiveness in transforming men's gender norms or promoting equitable household decision-making (Adusei et al., 2024; Elsey et al., 2023). Addressing these gaps is essential for informing gender-transformative policies and interventions that promote meaningful male engagement in maternal and newborn health.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter describes the methodology employed in this study. It outlines the study design, data source, study area, and study population. The chapter further presents the sampling procedure, inclusion and exclusion criteria, and the variables and their measurements. It also explains the data management and analysis procedures, as well as the ethical considerations and limitations of the study.

3.2 Study Design

This study employed a quantitative, cross-sectional design using secondary data from the 2022 Ghana Demographic and Health Survey (GDHS). The cross-sectional approach allowed for a snapshot analysis of men's gender-related attitudes and involvement in reproductive and maternal health decision-making across the country at a specific point in time. Secondary data analysis was selected for its ability to provide access to large-scale, nationally representative datasets that enabled generalisable conclusions and robust statistical analysis.

3.3 Source of Data

The data for this study were obtained from the 2022 Ghana Demographic and Health Survey (GDHS), a nationally representative survey conducted by the Ghana Statistical Service (GSS) in collaboration with ICF under the Demographic and Health Surveys (DHS) Programme. The GDHS collects comprehensive information on population and health indicators, including fertility, family planning, maternal and child health, and gender-related dynamics across all regions of Ghana.

This study specifically utilized the men's recode (MR) dataset, which contains information on men aged 15–59 years who were either permanent residents of selected households or visitors present

the night before the survey. Access to the dataset was obtained through the DHS Program website after formal registration and submission of a data request specifying the purpose of the study.

The dataset was downloaded in STATA format and imported into Stata version 18 for analysis. Relevant variables were identified and extracted, including those related to gender norms (e.g., attitudes toward intimate partner violence and decision-making), socio-demographic characteristics (age, education, wealth index, place of residence, religion, marital status, and region), and male involvement in maternal health.

To ensure relevance to maternal health involvement, the analysis was restricted to men who had at least one child, as only this group could meaningfully report involvement in maternal health-related activities. Additional data cleaning procedures were performed, including recoding variables and excluding observations with missing or incomplete information on key variables used in the analysis.

Sampling Procedure

This study adopted the sampling design of the 2022 GDHS, which employed a two-stage stratified cluster sampling technique to ensure national and regional representativeness.

In the first stage, enumeration areas (EAs) were selected using probability proportional to size (PPS) from the sampling frame developed by the Ghana Statistical Service based on the 2021 Population and Housing Census. This ensured proportional representation of both urban and rural areas across all administrative regions.

In the second stage, approximately 30 households were selected from each EA using systematic random sampling. All eligible men aged 15–59 years in the selected households were identified and interviewed using standardized DHS questionnaires.

For this study, the analytical sample was further restricted to **men with at least one child and complete information on variables of interest**, ensuring that the analysis focused on respondents relevant to maternal health involvement.

3.4 Study Area

The study covered all 16 administrative regions of Ghana, as captured in the 2022 GDHS. The data were representative of both urban and rural populations and reflected the demographic, cultural, and geographic diversity across the country.

3.5 Study Population

The study population consisted of men aged 15–59 years who participated in the 2022 GDHS and responded to relevant questions on gender norms, household decision-making, and socio-demographic characteristics. Only male respondents who completed all relevant sections of the men's questionnaire were included in the analysis.

3.7 Inclusion and Exclusion Criteria

Inclusion Criteria:

• Male respondents aged 15–59 years who completed the 2022 GDHS men's questionnaire.
• Respondents with complete data on variables related to gender attitudes, reproductive decision-making, and background characteristics (3726).

Exclusion Criteria:

• Male respondents with incomplete responses.

3.7 Variables and Measurements

Variable Type	Variable	Operational Definition	Scale of Measurement
Dependent Variable	Gender-equitable attitudes	Composite index derived from DHS Q618 variables (attitudes toward wife-beating, women's right to refuse sex, and condom negotiation). Respondents classified as having high (equitable) or low (inequitable) gender-equitable attitudes based on scoring.	Binary (Equitable / Inequitable)
	Shared decision-making	Derived from DHS Q610 variables on who makes decisions regarding respondent's health care, family planning, and household purchases. Categorized as joint decision-making if decisions were made together with partner.	Binary (Joint / Not joint)
	Male involvement in maternal health	Measured based on men's reported participation in maternal health-related activities (e.g., antenatal care involvement). Recoded as involved or not involved. Analysis restricted to men with at least one child.	Binary (Yes / No)
Independent Variables	Age	Age of respondent in completed years at time of survey,	Categorical

		grouped into categories (15–24, 25–34, 35–44, 45–59).	
	Level of education	Highest level of formal education attained (no education, primary, secondary, higher).	Categorical
	Region of residence	Administrative region where the respondent resides.	Categorical
	Type of residence	Place of residence classified as urban or rural.	Binary (Urban / Rural)
	Wealth index	Household economic status derived from DHS asset-based index (poorest, poorer, middle, richer, richest).	Categorical (Ordinal)
	Religion	Religious affiliation of respondent (e.g., Christian, Muslim, Traditional, Other).	Categorical
	Marital status	Respondent's marital/union status (currently in union, formerly in union).	Categorical
	Exposure to media	Frequency of exposure to mass media (radio, television, newspapers), used as proxy for access to information.	Categorical
	Exposure to family planning information	Whether respondent has been exposed to family planning messages through media or health services.	Binary (Yes / No)

3.8 Data Management and Analysis

To ensure that the results were nationally representative and to account for the complex survey design of the Ghana Demographic and Health Survey (GDHS), sampling weights provided by the DHS were applied throughout the analysis.

The men's sampling weight variable (mv005) was used and normalized by dividing by 1,000,000, as recommended by the DHS Program. In addition, the survey design elements were incorporated using the cluster variable (mv021) and the stratification variable (mv022).

The dataset was then declared as survey data using the Stata survey (svy) command, allowing for appropriate adjustment of standard errors for clustering and stratification.

Descriptive statistics were generated using weighted frequencies and percentages. Bivariate analysis was conducted using the chi-square test to assess associations between socio-demographic characteristics and gender-equitable attitudes, as well as male involvement in maternal health. Multivariate analysis was performed using logistic regression models to identify predictors of male involvement in maternal health, with results presented as adjusted odds ratios (AORs) and 95% confidence intervals.

3.9 Ethical Considerations

This study used publicly available, de-identified secondary data from the DHS Program. Permission to use the dataset was obtained through the online request platform. As no primary data collection or interaction with human subjects occurred, ethical approval was obtained from Ensign Global University Institutional Review Board. The researcher adhered to principles of responsible data use, confidentiality, and data protection throughout the analysis.

3.11 Dissemination of Results

The results of this study were compiled into a final thesis submitted to the Ensign Global University as part of the requirements for the award of a Master of Public Health degree. In addition, the findings were presented at academic seminars, public health conferences, or stakeholder meetings. Efforts were also made to publish the study in peer-reviewed journals to contribute to the broader discourse on gender, health equity, and male involvement in maternal and reproductive health.

3.12 Study Limitations

This study was based on secondary data from the 2022 GDHS, which limited the researcher's control over the type and depth of data collected. The analysis was restricted to the variables available in the dataset, which may not have captured all dimensions of male involvement or beliefs, community norms, or facility-level barriers. Furthermore, the cross-sectional nature of the data did not allow for causal inferences. Despite these limitations, the use of nationally representative data enhanced the generalisability of the findings and provided valuable insights into male engagement in maternal and newborn health at a population level.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter presents the results of the study based on data from the 2022 Ghana Demographic and Health Survey (GDHS). It begins with a description of the socio-demographic characteristics of the respondents, followed by an analysis of men's gender attitudes and decision-making patterns. The chapter further examines the associations between socio-demographic factors, gender attitudes, and male involvement in maternal and reproductive health using bivariate and multivariate analyses.

4.2 Demographic Characteristics

A total of 1,517 men aged 15–59 years were included in the analysis. The age distribution indicates that the majority of respondents were within the economically active age groups. Men aged 35–44 years constituted the largest proportion (40.9%), followed by those aged 25–34 years (37.6%). Respondents aged 45–59 years accounted for 16.2%, while only a small proportion (5.2%) were aged 15–24 years.

In terms of educational attainment, more than half of the respondents (53.8%) had secondary education, making it the most common level. About 16.7% had no formal education, while 16.5% had tertiary education and 13.0% had primary education.

Regarding place of residence, slightly more than half of the respondents (53.5%) lived in urban areas, whereas 46.5% resided in rural areas.

The marital status distribution shows that the vast majority of respondents were married (85.7%). A smaller proportion (11.8%) were living with a partner, while very few respondents were divorced (0.7%), separated (1.9%), or widowed (0.0%).

Regarding religion, the majority of respondents identified as Christians (60.2%), followed by Muslims (31.2%). Traditional or spiritual beliefs accounted for 4.4%, while 4.3% reported having no religious affiliation.

The wealth distribution indicates a relatively balanced spread across quintiles, although slightly higher proportions were observed among respondents in the richer (23.1%) and richest (23.0%) categories. The poorest and poorer groups accounted for 18.4% and 18.5% respectively, while 17.0% were in the middle wealth category.

Regionally, respondents were distributed across all regions of Ghana. The highest proportions were recorded in Greater Accra (16.2%) and Ashanti (13.5%) regions, followed by the Northern region (11.3%). Other regions contributed smaller proportions, ranging from 2.5% to 8.1%.

Table 4.2 Demographic Characteristics

Category	Frequency	Percentage
Age Group (years)		
15–24	87	5.2
25–34	582	37.6
35–44	608	40.9
45–59	240	16.2
Educational Level		
No education	357	16.7
Primary	197	13.0
Secondary	705	53.8
Tertiary	258	16.5
Place of Residence		
Urban	687	53.5
Rural	830	46.5
Marital Status		

Married	1,338	85.7
Living with partner	150	11.8
Widowed	1	0.0
Divorced	4	0.7
Separated	24	1.9
Religion		
Christian	770	60.2
Muslim	601	31.2
Traditional/Spiritualist	82	4.4
No religion	64	4.3
Wealth Index		
Poorest	411	18.4
Poorer	348	18.5
Middle	270	17.0
Richer	267	23.1
Richest	221	23.0
Region		
Western	68	6.1
Central	63	8.1
Greater Accra	90	16.2
Volta	52	3.3
Eastern	66	7.4
Ashanti	70	13.5
Western North	74	2.9
Ahafo	86	2.5
Bono	64	3.2
Bono East	112	6.0
Oti	87	3.0
Northern	154	11.3
Savannah	129	3.0
North East	150	3.4
Upper East	126	6.1
Upper West	126	4.1

4.4 A description of how men are involved in maternal health seeking

The results show varying levels of male involvement across different maternal health activities. With respect to antenatal care (ANC), slightly more than half of the respondents (54.8%) reported being present during ANC visits, while 45.2% were not present.

In contrast, male involvement during delivery was relatively higher. A majority of respondents (68.2%) reported being present during delivery, compared to 31.8% who were not present.

Table 4.2 Forms of Male Involvement in Maternal Health (n = 1,517)

Category	Frequency	Percentage
Presence during ANC visits		
Not present	649	45.2
Present	788	54.8
Presence during delivery		
Not present	482	31.8
Present	1,035	68.2

4.3 Rate of Male Involvement in Maternal and Reproductive Health in Ghana

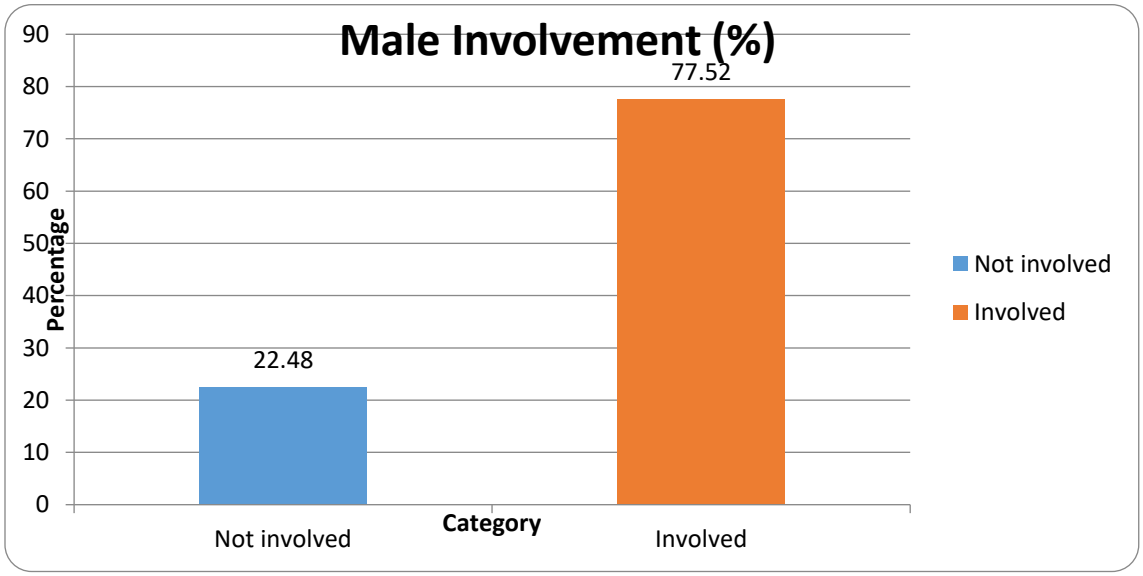

Figure 4.1 Rate of Male Involvement

The results indicate a high level of male involvement in maternal health among respondents. The majority of men (77.5%) were classified as involved, while a smaller proportion (22.5%) were not involved.

4.5 Factors Associated with Male Involvement in Maternal Health

Table 4.5 presents the association between selected socio-demographic characteristics and male involvement in maternal and newborn health. The results show that age group was significantly associated with male involvement ($F = 4.46$, $p = 0.0042$). A higher proportion of involvement was observed among respondents aged 35–44 years (43.49%), compared to those aged 25–34 years (35.90%) and 15–24 years (4.33%), suggesting that male involvement increases with age, particularly among those in their middle reproductive years.

Educational level was not significantly associated with male involvement ($F = 2.36$, $p = 0.0731$), although variations were observed. Respondents with higher education (18.06%) showed relatively greater involvement compared to those with no education (16.93%) and primary education (12.86%), while those with secondary education constituted the largest proportion in both involvement categories.

Similarly, wealth index was not significantly associated with male involvement ($F = 1.05$, $p = 0.3762$). However, respondents in the richest (23.92%) and poorest (19.23%) categories showed slightly higher involvement compared to the middle wealth group, indicating no clear pattern across wealth categories.

Place of residence also showed no statistically significant association with male involvement ($F = 3.34$, $p = 0.0683$), although a higher proportion of involved respondents were from urban areas (55.36%) compared to rural areas (44.64%).

In contrast, religion was significantly associated with male involvement ($F = 10.64$, $p < 0.001$). A higher proportion of involvement was observed among Muslims (35.25%) compared to Christians (56.18%), when contrasted against their respective non-involvement proportions, indicating differences in involvement patterns across religious groups.

Marital status was also significantly associated with male involvement ($F = 9.67$, $p < 0.001$). The majority of involved respondents were married (89.10%), compared to 74.00% among those not involved. Conversely, respondents living with a partner (9.14%) and those separated (1.06%) showed lower levels of involvement, suggesting that formal marital union may influence male participation in maternal health.

Finally, region was significantly associated with male involvement ($F = 3.83$, $p < 0.001$), indicating geographical variations. Higher involvement proportions were observed in regions such as Greater Accra (17.39%) and Northern Region (13.63%), while relatively lower involvement was seen in regions such as Western North (2.33%) and Ahafo (1.83%), highlighting regional disparities in male participation.

Table 4.3 Factors Associated with Male Involvement in Maternal

Variables	No involvement (%)	Involvement (%)	P-value
Age Group			**0.0042**
15–24	8.39	4.33	
25–34	43.63	35.90	
35–44	31.99	43.49	
45–59	15.99	16.28	
Educational Level			**0.0731**
No education	15.76	16.93	
Primary	13.62	12.86	
Secondary	59.61	52.15	
Higher	11.02	18.06	
Wealth Index			**0.3762**
Poorest	15.49	19.23	
Poorer	21.04	17.80	
Middle	17.30	16.92	
Richer	26.33	22.14	
Richest	19.84	23.92	
Place of Residence			**0.0683**
Urban	47.26	55.36	
Rural	52.74	44.64	
Religion			**0.0000**
Christian	74.13	56.18	
Islam	17.02	35.25	
Traditional/Spiritualist	2.61	4.90	
No religion	6.24	3.68	
Marital Status			**0.0000**
Married	74.00	89.10	
Living with partner	20.76	9.14	
Widowed	0.00	0.03	
Divorced	0.61	0.67	
Separated	4.63	1.06	
Region			**0.0000**
Western	8.52	5.33	
Central	12.40	6.85	
Greater Accra	12.18	17.39	
Volta	2.22	3.59	
Eastern	11.16	6.33	
Ashanti	16.17	12.67	
Western North	5.05	2.33	
Ahafo	4.68	1.83	
Bono	3.62	3.10	

Bono East	4.91	6.34	
Oti	2.94	3.01	
Northern	3.16	13.63	
Savannah	4.09	2.68	
North East	2.03	3.75	
Upper East	3.47	6.91	
Upper West	3.43	4.28	

4.6 Logistic Regression of Factors Associated with Male Involvement in Maternal Health

The multivariable logistic regression analysis identified several factors associated with male involvement in maternal health after adjusting for potential confounders.

Age group was not significantly associated with male involvement after adjustment. Although men aged 35–44 years (COR = 2.64, p = 0.003) and 45–59 years (COR = 1.98, p = 0.041) had higher odds of involvement at the crude level, these associations were no longer statistically significant in the adjusted model ($p > 0.05$). This suggests that the observed relationship at the bivariate level may have been influenced by other variables included in the model.

Educational level showed a significant association with male involvement. Specifically, respondents with higher education were significantly more likely to be involved in maternal health compared to those with no education (AOR = 1.80, 95% CI: 1.00–3.22, p = 0.048). However, primary and secondary education levels were not significantly associated with male involvement. This implies that higher education may enhance awareness and understanding of maternal health, thereby promoting male participation.

Place of residence (urban versus rural) was not significantly associated with male involvement in maternal health in both the crude and adjusted analyses (AOR = 0.82, p = 0.360), indicating that residence alone does not independently predict involvement when other factors are considered.

Religion was significantly associated with male involvement. Respondents who practiced Islam were more than twice as likely to be involved in maternal health compared to Christians (AOR = 2.35, 95% CI: 1.36–4.05, p = 0.002). Although Traditional/Spiritualist respondents showed a significant association at the crude level, this did not remain significant after adjustment. This suggests that religious affiliation, particularly Islam, may influence male involvement through cultural or social norms.

Marital status was also significantly associated with male involvement. Compared to married respondents, those living with a partner were significantly less likely to be involved (AOR = 0.56, p = 0.022), while those no longer living together with their partners were even less likely to be involved (AOR = 0.27, p = 0.004). However, being divorced was not significantly associated with involvement. These findings indicate that formal marital relationships may play an important role in promoting male participation in maternal health.

Regional differences were observed in male involvement. Respondents from the Northern Region were significantly more likely to be involved in maternal health compared to those in the reference region (AOR = 3.76, 95% CI: 1.37–10.30, p = 0.010). Similarly, respondents from the Upper East Region were more likely to be involved (AOR = 2.53, 95% CI: 1.09–5.85, p = 0.030). Other regions did not show statistically significant associations after adjustment. This suggests that geographical and cultural factors may influence male involvement in maternal health.

Overall, the analysis indicates that educational level, religion, marital status, and region are important determinants of male involvement in maternal health, while age and place of residence are not significant predictors after controlling for other variables.

Table 4.4 Logistic Regression of Factors Associated with Male Involvement in Maternal Health

Variable	Category	COR (95% CI)	COR p-value	AOR (95% CI)	AOR p-value
Age Group	Ref: 15–24				
	25–34	1.60 (0.84–3.04)	0.154	1.12 (0.54–2.33)	0.756
	35–44	2.64 (1.38–5.02)	0.003*	1.70 (0.79–3.68)	0.177
	45–59	1.98 (1.03–3.79)	0.041*	1.18 (0.53–2.66)	0.687
Educational Level	Ref: No education				
	Primary	0.88 (0.52–1.50)	0.635	1.20 (0.67–2.15)	0.533
	Secondary	0.81 (0.55–1.20)	0.299	1.35 (0.87–2.08)	0.183
	Higher	1.53 (0.89–2.62)	0.126	1.80 (1.00–3.22)	0.048*
Place of Residence	Ref: Urban				
	Rural	0.72 (0.51–1.03)	0.069	0.82 (0.55–1.25)	0.360
Religion	Ref: Christianity				
	Islam	2.73 (1.73–4.31)	0.000*	2.35 (1.36–4.05)	0.002*
	Traditional/Spiritualist	2.48 (1.18–5.22)	0.017*	1.53 (0.74–3.17)	0.252
	No religion	0.78 (0.40–1.50)	0.454	0.88 (0.46–1.69)	0.702
Marital Status	Ref: Married				
	Living with partner	0.37 (0.24–0.56)	0.000*	0.56 (0.34–0.92)	0.022*
	Divorced	0.91 (0.09–9.30)	0.937	1.08 (0.15–7.99)	0.941
	No longer living together	0.19 (0.08–0.47)	0.000*	0.27 (0.11–0.67)	0.004*
(Region)	Ref: Western				
	Central	0.88 (0.39–2.02)	0.767	0.80 (0.33–1.91)	0.610
	Greater Accra	2.28 (1.00–5.21)	0.051	1.68 (0.72–3.95)	0.233

	Volta	2.58 (0.93–7.16)	0.068	2.47 (0.87–7.01)	0.089
	Eastern	0.91 (0.40–2.04)	0.812	1.10 (0.47–2.57)	0.833
	Ashanti	1.25 (0.54–2.91)	0.601	1.13 (0.49–2.60)	0.770
	Western North	0.74 (0.33–1.62)	0.445	0.77 (0.35–1.72)	0.527
	Ahafo	0.62 (0.29–1.32)	0.217	0.56 (0.25–1.27)	0.167
	Bono	1.37 (0.56–3.35)	0.489	1.19 (0.48–3.00)	0.704
	Bono East	2.06 (0.99–4.29)	0.052	1.72 (0.79–3.76)	0.172
	Oti	1.63 (0.72–3.72)	0.243	1.75 (0.71–4.31)	0.222
	Northern	6.90 (2.74–17.38)	0.000*	3.76 (1.37–10.30)	0.010*
	Savannah	1.05 (0.46–2.36)	0.911	0.61 (0.22–1.71)	0.346
	North East	2.95 (1.42–6.13)	0.004*	2.00 (0.86–4.62)	0.106
	Upper East	3.18 (1.39–7.27)	0.006*	2.53 (1.09–5.85)	0.030*
	Upper West	1.99 (0.93–4.26)	0.075	1.40 (0.56–3.46)	0.471

CHAPTER FIVE

5.0 DISCUSSION

5.1 Level of Male Involvement in Maternal and Reproductive Health

The findings of this study indicate a relatively high level of male involvement in maternal and reproductive health in Ghana, with 77.5% of men classified as involved. At face value, this suggests encouraging progress toward inclusive maternal health practices. However, this high level of reported involvement should be interpreted cautiously within the Ghanaian socio-cultural context.

One possible explanation for the high level of involvement observed is the way male participation is measured in survey-based studies such as the Ghana Demographic and Health Survey. Male involvement is not always limited to a man's physical presence at ANC or delivery. It may also include indirect forms of support, such as providing money, arranging transport, participating in household decisions and helping women access care (Galle et al., 2021; Tokhi et al., 2018). Within the Ghanaian context, this is important because men are often regarded as household heads and primary providers, while pregnancy, childbirth and newborn care are still commonly seen as women's responsibilities (Ganle & Dery, 2015; Dumbaugh et al., 2014). Therefore, some men may report themselves as involved because they fulfilled expected provider roles, even if they were not physically present throughout the maternal health process. This means that the high prevalence observed may reflect socially expected forms of support rather than fully shared or gender-equitable participation in maternal health.

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Additionally, increasing exposure to maternal health information through media, health campaigns, and community-based initiatives such as the Community-based Health Planning and Services (CHPS) system may have contributed to improved awareness among men. Over time, such exposure can shift attitudes and encourage supportive behaviours, even if deeper gender norms remain unchanged. This aligns with broader evidence suggesting that knowledge and awareness are often the first steps toward behavioural change, although they do not always translate into equitable practices.

When compared with existing literature, the high level of involvement observed in this study is consistent with findings from some Ghanaian and sub-Saharan African studies, which report moderate to high levels of male participation when broader definitions of involvement are used. For instance, Tokhi et al. (2018) found that male engagement, particularly in supportive roles, has increased in many low- and middle-income countries due to targeted interventions and policy attention. Similarly, Galle et al. (2021) highlight that male involvement is often more prevalent when measured as a composite of supportive behaviours rather than physical attendance at antenatal or delivery services.

However, this finding contrasts with other studies that report persistently low levels of male involvement, particularly when stricter indicators such as attendance at antenatal care or presence during delivery are used. For example, Morfaw et al. (2019) found that male participation in direct maternal health services remains limited across sub-Saharan Africa due to entrenched gender norms and health system barriers. This discrepancy suggests that the relatively high involvement observed in the current study may mask important variations in the type and depth of male participation.

From a conceptual perspective, the Social Ecological Model provides a useful lens for understanding this pattern. At the individual level, increasing knowledge and awareness may encourage men to adopt supportive roles. At the interpersonal level, relationship dynamics and expectations of male responsibility within households may further reinforce involvement, particularly in decision-making and financial support. However, at the community and societal levels, persistent gender norms continue to define maternal health as primarily a woman's domain, potentially limiting men's direct engagement. This helps explain why high reported involvement may coexist with unequal decision-making patterns and limited participation in specific maternal health activities.

Overall, while the high level of male involvement observed in this study is encouraging, it likely reflects a combination of traditional provider roles and emerging supportive behaviours, rather than fully gender-equitable participation. This underscores the importance of distinguishing between different forms of involvement and highlights the need for interventions that move beyond instrumental support toward more inclusive and transformative engagement in maternal and newborn health.

5.2 Forms of Male Involvement in Maternal Health-Seeking

The findings of this study reveal important variations in how men participate in maternal health-seeking activities. While slightly more than half of respondents (54.8%) reported being present during antenatal care (ANC) visits, a substantially higher proportion (68.2%) reported being present during delivery. This disparity is particularly important because it shows that male involvement is not the same across all stages of maternal care. Men may support their partners more at some points than others, depending on how they understand the purpose and urgency of that stage of care. In this study, men were more likely to report being present during delivery than during ANC, suggesting that

their involvement may be stronger when maternal care is seen as urgent, visible, and requiring immediate support.

One possible explanation is that antenatal care is still commonly perceived as a routine and female-centred activity. ANC visits are usually associated with pregnancy monitoring, health education and routine check-ups, and men may not always see a clear role for themselves in that space. In urban Ghana, Ampim et al. (2021) found that many men who attended ANC described themselves mainly as escorts and often had to negotiate their presence in a space that was socially constructed as feminine. This helps explain why some men may feel uncomfortable, unnecessary or out of place during ANC, even when they are generally supportive of their partners.

Delivery, however, carries a different meaning. Childbirth is often seen as a critical and potentially risky moment where complications may occur and where decisions, money, transport and emotional support may be urgently needed. In such situations, men's socially expected roles as providers, protectors and household decision-makers become more visible. This may explain why men are more likely to be present during delivery than during ANC. Ganle and Dery (2015) similarly observed in Ghana that men's involvement in maternal health is strongly shaped by gender expectations, with many men understanding their role mainly in terms of financial provision, decision-making and practical support.

This finding also suggests that some men may respond to maternal health needs only when risk becomes obvious. In other words, their involvement may be more reactive than preventive. ANC is meant to identify risks early and prevent complications, but men may underestimate its importance because it does not always appear urgent. Delivery, by contrast, is easily understood as a serious event, especially because of the possibility of labour complications. Tokhi et al. (2018) note that male involvement can improve maternal and newborn health through support for care-

seeking, home care practices and couple communication, but the effect depends on how men are engaged across the full continuum of care. Similarly, Galle et al. (2021) argue that male involvement is a multidimensional concept and should not be reduced to physical presence alone.

The implication is that programmes seeking to improve male involvement should not focus only on encouraging men to appear at the point of delivery. Men also need to understand the preventive value of ANC and the importance of continuous support throughout pregnancy, childbirth and the postpartum period. Health education should therefore present ANC not as a women-only activity, but as an important stage where men can support early risk detection, birth preparedness, nutrition, emotional wellbeing and timely decision-making.

Evidence from sub-Saharan Africa further supports this pattern. Morfaw et al. (2019) found that male attendance at antenatal care remains relatively low across many African settings, largely due to entrenched gender norms and limited awareness of its importance. Similarly, Doyle et al. (2018) highlight that without targeted gender-transformative interventions, men are more likely to participate at later stages of pregnancy rather than during routine care. These findings suggest that the disparity observed in this study is not unique to Ghana but reflects broader regional trends in male engagement.

Within the Ghanaian context, qualitative studies provide additional insight into this behaviour. Ganle and Dery (2015) reported that many men perceive antenatal care as a woman's responsibility and may avoid attending due to fear of social ridicule or stigma. In contrast, involvement during delivery is often socially accepted and even expected, particularly in situations where financial or logistical support is required. Similarly, Craymah et al. (2017) found that male involvement in maternal health is frequently expressed through support during critical moments rather than routine engagement, reinforcing the idea that men's participation is often event-driven.

Health system factors also play a significant role in shaping these patterns. Antenatal clinics are frequently structured as female-dominated spaces, characterized by long waiting times, limited privacy, and health education sessions targeted primarily at women. Such environments may discourage male participation. In contrast, delivery often necessitates the presence of a partner for administrative, financial, or emergency decision-making purposes, thereby increasing male involvement. These structural differences highlight how health service design can either facilitate or hinder male engagement.

From a theoretical perspective, the Social Ecological Model provides a useful framework for understanding these findings. At the individual level, limited knowledge of the importance of ANC may reduce men's motivation to attend. At the interpersonal level, household roles often assign routine pregnancy care to women while positioning men as providers during critical events. At the community level, prevailing gender norms may discourage male presence in antenatal settings while encouraging involvement during childbirth. At the organizational level, health facility environments may not be conducive to male participation in ANC. Together, these factors contribute to a pattern in which male involvement is concentrated at delivery rather than distributed across the continuum of care.

The higher level of male involvement during delivery compared to antenatal care suggests that male participation in maternal health in Ghana remains largely reactive and shaped by perceptions of urgency. While involvement at delivery is beneficial, it highlights a missed opportunity for early engagement during pregnancy. Strengthening male participation in ANC through targeted health education, male-friendly services, and community-based interventions could promote more consistent and preventive involvement across the maternal health continuum.

5.3 Predictors of Male Involvement in Maternal Health

The findings of this study highlight several socio-demographic factors associated with male involvement in maternal health, with important differences observed between the bivariate and multivariate analyses. These differences provide valuable insight into the underlying drivers of male participation and the complex interplay between individual, social, and contextual factors.

Age was significantly associated with male involvement at the bivariate level, with higher involvement observed among men aged 35–44 years. This pattern suggests that men in their middle reproductive years may be more engaged due to increased family responsibilities, relationship stability, and prior experience with childbirth. Similar findings have been reported in previous studies, where older men were more likely to participate in maternal health due to greater maturity and accumulated knowledge (Tokhi et al., 2018; Morfaw et al., 2019). However, the loss of significance in the adjusted model indicates that the effect of age may be confounded by other factors such as education, marital status, or socio-economic conditions. This suggests that age alone does not independently drive involvement but operates through other enabling characteristics.

Education emerged as a key determinant of male involvement in the adjusted analysis, with men who attained higher education being significantly more likely to be involved in maternal health. This finding is consistent with a large body of literature indicating that education enhances health literacy, exposure to information, and progressive gender attitudes. Studies by Galle et al. (2021) and Yaya et al. (2018) similarly found that educated men are more likely to support women's autonomy, engage in shared decision-making, and participate in maternal healthcare activities. The lack of significance for primary and secondary education levels suggests that only higher levels of

education may be sufficient to challenge deeply rooted gender norms and promote meaningful involvement.

Contrary to expectations, wealth status and place of residence were not significantly associated with male involvement in both the bivariate and multivariate analyses. While some studies have reported higher involvement among wealthier and urban men due to better access to information and healthcare services (Yaya et al., 2018), the findings of this study suggest that male involvement in Ghana may cut across socio-economic and geographic groups. This could reflect the widespread reach of national health campaigns and community-based interventions such as CHPS, which have improved awareness of maternal health issues across both urban and rural populations. It may also indicate that socio-cultural norms, rather than purely economic factors, play a more dominant role in shaping male involvement.

Religion was found to be a significant predictor of male involvement, with Muslim men showing higher odds of participation compared to Christians. This finding highlights the role of cultural and religious norms in shaping health behaviours and family dynamics. While the direction of this association may vary across contexts, similar studies have demonstrated that religious beliefs can influence gender roles, decision-making patterns, and health-seeking behaviours within households (Doyle et al., 2018). In some settings, Islamic teachings that emphasize family responsibility and male leadership may encourage men to be more actively involved in supporting maternal health. However, this relationship is complex and context-specific, and caution should be exercised in generalizing this finding without considering local cultural dynamics.

Marital status also emerged as a strong determinant of male involvement. Married men were significantly more likely to be involved compared to those living with a partner or those no longer in union. This finding is consistent with existing evidence suggesting that formal marital

relationships are associated with greater stability, commitment, and shared responsibility for reproductive health (Galle et al., 2021; Tokhi et al., 2018). Men in formal unions may feel a stronger obligation to support their partners during pregnancy and childbirth, whereas those in less stable relationships may be less engaged in maternal health-related activities.

The relationship between religion and region also requires careful interpretation because these two variables are not entirely independent in the Ghanaian context. The higher odds of male involvement observed among Muslim men may partly overlap with the regional pattern, since Islam is more concentrated in the northern belt of Ghana than in many southern regions. This may help explain why regions such as the Northern Region showed significantly higher odds of male involvement even after adjustment. In these settings, religious and cultural expectations around marriage, fatherhood, household leadership and family responsibility may reinforce men's roles as providers and decision-makers during pregnancy and childbirth.

However, the regional effect should not be explained by religion alone. For example, the Upper East Region remained significant in the adjusted model, although its religious composition is more mixed, with Christianity, Islam and traditional religious beliefs all present. This suggests that region may be capturing broader community-level influences beyond formal religious affiliation, including family structure, local norms, ethnic traditions, extended family expectations and community attitudes toward men's responsibilities in maternal health. The fact that North East was significant at the crude level but lost significance after adjustment also suggests that part of the regional association may have been explained by other factors such as religion, education or marital status.

Generally, the co-occurrence of religion and region suggests that male involvement in maternal health is shaped by a combination of religious identity and place-based social norms. This supports

the need for interventions that are not only national in design but also culturally and regionally tailored. In regions where religious leaders and community elders hold strong influence, male involvement programmes may be more effective if they work through mosques, churches, traditional authorities and local family networks to promote supportive and sustained male participation across pregnancy, delivery and postpartum care.

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CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions of the study and outlines key recommendations based on the findings. It synthesizes the major insights on male involvement in maternal and reproductive health in Ghana, focusing on the level of involvement, the forms through which men participate, and the factors influencing such participation. The chapter further highlights practical and policy-relevant recommendations aimed at promoting more consistent, equitable, and sustained male engagement in maternal and newborn health.

6.2 Conclusion

This study set out to assess male involvement in maternal and reproductive health in Ghana, with a focus on the level of involvement, forms of participation, and associated socio-demographic factors. The findings reveal that male involvement is relatively high, with 77.5% of men reporting some level of participation in maternal health. However, this involvement is largely shaped by traditional gender roles and tends to reflect supportive and provider-based responsibilities rather than fully equitable engagement.

The study further demonstrates that male involvement varies across the maternal health continuum, with higher participation observed during delivery (68.2%) compared to antenatal care (54.8%). This pattern suggests that male engagement is often reactive and driven by perceived risk, rather than proactive and sustained throughout pregnancy. It highlights a critical gap in early involvement, particularly in preventive care such as antenatal services.

In terms of determinants, the findings indicate that higher education, marital status, religion, and region are significant predictors of male involvement. For instance, men with higher education were more likely to be involved (AOR = 1.80), while Muslim men had higher odds of involvement compared to Christians (AOR = 2.35). Additionally, married men showed greater involvement (89.1%) compared to those not in formal unions. In contrast, factors such as age, wealth status, and place of residence did not independently influence participation after adjustment. These results underscore the importance of socio-cultural and relational factors in shaping male involvement, beyond purely economic or demographic characteristics.

Overall, the study concludes that while progress has been made in promoting male involvement in maternal health in Ghana, participation remains uneven and influenced by entrenched gender norms and contextual factors. Achieving more meaningful and sustained engagement will require approaches that go beyond awareness creation to address deeper social, cultural, and institutional barriers.

6.3 Recommendations

1. The Ghana Health Service (GHS), in collaboration with the Ministry of Health (MoH) and development partners, should design and implement targeted communication strategies that emphasize the importance of male participation not only during delivery but also throughout pregnancy. These interventions should primarily target men of reproductive age, particularly those in communities where traditional gender norms strongly influence health behaviours.
2. The Ghana Health Service, through facility managers and CHPS compounds, should introduce inclusive service delivery approaches such as couple-focused antenatal sessions, flexible clinic hours, and provider training on male engagement. These interventions

should target male partners of pregnant women and healthcare providers, with the aim of creating supportive environments that encourage men to participate actively in antenatal care.

3. The Ministry of Health, Ghana Health Service, and non-governmental organizations should collaborate with community leaders, religious institutions, and local media to deliver tailored behaviour change programs. These interventions should target men with lower educational attainment, unmarried or cohabiting men, and populations in regions with lower levels of involvement, with a focus on promoting gender-equitable norms and shared decision-making in maternal health.

REFERENCES

Adusei, A. B., Bour, H., Amu, H., & Afriyie, A. (2024). Community-based Health Planning and Services programme in Ghana: A systematic review. *Frontiers in Public Health*, 12, 1337803. https://doi.org/10.3389/fpubh.2024.1337803

Atuahene, M. D., Arde-Acquah, S., Atuahene, N. F., Adjuik, M., & Ganle, J. K. (2017). Inclusion of men in maternal and safe motherhood services in inner-city communities in Ghana: Evidence from a descriptive cross-sectional survey. *BMC Pregnancy and Childbirth*, 17(1), 1–10. https://doi.org/10.1186/s12884-017-1590-3

Bougangue, B., & Ling, H. K. (2017). Male involvement in maternal healthcare through Community-based Health Planning and Services: The views of men in rural Ghana. *BMC Public Health*, 17(1), 1–10. https://doi.org/10.1186/s12889-017-4680-2

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

Comrie-Thomson, L., Tokhi, M., Ampt, F., Portela, A., Chersich, M., Khanna, R., & Luchters, S. (2015). Challenging gender inequity through male involvement in maternal and newborn health: A critical assessment of an emerging evidence base. *Culture, Health & Sexuality*, 17(Suppl 2), 177–189. https://doi.org/10.1080/13691058.2015.1053412

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

Doyle, K., Levtov, R. G., Barker, G., Bastian, G. G., Bingenheimer, J. B., Kazimbaya, S., Nzabonimpa, A., Pulerwitz, J., Sayinzoga, F., Sharma, V., & Shattuck, D. (2018). Gender-transformative Bandebereho couples' intervention to promote male engagement in

reproductive and maternal health and violence prevention in Rwanda: Findings from a randomized controlled trial. *PLOS ONE*, 13(4), e0192756. https://doi.org/10.1371/journal.pone.0192756

Dumbaugh, M., Tawiah-Agyemang, C., Manu, A., ten Asbroek, G. H. A., Kirkwood, B., & Hill, Z. (2014). Perceptions of, attitudes towards and barriers to male involvement in newborn care in rural Ghana, West Africa: A qualitative analysis. *BMC Pregnancy and Childbirth*, 14(1), 269. https://doi.org/10.1186/1471-2393-14-269

Dworkin, S. L., Fleming, P. J., & Colvin, C. J. (2020). The promises and limitations of gender-transformative health programming with men: Critical reflections from the field. *Culture, Health & Sexuality*, 22(10), 1134–1146. https://doi.org/10.1080/13691058.2019.1694551

Elsey, H., Abboah-Offei, M., Vidyasagaran, A. L., Anaseba, D., Wallace, L., Nwameme, A., Gyasi, A., Ayim, A., Ansah-Ofei, A., Amedzro, N., Dovlo, D., Agongo, E., Awoonor-Williams, K., & Agyepong, I. (2023). Implementation of the Community-based Health Planning and Services (CHPS) in rural and urban Ghana: A history and systematic review of what works, for whom and why. *Frontiers in Public Health*, 11, 1105495. https://doi.org/10.3389/fpubh.2023.1105495

Gage, A. J. (2022). Association of male partners' gender-equitable attitudes and behaviors with maternal and newborn health outcomes in sub-Saharan Africa. *BMC Pregnancy and Childbirth*, 22(1), 1–13.

Galle, A., Krüger, T., Degomme, O., Smet, M., Asefa, A., Ahmed, S., Temmerman, M., & Kaba, M. (2021). The role of fathers in maternal and child health: A systematic review. *BMC Pregnancy and Childbirth*, 21(1), 129. https://doi.org/10.1186/s12884-021-03539-4

Ganle, J. K., & Dery, I. (2015). What men don't know can hurt women's health: Barriers and opportunities for men's involvement in maternal healthcare in Ghana. *Reproductive Health*, 12(1), 93. https://doi.org/10.1186/s12978-015-0083-y

Ghana Statistical Service (GSS). (2021). *2021 Population and Housing Census*. Accra: GSS.

Ghana Statistical Service (GSS), Ghana Health Service (GHS), & ICF. (2023). *Ghana Demographic and Health Survey 2022*. Accra, Ghana & Rockville, Maryland, USA.

Hay, K., McDougal, L., Percival, V., Henry, S., Klugman, J., Wurie, H., Raven, J., Shabalala, F., Fielding-Miller, R., Dey, A., Dehingia, N., Morgan, R., Atmavilas, Y., Saggurti, N., Yore, J., Blokhina, E., Huque, R., Barasa, E., Bhan, N., Kharel, C., Silverman, J. G., Raj, A., Darmstadt, G. L., Greene, M. E., Hawkes, S., Heise, L., Heymann, J., Levine, R., & Rao Gupta, G. (2019). Disrupting gender norms in health systems: Making the case for change. *The Lancet*, 393(10190), 2535–2549. https://doi.org/10.1016/S0140-6736(19)30648-8

Jennings, L., Na, M., Cherewick, M., Hindin, M., Mullany, B., & Ahmed, S. (2017). Women's empowerment and male involvement in antenatal care: Analyses of Demographic and Health Surveys in selected African countries. *BMC Pregnancy and Childbirth*, 17(1), 297. https://doi.org/10.1186/s12884-017-1500-8

Kraft, J. M., Wilkins, K. G., Morales, G. J., Widyono, M., & Middlestadt, S. E. (2014). An evidence review of gender-integrated interventions in reproductive and maternal-child health. *Journal of Health Communication*, 19(Suppl 1), 122–141. https://doi.org/10.1080/10810730.2014.918216

Mapunda, B., August, F., Mwakawanga, D., Mhando, I., & Mgaya, A. (2022). Prevalence and barriers to male involvement in antenatal care in Dar es Salaam, Tanzania: A facility-based

mixed-methods study. *PLOS ONE*, 17(8), e0273316. https://doi.org/10.1371/journal.pone.0273316

Morgan, A. K., Awafo, B. A., Quartey, T., & Cobbold, J. (2022). Husbands' involvement in antenatal-related care in the Bosomtwe District of Ghana: Inquiry into the facilitators and barriers. *Reproductive Health*, 19(1), 1–14. https://doi.org/10.1186/s12978-022-01506-7

Morfaw, F., Mbuagbaw, L., Thabane, L., Rodrigues, C., Wunderlich, A. P., Nana, P., & Kunda, J. (2019). Male involvement in prevention programmes of mother-to-child transmission of HIV: A systematic review. *Systematic Reviews*, 8(1), 1. https://doi.org/10.1186/s13643-018-0923-0

Okafor, I. P., Chukwudi, C. L., Igwilo, U. U., & Ogunnowo, B. E. (2022). "Men are the head of the family, the dominant head": A mixed-method study of male involvement in maternal and child health in a patriarchal setting, Western Nigeria. *PLOS ONE*, 17(10), e0276059. https://doi.org/10.1371/journal.pone.0276059

Roudsari, R. L., Sharifi, F., & Goudarzi, F. (2023). Barriers to the participation of men in reproductive health care: A systematic review and meta-synthesis. *BMC Public Health*, 23(1), 692. https://doi.org/10.1186/s12889-023-15692-x

Tokhi, M., Comrie-Thomson, L., Davis, J., Portela, A., Chersich, M., & Luchters, S. (2018). Involving men to improve maternal and newborn health: A systematic review of the effectiveness of interventions. *PLOS ONE*, 13(1), e0191620. https://doi.org/10.1371/journal.pone.0191620

United Nations (UN). (2022). *The Sustainable Development Goals Report 2022*. New York: United Nations.

UNICEF. (2023). *The State of the World's Children 2023*. New York: United Nations Children's Fund.

UNICEF. (2024). *Levels and trends in child mortality 2024*. New York: United Nations Children's Fund.

Wood, F. E., Gage, A. J., Mafuta, E., & Bertrand, J. T. (2024). Involving men in pregnancy: A cross-sectional analysis of the role of self-efficacy, gender-equitable attitudes, relationship dynamics and knowledge among men in Kinshasa. *BMC Pregnancy and Childbirth*, 24(1), 1–22. https://doi.org/10.1186/s12884-024-06638-1

World Health Organization. (2015). *WHO recommendations on health promotion interventions for maternal and newborn health*. Geneva: WHO.

World Health Organization. (2019). *WHO recommendations on health promotion interventions for maternal and newborn health*. Geneva: WHO.

World Health Organization. (2023). *Trends in maternal mortality 2000–2020*. Geneva: WHO.

Yaya, S., Uthman, O. A., Amouzou, A., & Bishwajit, G. (2020). Men's acceptance of wife beating and its association with women's utilization of maternal healthcare services in sub-Saharan Africa. *BMC Pregnancy and Childbirth*, 20(1), 235. https://doi.org/10.1186/s12884-020-02966-6

APPENDICES

APPENDIX I: DATA EXTRACTION TOOL

DATA EXTRACTION TOOL

This tool is designed to guide the systematic retrieval of relevant variables from the 2022 Ghana Demographic and Health Survey (GDHS) dataset for the study titled *"*Gender Norms and Shared Decision-Making in Reproductive and Maternal Health*."* It focuses on variables related to men's gender-equitable attitudes, shared decision-making with partners, and key socio-demographic factors aligned with the study objectives.

Objective 1: Describe Ghanaian Men's Gender-Attitudes Towards Women's Autonomy and Reproductive Rights

Variable	Description
Justification of wife beating	Whether men agree wife-beating is justified under five scenarios
Woman can refuse sex	Belief that a woman is justified in refusing sexual intercourse
Woman can ask to use condom	Belief that a woman is justified in asking her partner to use a condom
Approval of family planning	Whether respondent approves of family planning

Objective 2: Assess the Association Between Socio-Demographic Characteristics and Gender-Equitable Attitudes

Variable	Description
Age	Respondent's age in completed years
Educational level	Highest education level attained
Wealth index	Household economic status based on DHS index
Region of residence	Region of respondent
Urban–rural residence	Type of locality: urban or rural
Marital status	Marital status
Religion	Religious affiliation
Employment status	Current working status
Media exposure	Frequency of accessing news

Objective 3: Identify Socio-Demographic Predictors of Joint Decision-Making on Maternal and Reproductive Health

Variable	Description
Decision on respondent's health care	Who usually decides on man's health care
Decision on large household purchases	Who makes decisions on major purchases
Decision on use of earnings	Who decides how man's earnings are used
Decision on family planning	Who makes decisions about contraceptive use
Exposure to FP messages	Heard family planning via radio, TV or programs

APPENDIX II: ETHICAL CLEARANCE

ENSIGN GLOBAL
UNIVERSITY

OUR REF: ENSIGN/IRB/EL/SN-330/03 December 4, 2025.
YOUR REF:

INSTITUTIONAL REVIEW BOARD SECRETARIAT

Naana Adjoa Safoaa
Ensign Global University
Kpong.

Dear Naana Adjoa,

ETHICAL CLEARANCE TO UNDERTAKE POSTGRADUATE RESEARCH

At the General Research Proposals Review Meeting of the *INSTITUTIONAL REVIEW BOARD (IRB)* of Ensign Global University held on Wednesday, December 3, 2025, your research proposal entitled **"Assessing Male Involvement in Maternal and Newborn Health in Ghana: A Secondary Analysis of the 2022 Ghana Demographic and Health Survey"** was considered.

You have been granted Ethical Clearance to collect data for the said research under academic supervision within the IRB's specified frameworks and guidelines.

We wish you all the best.

Sincerely,

Dr. (Mrs.) Rebecca Acquaah-Arhin
IRB Chairperson

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