DETERMINANTS OF INVOLVEMENT IN ANTENATAL CARE AMONG MALE POLICE OFFICERS AT ANTI-STOCK THEFT UNIT IN GILGIL WARD, NAKURU COUNTY, KENYA

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Determinants of Involvement in Antenatal Care among Male Police Officers at Anti-Stock Theft Unit in Gilgil Ward, Nakuru 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.

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This thesis has been submitted for examination with our approval as the University supervisors.

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DEDICATION

This thesis is dedicated to my family particularly Wanjiru Mary Rachael who used to encourage me to strive always for the best.

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I give glory to God Almighty for the entire He has given and blessings of loving people who have made my life lively and easier than I thought.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency syndrome
ANC	Antenatal Care/Clinic
ART	Anti-Retroviral Therapy
ARV	Anti-Retro virus
ASTU	Anti-Stock Theft Unit
CDC	Centers for Disease Control
FP	Family Planning
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
KNH	Kenyatta National Hospital
MI/P	Male Involvement/Participation
NASCOP	National AIDS and Sexually Transmitted Infections Control Program
PMTCT	Prevention of Mother-To-Child Transmission
RH	Reproductive Health
SPSS	Statistical Package for Social Scientist
STI	Sexually Transmitted Infections
SSA	Sub-Sahara Africa
UDG	Universal Development Goals
UNFPA	United Nations Population Fund-Africa
USAID	United Nations Agency for International Development
VCT	Voluntary counseling and Testing
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Antenatal Care	Involves services given to a pregnant woman by a skilled care giver from when it is known that she is pregnant up to the onset of labour.
Antenatal clinic	A place mostly within a facility where antenatal services are offered
ARV **Prophylaxis**	Short–term preventive HIV treatments for accidental sex like rape, unprotected, sexual activity with a HIV positive partner, burst condom or HIV exposed neonate.
Antiretroviral drugs	Drugs used to lower HIV virus to undetectable levels in a HIV positive individual
Attitude	An individual's feelings, thinking or point of view towards another person or an object.
Determinant **Economic Determinant**	An element that determines somethngs nature, condition or outcome Wages paid to individual employee which helps in instrumental support e.g., Transport to ANC, emergency & maternal preparedness.
Family Planning	Spacing time length between births
HIV/AIDS	Human Immunodeficiency Virus. AIDS is acquired immunodeficiency syndrome. Referred together as HIV/AIDS
Infrastructure	Physical structure or facility where services are provided.
Involvement	Male partner taking part in the pregnant partners antenatal care

Male Partner	Father to or the sex partner involved in occurrence of a pregnancy.
Mother-to-Child Transmission	Possibility of HIV infected mother to pass virus to fetus during, pregnancy, delivery, or when breast feeding.
Police Constables	Low ranked police officers
Prevention of Mother to Child Transmission	Interventions given to the antenatal mother who is HIV positive to prevent fetus from getting infection from the mother
Role	Actions which characterize a position in a community member.
Transmission	Micro-organism transfer from infected to a non- infected person
Work schedule	In police service, these are routinely unstable, unpredictable non- standard work productivity periods set by employer to employee

ABSTRACT

Background. World Health Organization recognizes male partner involvement in maternal health as key in reducing maternal morbidity, mortality and third universal maternal health goal. In developing countries few men engage in care. Objective. To investigate determinants of involvement in antenatal care among male police officers at anti-stock theft unit Gilgil ward in Nakuru County. Methodology. Analytical cross-sectional study design was used. Subjects gave voluntary written informed consent and relevant authorities gave approval. Data was collected using self-administered questionnaire, from 334 subjects who were randomly sampled from 2582 police officers. Quantitative data was analyzed using descriptive and inferential statistics via statistical package for social sciences. Chi square tests and Multivariate logistic regression analysis was conducted to assess determinants associated with male partner participation in ANC. Results. On descriptive analysis, less than half (47.9% n=160) of the subjects were constables with 20.7% (n=69) occupying senior ranks. Majority (65% n=217) reported 1-5 months' work schedules, 2% (N=7) reported more than10months.More than half (51.8% n= 173) reported 10-20 years' work experience with 6.6% (n=22) reporting over 40 years. More than three quarters (78.4%, n=262) of the respondents earned 20-40 thousand Kenya shillings, 5.4% (n=18) earned above 80 thousand Kenya shillings. More than half (61% n=204) of the subjects did not know communication is important 16.8% (n=56) agreed, 22.2% (n=74) disagreed. Slightly more than half (65.9% n=220) of the subjects agreed religion impairs male police partner ANC participation 34.1 (n=114) disagreed. Majority (77.2% n=258) of the respondents preferred traditional birth attendants 15.6% (n=52) preferred care givers. Majority (60.1% n=201) of the respondents reported health facility was far 29.9% (n=100), 1.1% (n=4) cited less than a kilometer. Less than half (44.6 % n= 149) of the subjects opined health workers had wanting reactions, 27.5% (n=92) cited them as approachable, 18.9% (n= 63) indicated workers were ignorant, 9% (n= 30) posted they are good. Majority (91% n=304) of the participants preferred males 9% (n=30) preferred females to care for the partners. On inferential analysis, participants who agreed religion impairs male partner ANC attendances were 2.5 times more likely to participate in ANC compared to those who disagreed. Subjects who preferred care workers were 0.54 times less likely to participate in ANC compared to those who preferred traditional birth attendants. Respondents comfortable with female care givers were 0.1372 times less likely to participate in ANC compared to those who were uncomfortable. Participants who indicated care workers were ignorant were 0.148 times less likely to participate in ANC compared to those who cited them as good Conclusion. Religion, reliance on traditional birth attendants, gender preferences and health workers' reactions were found to be significantly associated with male police officers' involvement in ANC while none of economic determinants were significant. Recommendations. Informational, communicational and educational support by care workers is recommended to male police partners. Equal gender training and adequate distribution of care workers to ANC clinics is recommended to health care

programmers Including determinants of involvement in antenatal care among police officers in the officers' basic training is recommendation to the Ministry of defense

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Male partner involvement in antenatal care is a global problem identified by different researchers and needs addressing as a crucial component in the optimization of maternal health and achievement of the third Universal Sustainable Development Goal, which focuses on ensuring Universal access and integration of reproductive health care by 2030 (World Health Organization, 2012).

Participation of men in maternal health received global attention in Nairobi in 1987 Safe Mother- hood Initiative (SMI) by the World Bank, in collaboration with World Health Organization and (United Nations Population Fund (UNFPA). In addition, male partner involvement in antenatal care was agreed upon during Cairo International Conference on Population and Development (ICPD) in 1994, during the Fourth Women's Conference in Beijing in 1995 and by the United States Agency for International Development USAID in 2010.Despite the efforts, participation is traditionally low particularly in developing countries. WHO estimates that ninety-nine per cent of women, who loose lives from pregnancy-related complications, occur in the less developed countries (Aluisio *et al.,* 2011). According to research, expectations are for male partner to play a full role throughout pregnancy which wound help the women to feel not neglected and alone in the pregnancy process. However, these expectations are not usually met and paternal active involvement and roles are rare (Aluisio *et. al*., 2011).

Globally, researchers have found male partners' involvement in antenatal health is a major milestone to reduce maternal morbidity and mortality, which includes pregnant women receiving needed (Aluisio *et al.,* 2011). Other identified benefits include consumption of nutritious balanced diet, avoidance of alcohol and hard drugs, early

ANC attendance, adherence to HIV therapy when the woman tests positive for HIV and six months exclusive breast-feeding Sebastian (Tej and Navi,2011). However, this remains a challenge to effectively access and utilize since fewer women seek health services leading to negative effects on women's health male partner participation throughout pregnancy which results to millions experiencing severe illness or death from preventable, treatable, controllable causes such as malaria, anemia, diabetes, pre-eclampsia, eclampsia or HIV (Matiang'i, Mojola & Githae, 2017).

Roth and Mbizvo (2010) asserts that, efforts by health care providers in Europe to involve men in pregnancy indicated that many men feel marginalized and inadequately informed because most education is focused on women with little space for male, hence men are not motivated to attend clinic visits with the partners. Accordingly, in Sub-Saharan Africa (SSA), male partner involvement in the antenatal care (ANC) goes against prevailing gender norms in many countries (Ditekemena, Koole and Engmann, 2012). However, World Health Organization Global estimates shows that more than half a million women who loose lives from pregnancy-related complications every year, ninety-nine per cent occurs in the less developed countries (Aluisio *et al.,* 2011).

In most of the developing countries, research has revealed that men view antenatal clinics as women's space since from definition and organization of the programs is fundamentally female oriented (Matseke *et al.,* 2017). Predictably, men think antenatal clinic activities fall outside area of men's responsibility and consequently, perceive it as not manly attending the antenatal clinic with the partner (Falnes et al., 2011). Due to this, one out of every thirteen women die from pregnancy-related causes in these regions, compared with one in 4,085 women in industrialized countries, where men accompany the pregnant partners to antenatal clinic and care activities (Sapkota Kobayashi & Takase, 2012). Men in some non-African settings negotiate a space for involvement in maternal health, in most African countries; men do not accompany pregnant women for antenatal care. Maternal deaths from developing countries are often attributed to delays in male partner decision making resulting to worsening of

complications, infections, disabilities and non- addressed complications of pregnancy (Faomi & Ajayi, 2015).

In Malawi, pregnancy and maternal health care services are focused on, as a women's domain which acts as barriers to male partners' involvement in maternal care particularly in the rural settings. Literature has shown that attempts by the health system to involve men in maternal health, have managed to attract only a few men (Kululanga, *et al.,* 2012). Studies shows Mozambique has the lowest ANC uptake despite availability of free maternal services (Matiang'i, *et al.,* 2013). This is attributed to cultural beliefs by women that uptake of such activities particularly if accompanied by the male partner reflects a woman's HIV-positive status. In a similar study from South Africa, men's cultural believe is that the man become impotent if he accompanies a pregnant woman to antenatal clinic (Abass, Sakoalia, and Mensah, 2012).

In East Africa, poor involvement of men in maternal health has been attributed to poor economic empowerment, men's decision-making dominancy and men control on women (Namasivayam, 2012). This hinders the pregnant partner from accessing needed maternal care in time especially during emergencies such as ante-partum hemorrhage, leading to maternal deaths (Kakaire Kaye & Osinde, 2011). Uganda's Ministry of Health has a policy that supports male involvement in antenatal care but ways in which the policy is implemented discourages men from playing active participation (Kakaire *et al.,* 2011).

In the Kenyan setting, division for reproductive health has embraced male involvement to improve the local maternal mortality ratio (MMR) of 488 per 100 000 live births (Kenya National Bureau of Statistics, 2010). However, this figure has not reduced and information obtained reflects lack of resources, poor settings, unique cultural and economic factors, limited infrastructure and environment that is not ideal for male participation in the antenatal care (Njeru, Ng'ang'a & Echoka, 2016). Available number of male partners in most facilities accompanying pregnant women are based on

prevention from mother to child transmission (PMTCT) or delivery but it is still low (KAIS, 2016). In order to improve over whole men's participation, reasons for poor or reluctances in involvement need to be explored (Vermeulen, Solnes & Barras, 2016). Accordingly, researchers have established that every pregnancy situation requires male partner involvement which is critical if improvement and reduction of maternal morbidity and mortality is to be realized (Thorsen, Sundby & Malata, 2012).

Onyango, Owoko and Oguttu, (2010) Western Kenya study identified three main barriers impairing male partner involvement in ANC relating to cultural norms and includes,1) pregnancy is considered a female role, 2) negative health care worker responses towards men's participation, and 3) male unfriendly antenatal infrastructure. However, it is reported that some men facilitate partners' utilization of antenatal care and delivery, but this does not translate to practice as adherence to antenatal care schedules is generally poor. Equally, reasons why men should accompany wives are not carried through into practice despite increased knowledge of antenatal activities and male partner involvement (Ditekemena, 2012).

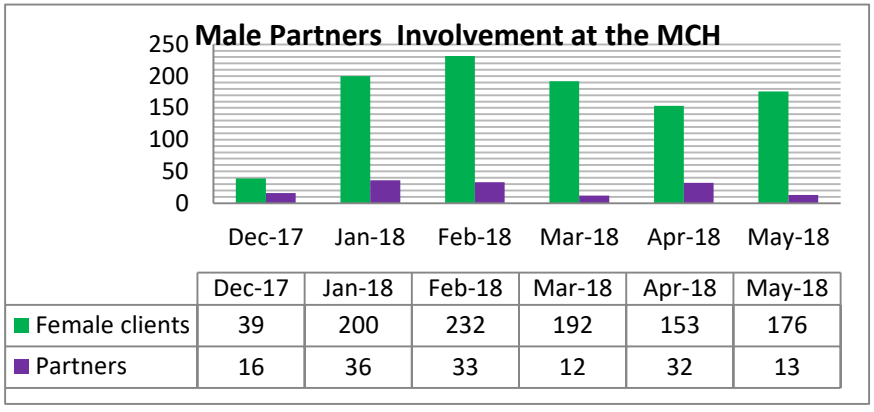
Study done at Kwale County showed that even though men give financial support to partners during maternity periods, emotional and physical support like attending ANC together is low which is shaped by cultural and gender roles (Onyango *et al.,* 2010). Further to this, research has found that the level of male involvement in women's health and decision- making is generally low in Kwale County. Failure is related to cultural beliefs, socio-economic hardships, health system, men's poor knowledge of women maternal health needs and men's attitude towards antenatal clinics (Fayomi & Ajayi 2015).

Study in Luo Nyanza found that male partners greatly influence women's decisions to use reproductive health services and treatment for seropositive pregnant women. However, men's decision-making roles is a very significant factor to consider in finding a solution to two main factors responsible for many of the maternal deaths in that region.

These are the delay in decision-making to refer patient to a health facility and delay in reaching the service delivery point due to lack of transport. Research has confirmed that male partner involvement among other factors can significantly influence these two delays and reduce worsening of maternal complications or deaths (Ditekemena, 2012).

A study was done in Nairobi Hospital Antenatal clinic to determine effects of male partner involvement in voluntary counseling and testing established that seropositive women with partners were more likely to use condom especially in discordant couples (Straughen, Caldwell and Young, 2013). In addition, the women returned for interventions and others reported administering Nevirapine to the newborn if delivery occurred at home. Adherence to prescribed breastfeeding protocols was observed from women with male partners compared to those who had no partners (Straughen *et al.*, 2013).

Figure 1.1 shows Pumwani maternity and referral Hospital antenatal records from December 2017 to May 2018 where a total of 992 pregnant women attended ANC. Out of the total, only 142(14%) were accompanied by male police partners as shown.



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
Female clients	39	200	232	192	153	176
Partners	16	36	33	12	32	13

Figure 1.1: Pumwani maternity Hospital ANC attendances.

Source: ANC Register

Gilgil Hospital six months antenatal records review from December 2017 to May 2018 showed a total of 2735 antenatal women attended ANC as shown in table 1. Mothers accompanied by the partners for regular ANC visits were 28 (1%) and 46 (2%) women had male police partners invited for HIV counseling, testing and management, after the mothers were found to be HIV positive. The 2661 (97%) pregnant women had no accompanying male police partners.

Table 1.1: Gilgil Hospital ANC Attendances

Months	**New**	**1st visits with partners**	**Revisit**	**Revisit with partner**	**Total visits**	**Total clients with partners**	**Invited male partners**
Dec.2017	134	0	304	2	438	2	9
Jan.2018	174	3	203	7	377	10	7
Feb.2018	149	1	320	1	469	2	9
March 2018	131	0	333	0	464	0	7
April 2018	138	0	305	11	443	11	9
May2018	143	1	401	2	544	3	5
Total	869	5	1866	23	2735	28	46
Grand total female ANC visits =2735						Total couple visits=74	

Source: Gilgil Hospital ANC&PMTCT Registers

Table 2 shows records review of ASTU ANC register which showed a total of 237 pregnant women visited the Health facility and the new mothers were 114 while 123 were revisits. However, no male partners accompanied the pregnant women to any of the antenatal clinic visits on the first visits, first pregnancy or first visit in the current pregnancy.

Table 1.2: Anti-Stock-Theft-Unit ANC Attendances

Month	First visit	Revisit	Total	clients with partners	PMTCT with Partners
Dec.2017	16	18	34	0	0
Jan.2018	22	17	39	0	0
Feb.2018	11	20	31	0	0
March2018	15	23	38	0	0
April	15	19	34	0	0
May	35	26	61	0	0
Total	114	123	237	0	0
Grand total ANC Visits		237		0	

Source; ANC, PMTCT Registers ASTU facility.

1.2 Statement of the problem

Men have been excluded from maternal Health from definition, infrastructure, and programs organizations globally Matseke *et al.,* (2017). Traditionally, men have not been involved in the reproductive health and therefore, there has been very low male partner involvement in the antenatal care in the country. Male partner non-involvement in antenatal care increases maternal morbidity and maternal /neonatal mortality from preventable, controllable and manageable causes (Aluisio *et al*., 2011). There is little evidence to proof improvement in maternal complications in African countries despite Safe Motherhood initiative stride and efforts (Nwakwuo & Oshonwoh, 2013). NASCOP, (2014) National program report showed male attendances by regions was: Nyanza 6.4%, Eastern 6%, Western 5.3%, Nairobi 5.2%, Rift valley 4.6%, Coast 3.4%, Central 3%, and North Eastern 2% average of 5.1%. Records review on male police attending ANC in selected Health facilities, Pumwani Referral and maternity Hospital and Gilgil Hospital showed very few male police partners' clinic attendances while Anti-Stock-Theft-Unit facility showed no male police partners participated in care which encouraged the researcher to investigate why.

1.3 Justification of the study

Male partners involved in ANC will enhance reduction in maternal mortality to less than 70 per 100,000 live births globally. Male partners ANC involvement optimize maternal health and outcome. Male partner involvement in antenatal care is a crucial component in the optimization of maternal health and achievement of the third Universal Sustainable Development Goal.

On generalization of the implementation of study results will enhance to reduce pregnancy related deaths, occurring in developing countries. Reduction in maternal morbidity and mortality requires male partners ANC participation.

The findings availed evidence base to care providers for promoting interactive informational, educational and communicational approaches, for formulating and implementing interventions to enhance male police partners supporting pregnant partners by attending ANC together.

1.4 Research questions

i. Which economic determinants influence male police officer's involvement in antenatal care at Anti-Stock –Theft-Unit in Gilgil ward of Nakuru County?
ii. Which socio-cultural determinants influence male police officer's involvement in antenatal care at Anti-Stock -Theft-Unit in Gilgil ward of Nakuru County?
iii. Which institutional determinants influence male police officer's involvement in antenatal care at Anti-Stock- Theft -Unit in Gilgil ward of Nakuru County?

1.5 Objectives of the study

1.5.1 Broad objective

To identify determinants of involvement in antenatal care among male police officers at anti-stock theft unit in Gilgil ward, Nakuru County.

1.5.2 Specific objectives

1. To establish economic determinants influencing male police officer's involvement in antenatal care at Anti-Stock -Theft -Unit in Gilgil Ward of Nakuru County.
2. To determine social-cultural factors influencing male police officer's involvement in antenatal care at Anti-Stock –Theft- Unit in Gilgil Ward of Nakuru County.
3. To determine institutional factors influencing male police officer's involvement in antenatal care at Anti-Stock -Theft -Unit in Gilgil Ward of Nakuru County.

1.6 Hypothesis of the study

H0- There is no significant relationship between economic determinants and male police officer's involvement in antenatal care at Anti-Stock-Theft -Unit in Gilgil Ward of Nakuru County.

H0 -There is no significant relationship between social-cultural determinants and male police officer's involvement in antenatal care at Anti-Stock- Theft- Unit in Gilgil Ward of Nakuru County.

H0- There is no significant relationship between institutional determinants and male police officer's involvement in antenatal care at Anti-Stock- Theft- Unit in Gilgil Ward of Nakuru County.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Antenatal care is provision of essential services to pregnant women to ensure safe pregnancy, through skilled health care with the aim of desired maternal and neonatal outcomes. Focused antenatal care objectives are to promote health, prevent and detect complications early and prepare a woman for any adverse event during pregnancy and birth process. Preventing complications from occurring during pregnancy,labour, delivery and post- partum periods is ideal because many women who gets complications have no risk factors. Pregnancy complications are not easy to predict and therefore the care givers should always consider possibilities of complications in any pregnant woman hence prepare the mother accordingly (National guidelines for quality obstetrics and perinatal care, 2015).

Giving information, education, teaching about pregnancy complications, doing antenatal profile, promoting breastfeeding, disease identification, preventive and curative care, postnatal health needs, and family planning preparation are done during antenatal period on first contact between care provider and the pregnant woman attending antenatal clinic. Antenatal care is recommended for pregnant women and involves healthy life styles promotion and regular check-ups that benefits the mother, fetus and the father It is one of the pillars of safe motherhood and a determinant of maternal health (Kakaire *et al.*, 2011).

Assessment of maternal needs and family dynamics is done at the initial antenatal care visit and with the aid of a special booking checklist the pregnant women are classified as either normal, at risk or high risk. Physical assessment consists of head to toe examination after taking the woman's history, checking blood pressure, measuring

height and weight, carrying out vaginal and pelvic examination and other diagnostic assessments like Doppler fetal heart rate monitoring device. Ultra sound sonography is a recent assessment tool to assess the fetal wellbeing (Nwakwuo & Oshonwoh, 2013). Complications readiness, health promotion using health messages counselling and provision of care by a skilled attendant are provided on every visit (Steen, 2012).

Routine prenatal care has played a part in reducing maternal death rates and miscarriages as well as birth defects, low birth weight and other preventable health issues like neonatal tetanus. Teachings on management of lifestyle changes and discussions with caregiver are made during regular check-ups (Nasreen, Leppard & Mamun, 2012). During check-ups, information is given on medical and maternal positive or negative issues like physiological changes during pregnancy, prenatal nutrition, labor process, infant feeding methods and pregnancy complications. Mothers' antenatal profile is done by investigating blood for syphilis, blood group and Rhesus factor, blood for human immune-deficiency virus, blood sugar and hemoglobin levels to rule out any deviation from normal values. Other tests are urinalysis to rule out protein in urine, urinary tract infection and screening for tuberculosis. Interventions are initiated immediately (Daniele, 2021).

Prenatal visits are four starting as early as from the time the woman knows that she is pregnant or tests positive for pregnancy or at 16weeks gestation. The second visit is timed between 16 weeks to 28 weeks, third visit is between 28 weeks and 32 weeks and fourth visit is from 32 weeks to 40 weeks gestation (National guidelines for quality obstetrics and perinatal care 2015). Focused antenatal care (FANC) model was developed in the 1990s and it is associated with more perinatal deaths than ANC models that comprise of at least eight contacts between the pregnant woman or adolescent girl and the health care provider (Clement *et al.,* 2016).

International Sustainable Development Agenda target is to reduce the global maternal mortality ratio to less than 70 per 100 000 live births (WHO, 2012). To achieve this

target, male partner deliberates and active participation is needed to ensure better maternal health (Kato-Wallace, 2014).

Male partner involvement in ANC is scored using 6 variables. The man accompanying the wife during ANC services, knowing the ANC schedule, discussing the ANC interventions with the female partner, supporting the ANC fees if applicable, knowing what happens at the ANC and using a condom with the female partner during the current pregnancy if infected with sexually transmitted diseases. Scores between 0–3 is considered weak while scores of 4 and above is considered as a high male involvement (Njeru *et al.*, 2016). Birth preparedness is assessed based on the number of arrangements a woman has made such as place of birth, means of transport, funds, birth companion, items for a clean and safe birth and for new born. Timely male partner decision making leads to supporting spouses to utilize ANC services early which leads to a reduction of delays and there by positively influencing maternal health (Thorsen *et al.*, 2012).

Globally, researchers have found important benefits when men are involved in antenatal health services. Knowledge about maternal health needs through teachings during ANC visits assist male partners in making quick decisions to save the lives of the women and fetus from death, resulting from prevention of treatable, controllable and manageable cases such as anemia, neonatal tetanus, diabetes mellitus, pre-eclampsia or emergencies like eclampsia, and antepartum hemorrhages resulting from placenta abruption or placenta praevia (Aluisio *et al*., 2011).These dire maternal needs can be realized through timely arrival to a health facility, receiving proper skilled health care, financial provision, physical and psychological support (Vermeulen *et al.*, 2016). Despite these benefits and Safe Motherhood initiative stride, studies on male partner involvement in prenatal care has shown little evidence to proof decline in maternal complications in African countries (Cham Sundby & Vangen, 2009).

Although male police officers ANC involvement benefits have been acknowledged, there continues to be challenges in creating space in maternal programs that include and

engages men, stating roles, teachings about antenatal and areas of participation in maternal health (Doyle, Kato-Wallace, Kazimbaya & Barker, 2014). Due to these omissions, policemen involvement in ante natal care remains a challenge to effectively access and utilize (Doyle *et al.*, 2014). In addition, this failure has been found to lead to poor ART adherence which leads to undesired pregnancy out-come, poor decision making, and drugs abuse by the pregnant partner (Jammeh, Sundby & Vangen, 2011).

2.2 Economic determinants of male police officers' involvement in antenatal care

2.2.1 Rank

According to research, low ranked police officers globally experience leave out challenges when seeking to be engaged in antenatal care of a pregnant partner (Abbas *et al.*, 2012). At the same time researchers have established that in less established clinics, male policemen with established ranks have been forbidden in prenatal cubicles (Abbas *et al.*, 2012). Research about male police officers' involvement in antenatal voluntarily counseling and Testing (VCT) in the developing world has found that there is little increase of uptake of interventions to prevent vertical and sexual HIV transmission (Abbas *et al.*, 2012).

Pell *et al.*, (2013) studies done in Ghana, Kenya and Malawi showed that health planners are reluctant to modify clinic settings, programs and the whole infrastructure to serve both men with or without ranks and women together or integrate men's services into existing ANC services which is easier and more cost-effective. When effected, this could benefit police officers of all ranks and other men outside police service as well. Unfortunately, few policemen accompany the partners to antenatal clinics and even fewer participate in couple counseling due to the ranking in social status (USAID, 2010). In Kenya, literature documents have revealed that, in many occasions senior male police officers accompanying the partner to ANC may be afraid of disclosure about pressing

health need to a junior health worker thus impairing participation in care together with the partner (Onyango *et al.*, 2013).

2.2.2 Work schedules

Globally, men are considered being bread winners in majority home- steads and have busy schedules especially policemen who are prone to emergency duty schedules. Some men are on contract, permanent employment or casual jobs, with very uncompromising bosses where absenteeism therefore may mean no income for that day, or in extreme cases, loss of the job. Study from Rwanda reported that policemen are in regular well-paid jobs and are more likely to participate in ANC interventions compared to men in irregular work opportunities and not well-paying jobs (Sapkota *et al.*, 2012).

Research done in Uganda on taxi drivers and motorbike taxi riders showed that these categories of men are less likely to participate in ANC clinic visits than men with other professions such as farmers or construction workers (Dixon *et al.*, 2014). Locally, research revealed that men in mostly paid workforce and with scheduled hours of work, are less likely to accompany partners for antenatal appointment. This is because individuals could lose a day's pay as expectant mothers spend so much time in the clinics and policemen are often not in a position to spend the entire day participating in antenatal health services (Abbas *et al.*, 2012).

2.2.3 Employment period

Kato-Wallace (2014) study on International Men and Gender Equality and Men Who Care Survey established that husbands supporting wives during pregnancy mostly depended on the many years the man has worked. This was attributed to social experience from other policemen whom the male partner has interacted with, during the partners' paternal period and gained experiences thereof. Additionally, (Sapkota *et al.*, 2012) researchers assert that work experience may be used to evaluate economic gains

and knowledge gained over the years. Across Sectional survey of married men in Lang'ata Sub-County Kenya, indicated that long work periods are part of pregnancy management for the partner resulting from accumulated outcome in form of finances used to overcome challenges and health needs involved in the partner's antenatal care (Matiang'i *et al.*, 2013).

2.2.4. Income

Sapkota, Kobayashi and Takase (2012) Nepal report asserts that policemen earning little pay are less likely to go for prenatal services (Kakaire *et al.,* 2011) research on male involvement in ANC preparedness and complication readiness for emergency obstetric referrals in rural Uganda, reviewed that as house hold heads, some male police partners are limited in social resources like income compared to high cost of living and opportunities to attend or escort a pregnant partner to a health facility for care or to make the right decisions for providing towards ANC services are rare (Kakaire *et al.,*2011)

According to Were (2009) in Kenyan setting, pregnant women consume a lot of money on transport due to many visits. Therefore, enabling male police partners to possess Medical insurance is a strong determinant of male voluntarily being involved in maternal health. However, those without the insurance face financial constraints and evade involvement in prenatal issues by all means (Dixon *et al.,* 2014). Additionally, most policemen although empowered financially may not be willing and may use this any opportunity to ensure that pregnant partner seek antenatal services alone. However, there is need for male partners to understand the cost of services if applicable from the care providers during clinic visits when the couple goes to the clinics together. Further, it is good to acknowledge how important it is for a man to use the limited coins to attend ANC visits and be an active participant (Were, 2009).

Maternal health needs are diversified where some services may not be found in one facility but in another at a price but some male partners do not know about such

diversities (Were, 2009). Dixon *et al.,* (2014) Ghana's research on gendered perspective of insurance acquisition in a resource poor setting, highlighted that major challenge is that, econometric studies do not state why people have to join an insurance scheme, especially those with lower incomes. Some men are not aware of international consensus on social protection in health sector to reduce financial burdens for health care services. This is a financing mechanism generating additional resources especially for the poor working in the informal sectors. Studies indicate that the shame of being unable to provide economic support cause men to withdraw from being involved with the pregnant partner in care needs (Dixon *et al..*, 2014).

In Kenyan culture where polygamy is the norm, male involvement in prenatal health is complicated by financial provision to the co-wives. Research has proved that polygamous men are less likely to give money for antenatal care or accompany the pregnant woman to the clinic visit especially when the man work daily in most cases if the partners are staying in the rural areas. This limits couple antenatal attendances when the man is not able to pay for example fare to accompany the partner to a proposed clinic visit (Vermeulen, 2014).

2.3 Social cultural determinants of male police officer's involvement in antenatal care

2.3.1 Communication

Before the introduction of PMTCT, it was observed world -wide that a lot of pregnant women were shunning HIV testing because they could not communicate about it to the male partner to get consent. Those who had courage to go for the test were afraid to disclose the positive status to the husbands to avoid being thought or accused of infidelity or face divorce (WHO, 2015). Manda-Taylor *et al*., (2017) study in Malawi indicated that pre-existing level of communication between the couple about antenatal

health issues influences the acceptability of prenatal clinic visits by the male partner. Mohlala Boily and Gregory *(*2011) focusing on communication and involvement of men in antenatal care and readiness to provide support to female partners revealed that male partners support is core to prevention of mother to child transmission (PMTCT), such as use of antiretroviral drugs prophylaxis and choice of baby's feeding options. Falnes *et al.,* (2011) asserts that poor communication is associated with poor male involvement in male partners' prenatal care.

Participation in ANC by male police partner would increase spousal discussion about sexual risks and behavior change (Pell *et al.,* 2013). This becomes especially critical in discordant couples, where men's involvement in testing may enable the couple to address condom use, and decrease sex with outside partners hence helps to prevent HIV and other STI transmission to the uninfected partner and fetus. (Theuring, Mbezi, and Luvanda, 2009) research in Mbeya Tanzania confirmed that women feel ashamed to talk about pregnancy issues which add to perceived difficulties in informing the man about a proposed visit. Lack of couple's communication about women's health care seeking intentions results in men not accompanying the wife to clinic appointments because men also keep to themselves waiting for the woman to make a request to be accompanied to the proposed care visit (Nkuoh, Meyr & Nishom, 2013).Men do not often come forward to test for HIV with the wives, when the communication is poor which contribute to drop outs and non-compliance in PMTCT services (Kululanga *et al*., 2012).

Decision making and care seeking behavior is a process that requires communication between couples, but has been restricted by individual disposition, which seemingly renders men to limited understanding of reproductive needs of a pregnant woman. Results of a study on prospective fathers found that men who communicates and get involved in prenatal health of the wife and plan the family prenatally experience emotional support and shows better physical and psychological health themselves and reports fewer problems in the relationships with the partner (Stapleton, Schetter, & Westling, 2012).

Research results suggests that information, education, and communication (IEC) through radio messages, advertisements, and motivation talks on male involvement in ANC would promote interest and decision to participate in care. Additionally, a study in Kenya showed positive reasoning that attendance to media is associated with uptake of HIV testing because men who read newspapers and listened to the radio daily, and watched television together, take HIV test together more than the counterparts who did not read newspapers or watch television together (Namasivayam, 2012). In some cultures, in Kenya, women perceive reproductive communication between couples as a good morale, and adaptation to this morale depends on how one is culturally brought-up (Nyandieka *et al.,* 2016).

2.3.2 Religion

Sebastian *et al.,* (2011) study on factors affecting the use of maternal health services in Madhya Pradesh state of India revealed that, male police partners feel uncomfortable talking about sex and pregnancy related concerns with a pregnant partner or with health educators due to religion affiliation and rules that prevent individuals from seeking reproductive health information and services. (Kululanga *et al.,* 2011) study in Malawi added and says that, some men believe that engaging in prenatal health matters is contrary to the teaching of religion. For example, nearly one quarter of men surveyed in Bangladesh, Egypt, and Pakistan cited religion as a reason they would not disclose to partners' health issues or intentions about participation or to attend ANC together with the wife since others who go against the rules, religious leaders are sought for spiritual cleansing after the visit (Abass *et al.*, 2012).

2.3.3 Care worker preference

Daniele (2021) research indicated that male partner participation in maternity care and social support for child bearing women should be universal. However Cultural values including traditional beliefs makes some couples to trust traditional maternal activities

compared to modern medicine and skilled health care. The values and beliefs are reasons for reliance on traditional birth attendants, who are considered more secretive and friendlier than professional healthcare workers (Jammeh, *et al.*, 2011). In rural Gambia study (Jammeh *et al*,.2011) showed that certain cultures, have identified a general conceptualization associated with pregnancy and poses a significant obstacle to male partners full involvement in ANC. In these cultures, only, a traditional female birth attendant or a traditional healer should attend to antenatal needs, conduct a delivery or escort a pregnant woman to a health facility in case of pregnancy complications like antepartum hemorrhage (Clement *et al.*, 2016). In addition, according to certain cultures, certain women too do not like to be seen with a male partner attending the ANC services (Byamugisha *et al.*, 2010). Further western Kenya research by (Onyango, 2010) has shown that some male partners strictly adhere to culture and do not allow the partner to attend ANC but to consult with traditional authorities from a given village or location for ancestral blessings and care. Again, the elders decide the traditional birth attendant to consult about fetus condition failure to which the couple is considered as outcasts by the community which enhance denying male partner involvement in partner's pregnancy (Kululanga *et al.*, 2012).

2.4 Institutional determinants of male police officers' involvement in antenatal care

2.4.1 Distance

Comparatively globally, researchers have found that there are important benefits when men are involved in antenatal health services of a pregnant partner (Alosio *et al.*, 2011). Study findings from Uganda showed that health facilities are few and located far from the people especially in rural areas where majority of the population is located making the health services such as counseling and testing for couples at antenatal clinic inaccessible (Gabrysch, 2009). Research found that men preferred the health services to be implemented and extended to villages or close to homes in order to save them the

costs of time and travel fee (Uganda Policy, 2007-2014). Locally, research on urban-rural differences in delivery of antenatal care and male partner involvement in settings identified as high quality and moderate quality showed that urban women were significantly more likely to be escorted by partners for care visits than rural women associated to short distance and easy facility accessibility (Kato-Wallace *et al.*., 2014).

2.4.2 Gender preference

Globally, overall reproductive health programs have many female health workers than men meaning that women have control over the ANC services mostly free from male domination or co-workers (Nasreen *et al.,* 2012). At the male health centers, seropositive men form support groups both reactive and non-reactive men are counseled on the importance of accompanying pregnant partners for prenatal care visits (Manda-Taylor *et al.*, 2017).

In a study on Changing times, Gender roles and relationships in maternal, newborn and child health in Malawi (Manda-Taylor *et al.*, 2017) showed that men receive education on issues that are usually taboo for men such as the importance of exclusive breastfeeding for seropositive mothers (Straighten *et al.*, 2013). However, in Kenya female staff dominates most clinics, which is usually off-putting for male policemen accompanying a female partner to ANC causing delays in decision making and availing transport for the pregnant partner for ANC purposes (Roth & Mbizvo, 2010**).**

Health planners are still reluctant to engage equal male to female ratio care workers in prenatal care centers. In certain settings, planners should have programs that serve men only, or integrate men's services into existing ANC services which is easier and more cost-effective. The experience of Pro-familia pays attention to men's needs and treating men respectfully which helps to attract more men as partners and be involved in ANC. In less established clinics men have been forbidden in prenatal wards (White, Dynes, Rubardt, Sissoko, & Stephenson, 2013).

In a literature review it has been found that in many occasions male partners have negative attitude towards female care workers and may not wish the pregnant partner to be attended to by females but male care workers. In addition, men indicated displeasure towards attending appointments with the pregnant woman especially when the couples are seropositive or discordant due to ANC associated stigma in a health system that is dominated by women (Namasivayam, 2012).

2.4.3 Health workers reactions

Ditekemena (2012) research on Determinants of male involvement in maternal and child health services in sub-Saharan Africa expressed views that some of the reactions from care givers towards men accompanying pregnant women to antenatal clinic are unacceptable. The language used at the clinic is not understood and seems abusive. In instances where men mistakenly entered a room while the care provider is in the process of offering care he/she shouts at the male partner and sends him out of the examination room which discourages men's future visits. Further (Jammeh *et al.,* 2011) study on barriers to emergency Obstetric Care Services in rural Gambia showed that most men indicated that health care providers are few and overworked to handle the huge number of ANC clients due to free maternal care and often experience burn-out. The researcher established that addition of the male partners in the clinics is an added burden to the care workers (Jammeh *et al.*, 2011).

Easendi,*et al.*,(2011) says that many researches reports have shown that most interviewees reported difficulties of being in clinics with the pregnant partner and the reasons associated with the facilities are heavy population of pregnant women and limited space to accommodate those with male partners. To affirm this, (Gabrysch and Campbel, 2009) observational study revealed that few husbands who escorted the wives to clinics are at times asked to go out to allow pregnant women full attention by the care giver. Further, (KAIS, 2014) report says that some of the facilities in some parts of Kenya workers are good, friendly, avail privacy and accept men who in turn open up and

are not afraid of a disclosure about a pressing heath need especially n seropositive situations (KAIS, 2014).

2.5 Theoretical frame work

The research was based on social network theory by John Arundel Barnes, who is known as the first person to use the concept of social network in a scientific context and describe patterns of social relationships (Daniele, 2021). Social network is related to social support as a web between people who provide social support and describe the structure, processes and functions of social relationship linkages that surround individuals. Social support is one of the important functions of social relationships and serves as a "protective" factor which assists in overcoming effects of stress on health (Sapkota, *et al.*, 2010).

2.5.1 Core assumptions

Social relationships have a great impact on health and positive behavior changes towards health and it is closely related to health components of social integration which refers to the existence of social network, social ties, and social support (Yende, Van Rie., West, Bassett & Schwartz, 2017). Social network and social support help people cope with stressful events and enhance physical and psychological well-being. Four types of social supports are distinguished.

1. Emotional support is associated with sharing life experiences and involves the provision of empathy, love, trust and caring (Stapleton *et al.*, 2012).
2. Instrumental support involves the provision of tangible services that directly assist a person in need. It is provided by close friends, husbands, colleagues and neighbors (Roth & Mbizvo, 2010).
3. Informational support is giving of advice, suggestions, and information that a person can use to address problems (Stapleton *et al.*, 2012).

4. Appraisal support is provision of information that is useful for self-evaluation purposes, constructive feedback, affirmation and social comparison (Yende *et al.*, 2017).

2.5.2 Theory application to the study

Social network theory is useful in social support and it is ideal for understanding the interpersonal influences and health-seeking behaviors of the pregnant woman and male partner involvement in the antenatal care. This theory may be used for promoting health and alter social cultural values and beliefs about antenatal activities, economic or facility determinants of male partner involvement in prenatal care. The theory plays part to support behavior change and it is relevant to male partner involvement in ANC especially when considering partnership patterns, social behavior, and positive relationships. It focuses on benefits associated with male partner involvement in antenatal care and importance of provision of various necessary supports to the pregnant partner as social influence needed for the women's wellbeing thus alleviating effects of stress associated with pregnancy, while at the same time it further appreciates that pregnancy directly involves two people involved in social ties (Stapleton *et al.*, 2012).

Social networking and support indicate that, male partner participation in ANC increases spousal discussion about sexual risks and behavior change (Yende *et al.*, 2017). This becomes critical in discordant couples, where men's involvement in testing may enable the couple to address condom use, decrease sex with outside partners and anti-retroviral adherence if HIV positive to prevent HIV and other sexually transmitted infections transmission to the uninfected partner and fetus (Sapkota *et al.*, 2011).

Informational support from care providers involves the provision of advice, suggestions, and information that the couple can use to address problems (Nasreen *et al.*, 2012). This includes health promotion using health messages and counselling with the aim of raising knowledge about obstetric conditions. It includes explaining to the couples the outcome

of for example laboratory results ultra-sound report and findings of physical examination. It also includes information on early detection and required treatment of pregnancy complication and disease problems such as Pre-eclampsia, tuberculosis, Malaria and diabetes control. Other support includes information on emergency readiness, birth preparedness and prevention of maternal and neonatal tetanus, anaemia and foetus complication like congenital spinal bifida (Redshaw & Henderson, 2013).

Informational support alleviate cultural believes, social undermining and expression of negative criticisms to the male partner from other men or neighborhoods where men who give social support to pregnant women are subjected to mockery (Roth, & Mbizvo, 2010). Information, education, and communication through health care messages during ANC visits, advertisements, and motivation talks on male partner involvement in ANC promote interest and men decide to participate in maternal care (Vermeulen *et al.*, 2016).

Appraisal support involves the provision of constructive feedback that is useful for self-evaluation concerning ones and others health and taking required steps towards personal and others health needs. For instance, affirmation of wellness in maternal fetal conditions after physical examination of negative or positive HIV results. More support involves assisting the woman and the partner to identify and adopt self- determined steps to remain negative or adherence to anti-retroviral therapy (White *et al.,* 2013). Further ,teaching male partners the essential elements to prevent maternal deaths as part of appraisal support includes recommended antenatal visits, skilled birth attendance with emergency backup such as doctors, nurses and midwives who have the skills to manage normal deliveries and recognize the onset of complications, emergency obstetric causes of maternal deaths and postnatal care which is up to the sixth week following delivery when bleeding, sepsis and hypertensive disorders can occur. The appraisal support encourages male partners to understand dire paternal involvement to maternal health needs, which are missed when men fails to accompany partners to antenatal clinic appointments.

Instrumental support involves the provision of tangible services from the male partners or care givers that directly assist the pregnant woman. Male involvement leads to supporting the spouse financially and enables utilization of ANC services and early male partner decision making thus a reduction in the first two phases of delays thereby altering maternal health positively. Care giver provides instrumental support from a facility by timely providing necessary antenatal health care, meeting needed emergency care, protection from injury or further health danger and prevention of infection. Emotional support during pregnancy is associated with sharing paternal social relationship, men encouraging the female partners to seek antenatal care, provision of company when attending antenatal clinic and helping her keep her appointments. It also includes showing love, trust, and unconditioned acceptance while eating and sleeping together aids in relieving anxiety.

2.6 Conceptual framework

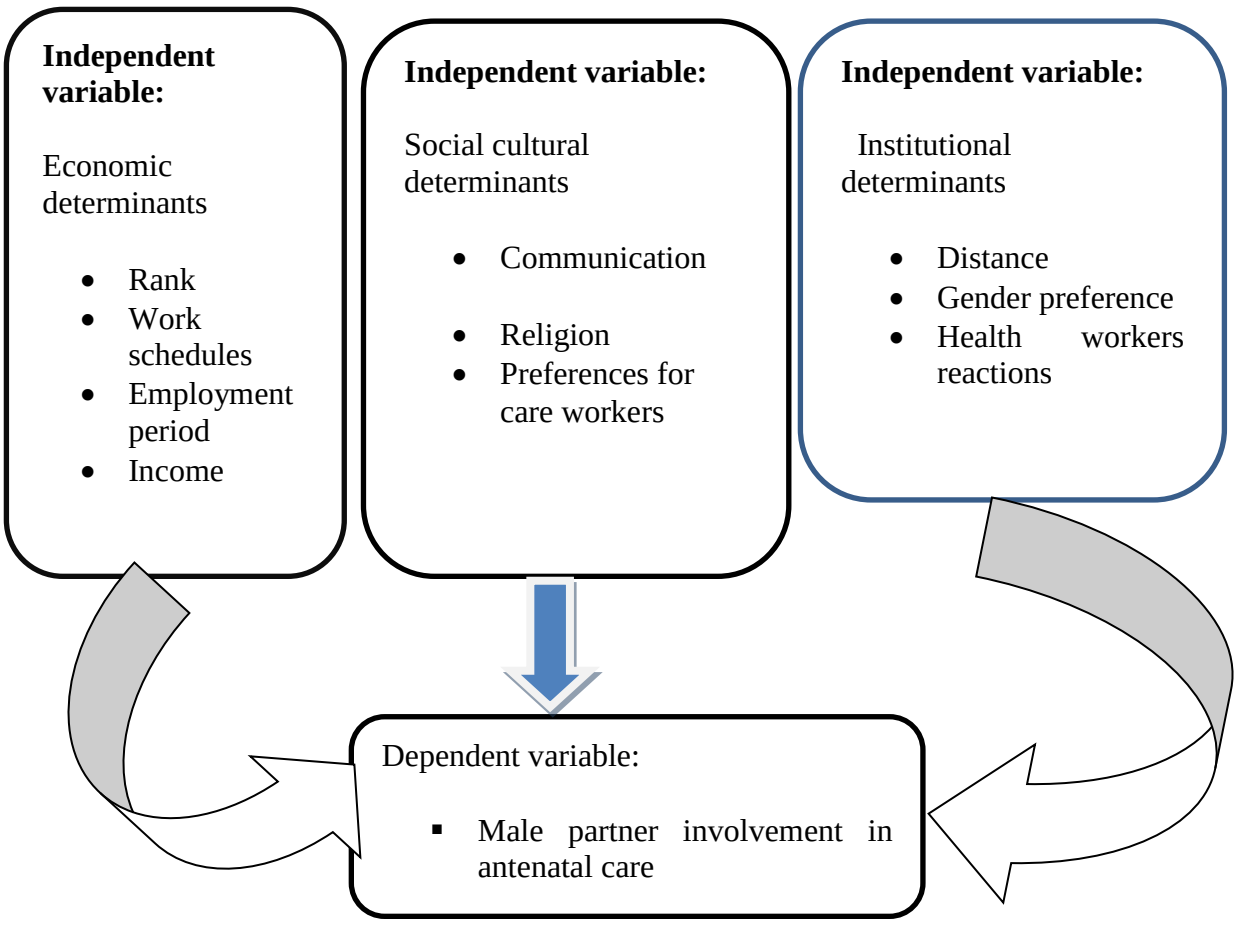


Figure 2.1: Conceptual Framework

Conceptual framework illustrated in figure 2.1, was utilized in order to meet the objectives of the study. Male partner involvement in antenatal care is conceptualized as dependent variable on independent variables such as economic, socio-cultural and institutional determinants to male partner ANC attendances.

CHAPTER THREE

STUDY METHODOLOGY

3.1 Introduction

This chapter consists of the research design, the sturdy area, population, sampling procedures and sample size determination. It also includes research instrument, reliability, validity, data collection procedures, data analysis, ethical considerations and limitations of the study.

3.2 Study design

The researcher used analytic cross-sectional design which is ideal for such a study where sampling from the population was done and data collection from the eligible sample was at one point in time under natural setting. Its application was relatively quicker and cheaper to undertake and the results can be easily inferred to the larger population. It

allowed collection of quantitative data. Descriptive survey obtained information that described existing phenomena and the findings are presented through tables and percentages.

3.3 Study area

The study was carried out at Anti-Stock Theft Unit in Gilgil ward of Nakuru County situated 4 kilometers from Gilgil town northwards along Gilgil-Dundori road. It is the headquarters for the police officers dealing with livestock theft in the republic of Kenya. The area is bordered by a heavily populated slum on its' immediate west while National Youth Service is located to its' far West. Fifth Kenya Rifles is located at North West and Kenya Western Command is at the East. On its North East ASTU is divided into two by Moredat River which drains to Lake Naivasha after joining the Malewa River. Still on the same direction there is a fast shrub which is a habitat for wild animals. The North of ASTU is an agricultural area with largest portion for Josiah Mwangi Kariuki (Kariuki, 2020) ranch which is part of catchment area for Anti-Stock-Theft Unit Health facility.

There are two climatic seasons in this area, a long dry season which stretches from August to March and a short rainy season from April to July. Anti-Stock Theft Unit was selected because of its urban and rural characteristics as well as its rich diverse and more proportionate ethnic distribution within the police force which provided the opportunity to involve informants from different ethnic groups in the study, which further provided broader understanding of the subjects in terms of individual and cultural variations. Additionally, literacy rate is higher in this population and health services are fairly reachable. Therefore, the generated findings gave a feeling of what it would have been obtained in the rural communities where services are less accessible and the literacy rate is lower. Again, greater Gilgil ward population is formed by forces like the police, the Kenya army and National Youth Service communities who have the same characteristics and therefore results of the study are ideal for generalization.

3.4 Study population

The study population was 2582 male police officers from Anti Stock Theft Unit in Gilgil ward of Nakuru County. The senior police officers were 7 gazetted suppritenants, chief inspectors 33, inspectors 44, while other officers like sergents were 54, corporals 365 and constable were 2079 as illustrated in the table below.

Table 3.1: Rank Distribution

Suppritenants	Chief inspectors	Inspectors	Seargents	Corporals	Constables	Total
7	33	44	54	365	2,079	**2,582**

Source: ASTU Daily strength record

3.5 Sample size determination

Anti-Stock Theft Unit had a total of 2582 male police officers and therefore Fishers formula was used to calculate the sample size.

$$n=z^2p\ (1-p)\ /\ d^2$$

Where

z is the 2 value for the corresponding confidence level (1.964 95% confidence)

d is the margin of error (0.05= +_ 5%)

P is the estimated value for the proportion of a sample that has the condition of interest.

$n= 1.96^{\ 2}\ p\ (1-p)\ /0.05^2$

$n = 1.96^2\ 05(1-0.5)\ /\ 0.05^2$

n=3.8416 of 0.25 / 0.0025

n = 0.9604 / 0.0025

n = 384.16

n=384

Population correlation for proportion target population 2582

Sample size adjusted using equation;

nf = n / 1+n/N.

Where;

nf= desired sample size

N= Estimated population in the study area

n=calculated sample size =384

nf=384/ (1+384/ 2582) = 334.284558=334

Therefore, sample population was 334 subjects

3.6 Inclusion/Exclusion criteria

3.6.1 Inclusion criteria

- Male Police officers working at Anti-Stock-Theft-Unit in Gilgil ward of Nakuru County.
- Aged between 20 to 60 years
- Ranks ; constables, corporals,seargents, inspectors, chief inspectors and suppritenants.
- Married men whose wives were or have been pregnant

3.6.2 Exclusion criteria

- Police officers who were not able to participate due to sickness.
- Police officers who were off duty.
- Police officers who were not willing to participate in the study.
- Those with other ranks

3.7 Sampling procedures

Simple random sampling procedure was carried out on 2582 male police officers to get 334 subjects. This sampling procedure was found to be appropriate since its use enabled to avoid loss of the subjects through duty relocation since this population is prone to emergency duty assignments or transfers at any time of day which would have affected results of the study.

The written, folded and thoroughly mixed 2582 pieces of papers with a YES in 334 papers and a NO in 2248 papers, were put in a container for the officers to pick from. Those who picked YES written papers were included in the study as respondents.

3.8 Data collection

Data was collected in one day using self-administered questionnaire. The first part of the questionnaire had consent information for the respondents which included introduction of the researcher, the topic, and purpose of the study, intended goal to be achieved, study benefits, and the school the researcher is in, within the University. It had information on confidenciality, free will to participate in the study, anonymity, withdrawal during the study freedom and free will objection not to be a subject of the study. The consent section was filled by those who were in the inclusion criteria. The questionnaire contained closed and open-ended questions in four divided parts from which data was gathered. The first part of the questionnaire gathered demographic data, second part

gathered economic determinants data, part three yielded data on social cultural determinants and finally, institutional determinants data was from the fourth part of the questionnaire.

3.9 Quality assurance

3.9.1 Validity and reliability of data collection tool

A sample between 1% and 10% was sufficient for pre-testing and test-retest and therefore the standard 10% was adopted to get subjects for pilot study from Gilgil Sub-County police Station. The pre-test was done to ensure validity of the data collecting tool and test re-test was done to establish its reliability. Out of a population of 300 officers, 30 subjects, selected through simple random sampling procedure and had same characteristics as the other subjects in the inclusion criteria took part in pre-testing and test re-test.

a) **Validity**

Validity means that the research tool measures acutely what it is meant to measure. To establish the validity of the research instruments, a pre-test study was carried out before the actual data collection day among police officers from Gilgil Sub-county police station since these were not to be included in the final research study. This helped in finding out whether the data collecting tool would measure what it was intended to measure and also to shed light on whether the respondents interpreted all the questions in the same way. No amendments were made on the tool to up -grade its validity.

b) **Reliability**

Reliability is the measure of the degree to which research instruments give similar results over a number of related trials producing similar results consistently. To assess reliability of the data collection tool a test-retest was done. The procedure involved

administering the tool to the randomly selected sample and re-administering the same questionnaire again to the same group then the researcher assessed consistency between the two answered tools. In this case there was consistency and therefore no adjustments were done on the tool and so it was adapted as it was.

3.9.2 Training of research assistants

To ensure quality data collection, five registered community health nurses from Gilgil Sub-County Hospital were trained for one day as research assistants and worked closely with the researcher. These nurses were preferred because they have minimum level of education, are knowledgeable, trainable and could do return demonstration easily. In addition, they had the ability to understand and explain to the respondents any question on the questionnaire in either English or Kiswahili.

3.9.3 Data collection procedure

Data collection was done by the investigator assisted by five trained research assistants during the morning parade of the interview day. The subjects who consented were enrolled into the study and then interviewed using structured questionnaires. Questionnaire was suitable because data collection was quick and ideal to handle large data, and respondents had time to give well thought answers. The investigator ensured high quality data collection by checking through the questionnaire immediately, and any missing or unclear responses to the questions, was corrected by requesting for additional time for clarification of the responses.

3.10 Data management: Data entry, analysis and presentation

Data was coded, and organized with help of statistical package of Social Sciences (SPSS). Descriptive analysis was done on demographic characteristic of the respondents, economic, social cultural, institutional determinants and male participants attending

antenatal care with the partner. On inferential report, bivariate analysis, Chi square and adjusted odds ratio analysis was conducted to investigate economic, social cultural and institutional determinants associated with male partner participation in ANC. Data was then presented in form of tables and percentages.

3.11 Ethical consideration

Approval and authority were sought and granted from,

- JKUAT school of Nursing research committee approved the proposal and referred the researcher to JKUAT Ethical review committee who reviewed and approved.

- National Commission for Science Technology and Innovation granted approval to proceed to Nakuru County where research was to take place.
- Nakuru County Commissioner approved the proposal and referred the researcher to the director of education in Nakuru County.
- Nakuru Director of Education approved the proposal and referred the researcher to County Director of Health Services.
- Nakuru County Director of Health Services referred the researcher to Sub-County Director of Health Services after approving the proposed study.
- Gilgil Sub-County Medical Officer of Health gave approval and referred the researcher to Officer Commanding Garrison at Anti-Stock-Theft-Unit.
- Officer Commanding Garrison at Anti-Stock-Theft-Unit .in Gilgil ward approved the proposal and granted permission for data collection.
- Participants gave voluntary informed written consent without coercion after reading the information.
- Right to terminate participation during data collection time was allowed since participation was free will.

- Subjects anonymity and confidentiality was maintained where respondents were asked not to write any name anywhere on the questionnaire.
- The collected data was treated with utmost confidentiality by codding for each subject to avoid attaching information to the respondents.

3.12 Limitations

- Research was restricted to Gilgil Anti-Stock Theft Unit of Gilgil Ward in Nakuru County.
- Salary alone as an income source was tested to assess its association between male police partners and antenatal care participation.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents demographic characteristics of the respondents and results after data analysis. The findings are organized as per objectives and shown in descriptive and inferential formats then presented in tables, pie chart and percentages. Chi square tests for association was carried out and adjusted odds ratio logistic bivariate regression analysis calculated to investigate the determinants associated with male partner participation in ANC.

4.2. Descriptive analysis

4.2.1 Respondents demographic characteristics

Table 4.1 shows slightly lower than half (47.9% n=160)) of the respondents were aged between 20 and 30 years while 10.5% (n=35) were aged between 51 and 60 years. Close to two thirds (62.6% n=210) of the subjects had one wife with only a few 3% (n=10) having more than three. Majority (62.9% n=209) had one child while 26.6% (n=89) had more than three.

Table 4.1 Respondents Demographic Characteristics

Responses	Frequencies (n)	Percentages (%)
Age in Years		
20-30	160	47.9
31-40	90	26.9
41-50	49	14.7
51-60	35	10.5
Number of Wives		
One	210	62.6
Two	90	26.9
Three	24	7.2
More than three	10	3
Number of children		
One	209	62.6
Two	25	7.5
Three	11	3.3
More than three	89	26.6

4.2.2 Economic determinants of male police officers' involvement in antenatal care

As indicated in table 4.2, significant differences with regard to ranks distribution are shown. Slightly less than a half (47.9% n=160) of the repondents were constables, corporals were 31.4% (n= 105) while senior ranks from sergeants to suppritendant were 20.7% (n=69). Majority (65% n=217) of the respondents indicated 1-5 months work schedules, 6-10 months was reported by 33% (n=110) while a minority 2% (n=7) reported work schedules of more than 10 months. Slightly more than a half (51.8% n= 173) of the subjects had worked for 10-20 years, 30.2% (n=101) had 21-30 years' work experience, 11.4% (n=38) reported 31-40 years' work experience and only 6.6% (n=22) had worked for over 40 years. More than three quaters (78.4% n=262) of the respondents earned a net salary of between 20-40 thousand Kenya shillings 9.9% (n=33) earned between 41000-60000 Kenya shillings, 6.3% (n=21) earned between 61000-80000 Kenya shillings and only 5.4% (n=18) earned above 80 thousand Kenya shillings per month.

Table 4.2 Economic determinants

Responses	Frequences (n)	Percentages (%)
Ranks		
Suppritendant	1	**0.3**
Chief inspectors	4	**1.2**
Inspectors	10	**3.0**
Sergents	54	**16.2**
Corporals	105	**31.4**
Constables	160	**47.9**
Work schedules		
1-5months	217	**65**
6-10 months	7	**33**
Above 10 months	110	**2**
Employment period		
10-20 years	173	**51.8**
21-30 years	101	**30.2**
31-40 years	38	**11.4**
>40 years	22	**6.6**
Net income		
20000-40000	262	**78.4**
41000-60000	33	**9.9**
61000-80000	21	**6.3**
Above 80000	18	**5.4**

4.2.3 Social-Cultural determinants of male police officer's involvement in antenatal care

As shown in table 4.3, more than half (61% n=204) of the respondents were not aware that communication is important among couples, 16.8% (n=56) agreed that it is important and 22.2% (n=74) reported it is not true that communicaton is important between couples. The findings showed that (65.9% n= 220) of the subjects agreed affiliation to religion impairs male partners participation in antenatal care while 34.1% (n=114) disagreed. Majority (77.2% n=258) of the respondents preferred traditional birth attendants compared to 15.6% (n=52) who preferred health care givers for care of the pregnant partners. Mother in-law as ANC care giver was cited by 1.2% (n=4) and 6% (n=20) preferred traditional healers.

Table 4.3 Social-Cultural Determinants

Responses	Frequency (n)	Percentages (%)	
Communication is vital			
True	56	**16.8**	
False	74	**22.2**	
I dont know	204	**61**	
Religion impairs male ANC attendances			
Agree	220	**65.9**	
Disagree	114	**34.1**	
Preferred ANC provider Traditional birth attendants	258	**77.2**	
			77.2
Care providers	52	**15.6**	
6Mother in-law	4	**1.2**	
Traditional Healers	20	**6**	

4.2.4 Institutional determinants of male police officers' involvement in antenatal care

On distance as shown on table 4.4, more than half (60.2% n=201) of the respondents who reported health facility was more than twenty kilometers away and 9% (n= 30) of those who reported facilty was twenty Kilometers away felt that the health facility was far in terms of distance while 29.6% (n= 99) and 1.2% (n=4) cited facility being less than 10 kilometers and less than 5 kilometers respectively. Slightly less than half (44.6 % n= 149) of the subjects opined that health workers had wanting reactions, 27.5% (n=92) felt health workers were approachable and 18.9% (n= 63) indicated care workers were ignorant while 9% (n= 30) posted care workers are good, kind and friendly. As

shown in table 8 majority (91% n=304) of the participants preferred males to care for the pregnant partners as opposed to 9% (n=30) who preferred females.

Table 4.4: Institutional determinants of male police officers' participation on antenatal care

Responses	Frequency(n)	Percentages %
Distance		
More than twenty Kilometers	201	**60.2**
Twenty Kilometers	30	**9**
Less than ten kilometers	99	**29.6**
Less than five kilometers	4	**1.2**
	30	**9**
Health workers reactions		
Approachable	92	**27.5**
Ignorant	63	**18.9**
Wanting response	149	**44.6**
Gender preference		
Females	30	**9**
Males	304	**91**

4.2.5 Male participants attending antenatal clinic.

Table 4.5 shows majority (38.8% n=52) of the subjects who accompanied the partners to the ANC were sergeants, 34.3% (n=46) were constables while 17.2 (n=23) were corporals. Inspectors were 5.97 (n= 8), chief inspectors were 2.98 (n=4) and the least were the superintendents (0.746 (n=1). For those who did not accompany the partners to ANC majority 57 % (n= 114) were constables while 41% (n=82) were corporals.

Table 4.5 Male police officers Participants in Antenatal Care

	Frequency(n)		Percentages (%)	
Male participants in antenatal care	Yes	No	Yes	No
Superintendents	1	0	0.746	0
Chief inspectors	4	0	2.985	0
Inspectors	8	2	5.970	1
Sergeants	52	2	38.805	1
Corporals	23	82	17.164	41
Constables	46	114	34.328	57

4.3 Inferential analysis

4.3.1. Economic determinants of male police officers' involvement in antenatal care

Table 4.6 shows bivariate analysis of economic determinants associated with male participation in ANC. The study revealed that all determinants p value was above significant level hence were not significantly associated with male participation in antenatal care.

Table 4.6: Bivariate Analysis of Economic Determinants on Male police officers Participation in ANC

Economic Factors	Male participation in antenatal care Yes n (%)	No n (%)	Chi-square value	DF	p value
Ranks					
Corporal	23 (6.88)	82(24.55)	1.603	5	0.206
Constable	46 (13.77)	114 (34.1)			
Sergeants	52(15.56)	2(0.59)			
Inspectors	8(2.39)	2(0.59)			
Chief Inspectors	4(1.19)	0(0)			
Superintendent	1(0.29)	0(0)			
Work Schedule					
1-5 months	154(46.1)	51(15.3)	8.879	2	0.353
6-10 months	51(15.3)	38 (11.4)			
Above 10 months	14 (4.1)	26 (7.8)			
Employment period	191(57.1)	131(39.2)			
10-20 years					
21-30 years	12 (3.6)	0 (0)	0.671	1	0.413
Net income					

20000-40000	71(21.4)	60(17.9)	2.94	3	0.401
40000-60000	107(32.1)	36(10.7)			
60000-80000	24(7.1)	24(7.1)			
Above 80000	0(0)	12 (3.6)			

Table 4.7 shows adjusted odds ratio logistic regression analysis which was conducted to investigate the economic determinants associated with male participation in ANC. From the results, none of the economic determinants was significantly associated with male participation in ANC. Subjects who cited work schedules of above 10 months were 2.6436 times more likely to participate in antenatal care compared to those who cited 1to 5 months' work schedules. Participants who indicated 21-30 years' work experience were 2.1582 times more likely to participate in care compared to those who indicated 10-20 years' work experience. Subjects who earned between 40000-60000 Kenya shillings were 1.861 times more likely to go to the clinic visits compared to those who earned between 20000-40000 Kenya shillings.

Table 4.7: Adjusted Odds Ratio Analysis of Economic Determinants Associated with Male police officers Participation in ANC.

Male participation	Odds Ratio	Std. Err.	Z	P>z	[95% Conf.	Interval]
Ranks						
Corporal	Reference					
Constable	0.5430	0.4297	-0.77	0.44	0.1151	2.5612
Sergeants	1.9154	1.58894	0.78	0.433	0.37837	9.73575
Inspectors	1.92871	1.252374	1.01	0.321	0.54011	6.8899
Chief Inspectors	0.8026	0.2507	-0.7	0.482	0.4351	1.4805
Superintendents	1.0439	0.0636	0.71	0.481	0.9263	1.1763
Work Schedule						
1-5 months	Reference					
6-10 months	1.4733	1.3697	0.42	0.677	0.2382	9.1129
Above 10 months	2.6436	2.7387	0.94	0.348	0.3470	20.1387
Duration of employment						
10-20 years	Reference					

21-30 years	2.1582	1.2709	1.31	0.191	0.6805	6.8445
Net Income						
20000-40000	Reference					
40000-60000	1.861	0.969	1.19	0.233	0.670	5.168
60000-80000	0.521	0.663	-0.51	0.609	0.042	6.323
Above 80000	1.361	0.650	0.65	0.518	0.533	3.472

4.3.2. Social cultural determinants of male police officer's involvement in antenatal care

Table 4.8 shows bivariate analysis of social cultural determinants associated with male police officers participation in Antenatal Care. The study showed that religion (p=001) and the preferred care provider (p=001) were significantly associated with male participation.

Table 4.8: Bivariate Analysis of Social Cultural Determinants of Male police officers Participation in Antenatal Care

	Male participation in antenatal care				
Social cultural factors	Yes	No	Chi-square value	DF	p value
Communication					
True	107 (32.1)	12 (3.6)	5.78	2	0.056
False	48 (14.3)	71 (21.4)			
I do not know	48 (14.3)	48 (14.3)			
Religion impairs male ANC attendances					
Agree	143 (42.9)	131 (39.3)	3.939	1	<0.01
Disagree	60 (17.9)	0 (0)			
Preferred ANC provider					
Traditional birth attendant	24 (7.1)	107 (32.1)	179.6	2	<0.01
Health care provider	167 (50)	12 (3.6)			
Mother-in-law	12 (3.6)	12 (3.6)			

As shown in table 4.9, subjects who agreed religion impairs male partner involvement in antenatal care were 2.46 times more likely to participate in antenatal care compared to those who disagreed. Those who preferred health care provider were 46% times less likely to participate in antenatal care compared to those who preferred traditional birth attendant. Participants who preferred mother-in-law as the care providers were 43% times less likely to participate in ANC compared to those who preferred traditional birth attendant.

Table 4.9 Adjusted Odds Ratio Analysis for Social Cultural Determinants Associated with Male police officers Participation in ANC

Male participation	**Odds Ratio**	**Std. Err.**	**Z**	**P>z**	**[95% Conf.**	**Interval]**
Couple communication						
True	Reference					
False	0.8515613	0.274183	-0.5	0.618	0.453053	**1.600601**
I do not know	1.541138	0.426854	1.56	0.118	0.895534	**2.65217**
Religion impairs men ANC participation						
Disagree	Reference					
Agree	2.466398	0.746797	2.98	0.003	1.362477	**4.464751**
Preferred care provider						
Traditional birth attendant	Reference					
Health care provider	0.5441425	0.149048	-2.22	0.026	0.318095	**0.930827**
Mother-in-law	0.5786855	0.162168	-1.95	0.051	0.334122	**1.002258**
_cons	0.3178445	0.120809	-3.02	0.003	0.150898	**0.669492**

4.3.3 Institutional determinants of male police officer's involvement in antenatal care

Table 4.10 shows bivariate analysis of institutional determinants associated with male participation in ANC. The study showed that gender preference (p=0.01) and the health care workers reactions (p=0.01) were significantly associated with male participation.

Table 4.10: Bivariate Analysis of Institutional Determinates of Male police officers Participation in ANC

Institutional Factors	Male participation in antenatal care		Chi-square value	DF	p value
	Yes	No			
Distance					
More than 20 Kilometers	71(24.1%)	96(28.6%)	4.682	3	0.197
Twenty Kilometers	35(10.7%)	0(0)			
Less than ten kilometers	48(14.3%)	24(7.15%)			
Less than 5 kilometers	48(14.3%)	12(3.6%)			
Gender preference					

Male	107(32.1%)	119(35.7%)	52.9	1	<0.01
Female	96(28.6%)	12(3.6%)			
Health workers reactions					
Good	107(32.1%)	12(3.6%)	120.03	3	<0.01
Approachable	71(21.4%)	35(10.7%)			
Ignorant	12(3.6%)	12(3.6%)			
Wanting response	12(3.6%)	71(21.4%)			

Multivariate Logistic regression

Table 4.11 shows adjusted odds ratio analysis of institutional determinants associated with male participation in ANC. The participants who were more comfortable with female health personnel were 87% times less likely to participate in ANC compared to those who were comfortable with male health personnel. The subjects who indicated that the health care workers were ignorant were 86% times less likely to participate in ANC care compared to those who indicated that health care personnel were good.

Table 4.11: Adjusted Odds Ratio Analysis of Institutional determinants Associated with Male police officers Participation

Male participation	**Odds Ratio**	**Std. Err.**	**Z**	**P>z**	**[95% Conf.**	**Interval]**
Distance						
More than20 Kilometers	Reference					
Twenty Kilometers	0.7783	0.9336	-0.21	0.835	0.0741	8.1701
Less than ten kilometers	4.9059	5.8562	1.33	0.183	0.4728	50.9097
Less than 5 kilometers	3.2860	4.0564	0.96	0.335	0.2923	36.9351
Gender preference						
Male	Reference					

Female	0.1372	0.0997	-2.73	0.006	0.0330	0.5697
Health care reactions						
Good	Reference					
Approachable	1.8567	1.2652	0.91	0.364	0.4884	7.0594
Ignorant	0.1483	0.1360	-2.08	0.037	0.0246	0.8949
Wanting response	0.7657	0.5570	-0.37	0.714	0.1840	3.1864

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Chapter five presents discussion of the research findings in relation with the findings of existing similar studies. The chapter also captures the conclusion of the study and based on the findings the research advances numerous recommendations.

5.2 Discussion

5.2.1 Economic determinants of male police officers' involvement in antenatal care

The study established that participants who accompanied the partners to the first antenatal care majority were sergeants and constables who falls in the lower ranks. According to (Abbas, *et al.*, 2012), low ranked cadres in police service experience challenges when seeking to be engaged in antenatal care of a pregnant partner. Further, (Abbas, *et al.*, 2012) adds that other studies have shown that few men accompany the partners to antenatal clinics and even fewer participate in couple counseling due to the ranking in social status. (Pell *et al.*, 2013) disagrees with this and cites a study which established that men with established or with no ranks have been to antenatal cubicles which encourages future visits in a current pregnancy or whenever the partner is pregnant. According to the researcher, male police involvement in maternal health is desirable and efforts should be made to highlight this need to every policeman.

The study found out that subjects who reported work schedules of above 10 months were 2.6436 times more likely to engage in antenatal care compared to those who reported 1-5 months' work schedules. This finding is supported by (Sapkota *et al*., 2012) study which agrees that men in regular work schedules and well-paid jobs are likely to

participate in care compared to those in irregular work schedules and not well-paying jobs. In addition, different researchers globally, have found male partners' involvement in antenatal health is a major milestone which helps in reducing maternal morbidity and mortality when a woman receives the needed male partner participation in ANC throughout pregnancy with or without work schedules (Aluisio *et al* ., 2011). This report disagrees with (Pell *et al.,* 2013), **r**esearch report which showed that men in workforce with work schedules are less likely to accompany partners for antenatal appointments because they could lose that day's pay. This is confirmed by (Dixon *et al.,* 2014) research report which revealed that some men are on jobs schedules which are so serious that even one day's work absenteeism leads to no income for that day. In contrast, participants reported different work schedules away from the work station and away from where the pregnant partner cannot be accompanied for ANC appointments with ease which impair male partners to meet maternal health needs especially when the schedules take long.

The study revealed that, participants who had 20 -30 years' work experience were 2.1582 times more likely to participate in ANC compared to those with over 40 years' work experience. (Namasivayam, 2012) asserts that men non- involvement in maternal health has been attributed to lack of many years' economic empowerment in terms of finances which increases with years that one has worked especially in East African Countries. Research by (Matiang'i, Mojola and Githae, 2013) supports this report and asserts that work experience is important to evaluate economic gains which help to overcome challenges during partner's pregnancy and meeting antenatal care needs. Although this determinant is not significant to male partner participating in ANC, male police partners influence on women's reproductive health is recognized better during pregnancy period when men are directly involved in maternal health through ANC attendance and pregnancy support with or without work experience.

The current report revealed that respondents who earned between 40,000 and 60,000 thousand Kenya shillings were 1.861 times more likely to go with the partner to the first

antenatal clinic compared to those who earned above 80,000 Kenya shillings. This disagrees with (Onyango *et al.,* 2010) Kwale County study results which revealed that policemen earning lower pays give financial support to partners during maternity periods. Further (Onyango *et al.,* 2010) points out that the shame of being unable to provide economic support cause policemen to withdraw from being involved with the pregnant partner and meeting care needs. This is further supported by Were, (2009) who noted that it is important for a male partner to provide and use his limited coins and be an active ANC participant. Additionally, Sapkota *et al.* (2012) research showed that in lower paid workforce men are less likely to participate in ANC visits compared to men in well-paid jobs. However male police partners at Anti-Stock-Theft–Unit do not engage in pregnancy matters and few women attended ANC as noted on six months records review even though the officers earn regular salary and considering this is a public place with free maternal services.

5.2.2 Social -cultural determinants of male police officers' involvement in antenatal care

The research established that majority of respondents did not know communication between partners is important and revealed that these subjects were 1.541138 times more likely to go with the partners to ANC compared to those who agreed that communication is vital among couples. This result is contradicted by Redshaw and Henderson (2013) who has documented communication benefits involved in pregnancy including increased access to ANC. Kululanga *et al.,* (2011) research results disagrees with this and argues that, communicating about attending ANC together has very little benefit since it may result in stigmatization to those without steady partners or those who are HIV positive but kept as a secret and the infected partner fears care workers confidentiality. Theuring *et al.,* (2009) refutes this and says that communication is critical especially in discordant couples, where men's involvement in testing may enable the couple to address condom use, and decrease sex with outside partners hence helps to prevent HIV and other STI

transmission to the uninfected partner and fetus Vermeulen *et al.,* (2016) agrees and asserts that information, education, and communication through health care messages to the couples during ANC visits, advertisements, and motivation talks on male partner involvement in ANC promote communication interest and men decide to participate in maternal care.

None communication about care needs between couples is associated with none male involvement in ANC and leads to missed care workers informational support opportunities. Mohlala *et al.,* (2011) adds that, lack of communication about care seeking intentions results in men not going to the clinic appointments because men wait to be requested to accompany the woman to the proposed visit. On the other hand, Mohlala *et al*., (2011) asserts that good couple communication is associated with sero-positive disclosure and support between partners. Falness *et al*., (2011) agrees with these findings and affirms that communication enhances HIV testing, use of retroviral drugs when couples or one tests positive for HIV and exclusive breast feeding for the required period.

Majority of the respondents cited that religion impair male partner involvement in antenatal care, which agrees with (Kululanga *et al.,* 2012) who asserts that religion prevents some men from engaging in prenatal care. These findings are confirmed further, by surveyed men in Bangladesh, Egypt, and Pakistan who cited religion as one of the reasons that hinders men from participating in ANC with the female partners (Kululanga *et al.,* 2012). However, to disagree with above statements, in this study, the participants who agreed that religion impairs male partner involvement in antenatal care were 2.46 times more likely to participate in care compared to those who disagreed. Abass, *et al.* (2012) objects and adds that men, who go against religion rules by escorting the pregnant partner to the ANC, seek spiritual cleansing after clinic visits.

The study found that the subjects who preferred care workers to care for the pregnant partners were 46% times less likely to attend antenatal clinics compared to those who

preferred traditional birth attendants. This report concurs with (Abass, *et al.,* 2012) research which revealed that in certain cultures only a traditional birth attendant or traditional healers attends to antenatal needs of a pregnant woman. Fayomi (2015) further showed that traditional values and beliefs has been a conceptualization in some cultures and poses an obstacle to men to allow the pregnant woman utilization of health facilities and skilled care. Additionally, Jimmeh *et al.,* (2011) explains that these values and beliefs are reasons for reliance on traditional birth attendants who are considered more secretive and friendly compared to health care workers. Further, the couple wishes to maintain culture and blessing that comes with it from ancestors.

5.2.3 Institutional determinants of male police officers' involvement in antenatal care

The study revealed that respondents who reported that the facility was less than five kilometers away were 3.2860 times more likely to participate in care compared to those who reported facility was more than twenty kilometers away which conforms with a Ugandan policy which suggests that, care facilities should be nearer to people for easier couple's accessibility (Uganda gender policy 2012-2014). Again, it concurs with Kato-Wallace *et al.,* (2014) research review which shows that a short distance encourages male partner participation. Comparatively, studies on urban-rural settings and male partner involvement in antenatal care showed that urban women were significantly more likely to be escorted by partners for care visits compared to rural women associated to short distances (Kato-Wallace *et al.,* 2014). However, in this study, majority of the subjects indicated health facility was far in terms of kilometers making couple visits inaccessible. To disagree with this finding (Kululanga et al., 2012) argues that some male partners fail to attend appointments with the pregnant partner even when the facility is near. It is noted from results that facility is less than an hour's walk while others reported less than a kilometer away meaning the officer cohabits with the partner and ANC services easily accessible but unable to attend. This depicts that other relevant

determinants needs investigation to determine the reasons as to why the male police officers do not accompany the pregnant woman to antenatal clinic for care.

In the current study, majority of the subjects preferred males to care for the pregnant partners and a few preferred female care workers. These findings about choices of a care worker by the male partners for the pregnant women agrees with Namasivayam, (2012) research results which revealed that some women's access and utilization of health care services depends on the male partners choices. Abbas *et al.,* (2012) disagrees and shows in his study that social factors such as men who accompany wives for prenatal care and subject them to care workers choices continue to play negative roles in responses to health problems which impact negatively on the pregnant women's health and well-being needed in pregnancy. In disagreement literature review, found that in many occasions male partners may be afraid of disclosure of a partners pressing health need to female health workers (Easendi *et al.,* 2011). This report concurs with (Roth *et al.,* 2010) research report that female staff dominates most clinics, which is off-putting for men when attending seropositive groups at the ANC and the man needs expressing himself to a man who may empathize with him. Information, education and communication about paternal and maternal care need to be emphasized among policemen so that care to the female partners is availed without choice of the skilled care giver especially in emergencies.

The study established that the subjects who reported care workers were ignorant were 86% times less likely to attend antenatal care with the partner compared to those who indicated care workers were good. Majority (32.1% n=107**)** of the respondents opined care workers were good while a minority 3.6% (n=12) cited care workers were ignorant. This is affirmed and disagreed with by various researchers such as (Gabrysch and Campbell 2009) observational study which revealed that men who escorted the partners to clinics are shouted at and asked to go out which is embarrassing and discourages men in participating in clinic visits. In contrast however, research report by Siri (2011) disagrees with this and indicates that health care providers are few and overworked by

handling huge numbers of ANC clients in relation to free maternal care hence experience burn-out and therefore additional of male partners in the clinics is an added burden. Essendi *et al.*, (2011) disagrees with this report and cites that, many researchers has shown that most interviewees reported difficulties and expressed that reactions from some of the care givers towards men accompanying pregnant women are unacceptable. Further the report argues that the language used is not understood and seems abusive. Despite this, some men accompanying the partners to antenatal clinics appreciate the fact that the health care providers try a great deal to remain friendly, approachable and helpful despite the burn out and heavy workload evidenced by the fact that all women attending ANC are attended starting with those escorted by the partners.

5.3 Conclusion

5.3.1 Economic determinants influencing male police officers' involvement in antenatal care

The economic determinants which are ranks, work schedules, employment period and income were found not to significantly influencing male partner in antenatal care. P value for the tests was above 0.05 and therefore there is no significant relationship between economic determinants and male partner participating in antenatal care.

5.3.2 Social cultural Determinants influencing male police officers' involvement in antenatal care.

Religion affiliation and reliance on traditional birth attendants P value for the tests was below significant level of 0.05 hence found to significantly influence male partner participating in the antenatal care and therefore there is significant relationship between these two determinants and male police partner participating in antenatal care.

5.3.3 Institutional Determinants influencing male Police officers' involvement in antenatal care

On institutional determinants, gender preference and care workers reactions were found to significantly influence male police partner involvement in antenatal care of the pregnant partner since P value for the tests was below significant level of 0.05 and therefore there is significant relationship between these determinants and male police partner involvement in antenatal care.

5.4 Recommendations

Including male police partner's involvement in antenatal care topic in the officers' basic training is recommendation to the Ministry of defense.

Informational, educational and communicational support by care workers is recommended to male police partners.

Reframing maternal programs, equal gender training and distribution to ANC clinics is recommended to health care programmers

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APPENDICES

Appendix I: Participant's Information

Wanjiku Lucy,

P O. Box 344 – 20116,

Gilgil.

Reg.No: Hsn311/7220/2016

Tel: No. 0721557333

Email: lwanjiku2012@gmail.com

Dear Respondent,

I am a post graduate student of Jomo Kenyatta University of Agriculture and Technology School of nursing undertaking research on determinants of male partner involvement in Antenatal care (reproductive health) as a partial fulfilment for a master of science in nursing degree award.

The purpose of this letter is to request you kindly to participate in this study by filling in the questionnaire by answering all the questions as sincerely as possible to the best of your knowledge, in order to help me fulfill the objectives of this significant study. The ultimate goal of the study is to provide insight about married male police officer's involvement in partner's Antenatal care. Your taking part is entirely voluntary. You may decide not to take part or you may decide to withdraw from the study at any time without this decision affecting your opportunity to be in other studies. The information you will give will be treated with utmost confidenciality and will only be used for the

purpose of this study. To assist in concealing your identity, you sre requested not to write your name anywhere on the question paper.

Your acceptance and participation are highly appreciated.

Thank you.

Researcher; Wanjiku Lucy.

Appendix II: Respondents' Consent Form

I have read and understood what the study is about and have been able to have my questions answered. I understand that all information I give will be treated with utmost confidentiality and will be used for research purposes only and hereby give consent to take part in the study.

Respondent's number/ Code _____

Date: _____

I have explained the purpose of the study to the study participants and to the best of my knowledge has understood the purpose, risks and benefits of the study.

Researchers' Name: __Wanjiku Lucy_____

Appendix III: Respondents' Questionnaire

Instructions

Indicate by a tick (√) against given multiple choices and for others write on provided spaces.

Do not write your name anywhere in this form.

Section 1: Demographic information

1. Age in years

a.) 20-30years [ ]

b.) 31-40years [ ]

c.) 41-50years [ ]

d.) Above 51years [ ]

2. Number of wives

a.) One [ ]

b.) Two [ ]

c.) Three [ ]

d.) More than three [ ]

3. Number of children

a.) One [ ]

b.) Two [ ]

c.) Three [ ]

d) More than three [ ]

4. Which is you religion

a.) Christian [ ]

b.) Muslim [ ]

c.) Traditionalist [ ]

d.) No religion [ ]

5. What is your educational level ?

a.) Secondary [ ]

b.) Bachelor's degree [ ]

c.) Master's Degree [ ]

d.) Doctorate degree and above [ ]

Section II: Economic determinants influencing male involvement in antenatal care

6. Indicate your rank

a.) Superintendent [ ]

b.) Chief inspector [ ]

c.) Inspector [ ]

d.) Sergeant [ ]

e.) Corporal [ ]

f.) constable [ ]

7.Work schedules can be as long as ?

a.) 1-5 months [ ]

b.) 6-10months [ ]

c.) Above10 months [ ]

8. How long have you been employed

a.) 10 -20 years [ ]

b.) 2 0- 30years [ ]

c.) 30 – 40 years [ ]

d.) Above 40 years [ ]

9. Indicate your net income in Kenya shillings

a.) 20-40 thousand [ ]

b.) 40- 60 thousand [ ]

c.) 60- 80 thousand [ ]

d.) Above 80 thousand [ ]

Section III: Social-Cultural determinants influencing male partner involvement in antenatal care

10. Did you accompany your partner during to any antenatal visit?

a.) Yes [ ]

b.) No [ ]

11. Communication is important between partners.

a.) True [ ]

b.) False. [ ]

c.) I don't know [ ]

12. Religion impairs male partner involvement in antenatal care

a.) Agree [ ]

b.) Disagree [ ]

13. Who is your preferred care provider for your pregnant partner?

a.) Traditional birth attendant [ ]

b.) Health care provider [ ]

c.) Mother in-law [ ]

d.) Traditional healers [ ]

Section VI: Institutional determinants influencing male partner involvement in antenatal care.

14. How far in kilometers is the health facility?

a.) More than twenty kilometers away [ ]

b.) Twenty kilometers away [ ]

c.) Less than 10 kilometers away [ ]

d.) Less than 5 kilometer away [ ]

15. Which health personnel (gender) are you comfortable with?

a.) Male sex [ ]

b.) Female Sex [ ]

16. Heath workers reactions to couples at antenatal clinic can be rated as?

a.) Good/friendly/kind [ ]

b.) Approachable [ ]

c.) Ignorant to clients [ ]

d.) Wanting Response [ ]

Thank you for your time and participation.

Appendix VI: School Of Nursing Approval

JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
SCHOOL OF NURSING
DEPARTMENT OF MIDWIFERY
TEL: 067- 5352181-4 Extn. 4064 FAX: 067-52030 Email :midwifery@jkuat.ac.ke

26th October, 2018

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: WANJIKU LUCY – HSN311-7220/2016

The above named is a bonafide second (2nd) year student of Jomo Kenyatta University of Agriculture and Technology pursuing Master of Science in Nursing (Reproductive Health). As part of their curriculum fulfillment, the students are required to undertake a research project.

The proposal title is"**Determinants of male partner involvement in Antenatal Care at Anti-stock theft unit in Gilgil ward of Nakuru County**".

Please accord her the necessary assistance.

Thank

COD, MIDWIFERY DEPARTMENT
26 OCT 2018
JKUAT

DAINAH WANJA KARIUKI
COD, MIDWIFERY

Appendix VI: Ethics Review Committee Approval

JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
P. O. Box 62000-00200 Nairobi, Kenya Tel 0675870225 OR Extn 3209
Institutional Ethics Review Committee

January 31st 2019 **REF: JKU/2/4/896B**

Lucy Wanjiku,
School of Nursing.

Dear Ms. Wanjiku,

RE: DETERMINANTS OF MALE PARTNER INVOLVEMENT IN ANTENATAL CARE AT ANTI-STOCK THEFT UNIT IN GILGIL WARD OF NAKURU COUNTY

The JKUAT Institutional Ethics Review Committee has reviewed your responses to issues raised regarding your application to conduct the above mentioned study with you as the Principal Investigator.

The is to inform you that the IERC has approved your protocol. The approval period is from January 31st 2019 to January 31st 2020 and is subject to compliance with the following requirements:

a) Only approved documents (informed consent, study instruments, study protocol, etc.) will be used.
b) All changes (amendments, deviations, violations, etc.) must be submitted for review and approval by the JKUAT IERC before implementation.
c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the IERC immediately.
d) Any changes, anticipated or otherwise that may increase the risks to or affect the welfare of study participants and others or affect the integrity of the study must be reported immediately.
e) Should you require an extension of the approval period, kindly submit a request for extension 60 days prior to the expiry of the current approval period and attach supporting documentation.
f) Clearance for export of data or specimens must be obtained from the JKUAT IERC as well as the relevant government agencies for each consignment for export.
g) The IERC requires a copy of the final report for record to reduce chances for duplication of similar studies.

Should you require clarification, kindly contact the JKUAT IERC Secretariat.

Yours Sincerely,

Dr. Patrick Mbindyo
SECRETARY, IERC

J.K.U.A.T
DIRECTOR,
RESEARCH DEPARTMENT (RPE)
P O Box 62000-00200
NAIROBI

Setting Trends in Higher Education, Research and Innovation

Appendix VII: National Commission for Science Technology and Innovation Permit

THIS IS TO CERTIFY THAT:
MS. LUCY WANJIKU
of JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY, 344-0 GILGIL,has been permitted to conduct research in *Nakuru County*

on the topic: *DETERMINANTS OF MALE PARTNER INVOLVEMENT IN ANTENATAL CARE AT ANTI-STOCK THEFT UNIT IN GILGIL WARD OF NAKURU COUNTY*

for the period ending:
23rd May,2020

.....
Applicant's Signature

Permit No : NACOSTI/P/19/41060/29915
Date Of Issue : 24th May,2019
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

Appendix VII: Nakuru County Commissioner Approval

THE PRESIDENCY
MINISTRY OF INTERIOR AND
CO-ORDINATION OF NATIONAL GOVERNMENT

Telegram: "DISTRICTER" Nakuru
Telephone: Nakuru 051-2212515
When replying please quote

COUNTY COMMISSIONER
NAKURU COUNTY
P.O. BOX 81
NAKURU.

Ref No. CC. SR . EDU/12/1/2 VOL.IV/105

3rd June, 2019

Returned on 3/6/2019

Deputy County Commissioner
GILGIL SUB COUNTY

DEPUTY COUNTY COMMISSIONER
GILGIL SUB COUNTY
P.O.BOX 1 GILGIL
3/6/2019

RE:- RESEARCH AUTHORIZATION – LUCY WANJIKU

The above named student from Jomo Kenyatta University of Agriculture and Technology has been authorized to carry out research on **"determinants of male partner involvement in antenatal care at Anti-Stock Theft"** in Gilgil Ward of Nakuru County for a period ending 23rd May, 2020.

Please accord her all the necessary support to facilitate the success of her research.

MARY W. MWANGI
FOR COUNTY COMMISSIONER
NAKURU COUNTY

Appendix VIII: Director of Education Approval

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING OF BASIC EDUCATION

Telegrams: "EDUCATION",
Telephone: 051-2216917
When replying please quote
Email:cdenakurucounty@gmail.com
Ref.CDE/NKU/GEN/4/1/21 VOL.VIX/92

COUNTY DIRECTOR OF EDUCATION
NAKURU COUNTY
P. O. BOX 259,
NAKURU.

31st May,2019

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – LUCY WANJIKU
PERMIT NO. NACOSTI/P/19/41060/29915

Reference is made to letter NACOSTI/P/**19/41060/29915**
Dated 24th May, 2019

Authority is hereby granted to the above named to carry out research on "***Determinants of male partner involvement in antenatal care at Anti-Stock Theft Unit in Gilgil Ward of Nakuru County***" for a period ending ***23rd May, 2020***

Kindly accord him the necessary assistance.

For: COUNTY DIRECTOR OF EDUCATION
NAKURU COUNTY

AKOKO OKAYO
FOR: COUNTY DIRECTOR OF EDUCATION
NAKURU

Copy to:

Jomo Kenyatta University of
Agriculture and Technology
P.O Box 62000-00200
NAIROBI

Appendix: IX: Nakuru County Director of Health Services Approval

DEPARTMENT OF HEALTH SERVICES

NAKURU COUNTY

CHIEF OFFICER, MEDICAL SERVICES
NAKURU COUNTY
P.O BOX 2600-20100
NAKURU

Ref No. NCG/CDMS/GEN.VOL.1/288

31st May, 2019

3/6/2019
The facility I/C ASTU Dsp
kindly allow the Officer
undertake her research
as per this
Authorization

SCMOH - GILGIL

RE: RESEARCH AUTHORIZATION

This letter serves as an authorization from the Department of Health Services Nakuru for **Lucy Wanjiku** to conduct research on **"Determinants of male partner involvement in antenatal care at Anti-Stock Theft Unit in Gilgil Ward of Nakuru County".**

03 JUN 2019

The study is in line with the County Research priorities in the county research agenda and therefore the researcher is expected to present and submit the final report to the County Research and Development Unit.

COUNTY DIRECTOR OF PLANNING & ADMINISTRATION HEALTH SERVICES
31 MAY 2019
P.O. BOX 2600-20100 NAKURU-KENYA

E. KIPTOO
FOR/COUNTY DIRECTOR ADMINISTRATION AND PLANNING
NAKURU

CC:

- Lucy Wanjiku

Appendix X: Gilgil Sub-County Medical Officer of Health Approval

DEPARTMENT OF HEALTH SERVICES

NAKURU COUNTY

CHIEF OFFICER, MEDICAL SERVICES
NAKURU COUNTY
P.O BOX 2600-20100
NAKURU
31st May, 2019

Ref No. NCG/CDMS/GEN.VOL.1/288

3/6/2019
The facility I/C ASTU Unit
Kindly allow the Officer
undertake her research
as per this
Authorization

SCMOH - GILGIL

RE: RESEARCH AUTHORIZATION

This letter serves as an authorization from the Department of Health Services Nakuru for **Lucy Wanjiku** to conduct research on **"Determinants of male partner involvement in antenatal care at Anti-Stock Theft Unit in Gilgil Ward of Nakuru County"**.

03 JUN 2019

The study is in line with the County Research priorities in the county research agenda and therefore the researcher is expected to present and submit the final report to the County Research and Development Unit.

COUNTY DIRECTOR OF PLANNING & ADMINISTRATION HEALTH SERVICES
31 MAY 2019
P.O. BOX 2600-20100 NAKURU-KENYA

E. KIPTOO
FOR/COUNTY DIRECTOR ADMINISTRATION AND PLANNING
NAKURU
CC:

- **Lucy Wanjiku**

Appendix XI: Officer Commanding Garrison A.S.T.U. HQS Consent

Officer Commanding Garrison,

Anti-Stock-Theft-Unit Headquarters,

P.O.BOX 39- 20116,

Gilgil, Kenya.

31/5/2019

Email address-asturadiovoom@gmail.com

TO WHOM IT MAY CONCERN

RE: DATA COLLECTION CONSENT

The author (Wanjiku Lucy-MScN Student, JKUAT AD.No.HSN311-7220-2016/2017) of the manuscript on social-cultural determinants of male partner involvement in antenatal care at Anti-Stock-Theft- Unit is granted permission to collect data from married male police officers whose strength is 2582 deployed here currently.

Thank you.

OC GARRISON - ASTU HQS
Date. 31/5/2019
P.O. Box 39-20116 GILGIL