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THE EFFECTS OF SOCIO-DEMOGRAPHIC FACTORS ON MALE PARTNER INVOLVEMENT IN ANTENATAL CARE AMONG HOUSEHOLDS: A CASE OF KAPTIMBOR VILLAGE BARINGO CENTRAL SUB-COUNTY, KENYA

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Abstract:

Background: Male partner involvement in ANC is essential for the mother's health and the growth of the fetus because it connects the mother and her child to the healthcare system, potentially increasing the likelihood that antenatal care services will be optimized. This study aimed to determine the effects of socio-demographics on male partner involvement in Antenatal Care. **Methods:** A descriptive survey research design was used. The study population included male partners in Kaptimbor Village Baringo Central Sub-County, Kabarnet ward. A sample of 167 respondents was recruited for the study. A stratified random sampling approach was used to select the study participants. Data was collected using a structured questionnaire, analyzed using SPSS computer package version 26 and thereafter presented using descriptive methods. **Findings:** The majority of the respondents (69.0%) were aged between 28 and 49 years, 63.2% had secondary or higher-level education, 39.4%, were self-employed, (58.7%) lived a distance of more than one kilometer from the nearest health facility and (54.8%) were of Tugen and Pokot ethnic backgrounds. The majority of the respondents indicated that traditionally, ANC has only been a place for women and that men had certain roles to play during pregnancy. Younger men were more supportive, older men were opposed to the idea of men engaging in ANC. Men with low-income levels chose to stay at home rather than accompany their partners to prenatal clinics. A significant percentage of men correctly identified convulsions, loss of consciousness, fast/difficult breathing and severe headache with blurred vision as danger signs in pregnancy. **Conclusions**: Different aspects of ANC indicated varying degrees of involvement. In spite of the fact that the vast majority of men indicated a high level of involvement in ANC services, there were gaps in their understanding, perceptions, and involvement.

Keywords: male partner, antenatal care, reproductive health

List of Abbreviations

ANC – Antenatal Care
HIV – Human Immunodeficiency Virus
KSG – Kenya School of Government
MPI – Male Partner Involvement
NASCOP – National Aids and STI Control Program
NGO – Non- Governmental Organization
PMTCT – Prevention of Mother-to-Child Transmission
SDG – Sustainable Development Goals
SMC – Senior Management Course
SPSS – Statistical Package for Social Science
TPB – Theory of Planned Behavior
UK – United Kingdom
WHO – World Health Organization

1. Introduction

1.1 Background of the Study

Every expectant mother is susceptible to an unforeseen, abrupt complication that could result in her own death or harm to her unborn child (Shamanewadi et al., 2020). Hence, it is necessary to employ strategies to improve Antenatal Care (ANC). Antenatal care is the care that women receive during pregnancy to ensure a healthy outcome for women and newborns. It is very crucial for the health of the mother and the development of the fetus because it links the woman and her family with the health care system which may increase the chance of using a skilled attendant at birth and contributes to good health through the life cycle.

During pregnancy, some women have health issues. These issues may affect the mother's health, the health of the fetus, or even both. Complications can arise even in pregnant women who were in good health before. These issues could turn the pregnancy into a high-risk pregnancy. Obstetrical complications if there is a well-coordinated birth readiness and complication readiness plan created throughout pregnancy and put into practice at the time of delivery, both the mother and the newborn could be greatly reduced (Debbie et al., 2018). Involving male partners in antenatal care is important in improving positive maternal and newborn health outcomes.

Male involvement is aimed at encouraging men, in general, to support women's care from pregnancy to childbirth. Men can positively affect their families' health by helping plan for delivery, supplementing women's knowledge about danger signs, and supporting the use of facility-based care (Greenspan et al., 2019).

In the study literature, male involvement has been conceptualized and operationalized in a variety of ways, therefore there is no precise definition. According to Bernal and Mehat (2002) participation of men in reproductive health leads to improved reproductive outcomes for men, women, and their families. Improving the father's involvement may have significant benefits for the health of his partner, her pregnancy, and their child. Father involvement is a significant but understudied predictor of maternal behaviors throughout the prenatal period (Martin et al., 2007).

Although one of the strategies to improve maternal health is to incorporate males in Antenatal Care (ANC), male partner participation in prenatal care and professional delivery services continues to be a problem for efficient management of maternal health during pregnancy throughout the world. Due to the underutilization of antenatal care and competent delivery services globally, maternal morbidities and fatalities have been rising. The experience of male partners participating in prenatal care and competent delivery services has been different in industrialized countries. Most male partners are involved in the process (Nyang'au et al., 2021).

In many industrialized nations, such as the United States of America and Australia, the husband is permitted to be there during childbirth in order to help the mother throughout labor. In addition, the men also participate in antenatal classes and

counseling (Alharbi et al., 2018). Sweden's legal system highlights the importance of male engagement in pregnancies, parent education, and birthing. Fathers take part in creating a suitable and practical care plan for their partners based on the existing legal health framework (Lamb, 2013). Correspondingly higher skilled birth attendance in India was linked to husband antenatal attendance as Men's understanding of pregnancy-related care and a gender-positive attitude improve maternal health care use and women's decision-making about their health care, and male presence during antenatal care appointments significantly raises the likelihood that women would give birth in institutions (Chattopadhyay, 2012). In Malaysia, the majority (94%) of the male partners accompanied their spouses to receive antenatal care (Marzo et al., 2018). Similarly in rural Bangladesh, it was found that husbands' involvement is a key factor associated with women's utilization of skilled Maternal and Newborn Health (MNH) services during pregnancy, childbirth and postpartum. Specifically, it was found that women were at increased odds of receiving skilled MNH services when they were accompanied by their husbands (Rahman et al., 2018). In Indonesia low participation in ANC was reported particularly in regards to accompanying their wives for prenatal care, helping with housework while their wives were pregnant, reminding their wives to exercise while pregnant, and setting up blood donors in case of pregnancy-related emergencies (Guspianto & Asyary, 2022).

Male participation in ANC in Sub-Saharan Africa goes against established gender standards. Most countries' health systems' traditional approaches to maternity healthcare reflect gendered belief systems, with the result that the majority of healthcare services are mostly skewed toward women (Onyango et al., 2010). Men influence whether women and newborns receive care because they often control financial resources and household decisions, this influence can have negative effects if men misjudge or ignore danger signs or are unwilling or unable to pay for care (Greenspan et al., 2019). With few male partners participating in the stated maternity services, Sub-Saharan Africa has the highest rate of maternal morbidities and mortalities. Men never participate in antenatal and skilled delivery service planning or accompany their female counterparts to antenatal clinics and hospitals for skilled delivery (Nyang'au et al., 2021).

Despite their influence on the economy and their ability to make decisions, men's roles in maternity care in Africa are understudied. The majority of African countries still view pregnancy and childbirth as exclusively being a woman's responsibility. In general, husbands are not expected to accompany their wives to prenatal appointments or to be present in the delivery room (Mullick et al., 2005). Men exert a strong influence over their wives, making the majority of the decisions that affect women's access to maternity health services and their health outcomes (Yargawa & Leonardi-Bee, 2015). In a patriarchal environment like Northern Nigeria pregnancy and childbirth are frequently seen as purely female affairs (Ilyasu et al., 2010).

Men's involvement in ANC has been poorly demonstrated and this has been contributed to by culture, religion, ignorance and socio-economic factors (Olugbenga-

Bello et al., 2013) and maternal mortality continues to be a major problem in many developing countries. The majority of these deaths are caused by inadequate labor preparation, which is mostly linked to inadequate male partners' engagement (Adamu et al., 2020). In 2017, there were almost 295 000 deaths among pregnant and postpartum women. The majority of these deaths (94%) took place in low-resource areas, and most of them could have been avoided. Sub-Saharan Africa alone accounted for roughly two-thirds (196 000) of maternal deaths (WHO, 2007). Men in South Africa have traditionally not been involved in the reproductive health care of their partners. They do not normally accompany their partners to family planning or antenatal care consultations, and are mostly absent during labour and delivery (Mullick et al., 2005).

In Kenya, low male engagement deters pregnant women from using ANC, especially when it comes to attending checkups. This is due to the fact that in many houses, the husband must give his wife permission to attend prenatal care. Poor outcomes including maternal and infant mortality result from low uptake and utilization of ANC. Families suffer tremendously as a result, especially in light of the fact that households with low socioeconomic standing are most affected (Kinoti, 2022).

According to (Guspianto & Asyary, 2022) factors such as age, the number of children, income, and education have an impact on the low male participation in prenatal care. Similarly, (Kinoti, 2022) found that low male involvement is driven by low education among the men as well as concerns with stigma from both the society and the health workers at the facility.

Based on the literature review there have not been a lot of studies conducted on this subject, particularly in Kenya. The records review on male partners attending ANC in selected health facilities, Baringo County referral Hospital showed very few males while others showed no male partners attendance. It is in this context that the study investigates why socio-cultural factors, until now, have prevented men from attending and being involved in their wives' childbirth.

This study therefore aimed at determining socio-cultural factors influencing male partner involvement in antenatal care in Kaptimbor village Baringo County, Kenya. Kaptimbor village is located within the outskirts of Kabarnet Municipality in Kabarnet Mosop Location, Seguton sublocation, administratively it is in Kabarnet Ward in Baringo Central sub-county, Baringo County. Kaptimbor village has about three hundred households and an approximate population of about seven thousand inhabitants as per Kenya National Census of 2019.

1.2 Problem Statement

Innovative initiatives have been made to engage males in sexual and reproductive health. These programs are informative for examining male involvement during pregnancy, labor, and the postnatal period and offer evidence of the importance of and support for male involvement. Men's participation in Family Planning Programme, National Policy for Prevention and Response to Gender-Based Violence, and STD and HIV Control and

Prevention are some specific programmes which have been employed to enhance male involvement in sexual and reproductive health.

Family Planning in Kenya was introduced in 1967 Kenya Family Planning Programme was introduced in Kenya in 1967 to provide policy direction and guidance on the implementation of FP services across the country. There is evidence to support the idea that men's active involvement in decisions regarding family planning and reproductive health improves family health. Historically, women have been the main target of initiatives to improve access to family planning services and information, counseling, and other related services. However, it is becoming clearer and clearer that it is more successful to provide couples and men with therapy and education in addition to women. Men frequently decide on sexual behavior and the desired number of children, therefore the importance of male involvement in family planning cannot be overstated. They might not accept their spouses' use of family planning services if they don't have access to correct information about it. Better health outcomes, particularly those relating to Family Planning awareness and sustained contraceptive usage, may result from more over-engaging men. A supportive environment for the couple's overall sexual and reproductive health can be created by similarly engaging men. With fewer unwanted births among women of reproductive age, family planning adoption by many women in developing nations has decreased the maternal mortality rate as a result of men's increased engagement.

Through the engagement of males, the National Policy for Prevention and Response to Gender-Based Violence seeks to improve the health and well-being of women. It discusses the necessity of involving men in the prevention of intimate partner violence and suggests methods for doing so, including educating men to consider the aspects of gender norms that motivate men to engage in risky behavior and promoting gender issues to encourage men to come up with alternative ways of defining and enacting their masculinity. Nonetheless, the introduction of STD and HIV Control and Prevention in Kenya has had a significant impact on male involvement in STI/HIV/AIDS prevention, which is a crucial aspect of AIDS prevention and care as men frequently make decisions regarding sexual and reproductive health in various contexts. Men's roles and responsibilities regarding the health of their female partners have a big impact on both their own and their partners' health. Men are included in programs that support women's reproductive health and well-being in order to prevent STIs, HIV, and AIDS. Men need to be involved in the fight against STIs, HIV, and AIDS, which is a crucial aspect of reproductive health.

The necessity of involving males in reproductive and child health is acknowledged in the maternal and child health policies, recommendations, and strategies. For instance, the Ministry of Health and Sanitation and Ministry of Medical Services encourage couples to attend ANC clinics together to plan the timing, number, and spacing of pregnancies, focus on antenatal care complications where possible and ensure that pregnancy complications are detected early and treated appropriately as well as to ensure

that essential care for high-risk pregnancies and complications are provided. Similar to this, Kenyan health service providers have been employing several tactics to encourage male participation in antenatal care. Couples that visit ANC clinics together may be eligible for incentives from some health service providers. To prepare couples for pregnancy care and labor, certain non-governmental organizations (NGOs) and medical facilities arrange programs for sensitization and education. In some regions, health professionals routinely advise pregnant women who attend ANC without partners on how to invite males to ANC clinics.

Despite the aforementioned programmes and the importance associated with improving male involvement in the antenatal care, the participation of men in the broader perspective of safe motherhood is however still inadequate. According to National AIDS and STI's Control Programme, (NASCOP, 2016), male attendance by region was: Nyanza 6.4%, Eastern 6%, Western 5.3%, Nairobi 5.2%, Rift valley 4.6%, Coast 3.4%, Central 3%, and North Eastern 2% Therefore, the average male participation in Kenya being average of 5.1%. By 2030, SDG 3.2 seeks to lower the worldwide neonatal and under-five death rates to 12 and 25, respectively, per 1,000 live births. SDG 3.1 aims to bring the global maternal mortality ratio (MMR) to less than 70 and the MMR in countries with a high maternal mortality burden to less than 140 by 2030. However, the MMR was declining at a rate of 3.3% each year, which was insufficient to reach the objective of 140 per 100,000 by 2030. Kenya has made headway toward meeting the SDG target for mortality, but the nation is still on the wrong road to meeting the goal. Indicators of maternal and infant mortality varied greatly by region across the 47 counties (World Health Organization, 2020).

Baringo Central is not an exception in this national phenomenon, hence the need for a study on Socio-Cultural Factors Influencing Male Partner Involvement in Antenatal Care Among Households in Kaptimbor village, Baringo Central Sub County, Rift Valley.

1.3 General Objective

The purpose of the study was to assess socio-cultural factors affecting male partner involvement in antenatal care among households: a case of Baringo Central, Kaptimbor Village.

1.3.1 Specific Objectives

1) To determine the effects of culture on male partner involvement in antenatal care;
2) To find out how occupation affects male partner involvement in antenatal care;
3) To establish how age affects male partner involvement in antenatal care;
4) To assess the effect of knowledge and awareness of male partner involvement in antenatal care.

1.4 Research Questions

This study was guided by the following research questions:

1) Does culture influence male partner involvement in antenatal care?
2) How does occupation affect male partner involvement in antenatal care?
3) How does age influence male partner involvement in antenatal care?
4) How does knowledge and awareness influence male partner involvement in antenatal care?

1.5 Justification of the Study

Male partner involvement in maternal health services during pregnancy is one of the foundations for safe motherhood. Some of the researchers from developed countries show male partners are actively involved in pregnancy, however, this is not the case in the Kenyan context. Male partner involvement in maternal health services is a crucial component in the optimization of maternal health and achievement of Sustainable Development Goal 3 which aims to ensure healthy lives and promote well-being for all at all ages. Reduction in maternal morbidity and mortality requires male partner involvement in ANC. Studies on male engagement show that men's utilization of reproductive health services may rise if men's opinions on family planning and reproductive health are understood (Mpembeni et al., 2007).

This study advances knowledge of the sociodemographic elements and the advantages of male involvement that affect male participation in ANC. This will support more focused programs for increased male participation in maternal health care. Consequently, increased male involvement in maternal health care services may result in higher use of maternal health services by expectant mothers, new mothers, and their children. This could result in a decline in maternal and newborn mortality in Kaptimbor village, Baringo Central Sub County, Rift Valley.

1.6 Significance of the Study

The research findings will add to the collection of scientific knowledge of male partner involvement in ANC in developing nations. The results of this study will outline how to include men during pregnancy, labor, and postnatal care. It will also provide policy guidance on male involvement in ANC and inform the Government of Kenya, Ministry of Health, community stakeholders, Baringo County Government Department of Health Services, healthcare practitioners and health Institutions on socio-demographic factors and how they affect male partner involvement in ANC. Finally, the qualitative components of this research will contribute to the development of culturally acceptable and sensitive reproductive health interventions.

1.7 Scope of the Study

The study sought to assess Socio-Demographic Factors Influencing Male Partner Involvement in Antenatal Care within Kaptimbor Village, Kabarnet Municipality, Baringo Central Sub-County, Baringo County. The study limited itself to households within Kaptimbor village, in Kabarnet municipality as households within Kaptimbor

village were found ideal due to their convenience and its proximity to Kabarnet Level five hospital.

2. Literature Review

2.1 Introduction

This chapter provides a relevant literature review. It offers an understanding of male involvement, including what it means in terms of reproductive health generally, why it's significant for reproductive health and the level of male involvement that exists now. This chapter also gives a description of the theories to explain the assessment of male involvement in antenatal care. A review of previous studies, theories and the conceptual framework have been provided. This study therefore shall be guided by two theories: the social support theory and the theory of planned behavior.

2.2 Male Partner Involvement and Antenatal Care

Even though the world's newborn mortality rate decreased by nearly 40% from 1990 to 2013, it still accounted for about 2.6 million deaths and 42% of all deaths among children under the age of five. In developing countries, most of these fatalities take place. An approach that is widely recommended for preventing neonatal fatalities is antenatal care (ANC). Over 90% of pregnant women in Kenya attend at least one ANC appointment while they are pregnant. Kenya, meanwhile, is currently one of the top 10 nations contributing to newborn fatalities globally (Arunda et al., 2017). An effective method for increasing the use of maternal health services, particularly institutional delivery, is male participation during antenatal care. As it is one of those issues that gets overlooked since little is known about the elements that influence male engagement in prenatal (Mamo et al., 2021). According to (Aluisio et al., 2011), including males in Prevention of Mother To Child (PMTCT) programs with corresponding HIV testing could enhance baby health outcomes By lowering vertical transmission and newborn mortality rates among uninfected infants.

Effective management of maternal health continues to be hampered by male partner participation in prenatal care and skilled delivery services on a global scale. Because prenatal care and professional delivery attendance are underutilized globally, maternal morbidities and fatalities have been rising (Nyang'au et al., 2021). In developing nations, maternal mortality is still a significant burden. And one of the underlying factors is men's lack of involvement in pregnancy-related care (Omolola et al., 2022). Men's participation can impact the delays in making the decision to seek medical attention and in getting to a medical institution, both of which are significant factors in the rise in maternal mortality. Despite calls for males to participate in prenatal care, their involvement is not well understood (Gibore et al., 2019).

Despite being acknowledged as one of the foundations of safe motherhood, male participation in maternal services is still low in Kenya (Nyang'au et al., 2021). The

improvement of prenatal care services depends heavily on male participation (Ongeso, 2018). Their participation in programs promoting reproductive and child health has the potential to enhance family health after childbirth. (Mbekenga et al., 2011). According to Daniele (2021), Male partners serve as important sources of support for many childbearing women, and their participation in pregnancy, childbirth, and the postpartum/postnatal period has positive effects on a variety of outcomes relating to the health of mothers, babies, and children as well as the wellness of families.

Effective management of maternal health continues to be hampered by male partner participation in prenatal care and skilled delivery services on a global scale. Because prenatal care and professional delivery attendance are underutilized globally, maternal morbidities and fatalities have been rising (Nyang'au et al., 2021). In Nigeria and other developing nations, maternal mortality is still a problem for public health, and pregnancy-related factors account for the majority of cases. One of the contributing elements is the absence of male participation in pregnancy-related care (Falade-Fatila & Adebayo, 2020).

One strategy to improve maternal health is to incorporate males in ANC (Natai et al., 2020) as men's prenatal care (ANC) participation is crucial and benefits both mothers and their unborn children. (Omolola et al., 2022). The reduction of neonatal and maternal mortality and morbidity around the world depends heavily on male partner participation in child-bearing decisions (Idowu et al., 2022). This is because men's understanding of prenatal care and a gender-positive attitude promote maternal healthcare use and women's decision-making about their healthcare, while significantly improving the likelihood that women will give birth in institutions (Chattopadhyay, 2012).

2.2.1 Culture and Male Involvement in ANC

It is extremely difficult for males to take an active role in reproductive health in developing countries where culturally defined gender norms prevent male engagement (Walston, 2015). Most societies still allow their culture to guide their health decisions, particularly when it comes to pregnancy and childbirth. Segregated gender roles are frequently present in such environments during a woman's pregnancy, childbirth, and postpartum period. Cultural norms prevent men from participating, according to a study on the impact of spouses on mothers' health and safe childbirth conducted in rural Nepal. Due to the cultural norm, the roles of expecting mothers and spouses are different from one another. Men's roles are more incidental, such as providing financial support, whereas pregnancy and childbirth are exclusively for women and female relatives (Lewis et al., 2015).

Due to the influence of traditional culture and a number of variables related to the delivery of health services, males have historically been excluded from maternity care. Family planning, getting pregnant, and having children have traditionally been seen as solely female concerns in South Africa and the majority of other African nations. Men are typically not expected to attend their partners' childbirths or accompany them to family

planning, prenatal, or postnatal care appointments (Mullick et al., 2005). In Western Kenya, culture is a barrier to male participation when it comes to how men perceive using prenatal and delivery care services. It is customarily the domain of mothers-in-law and co-wives, therefore men refrain from involvement in pregnancy and birthing matters. Those who participate in pregnancy and childbirth are regarded by their peers as weak (Kwambai et al., 2013). In Zulu society it was formerly unheard of for men to assist in the care of their newborn children; they are not allowed to see the mother or child for three months after the birth since it is believed that doing so will render the men 'weak.

Communities still embrace patriarchal traditions that disregard women, which limits men's engagement (Ongeso & Okoth, 2018). When considering maternity and other reproductive health care, practitioners and planners frequently assume that women are the "sole beneficiaries". Even the health messages target women, and despite the fact that parents of both sexes share a love for children, men are not encouraged to participate in parenting or be given support. While some men have started to participate in prenatal care in the health sector, they still go to these appointments with their partners and are "tolerated" as such. The bond between father and child receives minimal attention, and there is little information on matters that pertain to males even in settings where men are involved in maternity care (Mullick et al., 2005). Many African civilizations are patriarchal, and as a result, antenatal health concerns are seen as feminine issues. Men cannot be seen accompanying their partners to pregnancy clinics since it is culturally unacceptable.

2.2.2 Occupation and Male Involvement in ANC

Even though most men are the family's primary provider of income, they must seek other sources of support. Employment is a structural driver of male involvement in antenatal care and childbirth, according to a comparative cross-sectional study on men's knowledge and awareness of maternal, neonatal, and child health conducted in rural Nepal. According to the women surveyed, their husbands often need to travel for work and earn money in order to support the family. Consequently, this constrained their accessibility throughout the services (Lewis et al., 2015). The findings agree with those of (Theuring et al., 2016) in a study done in Mbeya region of Tanzania where men without jobs and non-formal workers were more likely to visit the clinic. This is because they have more time to spend with their partners and be nearer to them at home than people who have official employment, who rarely have enough free time. Employers can also be reluctant to grant paternity leaves to workers whose partners are expecting.

A cross-sectional study done in Central Tanzania (Gibore et al., 2019), the study found that access to male involvement Information, religion, ethnicity, waiting time for ANC, and, occupation were major factors impacting men's involvement in ANC. According to (Kurniati et al., 2017) men who have low-paying jobs find it difficult to find time to take part in pregnancy care. Poor incomes cause families to be less involved in

the health of pregnant women because of the high expense of living (Veruswati et al., 2020).

2.2.3 Age and Male Involvement in ANC

In a study (Bhatta, 2013) done in Kathmandu, Nepal examining the participation of males in prenatal care, birth readiness, exclusive breastfeeding, and vaccines, it was discovered that the majority of respondents who go with their partners to prenatal appointments are older. Individuals under 24 are less prone to do this. This is because older and more experienced male partners are more familiar with the complexities of pregnancy and childbirth than are their younger counterparts, necessitating their need to accompany their spouses to the appointments.

There are four factors associated with the level of male participation in ANC, namely, age, number of children, income, and knowledge. Men aged thirty years and older tended to have a higher participation rate in ANC than men aged thirty years or younger (Guspianto & Asyary, 2022).

2.2.4 Knowledge, Awareness and Male Involvement in ANC

Higher-educated men are more likely to be involved in reproductive healthcare. This is linked to higher income levels and greater access to the media, which provides information about reproductive health (Shajahan et al., 2013). Knowledge influences male participation in ANC because it has great potential in dispelling the misconceptions and myths that hinder the engagement of men in ANC (Byamugisha et al., 2010)

Globally, men's level of knowledge on antenatal issues has been universal. A study in rural Bangladesh (Nsreen et al., 2012) on men's knowledge and awareness of maternal, neonatal and child health found their level of knowledge of basic antenatal services to be relatively high. In the study area, more than 50% of men were able to describe the care provided to pregnant mothers. Tetanus toxoid injection and several antenatal clinical tests like anemia tests, screening, and abdominal inspection are among them.

Lack of awareness of men's roles in maternity care, negative societal opinions of men who actively contribute to their families' health, and a poorly developed/implemented health-care system are among the low knowledge barriers to male engagement in ANC (Guspianto & Asyary, 2022).

A study by Olugbenga-Bello et al. (2013) conducted in Nigeria by to determine the level of knowledge of men on antenatal services, it was observed that despite the fact that the majority have heard of the word, a significant percentage of men lack appropriate awareness regarding the breadth of antenatal care. Out of 340 participants, 78% said it includes HIV counseling and testing in addition to care for pregnant women and their unborn children. Only 9% said it also entails administering medications or preventing potential dangers or difficulties. Contrastingly, in Kenya, most men are aware of the

services offered during antenatal care. These include confirmation of pregnancy, HIV testing and counseling and testing for malaria (Kwambai et al., 2013).

2.3 Theoretical Framework

2.3.1 Social Support Theory

The social support theory by (Cullen, 1994) was used in this study to inform male partners' participation in pregnancy-related care. Social Support is a middle-range theory that emphasizes connections and the interactions that occur within them. Across a wide range of social, behavioral, medical, and nursing fields, researchers have focused on the significance of social ties in promoting health and well-being. The term "social support" is frequently used in a wide sense to describe any method by which social relationships could improve health and well-being (Leahy-Warren, 2014).

According to (Bartholomew Eldredge et al., 2011), the assistance given through social relationships and exchanges is referred to as social support and is a positive social interaction. There are four basic categories of social support: emotional (providing empathy, love, trust, and care), instrumental (providing practical aid and services), informational (providing counsel, suggestions, and knowledge), and assessment (providing feedback helpful for self-reflection and affirmation).

Male partner involvement can take the form of a supportive social interaction between two intimate partners who, jointly, need to make efforts and critical decisions for the health of the unborn child. A man who is married to a woman who is expecting and needs prenatal and postnatal care services can offer practical or emotional help. A male partner can support his female partner by encouraging her to attend and accompany her to antenatal care, helping to prepare and save money for delivery, setting up transportation to the birthing facility, supporting good nutrition, reducing workload during pregnancy, and offering emotional support (Bhatta, 2013); (Matseke et al., 2017); (Vermeulen et al., 2016).

2.3.2. Theory of Planned Behavior

The theory of planned behavior (TPB), developed by Azjen in 1985, contends that an individual's choice to engage in a certain behavior, such as engaging in antenatal care, can be influenced by their desire to do so. Male presence during childbirth has the potential to improve the use of maternal services while decreasing maternal and newborn mortality. The theory of planned behavior, which states that such intention is influenced by three domains: 1) attitudes, 2) perceptions of social approval (subjective norms), and 3) feelings about control over the intended behavior, can be used to understand an individual's intention toward such male involvement (Moshi et al., 2019).

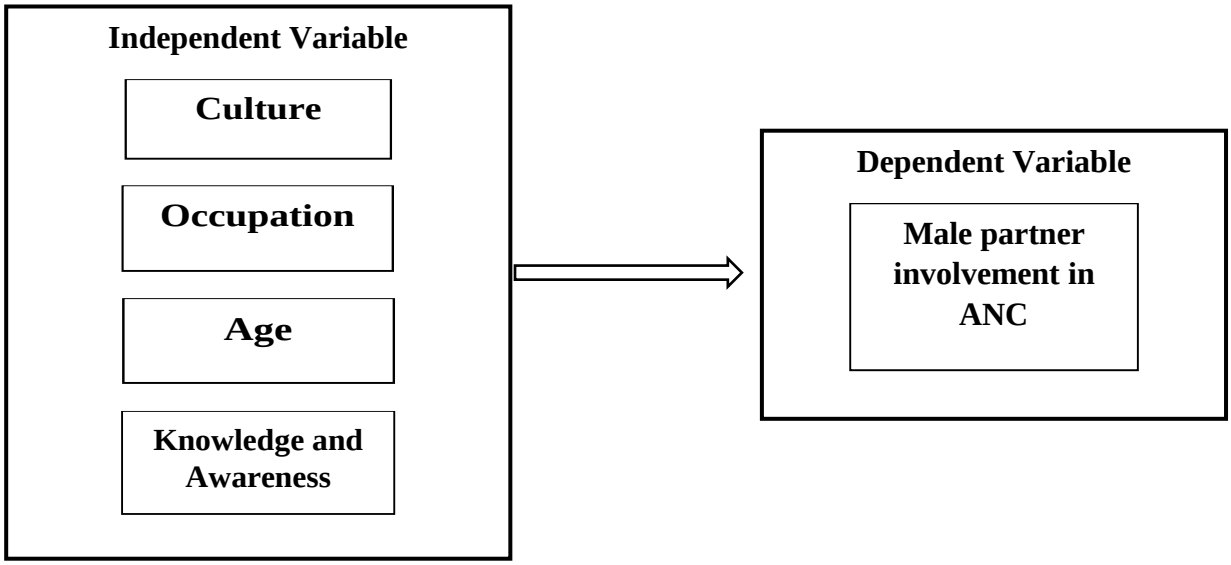
The theory of planned behavior, which connects one's thoughts and behavior, can be used to understand how males participate in birth preparation. This theory contends that a person's beliefs have an impact on how involved they want to be during childbirth. The amount to which they feel capable of accompanying or being accompanied during

childbirth, as well as their attitude toward male involvement and how women perceive social expectations about male involvement (subjective norms), are also factors to consider (perceived behaviour control). People are more likely to intend to engage in healthy behavior if they: 1) have favorable attitudes about the behavior; 2) think that the behavior is supported by community norms; and 3) think they are capable of engaging in the behavior. When a person possesses all three of the aforementioned qualities, their intentions are stronger than when they possess only one. (Moshi et al., 2019; Sommestad et al., 2015).

2.4. Conceptual Framework

The conceptual framework illustrated in Figure 1, was used in order to meet the objectives of the study. Male partner involvement in antenatal care is conceptualized as the Dependent Variable and Culture, Occupation, Age, Knowledge and Awareness as the independent variables.

Figure 1: Conceptual Framework



Source: Researcher

3. Research Methodology

3.1 Introduction

This chapter describes the methods the researcher used to find answers to the research questions. It sets out various stages and phases that were followed to complete the study. Specifically, it presents the research design, the study area, the target population, sampling procedures and sample size determination. It also includes research instrument, reliability, validity, data collection procedures, data analysis, ethical considerations and limitations of the study.

3.2 Research Design

Kothari (2004) explains research design as a plan, structure, and strategy for conducting research to identify alternative methods for solving issues and reducing variations. In preliminary and exploratory investigations, descriptive survey research designs are used to enable researchers to acquire information, summarize, present, and analyze for the aim of clarification (Orodho, 2003). This study was guided by a descriptive survey research design. This design is ideal for such a study because it is an approach that blends quantitative and qualitative data to provide you with relevant and accurate information. It is also a time-efficient research method that engages the respondents in the focus of the study's objective and its implementation was significantly quicker and less expensive, and the results were easily generalized to a broader population. The design allowed the collection of data to be done in a natural setting and was relatively quicker and cheaper to undertake and the results were easily inferred to the larger population. The study was in line with the requirements of a descriptive survey research design since no variables were altered during the data collection and reporting phase.

3.2. Area of Study

The study was conducted in Kaptimbor Village, Baringo Central Sub-County, Kabarnet Ward. Kaptimbor village is a cosmopolitan population on the outskirts of Kabarnet town to the west.

3.3 Target Population

A population refers to any group of organizations, people, or things that share certain traits (Ogula, 2005). Mugenda and Mugenda (2003) define the target population as the entire group a researcher is interested in or the group about which the researcher wishes to draw a conclusion. The target population for this study constituted male partners in 300 households in Kaptimbor Village Baringo Central Sub-County, Kabarnet ward.

Table 1: Target Population

Category	Population size	Percentage (%)
Kikuyu	11	4
Kipsigis	13	4
Kisii	3	1
Luhya	14	5
Luo	16	5
Marakwet	8	3
Mjikenda	8	3
Nandi	19	6
Pokot	40	13
Tugen	168	56
Total	**300**	**100**

3.4. Sample and Sampling Procedure

The survey respondents were chosen using a stratified random sample approach in the study. According to (Kothari, 2004), when using stratified sampling, each subgroup is considered as a stratum, which is then treated as a population, allowing the researcher to acquire estimates of known precision for specific subgroups of the population. According to Mugenda and Mugenda (2003), at least 30% of individuals per group are required for research with a general guide of a sample total of 384 for populations greater than 10,000 for stratified sampling.

Hence Mugenda and Mugenda recommend the following formula of substitution:

$$nf = n/1 + (n/N)$$

According to the above formula:
nf = desired sample size when the population is less than 10,000,
n = desired sample when the population is more than 10000 (384)
N = estimate of the size

$$Nf = 384/1+ (384/300) = \mathbf{167}$$

Therefore, with an estimated population size of 300, a sample size of 167 respondents which corresponds to approximately 56% of the population was selected using a stratified random sampling technique as shown in Table 2 below.

Table 2: Sample and Sampling Procedure

Category	Population size	Percentage (%)	Sample size
Kikuyu	11	56	6
Kipsigis	13	56	7
Kisii	3	56	2
Luhya	14	56	8

Luo	16	56	9
Marakwet	8	56	4
Mjikenda	8	56	4
Nandi	19	56	11
Pokot	40	56	22
Tugen	168	56	94
Total	**300**	**56**	**167**

3.5. Data Sources and Instruments

Both primary and secondary data collection techniques were used in the study. In order to gain more understanding of the background information regarding issues related to culture, occupation, age, knowledge, and awareness, as well as their influence on male partners in ANC, secondary data was sought. These included previous research, works published, and talks given by well-known people, groups, and institutions.

3.6. Collection Procedures

The researchers obtained an introduction letter from the university prior to the commencement of primary data collection. A meeting with the local authorities in the study region helped clarify the purpose of the study to the area chief while the explanation of the nature of the exercise to respondents was done while distributing the questionnaires. Primary data collection was conducted through the use of questionnaires. The questionnaires were administered to respondents from the research area to male partners from selected households. The questionnaires were predominantly composed of both open-ended and closed-ended questions.

3.7. Data Analysis

The relationship between variables in an example or population is described using descriptive statistics to provide an ordered summary of the data (Kaur et al., 2018). To analyze the data, descriptive statistics were employed. Data from the questionnaire were coded and fed into the computer for computation of descriptive statistics and run using the Statistical Package for Social Sciences (SPSS v.22). The frequencies, percentages, means and standard deviations were then calculated. The data that was evaluated was presented using tables.

3.8. Validity and Reliability Test

Validity and reliability measurement tests are conducted to determine whether a measurement instrument is effective (Kothari, 2004). Validity is defined by Mugenda and Mugenda (1999) as the degree to which an instrument measures what it is intended to measure or designed to measure. Before the real data collecting occurred, a pre-test study was conducted to determine the validity of the research instruments. This made it possible to determine whether the data collection instrument would measure what it was

designed to assess and whether respondents would interpret all the questions uniformly. There were no updates made to the tool to increase its validity.

In accordance with Mugenda & Mugenda (1999), an instrument's reliability is determined by how well it produces consistent outcomes or data after numerous trials. Reliability is a metric used to assess how consistently similar outcomes are produced by research instruments over multiple related studies. A test-retest procedure was used to determine the data collection tool's dependability. Following the tool's administration to the randomly chosen sample, the identical questionnaire was given to the same group again, and the researchers then evaluated the consistency of the results from the two tools. Since there was consistency in this instance, the tool did not need to be modified; it was used just as it was.

3.9. Ethical Considerations

The consent of the participants was sought before the questionnaires were administered. The researchers obtained a letter from Kenya School of Government which was used to seek permission from the Baringo central sub-county offices and the area chief to conduct the study in Kaptimbor village. The participants were assured of confidentiality, and anonymity and they were informed about the purpose of the research was for academic purposes only. In addition, the participants were not coerced, and they were requested to give information freely.

4. Research Findings and Discussion

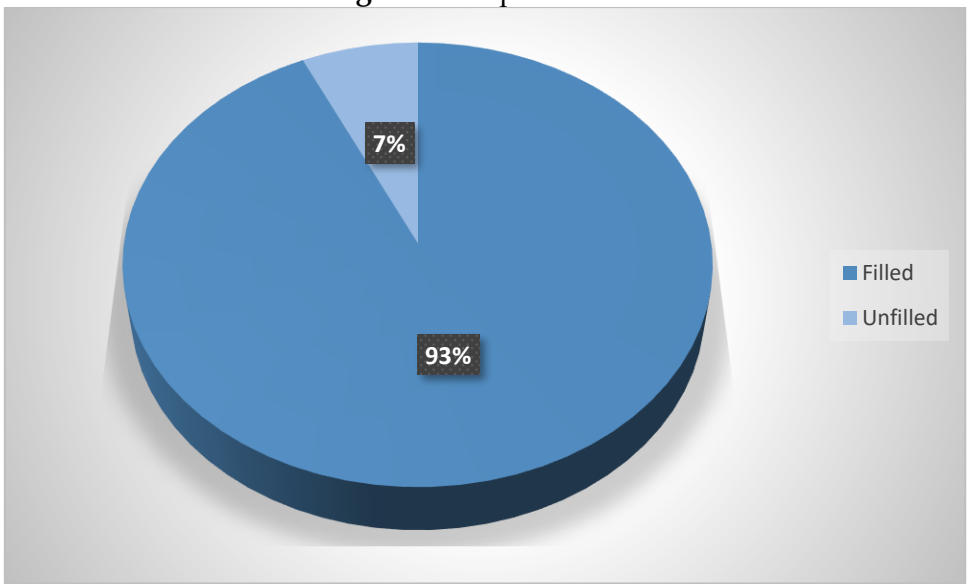
4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research objective and research methodology, the study findings are presented in tables and figures, and a discussion of the research and findings is also captured hereunder.

4.2 Response Rate

167 questionnaires were given out to the 167 married men who were sampled for the study; 155 of them were completed, yielding a response rate of 93%. Respondents who were unavailable or unwilling owing to a breach of privacy left 7 percent of their surveys blank. Given the guidelines by Mugenda and Mugenda (2003) that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is generally good, and a rate of above 70% is excellent, the response rates were deemed acceptable.

Figure 2: Response Rate



Source: Researcher

4.3. Demographic Data Analysis

This section presents the data findings on the respondents' demographic information. The demographic information included age, marital status, education, distance to the facility and ethnicity.

4.3.1 Age Distribution

The study sought to establish the age of the respondent as represented in Table 3. The age of the respondents ranged from 18 to 70 years. The majority of the respondents (69.0%) were aged between 28 and 49 years. This was good for the study because it means they are their reproductive age and will most likely be taking part in prenatal care. This is similar to a study conducted in Kathmandu, Nepal by (Bhatta, 2013) which found that respondents who accompanied their partners to prenatal appointments were over 25 years old.

Table 3: Age Distribution (n = 155)

Category	Frequency	Percentage (%)
18-27	18	11.6
28-38	44	28.4
39-49	63	40.6
50-60	13	8.4
>60	17	10.9
Total	**155**	**99.9**

Source: Researcher

4.3.2 Level of Education

The study sought to establish the education level of the respondent. Among the total respondents, 63.2% had secondary or higher-level education as shown in Table 4. This encompassed education at the secondary school level and in colleges and universities. Comparatively to men with little or no education, men with education are able to comprehend the importance of partner attendance and engagement in ANC. Correspondingly, a study done by (Olugbenga-Bello et al., 2013) on the perception attitude and involvement of men in maternal health care in Nigerian communities discovered a significant association between education level and male participation. This may be because educated men are more likely to have access to information about the services, have a better understanding of ANC, and are able to make wise decisions, such as choosing to seek these services as partners, whereas uneducated men are thought to adhere to conventional beliefs that have a negative impact on communication between spouses.

Table 4: Level of Education (n = 155)

Category	Frequency	Percentage (%)
Primary	23	14.8
Secondary	98	63.2
University/College	34	21.9
Total	**155**	**100**

Source: Researcher

4.3.4 Occupation

The majority of the respondents, as illustrated in Table 5 were self-employed at 39.4%, with unemployed, civil/public servant and others accounting for 11.6%, 14.8% and 34.2% of the respondents respectively. This is consistent with statistics from UNDP (2012), which showed that over 80% of Kenya's rural population was engaged in some type of agricultural activity as the majority of the respondents self-employed indicated they were farmers.

Table 5: Distance to Health Facility (n = 155)

Category	Frequency	Percentage (%)
Unemployed	18	11.6
Self-employed	61	39.4
Civil/public servant	23	14.8
Other	53	34.2
Total	**155**	**100**

4.3.4. Distance to Health Facility

The study sought to establish the respondent's distance to a health facility. As indicated in Table 6 Majority of the respondents (58.7%) indicated their distance to the health

facility was more than one kilometer. A study by (Gibore et al., 2019) found that men who said they lived more than five kilometers from a medical institution reported being more involved in ANC than their counterparts (52.6%), at 64%.

Table 6: Distance to Nearest Health Facility (n = 155)

Category	Frequency	Percentage (%)
< 1 Km	64	41.3
> 1 Km	91	58.7
Total	**155**	**100**

4.4.4. Ethnicity

The study sought to establish the ethnicity of the respondents. The majority (54.8%) of the respondents were of Tugen and Pokot ethnic backgrounds (Tugen, 34.2%, Pokot, 20.6%) as indicated in Table 7 below. This could be due to the fact that they are the main ethnic communities inhabiting Baringo County.

Table 7: Ethnicity (n = 155)

Category	Frequency	Percentage (%)
Kikuyu	3	1.9
Kipsigis	11	7.1
Kisii	9	5.8
Luhya	4	2.6
Luo	10	6.5
Marakwet	8	5.2
Mjikenda	13	8.4
Nandi	12	7.7
Pokot	32	20.6
Tugen	53	34.2
Total	**155**	**100**

4.4 Effects of Culture on Male Involvement in ANC

Respondents were asked to express their views on specific cultural behaviors and beliefs in their traditional communities.

Table 8: Effects of Culture on Male Involvement in ANC

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
A man should support his partner with household chores when she is pregnant	11.6%	16.8%	54.2%	17.4%
My partner should always attend ANC clinic regardless of her health status	12.3%	18.1%	27.7%	41.9%
A man should accompany his partner to the clinic for ANC	12.9%	12.1%	45.8%	29.0%
A man should discuss about ANC with healthcare providers	14.2%	22.6%	40%	23.2%

The majority of those surveyed concurred that historically, ANC has been a place exclusively for women and that males have unique duties to play during pregnancy. This is consistent with the results of earlier studies that identified cultural norms as obstacles to male involvement. When asked whether a man should support his partner with household chores when she is pregnant, the majority of the respondents (71.6%) disagreed indicating that it is improper for a man to help his pregnant wife with domestic duties. According to Ongeso and Okoth (2018), the majority of societies still base their decisions on pregnancy and childbirth on their cultural traditions. In such settings, segregated gender roles are frequently present during a woman's pregnancy, childbirth, and postpartum period. Similarly, most participants agreed that wives and husbands have very different roles. Men's roles are restricted to providing financial support and making decisions, while women take care of the expectant mothers. Men who accompany pregnant women to hospitals are viewed as being enslaved (Lewis et al., 2015). A study by (Bhatta, 2013) found that men's reasons for declining to accompany their partners on ANC visits included: believing it is a woman's responsibility; being preoccupied with work; and feeling embarrassed.

When asked whether they believe their partner should always attend ANC clinic visits regardless of her health status, 41.9% strongly disagreed, 27.7% disagreed, 18.1% agreed and 12.3% strongly agreed. The reason for this finding could be explained by men not advocating for ANC clinic visits because they believe in traditional interventions more than they do hospitals.

Regarding whether a man should accompany his partner to the clinic for ANC, 74.8% disagreed as men's roles are restricted to providing financial support and making decisions, while women take care of the pregnant people. Men who accompany pregnant women to hospitals are viewed as being oppressed (Ongeso & Okoth, 2018). This corresponds to a study done by (Bhatta, 2013) on the involvement of males in antenatal care, birth preparedness, exclusive breastfeeding and immunizations for children in Kathmandu, Nepal which found that only 39.3% of men accompanied their partners to ANC appointments. According to (Kwambai et al., 2013), Culture is a barrier to male involvement, according to data from a qualitative study among the Luo community in rural western Kenya on opinions of males on the use of prenatal and delivery care services. As pregnancy and labor are historically the responsibility of mothers-in-law and co-wives, men refrain from getting involved in these matters. Peers' view those who participate in pregnancy and childbirth as weak.

Regarding whether a man should discuss about ANC with healthcare providers, 40% disagreed, 23.2% strongly disagreed, 22.6% strongly agreed and 14.2% strongly agreed. This finding could be as a result of the way male clients who accompany their pregnant female counterparts to antenatal care clinics are handled or interacted with in ways that either discourage or encourage their participation in these services. For instance, some healthcare facilities don't allow men to participate in these activities (Ongeso & Okoth, 2018). In addition, (Ilyasu et al., 2010) postulate that spouses who

accompany their wives to clinics are frequently neglected or forced to wait around, according to the attitude of health professionals and the inadequate facilities in health centers. Similarly, in a cross-sectional survey done in Eastern Uganda by (Byamugisha et al., 2010) to find out the determinants of male participation in the HIV prevention program for mothers and their children, the respondents reported that the health staff occasionally forbid them from accompanying their pregnant patients within antenatal clinics.

4.5. Effects of Occupation on Male Partner Involvement in ANC

Table 9: Effects of Occupation on Male Partner Involvement in ANC

Category	Frequency		Percentages (%)	
	Yes	No	Yes	No
Ability to accompany partner to ANC based on occupation	67	88	43.2	56.8
Provision of financial support during antenatal period	93	62	60.0	40.0
Having an emergency plan during A.N.C period	96	59	61.9	38.1

In response to having an ability to accompany partner to ANC based on occupation as shown in Table 9, 43.2% indicated yes while 56.8% indicated no. According to (Gibore et al., 2019), time spent accompanying spouses to ANC services may have a greater impact on the participation of employed men in ANC. The level of men's involvement in ANC was discovered to be negatively correlated with employment, according to the study's findings. In a study by (Byamugisha et al., 2010), many of the men stated that they did not have time to attend ANC with their partners because of socioeconomic challenges such as being busy trying to make ends meet and not having enough money to pay for two people's transportation. Due to poor scheduling, in which the appointments fall when they are otherwise occupied with personal obligations, men often choose not to accompany their partners to antenatal appointments because according to (Ongeso & Okoth 2018), in many healthcare settings, those who need medical attention frequently visit the clinic early in the day. The duration of clinic sessions may have an impact on attendance, particularly for the accomplices. Some people prefer to schedule appointments in the morning, while others prefer to do them later in the day.

Regarding whether they provide financial support during the antenatal period, 60% of the respondents indicated yes while 40% indicated no. In their study, (Ilyasu et al., 2010) found that males were more likely to accompany their wives and foot the bill for treatment when issues emerged. Husbands contributed more frequently by paying for care than by joining their women in both routine care and problem-solving situations. According to (Rumaseuw et al., 2018), the occupations of the wife and the husband also play a big role in how much spouses participate in pregnancy and childbirth. According

to the characteristics of the respondents in their study, there are more husbands and wives who work and participate in the investigation of pregnancy than there are husbands and wives who do not. This implies that the husband's participation in his wife's prenatal examination is influenced by the economic situation.

The respondents were asked to indicate whether they have an emergency plan during the ANC period, 61.9% indicated yes while 38.1% indicated no. A study done by (Ilyasu et al., 2010) found that a higher percentage of couples made proper preparations and backup plans in case of issues even in other financially less developed African countries (Ilyasu et al., 2010). Arriving at the medical center faster is facilitated by advanced transportation arrangements. Especially in emergency cases, it saves time that would otherwise be spent on transportation arrangements. A couple should be able to know what transportation options are available at various times of the day, how much it will cost, who to contact or where to go in advance. More importantly, they should be able to save money to cover their expense (Mutiso et al., 2008). According to (Moran et al., 2006), a comprehensive method to increase the use of professional clinicians at birth, the primary intervention to lower maternal mortality, is birth readiness and complication readiness. Besides from knowing the warning signals, being prepared for complications includes planning where to give birth, hiring a delivery attendant, arranging for transportation, and setting aside money. Similarly, one of the most crucial roles of antenatal care is to provide the woman with guidance and knowledge regarding birth readiness, warning indications of obstetric complications, and emergency preparedness. (Mutiso et al., 2008). (Ilyasu et al., 2010) extends that differences in literacy levels, cultural norms, poverty, and the efficiency with which various national health systems implement safe motherhood could all contribute to the disparity in the level of preparedness and order to enhance access to skilled and emergency obstetric treatment, which has been shown to be crucial in reducing maternal and/or perinatal mortality and morbidity, antenatal care should emphasize birth readiness and complication readiness (Mutiso et al., 2008).

4.6 Effects of Age on Male Partner Involvement in Antenatal Care

When asked whether age affects their physical support during their partners' pregnancy, 68.3% disagreed (29.0% disagreed; 39.3% strongly disagreed) while 18.7% and 12.9% strongly agreed and agreed consecutively. This shows that the majority of the respondents are not hindered by their age in physically supporting their partners during pregnancy. According to (Guspianto & Asyary, 2022), age, the number of children, income, and expertise are all factors that simultaneously have a significant relationship with male participation in the care of pregnant women. This may be related to the concern over the care and the requirement for assistance. Because a man is considerably older than his wife, he may feel that his wife needs to be looked after and supported during her pregnancy (Mamo et al., 2021).

In response to whether their age allows them to accompany their partner to ANC clinic visits, 21.9% strongly agreed, 12.9% agreed, 27% disagreed and 38% strongly disagreed. This indicates that age is a barrier to the majority of the respondents when it comes to accompanying their partners to ANC clinic visits. In his study, (Bhatta, 2013), only 10.3% of males accompanied their partners to get their children vaccinated, whereas older men who were illiterate or only had an elementary education showed greater involvement. Similarly, men who were older than 30 years tended to participate in ANC at a higher rate than men who were younger than 30. (Guspianto & Asyary, 2022). Men who were older, uneducated or had only completed primary education, had greater incomes, held formal jobs, and belonged to non-indigenous ethnicities were linked factors for male involvement in ANC visits (Bhatta, 2013). In a study by (Rumaseuw et al., 2018) it was found that, with a 95% level of confidence, the wife's age, education, employment position, number of children, and pregnancy status are independent variables that significantly affect a husband's participation in accompanying his wife during the prenatal examination.

Regarding whether the age gap affects their involvement in ANC, 46.4% indicated strongly agreed, 23.8% agreed, 18% indicated disagreed while 11.6% strongly disagreed that the age gap does not affect their involvement in ANC. This shows that age difference is not a barrier in an antenatal care engagement. according to Mamo et al. (2021, age at marriage and the age gap between the husband and wife determine the male partner's antenatal care involvement. In a study done by (Ilyasu, 2010), compared to 82 (28.1%) of 292 males 30 years or older, 43 of the 97 respondents under the age of 30 (44.3%) ever accompanied their spouses to the hospital for maternity care. In their study, Mamo et al. (2021), discovered that the likelihood of a male partner engagement increased as the age gap between the husband and wife increased. Another finding demonstrating that this was the case showed that a decrease in male engagement was correlated with an increase in mother age at marriage. Given that they are capable of taking care of their families on their own, it could be because a father's concern for their wellbeing may decrease as their mothers' age.

Table 10: Effects of Age on Male Partner Involvement in Antenatal Care (n = 155)

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
Age affects my physical support during pregnancy	18.7%	12.9%	29.0%	39.3%
My age allows me to accompany my partner to ANC clinic visit	21.9%	12.9%	27%	38%
The age gap does not affect involvement in ANC	46.4%	23.8%	18.0%	11.6%

4.7 The Effect of Knowledge and Awareness of Male Partner Involvement in ANC

Table 11: Knowledge and Awareness of Antenatal Services (n = 155)

Category	Frequency		Percentages	
	Yes	No	Yes	No
Physical Examination	148	7	95.5%	4.5%
Counseling on Birth Plan	143	12	92.3%	7.7%
Blood Group and Syphilis	58	97	37.4%	62.6%
Nutritional Guidance	34	121	21.9%	78.1%
Counselling on Danger	145	10	93.5%	6.5%
HIV Counselling and Testing	149	6	96.1%	3.9%

Regarding knowledge and awareness of antenatal services, the majority of the respondents, 95.5%, 92.3%, 93.5% and 96.1% indicated they had knowledge and awareness of physical examination, counselling on a birth plan, counselling on danger and HIV counselling and testing respectively were conducted during ANC clinic visits. However, 62.6% and 78.1% indicated they had no knowledge or awareness of the administration of blood group and syphilis and nutritional guidance respectively. This finding is in contrast with a result of a study done in Uganda by (Tweheyo et al., 2010) which found that There was little knowledge of safe motherhood services among the male partners and that Only 47.1% of respondents were aware of 3 to 5 ANC services (Tweheyo et al., 2010). Antenatal care is recognized as the foundation of obstetrical care and is crucial to pregnant women's health. Thus, knowledge and awareness of antenatal services are crucial for the survival of both the mother and the child.

Table 12: Knowledge and Awareness of Danger Signs in Pregnancy (n = 155)

Category	Frequency		Percentages	
	Yes	No	Yes	No
Vaginal bleeding	70	85	45.2%	54.8%
Convulsions	145	10	93.5%	6.5%
Loss of consciousness	153	2	98.7%	1.3%
Fast/difficult breathing	127	28	81.9%	18.1%
Severe headaches with blurred vision	97	58	62.6%	37.4%

When asked to identify what they consider danger signs in pregnancy, the majority of the respondents 93.5%, 98.7%, 81.9% and 62.6% indicated they consider convulsions, loss of consciousness, fast/difficult breathing and severe headaches with blurred vision respectively as danger signs in pregnancy. However, 45% of the respondents indicated they did not consider vaginal bleeding as a danger sign in pregnancy. In spite of the fact that the majority of men are aware of what antenatal care is, a survey done by (Olugbenga-Bello et al., 2013) in Nigeria to determine men's level of knowledge about prenatal services revealed that a significant percentage of men are uninformed of the entire extent of antenatal care. Out of 340 participants, 78% stated that it includes HIV

counseling and testing in addition to care for expectant mothers and the unborn child. Only 9% emphasized preventing potential risks or consequences. Further a cross-sectional study done by (Younas et al., 2020) on male partners' knowledge and practices of antenatal care found that less than half of the participants in this study knew the danger signs of pregnancy. These responses are similar to those mentioned by respondents in a study done by (Ilyasu, 2010), which discovered that a significant percentage of men accurately classified vaginal bleeding, seizures, and loss of consciousness as obstetric emergencies. Other complications included pale complexion, cessation of foetal activity, premature labour, headache, fever, and dizziness. In a survey conducted by (Bhatta, 2013), Involvement of males in antenatal care, birth preparedness, exclusive breastfeeding and immunizations for children in Kathmandu, Nepal only 26.9% of men knew the least danger signs.

Table 13: Knowledge and Awareness of Maternal Care (n = 155)

Category	Frequency		Percentages (%)	
	Yes	No	Yes	No
I have a part to play in my partners' care both during and after pregnancy.	125	30	81.0	19.4
Male partners need to be informed about the roles they may play in keeping women healthy both before and throughout pregnancy.	132	23	85.2	14.8
For the mother and child to remain in good health, proper nutrition is essential.	147	8	95.8	5.2
During pregnancy, it's important for my partner to get enough of rest and exercise.	116	39	74.8	25.2

When asked whether they have a part to play in their partners' care both during and after pregnancy, 81% of the respondents indicated yes while 19% indicated no. According to (Younas et al., 2020) men's active involvement in prenatal care and their depth of knowledge on the topic contribute to favorable pregnancy outcomes. Further, the study found that despite a high majority of men (84%) engaging in ANC-related behaviors, just a small portion of men (52%) were aware of ANC. In their study, (Falade-Fatila & Adebayo, 2020) found that the majority of respondents were quite proactive at reminding their spouses of activities and planning for pregnancy-related expenses. Men's active involvement in prenatal care and their depth of knowledge on the topic contributes to favorable pregnancy outcomes (Younas et al., 2020). Further, the majority of survey participants (97.5%) acknowledged that men also had significant roles to play in this process, despite the widespread belief that women should be the only ones in charge of caring for newborns. In contrast to caring for children, especially the young, men are believed to be more capable of carrying out duties that society values more highly, such as meeting the family's basic necessities. However, only a small percentage of respondents reported engaging in caregiving tasks like going to the doctor's office with a partner. Religion, ethnicity, educational attainment, and knowledge of related subjects

were all associated with men's involvement in pregnancy-related care. The demands of their employment, societal stigma, and prolonged wait periods at hospitals have also made it difficult for men to participate in pregnancy-related care (Falade-Fatila & Adebayo, 2020).

When asked whether male partners need to be informed about the roles, they may play in keeping women healthy both before and throughout pregnancy, 85% indicated yes while 14% indicated no. this could be as a result of men serving as the gatekeepers for women's access to reproductive health treatments even when the mother's life is at risk, and have the power to make such decisions. Men choose the time and location of obstetric emergencies, as well as the delivery location. In their study's assessment of men's perceptions of their involvement in care related to pregnancy, (Falade-Fatila & Adebayo, 2020) found that nearly all of the respondents indicated that they had a role to play in pregnancy, postnatal care, and infant care. Further, the study found that although many people think that women alone should be in charge of caring for newborns, the majority of respondents (97.5%) agreed that men also had significant roles to play in this process. Men are believed to be more suited for jobs that society values more highly, such as providing for the family's fundamental requirements, than caring for children, particularly young ones. When male partners accompany their wives to medical facilities, they have more access to information about reproductive health, which may lead to improved communication between men and women on issues pertaining to childcare and reproductive health (Ilyasu et al., 2010).

Regarding whether proper nutrition is essential for mother and child to remain in good health, 95.8% indicated yes while 5% indicated no. a pregnant woman should consume a balanced diet and get enough rest during the day to meet needs like the increased caloric requirements of pregnancy. According to (Marshall et al., 2022) this can be accomplished by replacing lower quality, highly processed meals with a variety of nutrient-dense, whole foods, such as fruits, vegetables, legumes, whole grains, healthy fats with omega-3 fatty acids, which include nuts and seeds, and seafood.

When asked whether it is important for their partner to get enough rest and exercise during pregnancy, 74.8% indicated yes while 25.2% indicated no. this variation could be a result of disparities in literacy levels, cultural norms and poverty. According to (Shu-Ya Yang et al., 2020) exercise has a positive impact on the sleep quality of pregnant women.

4.8 Antenatal Care

When asked the number of times they accompanied their partner to the ANC clinic, the majority of the respondents 51.6% and 25.8% indicated four and three times respectively. This finding is in contrast to the findings of the study done in Bumula Sub-County where the majority of the male partners (54.1%) went to antenatal appointments and skilled deliveries with their female partners at least once (Nyang'au et al., 2021).

Table 14: Determinants of Male Partner Participation in ANC (n = 155)

Category	Frequency	Percentage (%)
Antenatal visit		
Once	12	7.7
Twice	23	14.8
Thrice	40	25.8
Four times	80	51.6
Waiting time at the health facility		
Short	35	22.6
Moderate	45	29.0
Too long	75	48.4
Attitude of healthcare providers		
Positive	96	61.9
Negative	59	38.1

According to (Kasagama et al., 2022), the rise in the percentage of expectant women who receive four or more ANC visits over time is mostly attributable to the early start of ANC. In order to increase the percentage of women obtaining a necessary ANC visit, interventions aiming at beginning the first ANC visit within the first twelve weeks of pregnancy should be prioritized. This finding is consistent with the previous study in Central Tanzania where more than half of the men (63.4%) reported that they had accompanied their spouses to a prenatal appointment at least once (Gibore et al., 2019).

Regarding waiting time at the health facility, the majority of the respondents (48.4%) indicated too long, 29.0% indicated moderate while 22.6% indicated they spent a short time during the ANC clinic visits. This is similar to a study by Gibore et al. (2019) which found that more than half of the participants who accompanied their partners to an ANC visit reported waiting for more than an hour for services. The level of men's involvement in ANC was discovered to be significantly correlated with employment. According to (Tweheyo, 2010), long waiting time, lack of transportation, and a distance to a medical facility that required a lot of walking were the primary problems that respondents to the study indicated as barriers to attending ANC**.** This is likely to deter men from visiting ANC in the future. Time spent accompanying spouses to ANC services may have a greater impact on the participation of employed men in ANC (Gibore et al., 2019).

The majority of the respondents, 61.9% indicated the attitude of healthcare providers was positive, while 38.1% indicated it was negative. This supports the finding of (Ongeso & Okoth, 2018) in the case of Kenyatta Hospital Kenya which found that most respondents indicated that the clinic's nurses and other staff members are friendly and approachable. The majority of respondents believed that the staff gives men the chance to express their thoughts on reproductive health and encourages them to attend following visits and that the more men become more familiar with the clinic's services the more the healthcare providers involve them, and as a result, they are more inclined

to attend subsequent visits. Further, a study by (Gibore et al., 2019) found a link between the extent of men's involvement in ANC and their perceptions of the attitudes of healthcare professionals toward men who accompany their partners to ANC.

4.9 Government Initiatives

Table 15: Government Initiatives (n = 155)

Category	Frequency		Percentages (%)	
	Yes	No	Yes	No
Awareness of any government initiative supporting male partner involvement in ANC	47	108	30.3	69.7

When asked to indicate whether they were aware of any government initiative supporting male partner involvement in ANC, 30.3% indicated yes while the majority of the respondents (69.7%) indicated no. this finding could be as a result of limited implementation and awareness creation of established government initiative supporting male partner involvement in ANC. Many emphasized the necessity for widespread awareness of government initiatives supporting male partner involvement in ANC of both men and women to raise knowledge of the value of prenatal care. The use of mass media could be employed in encouraging males to participate in prenatal care by making them aware of the initiatives such as Family Planning Programme, National Policy for Prevention and Response to Gender Based Violence, STD and HIV Control and Prevention.

5. Summary of the Findings, Conclusions and Recommendations

5.1 Introduction

This chapter presents the summary of the findings of the study, sets out conclusions and makes recommendations. It answers the questions; what actions should be implemented to guarantee that women's and their newborns' health is improved in light of the ideas and beliefs that men in Kaptimbor village have towards male involvement during pregnancy and childbirth, as well as postnatal care? What types of regulations must be put in place to encourage male involvement? Who should take the initiative and make sure that men have the chance to help and support their partners?

5.2 Summary of Findings

This study sought to determine socio-demographic factors affecting Male Partner Involvement in Antenatal Care among Households in Kaptimbor Village Baringo Central Sub-County. The study found that the majority of the respondents (69.0%) were aged between 28 and 49 years, 63.2% had secondary or higher-level education, 39.4%, were

self-employed, (58.7%) lived a distance of more than one kilometer from the nearest health facility and (54.8%) were of Tugen and Pokot ethnic backgrounds.

The first objective determines the effect of culture on male partner involvement in antenatal care. The findings indicate that there are significant cultural challenges, Male participation in ANC was seen as not being culturally created for men because the majority of the respondents indicated that traditionally, ANC has only been a place for women and that men had certain roles to play during pregnancy. It was thought that men would be considered as lesser by society if they accompanied their pregnant partners to the hospital because it was generally seen as a woman's responsibility. This study also discovered that men were more inclined to accompany their wives and pay the bill for care when complications emerged. Husbands frequently assisted their women by paying for care rather than simply being present, both in everyday care and in treatment. Additionally, men believed that only women should use maternity facilities.

The second objective sought to find out how occupation affects male partner involvement in antenatal care, from the findings it was established that men with low-income levels chose to stay at home rather than accompany their partners to prenatal clinics so that they can go to work and make an income for themselves and reduce the expense incurred.

The third objective sought to establish how age affects male partner involvement in antenatal care. The study found that while younger men were more supportive, older men were opposed to the idea of men engaging in ANC.

The fourth objective aimed to assess the effect of knowledge and awareness of male partner involvement in antenatal care. The study found that male partners were more likely to participate in ANC activities than men who had not heard about the initiatives to engage males in sexual and reproductive health like Family Planning Programme, the National Policy for the Prevention and Response to Gender-Based Violence and the STD and HIV Control and Prevention Programme. The study also discovered that a significant percentage of men correctly identified convulsions, loss of consciousness, fast/difficult breathing and severe headache with blurred vision as danger signs in pregnancy. Obstetric emergencies and complications are critical situations for both mother and child, it is crucial for husbands to recognize the signs associated with them. As the major decision makers pregnancy and childbirth may have disastrous effects if they fail to accurately recognize these signs as dangerous signs in pregnancy.

5.3 Conclusion

Although the vast majority of men indicated a high level of involvement in ANC services, there were gaps in their understanding, perceptions, and involvement. Different aspects of ANC were shown to have varying degrees of involvement. The level of involvement was high in terms of giving financial support and having an emergency plan in place during the ANC and giving physical support during pregnancy. However, the responses showed very little involvement in providing care, like accompanying partners to ANC

appointments based on occupation was found to be quite low. Moreover, men's participation was hindered by cultural practices and ideas since communities still conform to the gender belief system. Age affected male partner involvement as younger men were more supportive, and older men were opposed to the idea of men engaging in ANC. The majority of the men who visited ANC clinics were aware of the antenatal services provided at the clinic, such as counseling on birth plan, counseling on danger, nutritional advice, and physical examination. To increase male participation in ANC, it is important to educate men about ANC and encourage them to make decisions along with their spouses.

5.4 Recommendations

- The government and the Ministry of Health should establish education and awareness campaigns that especially address negative cultural beliefs and mindsets that discourage male partners from using maternal health services
- Hospitals should develop couple-friendly maternal health services to enhance male partner involvement in ANC. The Ministry of Health should organize continuous training for healthcare professionals to enable them to provide altruistic service, positive attitude and compassionate care for pregnant mothers and their partners
- In order to provide men with opportunities to accompany their partners to antenatal clinics, government and employer policies need to be established.
- To accommodate men who have fixed employment commitments, hospitals should expand their ANC clinic's hours of operation.
- The ministry of health should put in place strategies and policies for reviewing reproductive health policies as there is a need to emphasize how important it is for male partners to be involved in ANC and reproductive health issues
- The health system should minimize wait times in clinics and create a supportive environment that encourages men to visit clinics with their partners
- In order to do away with the deeply ingrained ANC and reproductive health ideas and enable men to understand the value of engaging in antenatal care and attendance, campaigns on behavior change with regard to reproductive health services are to be conducted through the media.
- The study of male involvement should be included in the curriculum and taught in schools to help inculcate the idea and importance of male partner involvement in reproductive health issues
- In order to encourage male involvement in ANC, religious and community leaders and other various levels of social and political leaders should lead from the forefront and act as advocates for change by engaging in maternal health education and reproductive health programs as this will discourage unfavorable gender norms.

Authors' Contributions

Jacqueline L. Odawa, Lomadi Patrick led the design and implementation of the study, conceived the manuscript, conducted the analysis, and led the writing. Daisy Chebet Korir, Fredrick K. Lagat supported literature review and writing of the manuscript. Alda Ntipiyan Potipa supported analysis and writing. Risper Nyambeki Mauti supported implementation and writing. Evaline N. Lenaigwanai Lomada Leonard supported the writing of the manuscript. All authors have read and approved the manuscript.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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Appendix I: Questionnaire

Socio-Cultural Factors Influencing Male Partner Involvement in Antenatal Care at Kaptimbor Village

We are Senior Management students from Kenya School of Government Baringo County Kabarnet Campus. We are carrying out a study on socio-cultural factors influencing male partner involvement in Antenatal care at Kaptimbor Village. All responses will be handled confidentially and will be used only for this study. This questionnaire therefore is to help us collect information from you for purely academic purpose. You are therefore kindly requested to participate and respond as best as you can to items in the questionnaire. Your contributions are highly appreciated.

Thank you.

Section A: Demographic Information (Please tick the appropriate options)

1. What is your age:
   18 – 24 [ ]
   25 – 34 [ ]
   35– 44 [ ]
   45 – 54 [ ]
   55 and Above [ ]

2. Education level
   Primary [ ]
   Secondary [ ]
   University/College [ ]
   Other (please specify) _____

3. Occupation level
   Unemployed [ ]
   Self-employed [ ]
   Civil/Public servant [ ]
   Other (please specify) _____

4. How do you rate the distance from your home to the nearest health facility?
   <1km [ ]
   >1km [ ]

5. Ethnicity_____

Section B: Culture

6. How does your culture perceive male partner involvement on antenatal care?
   Allowed [ ]
   Not allowed [ ]

7. During Antenatal period did you support your partner in household chores?
   Yes [ ]
   No [ ]
   If no give reason……..

8. During prenatal period, did you discus with your partner the challenges?
   Yes [ ]
   No [ ]
   If no please explain why ……

   Please rate the statements according to your agreement.

Statement	SA	A	D	SD
A man should support his partner with household chores when she is pregnant				
My partner should always attend ANC clinic regardless of her health status				
A man should accompany his partner to the clinic for ANC				
A man should discuss about ANC with healthcare providers				

Level of rating: 4=Strongly Agree (SA), 3=Agree (A), 2= Disagree (D) and 1=Strongly Disagree

Section C: Occupation

9. What is your occupation?
   Farmer [ ]
   Business man [ ]
   Others (specify)……

10. Based on your occupation were able to accompany your partner to antenatal care?
    Yes [ ]
    No [ ]
    If No, please explain:

_____
_____
_____
_____

11. Did you provide any financial support to your partner during ANC period?
    Yes [ ]
    No [ ]

If No please explain:

_____
_____
_____
_____

12. Did you make any plan for emergency during pregnancy (transport, skill attendant)?
    Yes [ ]
    No [ ]
    If No, please explain:

_____
_____
_____
_____

Section D: Age

Please rate the statements according to your agreement.

Level of rating: 4=Strongly Agree (SA), 3=Agree (A), 2= Disagree (D) and 1=Strongly Disagree

13. Age affects my physical support during pregnancy?
    Strongly Agree [ ]
    Agree [ ]
    Disagree [ ]
    Strongly Disagree [ ]
    Please explain your rating:

_____
_____
_____
_____

14. My age allows me to accompany my partner to ANC clinic visit?
    Strongly Agree [ ]
    Agree [ ]
    Disagree [ ]
    Strongly Disagree [ ]
    Please explain your rating:

_____
_____
_____
_____

15. Age gap does not affect my involvement in ANC
    Strongly Agree [ ]
    Agree [ ]
    Disagree [ ]
    Strongly Disagree [ ]
    Please explain your rating:

_____
_____
_____
_____

Section E: Knowledge and Awareness

1. Have you heard of antenatal care?
   Yes [ ]
   No [ ]

2. Please tick on the antenatal services you have knowledge and awareness on

Category	**Yes**	**No**
Physical Examination		
Counseling on Birth Plan		
Blood Group and Syphilis		
Nutritional Guidance		
Counselling on Danger		
HIV Counselling and Testing		

3. Please tick on signs you consider a danger sign in pregnancy

Category	**Yes**	**No**
Vaginal bleeding		
Convulsions		
Loss of consciousness		
Fast/difficult breathing		
Severe headaches with blurred vision		

4. Maternal care
   I have a part to play in my partners' care both during and after pregnancy
   Yes [ ]
   No [ ]
   If No please explain:

_____
_____

_____
_____

5. Male partners need to be informed about the roles they may play in keeping women healthy both before and throughout pregnancy
   Yes [ ]
   No [ ]
   If No please explain:

_____
_____
_____
_____

6. For the mother and child to remain in good health, proper nutrition is essential
   Yes [ ]
   No [ ]
   If No please explain:

_____
_____
_____
_____

7. During pregnancy, it's important for my partner to get enough of rest and exercise
   Yes [ ]
   No [ ]
   If No please explain:

_____
_____
_____
_____

Section F: Antenatal Care

8. How many times did you accompany your partner to Antenatal clinic?
   Once [ ]
   Twice [ ]
   Three times [ ]
   Four times [ ]
   Never [ ]

9. How do you assess the waiting time you spent at Antenatal Clinic with your partner?
   Short [ ]
   Moderate [ ]
   Too long [ ]

10. What was the Attitude of healthcare providers?
    Positive [ ]
    Negative [ ]

11. Are you aware of any government initiatives supporting male involvement on antenatal care?
    Yes [ ]
    No [ ]
    If yes, please specify:

_____
_____
_____
_____

Thank you for your response.