

**MALE PARTNER INVOLVEMENT IN ANTENATAL
CARE AT KANGUNDO LEVEL 4 HOSPITAL IN
MACHAKOS COUNTY, KENYA**

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**Male Partner Involvement in Antenatal Care at Kangundo Level 4
Hospital in Machakos County, Kenya**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

Signature..... Date

Pauline Kavindu Muia

This thesis has been submitted for examination with our approval as university supervisors

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JKUAT, Kenya

DEDICATION

This thesis is dedicated to my parents, Ferdinard Muia and Agnes Muia. They not only nurtured me but ensured that I received the best education and have always supported me towards achieving my dreams. My parents have been a source of motivation in moments of despair and discouragement.

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TABLE OF CONTENTS

| | |
|--|-------------|
| DECLARATION..... | ii |
| DEDICATION..... | iii |
| ACKNOWLEDGEMENT | iv |
| TABLE OF CONTENTS..... | v |
| LIST OF TABLES | ix |
| LIST OF APPENDICES | xi |
| ABBREVIATIONS AND ACRONYMS | xii |
| OPERATIONAL DEFINITION OF TERMS | xiii |
| ABSTRACT | xv |
| CHAPTER ONE | 1 |
| INTRODUCTION..... | 1 |
| 1.1 Background of the Study | 1 |
| 1.2 Statement of the Problem | 3 |
| 1.3 Justification | 4 |
| 1.4 Research Questions | 5 |
| 1.5 Study Objectives..... | 5 |
| 1.5.1 Broad objective | 5 |
| 1.5.2 Specific objectives | 5 |

| | |
|---|-----------|
| 1.6 Hypotheses | 6 |
| CHAPTER TWO | 7 |
| LITERATURE REVIEW..... | 7 |
| 2.1 Introduction | 7 |
| 2.2 Perspective of male partner involvement in reproductive health | 7 |
| 2.3 Proportion of male partner involvement in antenatal care | 8 |
| 2.4 Individual factors associated with male partner involvement in antenatal care. | 9 |
| 2.5 Health institution factors influencing male partner involvement in antenatal care | 12 |
| 2.6 Conclusion..... | 15 |
| 2.7 Theoretical Framework | 15 |
| 2.8 Conceptual Framework | 18 |
| CHAPTER THREE | 19 |
| RESEARCH METHODOLOGY | 19 |
| 3.1 Study Design | 19 |
| 3.2 Study Area..... | 19 |
| 3.3 Study Population | 19 |
| 3.4 Sample Size Determination | 20 |
| 3.5 Inclusion criteria..... | 21 |
| 3.6 Exclusion criteria..... | 21 |

| | |
|---|-----------|
| 3.7 Sampling Method and Technique..... | 21 |
| 3.8 Data Collection Instruments..... | 22 |
| 3.9 Validity and reliability of data collection instruments..... | 22 |
| 3.10 Data collection and handling..... | 23 |
| 3.11 Data Analysis and Presentation..... | 23 |
| 3.11.1 Quantitative data..... | 23 |
| 3.11.2 Qualitative data..... | 23 |
| 3.12 Ethical Considerations..... | 24 |
| CHAPTER FOUR..... | 25 |
| STUDY RESULTS..... | 25 |
| 4.1 Introduction..... | 25 |
| 4.2 Quantitative Results..... | 25 |
| 4.2.1 Socio-demographic characteristics..... | 25 |
| 4.2.2 Proportion of male partner involvement in antenatal Care..... | 28 |
| 4.2.3 Bivariate Analysis..... | 29 |
| 4.3 Qualitative Findings..... | 34 |
| CHAPTER FIVE..... | 39 |
| DISCUSSION, CONCLUSION AND RECOMMENDATIONS..... | 39 |
| 5.1 Introduction..... | 39 |

| | |
|---|-----------|
| 5.2 Discussion | 39 |
| 5.2.1 Proportion of Male Partner Involvement in Antenatal Care | 39 |
| 5.2.2 Individual Factors Associated with Male Partner Involvement..... | 40 |
| 5.2.3 Health institution factors associated with male partner involvement in antenatal care | 41 |
| 5.2.4 Study limitation..... | 43 |
| 5.3 Conclusion..... | 43 |
| 5.4 Recommendation..... | 43 |
| REFERENCES..... | 45 |
| APPENDICES | 50 |

LIST OF TABLES

| | |
|--|----|
| Table 4.1: Socio-demographic characteristics of the respondents | 26 |
| Table 4.2: Socio-demographic characteristics of the male partner | 27 |
| Table 4.3: Reasons for not being accompanied for antenatal care services | 28 |
| Table 4.4: Role of male partner in antenatal care | 29 |
| Table 4.5: Respondent individual factors associated with male partner involvement | 30 |
| Table 4.6: Male partners related factors | 31 |
| Table 4.7: Health institution factors associated with male involvement in antenatal care | 32 |
| Table 4.8: Adjusted Multivariate logistic regression model for factors associated with male partner involvement | 33 |
| Table 4.9: Socio-demographic characteristics of the respondents | 34 |
| Table 4.10: Findings on thematic analysis | 35 |

LIST OF FIGURES

| | |
|---|----|
| Figure 2.1: Theoretical Framework | 17 |
| Figure 2.2: Conceptual framework | 18 |
| Figure 4.1: Proportion of male partner involvement in the antenatal care | 28 |

LIST OF APPENDICES

| | |
|---|----|
| Appendix I: Participants Informed Consent | 50 |
| Appendix II: Consent Form..... | 52 |
| Appendix III: Questionnaire..... | 53 |
| Appendix IV: Focused Group Discussion Schedule | 58 |
| Appendix V: Key Informant Interview Guide | 59 |
| Appendix VI: Introduction letter by JKUAT-SON | 60 |
| Appendix VII: National commission for science, Technology and innovation research license | 61 |
| Appendix VIII: Ethical review approval letter..... | 62 |
| Appendix IX: Approval letter to collect data at Kangundo maternal and child health clinic..... | 63 |

ABBREVIATIONS AND ACRONYMS

| | |
|---------------|---|
| ANC | Antenatal Care |
| FGD | Focused group discussion |
| GOK | Government of Kenya |
| KII | Key informant interview |
| MCH | Maternal child health |
| MDG | Millennium development goals |
| PITC | Provider-initiated HIV testing and counseling |
| PMTCT | prevention of mother to child transmission of HIV |
| PNC | Postnatal care |
| RH | Reproductive Health |
| SDG | Sustainable development goals |
| SPSS | Statistical package for social science |
| SRH | Sexual and reproductive health |
| UNICEF | United Nations Children’s Fund |
| WHO | World Health Organization |

OPERATIONAL DEFINITION OF TERMS

| | |
|-----------------------------------|---|
| Antenatal care services | These are the individualized care provided by a skilled health-care professionals to a pregnant woman and adolescent girls throughout pregnancy to ensure best maternal and neonatal outcomes. The care include: risk identification; prevention and management of pregnancy-related or concurrent diseases; and health education and health promotion (MOH, 2022) |
| Cultural practices: | This relates to cultural beliefs, myths and decision-making influencing male partner involvement in antenatal care services as reported by pregnant women. |
| Male Partner accompaniment | It is an act of the spouse of a pregnant woman attending and participating in the antenatal care services together with the wife. |
| Male partner involvement | It is an act of the spouse of a pregnant woman attending and participating in antenatal care services as well as discussing matters of pregnancy and providing support towards accessing the services (Natai et al., 2020). However, in this study male partner involvement in antenatal care has been measured by male partner accompaniment to the antenatal care clinic. |
| Male partner | Refers to the spouse of a pregnant woman seeking antenatal care services |

Role of male partner

It refers to the activities that a spouse of a pregnant woman is engaged in during the antenatal period.

ABSTRACT

Male partner involvement is the process of ensuring that spouses avail themselves and participate in every step together with their wives during antenatal care services. The need for male partner involvement was introduced in 1994 at the International Conference on Population and Development on reproductive health policies held in Cairo. The National Guidelines for Quality Obstetrics and Perinatal Care, clearly indicates that male involvement in maternal and neonatal health care has positive outcomes as it helps in addressing the first and second delays. Despite the emphasis, there are no documented studies on male partner involvement in antenatal care at Kangundo level 4 hospital in Machakos County. The purpose of the study was to assess the proportion and determinants of male partner involvement in antenatal care at Kangundo Level 4 Hospital. Analytical cross-sectional design was used in this study. A total of 132 pregnant women participated by filling in questionnaires while three focused group discussions were conducted among the pregnant women who did not fill the questionnaire and three nurses were interviewed as key informants. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) for windows version 20.0. Descriptive data were used to analyze objective one which was computed with frequencies and percentages. A bivariate regression model was used to determine factors associated with male partner involvement. Results were then presented in form of tables and figures. Adjusted multivariate regression was then done for the factors associated with male partner involvement to control for confounding factors. Qualitative data was analyzed by thematic analysis to identify major themes and develop a broad coding scheme based on the research objectives using N-Vivo software. The study findings revealed that only 34.1% of the male partners were involved in antenatal care. Similarly, respondents in the qualitative data agreed that most men were not involved in the antenatal care. Most of the respondents (62.1%) reported that men were busy at work, 10.3% reported pregnancy and antenatal care was perceived as roles for women and 9.2% were not living together with their male partners. There was a statistically significant association between male partner involvement and living together with partner ($P < 0.0001$, AOR=3.1), male partner helping in household chores ($P=0.012$, AOR=2.5), those who spent 40 mins to 1hour ($P=0.021$, AOR=3.0) and 2 hours to reach the health facility ($P=0.015$, AOR=3.8). The study concluded that there was low male partner involvement in antenatal care at Kangundo level 4 hospital. Living together with partner and male partner helping in household chores were independent predictors of male partner involvement in antenatal care. Therefore, the researcher recommended the hospital management to support more outreach services especially in churches and during chief Baraza's so as to provide more information to the men at the community level.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Antenatal care is defined as “timely, appropriate, evidenced-based actions related to health promotion, disease prevention, screening and treatment with targets to reduce complication from pregnancy and childbirth such as stillbirths and perinatal deaths” (WHO, 2016). It is recommended that pregnant women should at least attend eight antenatal visits (WHO, 2016). However, globally, in most countries between 2015-2020, pregnant women attended four antenatal visits (UNICEF, 2021). In most developing countries, male partners have a great role of decision-making on health at family level (Sharma et al., 2018).

Male partner involvement in antenatal care involves the participation of male partners in antenatal care services with the aim of improving maternal health outcomes (Natai et al., 2020). This is in line with the WHO (2016) report that emphasized incorporation of male partners in antenatal care services to improve maternal and neonatal outcomes. A study done in Kakamega by Kiptoo and Kipmerewo (2017), highlighted men should not only participate in family planning services but in all aspects of reproductive health including antenatal care to enhance women’s health.

The World Health Organization (WHO, 2019) report on reproductive and maternal health indicates that maternal mortality has been the leading cause of death in women of reproductive age between 15-29years and the second leading cause of death in women aged 15-49 years. The WHO (2019), estimated that 303000 women died during pregnancy and childbirth in 2015, with the majority of these (95%) occurring in developing countries. The Kenyan maternal mortality rate by 2017 was 342 per 100 000 live births (Bongaarts, 2019). The factors contributing to the mortalities include the type of care seeking behavior during pregnancy.

The sustainable development goal 3 targets on reduction of global maternal mortality ratio to less than 70 per 100 000 live births, neonatal mortality ratio to as low as 12 per 1000 live births by 2030, and to have no country with maternal mortality ratio of over 140 per 100 000 according to the 70th United Nations General Assembly session held in 2015. On contrary, reports have indicated that maternal mortality rates have been on the rise which has been occasioned by the three delays. However, two of the delays which are delay in deciding to seek care and the delay to reach the health facility for care can be addressed by male partner involvement in antenatal care.

The need for male partner involvement was introduced in 1994 at the International Conference on Population and Development (ICPD) on reproductive health policies held in Cairo. The conference highlighted men as important persons in the family who play great roles such as being bread winners and decision-making thus influence greatly on women access to maternal health services (Davis et al., 2018).

According to Alemi et al. (2020), Male partner involvement in antenatal care has been linked to adequate utilization of antenatal care services by the pregnant woman, commencing antenatal care services during the first trimester, giving birth at a health facility and receiving targeted postnatal care. However, in sub-Saharan Africa, most studies have consistently shown a low male partner involvement in antenatal care. A study conducted in Southern Africa by Yende et al. (2017) showed a low male partner involvement of 14%. The study concluded that male partner involvement in antenatal care was highly acceptable, but it was rarely practiced. Craymah et al. (2017) in Ghana conducted a study that showed a low male partner involvement in antenatal care of 35%. The study made an almost similar conclusion that intervention needed to be put in place to improve the attendance of male partners in maternal health utilization.

Most studies conducted in East Africa have shown low male partner involvement in antenatal care for example a study conducted in south Ethiopia by Mamo et al. (2021) showed a low male partner involvement of 34.9%. Another study done in Uganda showed a much lower male partner involvement of 6% (Kariuki & Seruwagi,

2016). The study recommended for continued sensitization, assurance and support by the health care workers so as to improve on male partner attendance in antenatal care.

In Kenya, efforts have been made by different programs such as the National AIDS and STD Control Programme (NASCO) to incorporate men in elimination of mother to child transmission (EMTCT) of human immunodeficiency virus (HIV) during the antenatal period. However, a study done in Kisumu by Oyugi et al. (2017) reported that only 22% of the women were accompanied by their partners to the clinic. In another study conducted in Murang'a County only 1.9% of couples were reported to have ever attended PMTCT services together (Muchemi, 2014). However, there are no documented studies on male involvement in Machakos County. Therefore, the aim of the study was to assess the proportion and determinants of male partner involvement in antenatal care among pregnant women at Kangundo Level 4 hospital in Machakos County.

1.2 Statement of the Problem

The aspect that captures male partner involvement in antenatal care is HIV/AIDS counseling and testing during the antenatal care services. According to the antenatal register, MOH 405 reviewed on 20th July 2018, the majority of male partners were not counselled and tested for HIV/AIDS. This meant that most of them were not involved in antenatal care services. Despite the low involvement, there are no documented studies on male partner involvement in antenatal care at Kangundo level 4 hospital in Machakos County.

The Findlay et al. (2013) summary on partnership for maternal, newborn and child health reported that involving male partners in antenatal care services, have created a great impact in family health care and also enhanced communication between men and their female partners on issues of health in pregnancy. This is because men are taught about nutrition in pregnancy, recognition of pregnancy complications and consequences of sexually transmitted infections in pregnancy among others (Findlay et al., 2013). Further, the summary indicated that there was low male partner participation in PMTCT services.

The National Guidelines for Quality Obstetrics and Perinatal Care, clearly indicates that male partner involvement in maternal and neonatal health care has positive outcomes since it helps in addressing the delay in deciding to seek care and the delay in reaching the health facility for care (Ministry of Health [MOH], 2011). Despite the emphasis, previous studies have indicated that there is low male partner involvement in antenatal care. For instance, a national survey conducted in Kenya by Odeny et al. (2019) showed that only 35% of the male partners were involved in antenatal care while the partners of the older women were less likely to be involved.

In Kenya, a study conducted in Busia, showed that 55.8% of the male partners were involved in both antenatal and postnatal care (Ongolly & Bukachi, 2019). The study further found out that male partner involvement in antenatal care was hampered by several factors that included: cultural factors, economic factors and health facility factors. The aim of this study therefore, is to assess the proportion and determinants of male partner involvement in antenatal care.

1.3 Justification

Male partner involvement is an important aspect of maternal and newborn care since it helps mitigate the problems brought about by the first delay which is a delay in the decision to seek care and second delay which is a delay in reaching care. It ensures that male partners take their vital roles in supporting their wives both in timely decision making and mobilizing for the necessary resources.

Previous studies have evaluated the importance of male partners in antenatal care and indicated that male partner involvement in antenatal care is associated with the increased use of reproductive health services among pregnant women. However, despite low male partner involvement in Kangundo Level 4 Hospital maternal and child health clinic, there are no previous studies done on male partner involvement in the county.

The target of the present study is to provide a better understanding of the individual and health institution determinants to male partner involvement in antenatal care since if they are addressed would increase the level of male partner involvement in

antenatal care. The study findings will provide information at Kangundo Level 4 on the gaps the management needs to address so as to increase the proportion of male partner involvement in antenatal care. The findings will inform the health care providers on their roles in improving male partner involvement. They will also inform the governmental and non-governmental policymakers on strategies to apply so as to improve male partner involvement in antenatal care services.

1.4 Research Questions

1. What is the proportion of male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County?
2. What are the individual factors associated with male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County?
3. What are the health institution factors associated with male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County?

1.5 Study Objectives

1.5.1 Broad objective

To assess the proportion and determinants of male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County.

1.5.2 Specific objectives

1. To assess the proportion of male partners involved in antenatal care at Kangundo Level 4 Hospital in Machakos County.
2. To establish individual factors associated with male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County.
3. To determine health institution factors associated with male partner involvement in antenatal care at Kangundo Level 4 Hospital in Machakos County.

1.6 Hypotheses

H0₁: There is no association between individual factors and male partner involvement in antenatal care.

H₁: There is an association between individual factors and male partner involvement in antenatal care.

H0₂: There is no association between health institution factors and male partner involvement in antenatal care.

H₁: There is an association between health institution factors and male partner involvement in antenatal care.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

According to the National guidelines for quality obstetrics and perinatal care, male partner involvement forms one of the foundations in the Kenya maternal and newborn model (MOH, 2011). Male partner involvement is key in improving maternal and neonatal well-being since it helps mitigate the decision to seek and to reach the health facility for care. World Health Organization 2015 recommended that one of the key factors of improving maternal and neonatal mortality includes active involvement of male partners during pregnancy, childbirth, and the postpartum period. However, in Kenya maternal and neonatal mortality has remained high since 1998. The estimated maternal mortality ratio has been over 400 per 100,000 live births according to the National reproductive health strategy 2009-2015 (MOH, 2009). Globally, a lot of studies have been done indicating a low male partner involvement in antenatal care. Thus, to improve on male partner attendance in antenatal care services, the study aims at evaluating individual and health institution factors affecting male partner involvement in antenatal care.

2.2 Perspective of male partner involvement in reproductive health

Globally, participation of male partners in reproductive health has been promoted because of the fact that they are important in making decisions and regulating the resources of the family like money (Sharma et al., 2018). However, there is little awareness among male partners on the importance of participating in sexual and reproductive health (SRH) since culturally most of the services target the pregnant women making male partner involvement very difficult (Lindsey, 2020).

Involving male partners in SRH demands long-term programs for committing men to take part in matters of maternal health. According to Kariuki and Seruwagi (2016), the possible advantages of involving male partners includes; expanding women's rights, enhancing health of the family, improving communication among the partners

and making well-versed decisions for the family. Therefore, male partners' participation in matters of maternal health has been associated to low mortalities (WHO, 2016).

In sub-Saharan Africa, culturally pregnancy and childbirth has been viewed and branded as women's affair (Craymah et al., 2017). Male partner involvement during antenatal care is rare in many communities, and it is considered a taboo to have a male partner accompanying a woman who is almost giving birth (Maluka & Peneza, 2018). On the other hand, men are the decision-makers in the family, controlling their wives in finances, in matters of reproductive health such as family planning uptake, when to seek for health services and in providing food for the family. Despite this, men have not yet been included in maternal and child health by policymakers and program planners thus resulting into non-participation and fear of men in maternal health issues (Nesane et al., 2016). This situation makes the involvement of male partners in reproductive and maternal health critical contributing to maternal mortalities (WHO, 2016).

Most male partners in Kenya have the tendency of not accompanying their wives to the antenatal clinic, a fact linked to gender norms, cultural factors, economic status, and health system factors (Ongolly & Bukachi, 2019). As a result, most of the male partners are excluded from active participation in matters concerning maternal and child health. Additionally, a man who commonly accompanies his wife to the antenatal clinic is termed as being dominated by the women. Hence, most of the men view maternal and child health involvement as an implication of some weakness (Kiptoo & Kipmerewo, 2017).

2.3 Proportion of male partner involvement in antenatal care

There was a high prevalence of 70% male partner turn up as reported by Annoon et al. 2020 in Ghana. According to the study, being aware of the socio-demographic factors, socio-cultural and health facility factors would bridge the barriers to male partners attendance to antenatal care rather than dealing with factors that do not have a positive influence. In another study conducted in Tanzania by Kabanga et al. (2019) showed that 56.9% of male partners attended the ANC services with their

wives. The study commended that male partner involvement in antenatal care was associated with positive maternal and new born health outcomes. Therefore, pregnant women are urged to communicate with their male partners and encourage them to attend the antenatal care services.

An Ethiopian based study on the prevalence of male attendance and associated factors at their partners' antenatal visits found out that 41.4% of male partners accompanied their pregnant wives for antenatal care services. According to the study, there is a great need by the health care workers to educate men on their shared responsibility in antenatal care services so as to improve their attendance in antenatal care services. Craymah et al. 2017 in Ghana also found out that, only 35.0% of the male partners accompanied their male partners for antenatal care services. Further, the study concluded that there were several factors that affected male partner involvement which included: partner's education, the type of marriage, and number of children, the distance covered to health facility, attitude of health workers, prohibitive cultural norms, unfavorable health policies, and gender roles.

A national survey conducted in Kenya by Odeny et al. (2019) also showed that 35.0% of male partners were involved in antenatal care services. The study suggested that male partner attendance to antenatal care speeds up the progress to achieving better maternal and neonatal health outcomes. Kariuki and Seruwagi (2016) found out that only 6% of male partners were involved in antenatal care. The low male partner involvement is linked to poor maternal and neonatal outcomes and therefore the gap needs to be addressed at individual, household and at community level.

2.4 Individual factors associated with male partner involvement in antenatal care

The age of the male partners is believed to significantly influence male partner involvement in antenatal care services. For instance, a study done in South Africa by Yende et al. (2017) to assess acceptability of male involvement from male and female perspectives and showed that age was one of the factors affecting male partner involvement in antenatal care. Alternatively, a study done by Makoni et al. (2016) in Zimbabwe on the factors associated with male involvement in PMTCT

showed no significant association between male partners' age and their involvement in antenatal care.

A study conducted in Bangladesh by Bishwati et al. (2017) on the determinants associated with male involvement in reproductive health found out that 66% of male partners involved in antenatal care had a primary level of education. The study findings clearly indicated that there was a statistically significant association between male partners' education and male partner involvement in antenatal care. Similarly, a study conducted in Afghanistan by Alemi et al. (2020) showed that male partners' education directly affected male partner involvement in antenatal care. However, in Ghana, Craymah et al. (2017) reported that there was no significant association between male partners' education and male involvement in antenatal care services.

A Kenyan based study by Kiptoo and Kipmerewo (2017) on male partner involvement in antenatal care services revealed that male partners who were economically stable participated and were involved in antenatal care services compared to male partners who were unemployed. Similarly, Gibore et al. (2019) conducted a study to investigate the factors determining men's involvement in maternity care and found out that employed men were more involved in antenatal care compared to their counterparts. However, the study did not show a statistically significant association between partners' employment and male partners involvement in antenatal care.

Male partner involvement in antenatal care has remained low since the men have a task for financial support and thus no need for them to attend the antenatal visits. A study conducted in Kenya by Odeny et al. (2019) on male partner antenatal clinic attendance associated with increased uptake of maternal health services indicated that 99% of male partners provided financial support during antenatal care. Similarly, an Ethiopian based study done to find out how male partner involvement impacts maternal health care utilization, revealed that one major role for men in antenatal care was to support the wife financially (Mohammed et al., 2019). Further, the study revealed that 57.1% of the male partners reminded their wives of their next date of appointment. The results coincided with a Tanzanian-based study conducted by

Kabanga et al. (2019) on the prevalence of male partner involvement in antenatal visits revealing a significant association between men being aware on the antenatal visiting date and male partner involvement. Therefore, male partners' roles impact their attendance in antenatal care services.

In Ghana, a study done by Kumbeni et al. (2019) on the factors influencing male involvement in antenatal care revealed that men were involved in various roles during the antepartum period. Among those who assisted during the antepartum period, 86.7% of the male partners provided funding for their wives to attend the antenatal care services while 75.8% of the male partners helped in household chores during the time of pregnancy. In another study conducted by Davis et al. (2018) in Papua New Guinea to identify barriers and enablers to men's participation in antenatal care, identified that majority of the men support their pregnant women in different ways. One of the focus group discussions conducted among the pregnant women reported that men provided with nutritious foods, helped with heavier house chores and in financial support.

In Kenya, there is a rare chance of male partner involvement in antenatal care. Key informant interview results from a study done in Bungoma County by Nafula (2018) to assess the determinants of male partner involvement in antenatal care, revealed that culturally male partners were prohibited from attending antenatal clinics. The antenatal clinics belonged to the pregnant women and either the mother-in-law or a female relative was allowed to accompany the pregnant woman to the clinic then give a report to the husband. Similarly, a study conducted in Papua New Guinea by Davis et al. (2018) showed that men were not allowed to attend antenatal clinics since it was a place for pregnant women. According to the study, healthcare workers encouraged men to attend antenatal clinics but men felt ashamed and only 10% of them accompanied their wives for antenatal care services.

Kumbeni et al. (2019) in Ghana conducted a study to assess the factors influencing male partner involvement in antenatal care services. From the study, 43.7% of the respondents reported it was not acceptable for a man to accompany his wife to the antenatal clinic at the community level while 38.3% of the family members and

friends considered it a taboo for a man to accompany his wife for antenatal care services. Therefore, majority of the male partners don't think it's significant for them to be involved in issues of reproductive health with excuses that much of the services at the antenatal care target the pregnant women (Ongolly & Bukachi, 2019). In the African culture, negative perceptions among men towards attending antenatal care services have been reported since some male partners who accompany their spouses for maternal services are believed to have been ruled by their wives whereas other male partners perceive maternity to be women's affair (Muloongo et al., 2019). In a recent study conducted in Ghana by Annoon et al. (2020) also confirmed that male partners who accompany their pregnant wives to the antenatal clinic are believed to be dominated by the wives.

2.5 Health institution factors influencing male partner involvement in antenatal care

Health institution related factors that have been identified to determine male partner involvement in antenatal care include: Distance covered to reach the health facility, waiting time at the health facility, prioritization of couples and having enough space at the health facility.

A study done in Papua New Guinea revealed that distance was one of the factors that affected male partner involvement in antenatal care services (Davis et al., 2018). Further, the study showed that those women who lived long distances from the facility were not likely to be accompanied by their male partners due to transport costs and time consuming at the facility.

In another study, on the determinants of men's involvement in maternity care done in central Tanzania, 20.9% of the respondents whose male partners were involved in antenatal care covered a distance of 5kms and below to reach the nearby facility while 15.3% covered a distance of more than 5kms. However, the distance covered to reach the health facility did not determine the level of male partner involvement (Gibore et al., 2019).

Waiting time has been shown to influence male partner involvement in antenatal care. This was confirmed by a study done by Gibore et al. (2019) who reported that waiting time at the health facility was one of the determinants of male partner involvement in antenatal care. From the study findings, 51.6% of the respondents reported that male partners who were involved in the antenatal care services, spent more than one hour at the facility. Thus, the study concluded that limited male partner involvement in antenatal care is attributed to the long time spent by men at the antenatal clinic waiting for the services. In a recent study conducted by Annoon et al. (2020) in Ghana on the Perception of pregnant women on barriers to male involvement in antenatal care, indicated that long waiting time at the health facility was one of the contributing factors to low male partner involvement in antenatal care. Another study conducted in Ghana by Craymah et al. (2017) to assess male partner involvement in maternal health care, 83.0% of the respondents reported that there was a long waiting time at the health facility thus affecting the number of men who accompany their pregnant wives for antenatal care services.

Further, a study conducted in Lusaka, Zambia by Muloongo et al. (2019) to explore the perspectives of male participation in ANC in a military setting showed that couples who attended the antenatal care services were given the first priority. An in-depth interview conducted, one of the respondents reported that what motivated him to accompany his wife for the antenatal care services was the fact that they did not delay in the clinic as they were attended to first. In a different study conducted in Kenya by Kiptoo and kipmerewo (2017) found out that, 12.5% of the respondents felt there were some confusion and disorder in the antenatal clinic with very long queues which were slow and no prioritization of the male partners. From the study, most men got offended as they spent the entire day in the health facility. Thus, concluded that since men would feel embarrassed at the clinics, the antenatal care services should therefore be reserved for women as it's a women affair.

Kariuki and Seruwagi (2016) conducted a study to assess the contributing factors to male involvement in antenatal care in Uganda. From the study findings, 56.5% of the men who attended the antenatal care services reported that health care workers were friendly while 43.5% reported that health care workers were unfriendly respectively.

According to the study, the health care workers' attitude influenced male partners involved in the antenatal care services and recommended that health care workers should be trained on customer care and interpersonal communication skills so as to attract more male partners in the antenatal clinic. Similarly, a study conducted in Ghana by Kumbeni et al. (2019) on the factors influencing male involvement in antenatal care, 77.0% of the respondent reported that healthcare workers were friendly and 23.0% reported that health care workers were not friendly and kind. Thus, the study recommended that health care workers attitude need to be improved so as to impact a greater level of male partner involvement. In another Ghanaian study conducted by Craymah et al. (2017) to assess male involvement in maternal health care services and associated factors, 90.0% of the respondents reported that healthcare workers attitude attributed to the male partner involvement. The study, therefore, encouraged the healthcare workers to have a positive attitude towards male partner involvement in antenatal care services so as to motivate more male partner's participation.

In a study conducted by Annoon et al. (2020) in Ghana to investigate the perception of women about barriers to male partner involvement, lack of space and comfort for men contributed to the low male partner involvement in the antenatal clinic. In Papua New Guinea, a qualitative study done by Davis et al. (2018) on the participation of expectant fathers in antenatal care, one of the respondents during focus group discussion reported that there was no waiting room for men thus making them get ashamed at the clinic which could affect male partner attendance at the antenatal clinic. Gibore et al. (2019) conducted a study in Tanzania on the factors determining men's involvement in maternity care. From the study findings, only 17.8% of the men who were involved in antenatal care reported that they had access to information regarding male involvement in antenatal care. Further, the study concluded that health education on male involvement leads to more men participating in antenatal care.

2.6 Conclusion

From the literature, involvement of male partners has been discussed to be key during antenatal care services. Studies have put emphasis on the increase in the level of involvement of male partners since it is associated with a healthy pregnancy and safe delivery. Male-related factors i.e., age of the partner, level of education, occupation and the roles among men towards their wives influenced their involvement in antenatal care. In addition, health institution factors such as; Distance and accessibility of antenatal care services, waiting time, prioritization of care to the couples and having enough space at the facility influenced male partner involvement during antenatal visits. Thus, the aim of the study was to assess the proportion and determinants of male partner involvement in antenatal care among pregnant women at Kangundo Level 4 hospital in Machakos County.

2.7 Theoretical Framework

Theoretical model by Thaddeus and Maine on the involvement of male partners in maternal health services

The study adopted the three delays model, the delay in deciding to seek care, the delay in reaching the health facility for care and the delay in receiving health care at the health facility (Thaddeus and Maine, 1994). However, Male involvement in antenatal care is key in addressing the first and second delay since men have the resources and are the main decision makers in the families and communities on maternal and neonatal healthcare (MOH, 2011).

The model links male partner involvement to the various factors that determine levels of male involvement in antenatal care, childbirth and postnatal care services. The factors included: residential factor (rural/urban), socio-economic status, cultural and health care factors that influence male partner involvement in maternal health services.

Residence: Affect male participation in maternal health services both in rural and urban areas. People in rural areas are busy in finding ways of surviving whereas in

urban area people have busy schedule with their daily activities as a survival strategy which influence their participation during pregnancy.

Occupation: Male partners who work as casual laborers were less likely to participate during pregnancy because they were busy making ends meet for their family compared to those who had stable jobs.

Level of education: Male partners with a higher level of education was more likely to be involved during pregnancy because of their awareness of the importance of supporting their couples compared to those with low level of education.

Social-cultural factors: The Involvement of male partners in maternal health services is also negatively affected by cultural factors which include polygamy. Family wrangles that may hinder the man from treating his wives equally. The absence of inter-spousal communication and discussion can affect male involvement in ANC services. This can prevent men from taking appropriate measures in maternal health decisions. In addition, in most societies involvement of males in ANC services is regarded as a taboo as a result, male partner participation is limited.

Health institution factors: This can have an effect on male partner participation in maternal health services. Therefore, health factors in this study include lack of privacy in the health facilities, lack of comfort, compromised confidentiality, and poor attitude of health workers. This adversely affects the involvement of male partners in maternal health care services and waiting time at the health facilities.

Independent variables

Dependent variable

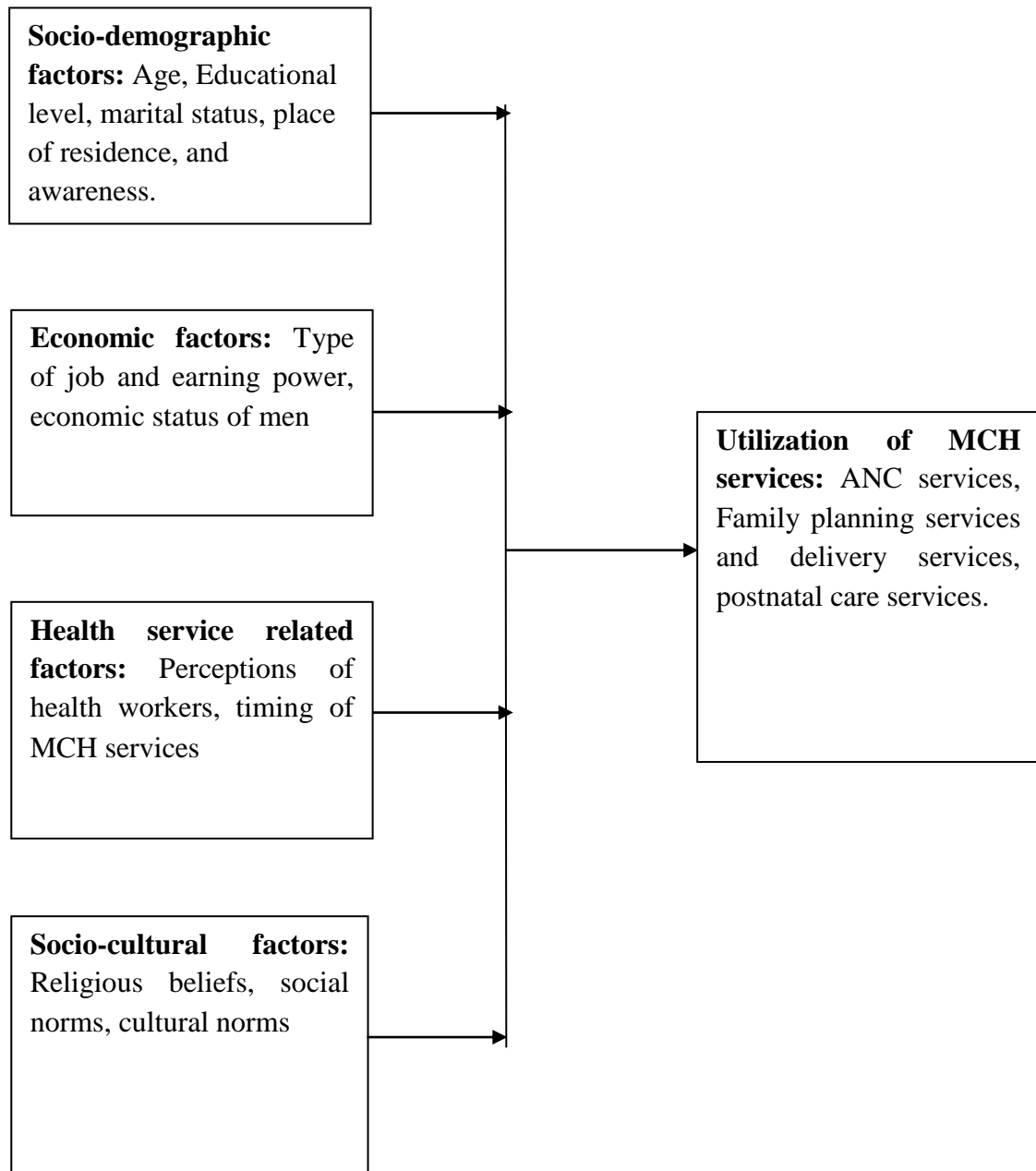


Figure 2.1: Theoretical Framework

2.8 Conceptual Framework

Independent Variable

Dependent Variable

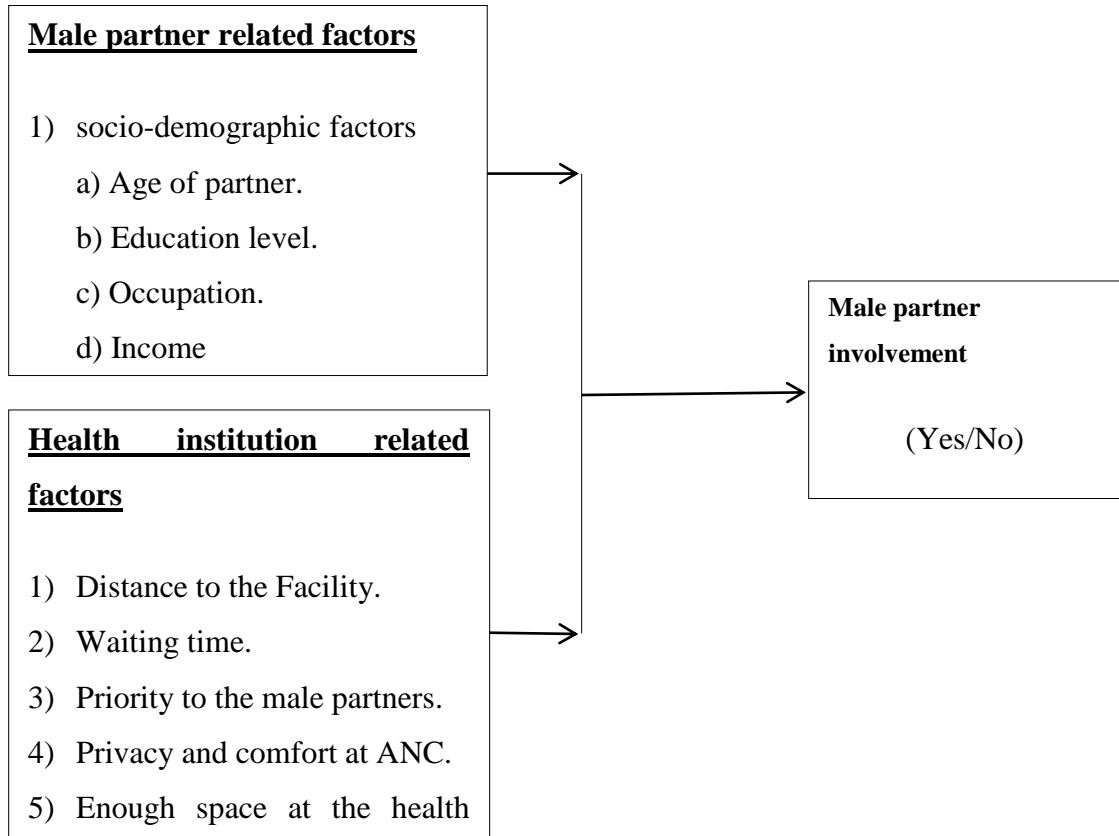


Figure 2.2: Conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Design

This was an analytical cross-sectional study. Both quantitative and qualitative data was collected.

3.2 Study Area

The study was carried out in the MCH clinic of Kangundo Level IV Hospital situated in Kangundo sub-county in Machakos County. The county covers an area of 6,043 Km² where the major area is semi-arid and having a population of 1,421,932 (2019 census report). The facility is located along Kangundo road, about 60 kilometers east of Nairobi, and at the furthest of Kangundo road. The hospital receives referrals from the two health centers and nine dispensaries within the sub-county.

The MCH offers PMTCT services, ANC services, safe childbirth practices and appropriate infant feeding and infant care postnatally, immunization, family planning, treatment of minor ailments among the infants and admission for the critically sick, and high-risk clinic which is once a week. MCH has 6 nurses, 1 pediatric clinical officer, 1 reproductive health clinical officers, 2 PITC counselors, 1 nutritionist and two subordinate staff.

3.3 Study Population

The study Participants were pregnant women seeking antenatal care services at Kangundo level 4 Hospital in Machakos County. According to the antenatal register, the average number of pregnant women seen in the clinic per month was 200. Therefore, 200 pregnant women and three nurses who were working at the antenatal clinic at the period of study formed the study population.

The pregnant women involved all those who were accompanied or not accompanied at any gestational age and participated in filling the questionnaires and in focused group discussions. Key informant interviews were conducted with the three nurses

3.4 Sample Size Determination

The determination of the sample was done using a formula as used by Fisher *et al.*, (1998) as cited by Mugenda and Mugenda (2003).

$$n = \frac{Z^2 P(1 - P)}{d^2}$$

N= Sample Size

P= target population proportion estimated to possess specific characteristic, hence was equal to 50% or 0.5 the level of involvement of male partners during pregnancy is unknown in the study area.

Q=1- 0.5 and was derived from the relationship (1.0 – 0.50) which is equal to 0.5.

Z is the standard normal deviation set at 1.96 to correspond to the 95% confidence limit.

Subsequently, stands for accuracy degree which is set at 5%

$$n = \frac{1.96^2 \times 0.5(1 - 0.5)}{0.05^2} = 384$$

The target population correction for population proportion for less than 10,000 respondents.

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where nf = desired sample size

n = calculated sample size

N = The total number of women attended to the antenatal clinic per year is approximately 2400.

The study area population estimate is 200 mothers who are attended to in the antenatal clinic per month (Antenatal register, MOH 405).

$$nf = \frac{384}{1 + \frac{384}{200}} = 132$$

Thus, a sample of 132 respondents was sampled.

3.5 Inclusion criteria

Pregnant women accompanied or not accompanied by male partners to the antenatal clinic and nurses working in the antenatal clinic.

3.6 Exclusion criteria

Single mothers because they may not have the experience of a male partner involvement in antenatal care and below the age of 18 years.

3.7 Sampling Method and Technique

The study used simple random sampling technique in selecting pregnant women at the antenatal clinic. The procedure was explained to the respondents, 132 small papers were marked with yes while 68 were marked with a no and mixed together, then all pregnant women meeting the inclusion criteria were considered in the study. The process continued until the sample size of 132 respondents was achieved.

Those interviewed were marked on their cards to avoid interviewing them again during the period of the study and women who were pregnant and did not participate

in the filling out the questionnaire were engaged in focused group discussions using the FGD guide.

Three nurses working in the antenatal clinic at the time of the study were also interviewed because they had firsthand knowledge of health institution factors influencing male partner involvement in antenatal care services.

3.8 Data Collection Instruments

The data collection tools used were three and included: self-administered questionnaires comprising both open and closed-ended questions, a focus group discussion guide and a key informant interview guide.

The self-administered questionnaire had four (4) parts. Part 1 captured the socio-demographic characteristics of the respondents, and part 2 captured the socio-demographic characteristics of the male partner. Part 3 captured the level of male partner involvement and part 4 the health institution related factors.

Focus group discussion guide comprised six questions on perceptions of the women regarding male-partner involvement while the key informant interview guide comprised of five questions on the perceptions of the nurses on male partner involvement in antenatal care.

3.9 Validity and reliability of data collection instruments

To ensure the research questionnaire had construct validity, the researcher consulted experts in the field of study throughout its development. For face validity colleagues in the discipline were given the questionnaire to review and their suggestions were used to improve the questionnaire. A pretest of the questionnaire was conducted at Kangundo level 4 Hospital on 13 of participants representing 10% of the final study sample size and corrections of errors or ambiguity done based on their input.

3.10 Data collection and handling

The study used self-administered questionnaires, focus group discussions and key informant interviews to collect data from the sampled population (pregnant women). The data collection took a period of one month.

A total of three focus group discussions were conducted consisting of 5-8 participants each. The FGD were interviewed among the pregnant women who did not participate in the filling of questionnaire with each FGD lasting for 20-30minutes. The number of FGDs were guided by data saturation. Focus group discussion was conducted each week for one month. The data was audio-recorded, then later transcribed verbatim and translated into English.

Key informant interviews were conducted among three nurses working in antenatal clinic at the period of study by use of a key informant interview guide, key informant interview was done with one nurse at a time and one each week till data saturation. Each key informant interview lasted for 20-30minutes. The interview was audio-recorded and later transcribed verbatim.

3.11 Data Analysis and Presentation

3.11.1 Quantitative data

Data was coded, entered, and analyzed using statistical package for social science (SPSS) version 20.0. Descriptive statistics were used to analyze objective one which was computed with frequencies and percentages. Pearson chi-square test of association were used to compare associations between respondents' socio-demographic factors, male partners' socio-demographic factors and roles and health institution factors with the male partner involvement. Bivariate analysis was also done to determine the level of association between the independent and dependent variables. Results were then presented in a summary of tables and figures.

3.11.2 Qualitative data

All focus group discussions and key informant interviews were transcribed by the researcher. The written records were translated into English. The data was sorted by

thematic analysis to identify major themes and develop a broad coding scheme based on the research objectives using N-Vivo software. The codes were then refined and emerging themes were discussed. The data was then presented in a narrative format.

3.12 Ethical Considerations

An introduction letter was obtained from Jomo Kenyatta University of Agriculture and Technology, School of Nursing. The ethics and review committee of the University of Eastern Africa Baraton gave approval for conducting the study. Clearance to conduct the study was also obtained from the National commissions for science, Technology and innovation research license. Permission to collect data at Kangundo level 4 hospital was given by the medical superintendent. After respondents' consent was obtained, questionnaires were administered to them and qualitative data collected through focus group discussions and key informant interviews. The respondent names as well as any form of identity were omitted in data collection to guarantee privacy. The collected data for the study was kept confidential and only to be used for academic purposes with anonymity observed.

CHAPTER FOUR

STUDY RESULTS

4.1 Introduction

This chapter presents the study findings based on both quantitative and qualitative data. A total of 132 pregnant women seeking antenatal care services at Kangundo level 4 Hospital were interviewed and filled the questionnaires. This translated to a 100% response rate. To seek more information concerning male partner involvement in antenatal care, 3 focused group discussions were conducted among the pregnant women who did not participate in filling the questionnaires and 3 nurses were interviewed as key informants.

4.2 Quantitative Results

4.2.1 Socio-demographic characteristics

4.2.1.1 Socio-demographic characteristics of the respondents

The respondents age ranged from 18 to 47 years. Most of the respondents, (45.5%, n=60) were aged between 28-37 years while only a third of the respondents (36.4%, n=48) had attained college level of education. Fifty percent of the respondents (n=66) lived in the urban areas, and a majority of the respondents (78%, n=103) reported to be living together with partner and 71.2% (n=94) had between 1-3 children. Other characteristics of the respondents are shown in Table 4.1.

Table 4.1: Socio-demographic characteristics of the respondents

| Variable | Frequency (n) | Percentage (%) |
|---------------------------------|----------------------|-----------------------|
| Respondent's age | | |
| 18-27 | 56 | 42.4 |
| 28-37 | 60 | 45.5 |
| 38-47 | 16 | 12.1 |
| Total | 132 | 100 |
| Respondent's level of education | | |
| Primary | 23 | 17.4 |
| Secondary | 47 | 35.6 |
| College | 48 | 36.4 |
| University | 14 | 10.6 |
| Total | 132 | 100 |
| Respondents' occupation | | |
| Formal employment | 31 | 23.4 |
| Informal employment | 3 | 2.3 |
| Business lady | 48 | 36.4 |
| Farmer | 3 | 2.3 |
| Not employment | 47 | 35.6 |
| Total | 132 | 100 |
| Residence | | |
| Urban | 66 | 50.0 |
| Rural | 66 | 50.0 |
| Total | 132 | 100.0 |
| Religion | | |
| Protestants | 74 | 56.1 |
| Muslims | 9 | 6.8 |
| Catholic | 49 | 37.1 |
| Total | 132 | 100 |
| Living together | | |
| Yes | 103 | 78.0 |
| No | 29 | 22.0 |
| Total | 132 | 100 |
| Number of children | | |
| None | 25 | 18.9 |
| 1-3 | 94 | 71.2 |
| 4-6 | 13 | 9.9 |
| Total | 132 | 100 |

4.2.2.2 Socio-demographic characteristics of the male partner

Majority of the respondents (53.0%, n=70) reported that their partners were aged between 28-37 years, 39.4% (n=52) had a secondary level of education and most (53.0%, n=70) were businessmen as illustrated in table 4.2.

Table 4.2: Socio-demographic characteristics of the male partner

| variable | Frequency (n) | Percentage (%) |
|------------------------------|----------------------|-----------------------|
| Age of male partner | | |
| 18-27 | 23 | 17.4 |
| 28-37 | 70 | 53.0 |
| 38-47 | 29 | 22.0 |
| 48 and above | 10 | 7.6 |
| Total | 132 | 100 |
| Partner's level of education | | |
| Primary | 5 | 3.8 |
| secondary | 52 | 39.4 |
| College | 47 | 35.6 |
| University | 28 | 21.2 |
| Total | 132 | 100 |
| Partner's occupation | | |
| Formal employment | 47 | 35.6 |
| Informal employment | 10 | 7.6 |
| Businessman | 70 | 53.0 |
| Not employed | 5 | 3.8 |
| Total | 132 | 100 |

4.2.2 Proportion of male partner involvement in antenatal Care

Only 34.1%, n=45 (95% CI 26.1 to 42.8) of the respondents reported that their male partners were involved in antenatal care while the majority of the respondents 65.9%, n=87 (95% CI 57.2 to 73.9) reported that their male partners were not involved to the antenatal care in the current pregnancy as illustrated in figure 4.1.

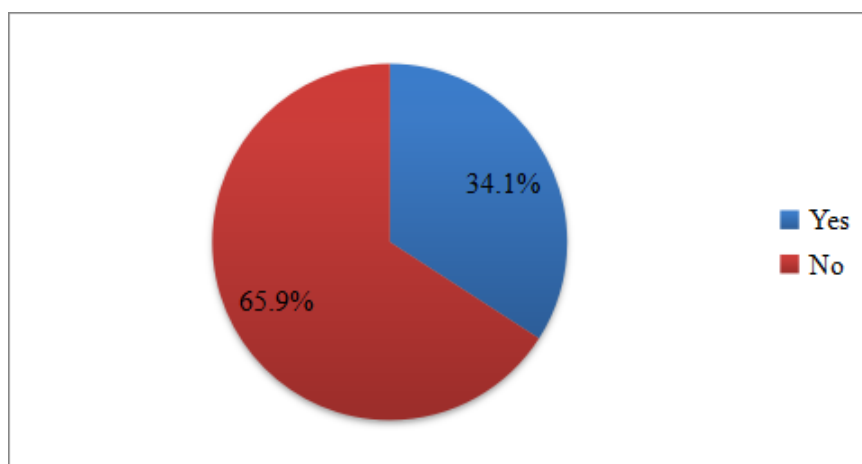


Figure 4.1: Proportion of male partner involvement in the antenatal care

On the reasons for not being involved, a majority (62.1%, n= 54) reported that their partners were busy at work during clinic appointment days while 10.3% (n=9) perceived pregnancy as a role for women. Other reasons reported were not living together, lack of interest, financial constraints and fear of being seen at the antenatal clinic (table 4.3)

Table 4.3: Reasons for not being accompanied for antenatal care services

| Reason for not being accompanied | Frequency (n) | Percentage (%) |
|----------------------------------|---------------|----------------|
| Busy at work | 54 | 62.1 |
| Financial Constraints | 4 | 4.6 |
| Not living together | 8 | 9.2 |
| Never shown interest | 5 | 5.7 |
| Perceived as a role for women | 9 | 10.3 |
| Fear of being seen at the clinic | 7 | 8.0 |
| Total | 87 | 100.0 |

4.2.2.2 Role of male partner in antenatal care

Majority of the respondents (95.5%, n=126) reported that their partners participated in financial support during pregnancy, 65.9 % (n=87) assisted in house chores and 65.9% (n=87) reminded them on the next date of appointment as shown in table 4.4.

Table 4.4: Role of male partner in antenatal care

| Variable | Frequency (n) | percentage |
|--|----------------------|-------------------|
| Partners financial support | | |
| Yes | 126 | 95.5 |
| No | 6 | 4.5 |
| Total | 132 | 100 |
| Partner help in house chores | | |
| Yes | 87 | 65.9 |
| No | 45 | 34.1 |
| Total | 132 | 100 |
| Partner remind on next date of appointment | | |
| Yes | 87 | 65.9 |
| No | 45 | 34.1 |
| Total | 132 | 100 |

4.2.3 Bivariate Analysis

4.2.3.1 Individual factors associated with male partner involvement in antenatal care

A bivariate analysis was conducted to determine the association between respondent socio-demographic factors and male partner involvement in antenatal care as shown in Table 4.5. The findings revealed that having college level of education ($p = 0.021$) and living together as a couple ($p = 0.005$) were significantly associated with male

partner involvement in antenatal care. Respondents who had college level of education were 4 times more likely to have male partner involvement in their antenatal care (OR = 4.4) than those who have primary as their highest level of education. Additionally, respondents who were living together with their spouses were 6 times more likely to have male partner involvement in their antenatal care (OR = 6.0) than those who do not stay with their partners as shown in table 4.5.

Table 4.5: Respondent individual factors associated with male partner involvement

| | Accompanied by partner | | OR | 95% C.I. OR | p-value |
|---------------------|------------------------|---------|-----|----------------|---------|
| | Yes (n=45) | No (87) | | | |
| Age group | | | | | |
| 18 - 27 years | 17 | 39 | Ref | | |
| 28 - 37 years | 23 | 37 | 1.0 | 0.31-3.47 | 0.945 |
| 38 - 47 years | 5 | 11 | 0.7 | 0.23-2.38 | 0.603 |
| Level of education | | | | | |
| Primary | 7 | 16 | Ref | | |
| Secondary | 11 | 36 | 3.0 | 0.77-12.14 | 0.114 |
| College | 19 | 29 | 4.4 | 1.24-15.32 | 0.021 |
| University | 8 | 6 | 2.0 | 0.61-6.80 | 0.248 |
| Occupation | | | | | |
| Not employed | 14 | 33 | Ref | | |
| Formal employment | 12 | 19 | 1.1 | 0.43-2.72 | 0.88 |
| Informal employment | 0 | 3 | 0 | 0.000 | 0.999 |
| Business lady | 19 | 29 | 1.0 | 0.46-2.35 | 0.933 |
| Farmer | 0 | 3 | 0 | 0.000 | 0.999 |
| Residence | | | | | |
| Rural | 18 | 48 | Ref | | |
| Urban | 27 | 39 | 0.5 | 0.26-1.13 | 0.092 |
| Religion | | | | | |
| Protestant | 24 | 50 | Ref | | |
| Muslim | 5 | 4 | 0.9 | 0.43-2.02 | 0.853 |
| Catholic | 16 | 33 | 0.4 | 0.09-1.64 | 0.199 |
| Living together | | | | | |
| No | 3 | 26 | Ref | | |
| Yes | 42 | 61 | 6.0 | 1.70-21.00 | 0.005 |
| Number of children | | | | | |
| None | 9 | 16 | Ref | | |
| 1 - 3 children | 31 | 63 | 1.1 | 0.28-4.43 | 0.881 |
| 4 - 6 children | 5 | 8 | 1.3 | 0.38-4.21 | 0.695 |

4.2.3.2 Male partners related factors

The study also sought to determine male partners socio-demographic factors, roles and male partner involvement to antenatal care. Partner helping with household chores ($P<0.001$) and partner reminding on next day of appointment ($P<0.001$) were independent determinants of male partner involvement. Male partners who performed household chores were 47 times more likely to be involved in ANC, (OR = 47.1) than those who did not perform household chores. Those who reminded their partners about next date of appointment were 6 times more likely to be involved to ANC, (OR= 5.8) than those who did not remind their partners about their next appointment as shown in table 4.6.

Table 4.6: Male partners related factors

| Variables | Accompanied by partner | | OR | 95% C.I. | p-value |
|------------------------------------|------------------------|-----------|------|-------------|-----------|
| | Yes (n=45) | No (n=87) | | | |
| Age of partner | | | | | |
| 18-27 years | 5 | 18 | Ref | | |
| 28-37 years | 22 | 48 | 2.4 | 0.48-11.97 | 0.286 |
| 38-47 years | 14 | 15 | 1.5 | 0.37-5.68 | 0.59 |
| 48 years and above | 4 | 6 | 0.7 | 0.17-3.08 | 0.651 |
| Partner's education | | | | | |
| Primary | 1 | 4 | Ref | | |
| Secondary | 13 | 39 | 2.2 | 0.22-4.69 | 0.501 |
| College | 21 | 26 | 1.7 | 0.62-4.51 | 0.999 |
| University | 10 | 18 | 0.7 | 0.26-1.80 | 0.480 |
| Partner's occupation | | | | | |
| Not employed | 3 | 2 | Ref | | |
| Formal employment | 12 | 35 | 4.4 | 0.65-29.41 | 0.129 |
| Informal employment | 0 | 10 | 0 | 0 | 0.999 |
| Business | 30 | 40 | 2.0 | 0.31-12.73 | 0.463 |
| Partner financial support | | | | | |
| No | 0 | 6 | Ref | | |
| Yes | 45 | 81 | 0 | 0 | 0.999 |
| Partner help in household chores | | | | | |
| No | 1 | 44 | Ref | | |
| Yes | 44 | 43 | 47.1 | 6.22-357.59 | $P<0.001$ |
| Partner Remind on next appointment | | | | | |
| No | 6 | 38 | Ref | | |
| Yes | 38 | 49 | 5.8 | 2.34-14.44 | $P<0.001$ |

4.2.3.3 Health institution factors associated with male involvement in antenatal care

The findings revealed that distance and time taken to reach the health facility were independent determinants of male partner involvement to antenatal care. Those who lived 4km from the facility had their male partners 5 times more likely involved in antenatal care (OR = 5.2) than those who covered less than one kilometer. Male partners of the respondents who took 40 mins to 1 hour and 2hours to reach the facility were 5 times (OR=5.3) and 7 times (OR=7.4) more likely to be involved in antenatal care respectively than those who took less than 30mins as shown in table 4.7.

Table 4.7: Health institution factors associated with male involvement in antenatal care

| Variables | Accompanied by partner | | OR | 95% C.I. | p-value |
|-------------------------------------|------------------------|---------|-----|------------|---------|
| | Yes (45) | No (87) | | | |
| Distance to the facility | | | | | |
| Less than 1 km | 9 | 18 | Ref | | |
| 2km | 16 | 24 | 2.2 | 0.68-7.10 | 0.187 |
| 3km | 4 | 19 | 1.7 | 0.57-4.79 | 0.357 |
| 4km | 5 | 16 | 5.2 | 1.32-8.71 | 0.019 |
| More than 5km | 11 | 10 | 3.5 | 0.94-13.17 | 0.062 |
| Time taken to reach facility | | | | | |
| Less than 30 mins | 14 | 33 | Ref | | |
| 40 mins to 1 hour | 11 | 36 | 5.3 | 1.40-11.12 | 0.014 |
| 2 hours | 11 | 14 | 7.4 | 1.89-10.62 | 0.004 |
| More than 2 hours | 9 | 4 | 2.9 | 0.69-11.82 | 0.146 |
| Waiting time | | | | | |
| Less than 20 mins | 8 | 20 | Ref | | |
| 30 mins | 22 | 36 | 1.8 | 0.49-6.21 | 0.387 |
| 40 mins | 8 | 21 | 1.1 | 0.38-3.45 | 0.809 |
| More than 60 mins | 7 | 10 | 1.8 | 0.52-6.5 | 0.345 |
| Prioritization of those accompanied | | | | | |
| No | 0 | 1 | Ref | | |
| Yes | 45 | 86 | 0.8 | 0.36-1.80 | 0.602 |
| Enough space | | | | | |
| No | 4 | 19 | Ref | | |
| Yes | 41 | 68 | 0.4 | 0.11-1.10 | 0.072 |

4.2.3.4 Adjusted Multivariate Logistic Regression Model for Factors Associated with Male Partner Involvement

After adjusting for confounding factors, living together, male partner participation in household chores and time taken to reach facility were independent predictors of male partner involvement in antenatal care. Living together was 3 times more likely to result in male partner involvement (AOR = 3.1). Male partners who helped in performing household chores were 3 times more likely to be involved in antenatal care, (AOR = 2.5). The male partners of the respondents who took 40 minutes to one hour and 2 hours to reach the facility were 3 times (AOR=3.0) and 4 times (AOR=3.8) more likely to be involved to antenatal care as shown in table 4.8.

Table 4.8: Adjusted Multivariate logistic regression model for factors associated with male partner involvement

| Variables | AOR | 95% C.I. | P-value |
|--|-----|------------|---------|
| Level of education | | | |
| Primary | Ref | | |
| Secondary | 1.6 | 0.42-3.44 | 0.231 |
| College | 0.9 | 0.23-2.56 | 0.455 |
| University | 2.9 | 0.12-2.12 | 0.411 |
| Living together | | | |
| No | Ref | | |
| Yes | 3.1 | 1.87-4.91 | P<0.001 |
| Partner help in household chores | | | |
| No | Ref | | |
| Yes | 2.5 | 2.23-3.12 | 0.012 |
| Partner remind on next date of appointment | | | |
| No | Ref | | |
| Yes | 0.3 | 0.07-1.67 | 0.154 |
| Distance to the facility | | | |
| Less than 1 km | Ref | | |
| 2 km | 1.1 | 0.561-1.54 | 0.235 |
| 3 Km | 0.4 | 0.03-0.97 | 0.078 |
| 4km | 1.0 | 0.32-2.65 | 0.125 |
| More than 5 Km | 0.2 | 0.21-6.71 | 0.357 |
| Time Taken to reach facility | | | |
| Less than 30 minutes | Ref | | |
| 40 mins to 1hr | 3.0 | 2.11-9.45 | 0.021 |
| 2 hours | 3.8 | 1.05-13.56 | 0.015 |
| More than 2 hours | 1.0 | 0.63-1.24 | 0.341 |

4.3 Qualitative Findings

A total of 24 respondents participated in the focus group discussion and key informant interview. Out of the 24 respondents, 21(87.5%) participated in the focus group discussion while 3 (12.5%) participated in the key informant interviews. The respondents ages ranged between 20 to 39 years with the majority ranging between 20-29years. Many respondents (11; 45.8%) had attained a secondary level of education and 37.5% (9) of the respondents had formal employment.

Table 4.9: Socio-demographic characteristics of the respondents

| Variable | Frequency (n) | Percentage (%) |
|---------------------------------|---------------|----------------|
| Respondents Age | | |
| 20-29 | 13 | 61.9 |
| 30-39 | 8 | 38.1 |
| Respondents' level of education | | |
| Primary | 6 | 25 |
| Secondary | 11 | 45.8 |
| College | 7 | 29.2 |
| Respondents' occupation | | |
| Formal | 9 | 37.5 |
| Informal | 5 | 20.8 |
| Businesspersons | 6 | 25 |
| Farmers | 4 | 16.7 |

Table 4.10: Findings on thematic analysis

| THEMES | SUBTHEMES |
|--|--|
| Theme 1: Low male involvement | <p>Majority of men do not accompany their wives for antenatal care at all.</p> <p>Male partners were rarely involved in antenatal care services.</p> |
| Theme 2: Reasons for low male involvement | <p>Men being busy at work was the main reason for non-involvement to antenatal care.</p> <p>Fear of attending the antenatal clinic.</p> <p>Long waiting time at the antenatal clinic due to long queues</p> <p>Fear of HIV testing by the male partners.</p> |
| Theme 3: Positive attitude towards male involvement among the health workers | <p>Positive attitude among the health care workers regarding male partner involvement in antenatal care.</p> <p>Health care workers encouraged the pregnant women to be accompanied by their male partners since the services offered at the antenatal clinics target both women and men.</p> |
| Theme 4: Health education on male partner involvement provided to women | <p>Efforts were made to inform women of the need and benefits for male partner involvement in antenatal care services</p> <p>The use of group antenatal care was a strategy made by the key informants to enhance more male partner involvement in antenatal care.</p> |
| Theme 5: Prioritization as a motivator for male involvement | <p>Healthcare providers gave priority to the couples involved to the antenatal care services.</p> <p>Most of the men were breadwinners and spent most of their time at work, when they accompany their wives to the antenatal clinic and were not attended to very fast; they felt it was a waste of time.</p> |

Theme 1: Low male involvement

The focused group discussion results were in agreement with the quantitative findings which showed that most men do not accompany their wives for antenatal care services. During the focused group discussion most of the respondents reported that their male partners did not accompany them for antenatal care services. Some of the participants had this to say;

“My husband has never accompanied me for the antenatal care services.”
(Respondent 8, FGD 2)

“He has never come to the clinic with me” (Respondent 3, FGD 3)

“He came once when the pregnancy was four months”(Respondent 6, FGD 1)

Theme 2: Reasons for low male involvement

According to the participants in the focus group discussions, being busy at work was the main reason why male partners failed to accompany their female partners to the antenatal clinic.

“It depends with their jobs and availability” (Respondent 4, FGD 2)

“My husband is usually busy at work he cannot accompany me to the antenatal clinic” (Respondent 6, FGD 1)

“It’s okay, but you know they are the breadwinners so if we come with them, we will lose.” (Respondent 2, FGD 2)

“He can be responsible and loves you but there is no time for him to accompany you.” (Respondent 7, FGD 2)

Other reasons cited by the participants included fear of attending the antenatal clinic as well as the man not being available during clinic appointment days.

“I don’t know what he fears” (Respondent 3, FGD 3)

“He has never come but he is usually busy and far” (Respondent 4, FGD3)

The main barrier identified by key informants in the study was the long waiting times due to long queues.

“Most of the time because of the long queues and we know men are very impatient ...” (KI1)

“One will be time factor, men don’t like wasting time, they prefer doing their things first....” (KI2)

“Now with the introduction of universal health coverage.....you will find long queue’s and this discourage the men from coming to the facility” (KI3)

Theme 3: Positive attitude towards male involvement among the health workers

An emerging theme from the key informant interviews is that there was a healthy provider attitude regarding male involvement in antenatal care. The key informants not only recognize the benefits of male involvement but went a step further to inform the mothers and encourage them to be accompanied by their male partners

“I feel very happy [when I see a woman accompanied by her partner] because I see that man who is loving and caring to his wife” ((KI2)

“We encourage the partners to come, we learn together since it will be in the fourth visit the mothers will have the HIV testing” (KI1)

Theme 4: Health education on male partner involvement provided to women

The study established from the key informants that every effort was made to inform women on the need for male involvement. This was done during counselling sessions.

“After we give health education especially in the group antenatal, we usually encourage them to go and teach the people at home” (KI1)

“... they feel that if a health care worker has not told the wife a man is supposed to be part of the ANC, they feel that they are not part of the pregnancy” (KI3)

“We still encourage them at least the 3rd meeting they should come with them or the 1st meeting at least when they are starting the clinic” (KI1)

Theme 5: Prioritization as a motivator for male involvement

An emerging theme from all three key informants was the use of prioritization to encourage more male involvement in the antenatal care. Couples were attended first to encourage more women to come up with their partners.

“The other thing we are trying to encourage when they come with their spouses, we see them first, we give them the first priority” (KI1)

“...for a man who has come with the wife should be given a priority and if possible, give quality services and do it fast” (KI3)

“The issue of giving them priority when they come with their wives, think that one will improve the attendance in the clinic” (KI2)

“The first factor is prioritization, when you give the male partners priority, they feel honored and they can come to the clinic with their wives...,” (KI2)

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The discussion, conclusion and recommendations are presented in this chapter.

5.2 Discussion

5.2.1 Proportion of Male Partner Involvement in Antenatal Care

This study found out that only 34.1% of the respondents reported that their male partners were involved to the antenatal care. Similarly, participants in the qualitative data agreed that most men were not involved in the antenatal clinic. The findings are similar to an earlier study done in Kenya by Odeny et al. (2019) which showed a level of male partner involvement of 35.0%. Similarly, a study done in Ghana by Craymah et al. (2017) reported a prevalence of 35.0% and 41.4% by a study done in Ethiopia by Kassahun et al. (2018). All these were cross-sectional studies that used simple random sampling procedure to recruit the participants contributing to the possibility of the similarity in the results.

Contrary to this, Kariuki and Seruwagi (2016) in Uganda, found a much lower prevalence of 6% while a Tanzanian based study by Kabanga et al. (2019) and Annoon et al. (2020) in Ghana found a higher prevalence of 56.9% and 70% respectively. The difference in the prevalence could have been brought about by the differences in the study area, study populations and the nature of work done by men. The Ugandan based study was done at a community setting involving male respondents who gave their opinions regarding male partner involvement. The nature of men's work in the high prevalent regions did not affect male partner involvement to the antenatal clinic.

The present study revealed that being busy at work (62.1%), perceiving antenatal care as a role for women (10.3%) and not living together (9.2%) were the main reasons the male partners were not involved to the antenatal care clinic. According to the participants in the focus group discussion, being busy at work was the main

reason why male partners were not involved to the antenatal clinic. Other reasons cited by the participants included blatant fear of attending the antenatal clinic and not being available during clinic appointment days. The findings are similar to those by Kassahun et al. (2018) in Ethiopia, who reported that 37.1% of male partners were working in a different town, 13.6% viewed pregnancy as solely an affair for women and 17.1% reported that pregnancy and antenatal care were not customs for men. Additionally, Kabanga et al. (2019) reported that 10.7% of pregnant women did not live together with their male partners. Lastly, Kariuki and Seruwagi (2016) reported that 27.4% of the male partners were busy at work, 19.7% viewed pregnancy and antenatal care as women's responsibility and 14.7% reported long waiting time at the antenatal clinic being the major reasons for non-involvement. The similarity in all these studies could be associated with the study setting since they were all carried out in Africa.

5.2.2 Individual Factors Associated with Male Partner Involvement

The present study revealed a significant association between living together and male partner involvement to antenatal care ($P < 0.001$). The findings were in agreement with a study done by Craymah et al. (2017) in Ghana that reported a significant association between living together with partner and male partner involvement to antenatal care ($P = 0.02$). Another study conducted in Kenya by Kiptoo and Kipmerewo (2017) showed no significant association between living together with partner and male partner involvement ($p = 0.539$). This was a community-based study conducted to both the men and women while the current study was conducted in an urban setting consisting of women only thus the difference. Further on multivariate analysis in the present study, those who lived with their male partner were 3 times more likely to be accompanied (AOR = 3.1).

On the roles of male partners towards antenatal care, there was a significant association between partners helping in house chores and male partner involvement to antenatal care services in the present study ($p = 0.012$). Male partners who helped in performing household chores were 3 times more likely to be involved in antenatal care, (AOR = 2.5). Contrary to this, a Nigerian study done by Fatila & Adebayo

(2020) on male partners' involvement in pregnancy found no significant association between partner helping in house chores and male partner involvement ($P=0.312$). This could be related to the cultural differences between the Kenyan men and Nigerian men. Culturally, the Kenyan men do not help their wives in house chores.

In bivariate analysis, the present study showed a significant association between partner reminding their wives on the next date of appointment and partner involvement ($p<0.001$). The results were consistent with a Tanzanian based study by Kabanga et al. (2019) that demonstrated a significant association ($p<0.001$) between male partners being aware of the ANC visit date and male partner involvement. The similarity in both studies could be attributed by the study settings and the study populations. Both studies were carried out in urban settings involving the pregnant women who gave opinions concerning their male partners. After adjusting for confounding factors, the aspect of the male partner reminding their wives on the next date of appointment was not an independent predictor for male partner involvement ($AOR=0.3$, $P=0.154$). This differed with the earlier study which showed a significant association between male partners being aware of the ANC visiting date and male partner involvement whereby the male partners were 24 times more likely to be involved ($AOR\ 24.1$, $95\% \text{ CI } 6.8, 86.5$, and $P < 0.001$).

5.2.3 Health institution factors associated with male partner involvement in antenatal care

In the present study findings, those who live a distance of 4km to the health facility had a significant association with male partner involvement in antenatal care ($p=0.019$). Similarly, a previous study done in Ghana by Annon et al. (2020) showed a significant association between distance covered to the facility and male partner involvement in antenatal care ($p=0.05$). In contrary, a Tanzanian based study done by Gibore et al. (2019) did not show significant association between distance covered to the health facility and partner involvement ($p=0.166$). The difference in the studies could be associated by the level of infrastructure in the study settings. After adjusting for confounding factors, distance covered to reach the health facility was not an independent predictor for male partner involvement.

The present study did not show a significant association between waiting time at the facility and male partner involvement in antenatal care. This was in agreement with the findings of an earlier study conducted in Ghana by Craymah et al. (2017) which revealed that waiting time at the facility was not significantly associated with male partner involvement in antenatal care ($p=0.25$). However, an earlier study conducted in Ghana by Kumbeni et al. (2019) revealed a significant association between waiting time at the facility and male partner involvement ($p<0.001$). The possible reason for the difference in the studies could be attributed to the study population. The study which showed a positive association was conducted on men who gave their opinion regarding the time spent at the facility which affected their involvement in antenatal care. From the key informant interview, long waiting time emerged as a significant factor contributing to low male partner involvement. The possible difference between the quantitative and qualitative data could be attributed by the pregnant respondents who filled the questionnaire unlike if men would have been interviewed.

The present study showed no significant association between prioritizing care to those accompanied and male partner involvement ($p=0.602$). Similarly, an emerging theme from the key informants was the use of prioritization to encourage more male involvement in the antenatal care. Couples were attended first to encourage more women to come up with their partners. Similarly, Muloongo et al. (2019) found out that what motivated male partners to accompany their wives for antenatal care was the privilege of prioritization at the antenatal clinic. The difference between quantitative and qualitative data could have been possibly associated by the different respondents. Key informants in the present study were the nurses while the pregnant women were interviewed in the questionnaire.

In the present study, there was no significant association between having enough space at the health facility and male partner involvement in antenatal care ($p= 0.072$). Similar to an earlier study done in Ghana by Annon et al. (2020) which revealed no significant association between having enough space to accommodate men at the facility and male partner involvement ($p=0.37$). The similarity in both studies could

be attributed by the study population. Both studies were conducted among the pregnant women who gave their views on the space available at the facility.

5.2.4 Study limitation

The study was hospital-based and information was gathered from the pregnant women regarding their male partners since they were the readily available population.

5.3 Conclusion

- The proportion of the male partners involvement in the antenatal care at Kangundo level four hospital was found to be low at 34.1%. Participants in the focus group discussions agreed that most men were not involved in the antenatal clinic.
- The individual based factors promoting male partner involvement in antenatal care included; living together as couples and partner helping in house hold chores. According to the focus group discussions, being busy at work was the main reason men were not involved in antenatal care.
- Institutional based factors associated with male partner involvement in antenatal care was the time taken to reach the health facility. From the key informant interviews, male partner involvement in antenatal care was hampered by unavailability of men due to work commitments.

5.4 Recommendation

- Governments and other organizations involved in maternal health should increase health education and advocacy on the importance of male partner involvement to antenatal care through mainstream, social media and print media.
- The present study recommends Kangundo level four Hospital management to support more outreach services especially in churches and during chief Baraza's so as to provide more information to the men at the community level and to create interest in men concerning matters of reproductive health.

- A future community-based study targeting the male partners is needed so as to provide more insight on the factors affecting male partner attendance in antenatal care.

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APPENDICES

Appendix I: Participants Informed Consent

Introduction

Dear participant, my name is Pauline Muia Kavindu, a master of science student at Jomo Kenyatta University of science and technology, I hereby request your participation in my study titled **“Determinants of male partner Involvement among pregnant women at Kangundo level 4 hospital in Machakos County, Kenya”**.

Background and objective: Men involvement is defined as ensuring that men participate in every step towards maternal health services which include during pregnancy, child birth and postnatal period.

Participation: If you agree to participate in this research, you will sign a written consent before answering questions which will be filled by the interviewee in the structured questionnaires, participation in focused group discussions and key informant guide interviews. You will not be subjected to any invasive procedure. The research involves participation of approximately 132 mothers attending antenatal clinic.

Benefits: There is no direct benefit to the respondents. However, the results of the study will inform policy makers on the best way possible to encourage male involvement in antenatal care. These findings will also inform the male partners on the importance and benefits of being involved in antenatal care

Risks: The researcher will ensure that no risk to the participants will occur. However, being a study there might be some minimal unforeseen risks, which may occur. However, this will be well managed by the researcher.

Confidentiality: we assure you that the information you will provide us with will be highly confidential. Neither names nor any identification makers will be put on the questionnaire other than questionnaire coding. All materials used during the study

will be under lock and key and only the personnel involved in this study will have access to them.

Voluntary participation: Participation in this study is voluntary. Refusal to take part will not attract any penalty. You retain the right to withdraw from the study without any consequences.

Appendix II: Consent Form

You agree that you have read this consent form and also discussed with the research assistant about the research. You have asked questions about the research and you been answered in a language that you understand and volunteer to participate in the study.

.....

.....

Interviewee

Date

I confirm that I have clearly explained to the participant the nature of the study and the contents of this consent form in detail and the participant has decided to participate voluntarily without any coercion or undue pressure.

Investigator's Signature.....

Date

Appendix III: Questionnaire

Instructions

Please tick [] where appropriate and fill in the required information in the space provided.

PART A: DEMOGRAPHIC DATA OF THE RESPONDENT

1. What is your age?.....

2. Kindly indicate your highest level of education on the space provided

1. Primary education []

2. Secondary education []

3. College []

4. University level []

Any other (specify).....

3. What is your occupation?

1. Formal employment []

2. Informal employment []

3. Business []

4. Farmer []

5. Not employed []

4. Where do you reside?

1. Urban

2. Rural

5. What is your religion?

1. Protestant

2. Muslim

3. Catholic

4. Specify any other

6. Do you live together with your partner?

1. Yes

2. No

7. How many children do both of you have?

1. None

2. 1-3

3. 4-6

4. More than 6

PART B: LEVEL OF MALE PARTNER INVOLVEMENT

1. A) Has your partner ever accompanied you to the antenatal clinic during the current pregnancy

1. Yes []

2. No []

B) If NO then give a reason why?

.....
.....
.....
.....

C) Has your partner been involved in the following aspects? Tick yes or no

| | Partner involvement | YES | NO |
|-----------|---|------------|-----------|
| 1. | Does your partner support you financially in the pregnancy? | | |
| 2. | Does your partner help you with house hold chores during the pregnancy? | | |
| 3. | Does your partner remind you on the next date of appointment date? | | |

Part C: SOCIO-DEMOGRAPHIC FACTORS OF THE MALE PARTNER.

1. What is the age of your partner?

2. Kindly indicate your male partners highest academic qualification on the space provided

1. Primary education []

2. Secondary education []

3. College []

4. University level []

3. What is the occupation of your male partner?

1. Formal employment []

2. Informal employment []

3. Businessman []

4. Farmer []

5. Not employed. []

PART D: HEALTH INSTITUTION RELATED FACTORS

1. What is the distance from home to the health facility offering antenatal care services in kilometers?

1. Less than 1km []

2. 2 kms []

3. 3 kms []

4. 4 kms []

5. More than 5 kms []

2. How long does it take to reach the health facility by road?

1. Less than 30 mins []

2. 40 mins to 1 hour []

3. 2 hours []

4. Over 2 hours []

3. How long do you wait at the queue before you are attended to in the antenatal clinic?

1. Less than 20 minutes []

2. 30 minutes []

3. 40 minutes []

4. More than 60 minutes []

4. Does the health care provider prioritize care to those pregnant women accompanied by their male partners?

1. Yes []

2. No []

5. Does the facility have enough space and comfort for men who accompany their wives?

1. Yes []

2. NO []

Appendix IV: Focused Group Discussion Schedule

Introduction: Introduce yourself all members present plus the topic.

1. Una maoni gani kuhusu mada ambayo imetuleta hapa leo (ushiriki wa wenzi wa kiume katika utunzaji wa ujauzito)
2. Je, unaelewa nini kuhusu kuhusika kwa washirika wa kiume katika huduma za ANC?
3. Je, unafahamu haja ya kuhusika kwa washirika wa kiume katika huduma za ANC?
4. Je, unawachukuliaje wenzi wa kiume wanaoshiriki katika huduma za ANC?
5. Je, umewahi kumshirikisha mshirika wako kwa ziara ya ANC?
6. Kwa maoni yako kwa nini baadhi ya wapenzi wa kiume wanaweza kushiriki katika kuandamana na wenzi wao wakati wengine hawashiriki?

TRANSLATION INTO ENGLISH:

1. What do you think about the topic that has brought us here today (involvement of male partners in antenatal care)
2. What do you understand by involvement of male partners in ANC services?
3. Are you aware of the need for involvement of male partners in ANC services?
4. How do you perceive male partners who participate in ANC services?
5. Have you ever involved your partner for ANC visit?
6. In your opinion why could some male partners participate in accompanying their spouses while others do not?

Appendix V: Key Informant Interview Guide

1. Je, ni mambo gani ya kibinafsi yanayoathiri ushiriki wa mwenzi wa kiume katika utunzaji wa ujauzito?
2. Je, ni mambo gani yanayohusiana na kitaasisi yanayoathiri ushiriki wa wenzi wa kiume katika utunzaji wa ujauzito?
3. Je, unafikiri nini kama mfanyakazi wa afya huzuia ushiriki wa mwenzi wa kiume katika utunzaji wa ujauzito?
4. Mtazamo wa wahudumu wa afya uko vipi kuhusu ushiriki wa wenzi wa kiume katika utunzaji wa ujauzito?
5. Unafikiri nini kinaweza kuboreshwa katika kliniki ili kukuza ushiriki wa wenzi wa kiume katika utunzaji wa ujauzito?

TRANSLATION INTO ENGLISH:

1. What are the individual factors that affect male partner involvement in antenatal care?
2. What are institutional related factors affecting involvement of male partners in antenatal care?
3. What do you think as a health care worker hinders male partner involvement in antenatal care?
4. How is the health care workers attitude towards male partner involvement in antenatal care?
5. What do you think can be improved in the clinic to promote male partner involvement in antenatal care?

Appendix VI: Introduction letter by JKUAT-SON



**JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY**

**COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING
OFFICE OF THE DEAN**

TEL: 067- 5352181-4 Extn. 4063 Box 62000-00200 NAIROBI Email:
deannursing@jkuat.ac.ke/school.nursing@jkuat.ac.ke

REF: JKU/2/125/037

DATE: 30th October, 2019

TO WHOM IT MAY CONCERN

RE: MUIA PAULINE KAVINDU – REG: HSN311-2609/2017

This is to confirm that the above named is a bonafide student of Jomo Kenyatta University of Agriculture and Technology pursuing Masters in Nursing.

She has successfully defended his proposal and has been granted ethical approval from Institutional Ethical Review Committee of University of Eastern Africa Baraton

We therefore kindly request you to grant her the NACOSTI permit.

Yours Faithfull


DR. DRUSILLA MAKWORO
DEAN, SCHOOL OF NURSING




JKUAT is ISO 9001:2015 and ISO 14001:2015 Certified
Setting Trends in Higher Education, Research, Innovation and Entrepreneurship



Appendix VII: National commission for science, Technology and innovation research license



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 150221
Date of Issue: 15/March/2021

RESEARCH LICENSE




This is to Certify that Miss. PAULINE KAVINDU MUIA of Jomo Kenyatta University of Agriculture and Technology, has been licensed to conduct research in Machakos on the topic: DETERMINANTS OF MALE PARTNER INVOLVEMENT IN ANTENATAL CARE AT KANGUNDO LEVEL IV HOSPITAL for the period ending : 15/March/2022.

License No: NACOSTI/P/21/9393


150221

Applicant Identification Number



Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



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Appendix VIII: Ethical review approval letter



OFFICE OF THE DIRECTOR OF GRADUATE STUDIES AND RESEARCH
UNIVERSITY OF EASTERN AFRICA, BARATON
P.O. BOX 2500-30100, Eldoret, Kenya, East Africa

B0709032021

March 9, 2021

TO: Pauline Kavindu Muia
School of Nursing
Jomo Kenyatta University of Agriculture and Technology

Dear Pauline,

**RE: Determinants Of Male Partner Involvement Among Pregnant Women And Nurses
At Kangundo Level 4 Hospital In Machakos County, Kenya.**

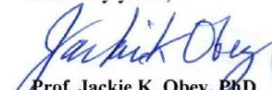
This is to inform you that the Research Ethics Committee (REC) of the University of Eastern Africa Baraton has reviewed and approved your above research proposal. Your application approval number is UEAB/REC/07/03/2021. The approval period is 9th March, 2021 – 9th March, 2022.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by the Research Ethics Committee (REC) of the University of Eastern Africa Baraton.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to the Research Ethics Committee (REC) of the University of Eastern Africa Baraton within 72 hours of notification.
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to the Research Ethics Committee (REC) of the University of Eastern Africa Baraton within 72 hours.
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to the Research Ethics Committee (REC) of the University of Eastern Africa Baraton.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Sincerely yours,


Prof. Jackie K. Obey, PhD
Chairperson, Research Ethics Committee



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CHARTERED 1991

Appendix IX: Approval letter to collect data at Kangundo maternal and child health clinic.

JULY2, 2019.

PAULINE KAVINDU MUIA.

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY.

TO,

THE MEDICAL SUPERINTENDENT,
KANGUNDO LEVEL FOUR HOSPITAL.

*Approved
01/07/2019*



RE: PERMISSION TO CONDUCT RESEARCH AT THE ANTENATAL CLINIC

LEVEL FOUR HOSPITAL.

I hereby write to request for permission to conduct my research at the Antenatal Clinic on determinants of male partner involvement among pregnant women and nurses at Kangundo Level four Hospital for a period of one month.

The purpose of the conducting study is to enable me complete my Master's degree in reproductive Health /Midwifery.

I have been approved by the University through the Nursing department

Find attached the approval to the research proposal by the research Ethics Committee of the University of Eastern Africa Baraton.

Yours sincerely,

Pauline Kavindu Muia