

CHAPTER ONE

INTRODUCTION

This study explored factors that influence the participation of men in antenatal care. It was motivated by the increasing arguments that strengthening male involvement in maternity care is important in meeting gender needs of women during the antenatal and postnatal periods, and reducing maternal mortality (World Health Organisation, 2016). The research was conducted in Lusaka urban district.

Antenatal care involves giving care to a pregnant woman from the time conception is confirmed, until the beginning of labour (Myles, 2016). Male involvement in antenatal care services refers to various ways in which men are involved in women's health during pregnancy, from a very early stage, which includes provision of finances, nutrition, physical and emotional support (Gathuto, 2014).

1.1 Background information

Involving men in maternal health care is described as a process, which is social and centers on change of behaviour in order to play a more responsible role in maternal care (United Nations, 2009). Having men at the center of women's health is an essential element that World Health Organisation (WHO) has been advocating for (WHO, 2015). The initiative to involve men in maternal health was born during the International Conference on Population and Development (ICPD) in Cairo, Egypt, in the year 1994 with the aim of member states placing much emphasis on men's responsibility in reproductive health.

Decision making in families is solely, the responsibility of a man, as such their involvement in maternal health issues will definitely have a positive impact in that this will result in a holistic maternal support during the antenatal period. Despite men having a key role in decision making (Mullick et al., 2005), traditionally, maternal health issues, and particularly, antenatal care has been treated as feminine matter (Kinanee and Ezekiel, 2009). This negative cultural practice has led to the sidelining of men and thereby, reinforcing the erroneous notion that pregnancy and child birth is feminine. (Abubakar and Galandancie, 2010).

Pregnancy and childbirth are privileged functions of women essential for the survival of our species. However, this is often accompanied with potential risks that women deserve to be protected from. This responsibility summons for collective support of the entire family notably the husband, or the significant male partner (Lindstrand et al., 2006).

The health of pregnant women is determined by many factors including socio-economic status and environmental factors. One important and crucial factor that has been neglected over the years is the role of men as determinants of health of mothers (Mullick et al., 2005). For instance, the Zambia Demographic Health Survey for the year, 2013-14 has not taken into consideration, the male involvement in antenatal care. This can be attributed to lack of tools facilitating the capturing of data on male involvement in antenatal care. This clearly demonstrates less attention paid to men's involvement in maternal health during pregnancy.

The importance of men getting involved in antenatal care cannot be over emphasised. Quality antenatal care, which encompasses male involvement, is cardinal for the enhanced health of the mother and subsequent development of the unborn baby. This is only possible if the man, who is the head of the house, as considered in the African culture, is involved from inception. Although the health personnel play a critical role in providing the care, much care comes from the male partner. This is usually in form of finances and emotional support (WHO, 2015). Therefore, lack of male involvement in maternal health care services has led to fewer women seeking antenatal services, resulting in worsening the negative maternal health outcomes (WHO, 2014).

1.2 Statement of the problem

Absence of male involvement in ANC deprives men of the much needed information given by health providers regarding the health of the mother and that of the baby, or about the role they should play during ANC. This perpetuates the negative cultural belief of maternal care being feminine, worsening the situation. Additionally, important tests for HIV and Sexually Transmitted Infections are missed. This places both the mother and unborn child at risk of HIV transmission and Sexually Transmitted Infections as health services are not offered to both the pregnant woman and the male partner at the same time (WHO, 2015). Lack of male involvement in antenatal care also denies the pregnant woman of the much needed financial support which results in poor nutrition for both the pregnant woman and the unborn child as there is inadequate food available for

consumption resulting in maternal and neonatal complications such as anaemia and low birth weight respectively.

This scenario has led to several campaigns to encourage men to get involved in ANC; this includes formulation of creative Information Education and Communication(IEC) materials in different languages, conveyance of adverts through electronic and print media.However, despite all these interventions, the number of male involvement in antenatal care still remains low (Godlove, et al., 2010). In order to persuade men to get involved in ANC, the Zambian government through the Ministry of Health enshrined in its National Sexual Reproductive health policy for 2005 the importance of involving men in the care of pregnant women. Even with all these advancements, the Zambia National Demographic Health Survey report (ZDHS) for the year 2013-2014 remains unclear on the levels of male involvement in ANC.Data collected from the Lusaka District Health Office, Health Information Management System Department (HIMS) shows less male involvement in ANC. This is shown in Table 1.1 below.

Table 1.1 Lusaka District Antenatal clinic attendances (2014-2016)

YEAR	ANTENATAL MOTHERS	MALE INVOLVEMENT	MALE INVOLVEMENT IN ANC %
2014	65,196	15,343	23.5%
2015	71,595	14,621	20.4%
2016	86,101	12,083	14.0%
Total for three years	222,892	42,047	18.8%

(Lusaka District Medical office, 2017)

Table 1.1 above shows pregnant women attendance of antenatal clinic against their male partners in Lusaka urban district for three years (2014-2016). From the data obtained, there has been a low and declining male involvement in ANC, ranging from 23.5 percent in 2014 to 14 percent in 2016. This is despite a steady increase in the number of women attending antenatal clinics for the same period.

Therefore, involving men in antenatal care leads to better understanding of the concepts of antenatal care and this promotes quality maternal and neonatal wellbeing during the antenatal period ,as the pregnant women would receive the much needed, emotional, financial and physical support. This would not only reduce the maternal and neonatal complications but also reduce overall maternal and neonatal mortality rates.

1.3 Theoretical framework

1.3.1 The Health Belief Model

In this study, the Health Belief Model (HBM) was used as the conceptual framework. This model was originally developed in 1950. Since then, it has undergone changes and updates. In 1980 a group of United States Public Health Services social Psychologists worked on the model, and wanted to explain why so few people were participating in programs to prevent and detect diseases. The HBM is a tool that scientists use to try and predict health behaviours in a particular group of people (Boskey, 2010). The model predicts the likelihood of a person taking the recommended preventive health actions and it also helps to understand a person's motivation and decision making about health services.

The underlying concept of the HBM is that health behaviour is determined by personal beliefs or perceptions about a disease and the strategies available to decrease its occurrence (Hochbaum, 1958). This is the concept on which the HBM was developed. The HBM has six major constructs that play a bigger role in influencing people's decision and these are;

a. Perceived susceptibility

Personal risk or susceptibility is thought to be one of most powerful perceptions in prompting people to adopt healthier behaviours. The greater the perceived risk, the greater the likelihood of engaging in behaviours aimed at decreasing the risk (Boskey, 2016). When perception of susceptibility is combined with seriousness by the individual affected, it results a more positive behaviour (Stretcher and Rosenstock, 1997). This construct is important as it defines one's health behaviour.

b. Perceived severity

Action will normally not take place until the individual perceives the severity to be high enough to have serious complications. The person at this point believes that the risk is serious and the consequences of developing a condition are eminent (Boskey, 2016).

c. Perceived benefits

The construct of perceived benefits, is a person's opinion of the value or usefulness of a new behaviour in decreasing the risk of developing a disease. Perceived benefits play a very important role in the adoption of secondary prevention behaviours, such as screening for preventable illness (Boskey, 2010).

d. Cues to taking action

Cues to taking action are events that move people to change their behaviour. Examples include illness of a family member, media reports on a particular outbreak and corresponding campaigns to combat such outbreaks (Graham, 2002).

e. Modifying variables

Individual characteristics, including demographic, psychosocial, and structural variables, can affect perceptions of health-related behaviours (Rosenstock, 1974). Demographic variables include age, sex, race, ethnicity, and education, among others. Psychosocial variables include personality, social class, and peer and group pressure. Structural variables include knowledge about a given disease and prior contact with the disease, among other factors. The health belief model suggests that modifying these variables affect health-related behaviours indirectly by affecting perceived seriousness, susceptibility, benefits, and barriers (Rosenstock, 1974).

f. Self-efficacy

This is when an individual is confident in their ability to successfully perform a health related action. Developers of the model recognised that confidence in one's ability to effect change in outcomes, was a key component of health behavioural change (Glanz et al., 2008).

1.3.2 Application of the model to this study

The HBM endeavours to explain and predict health behaviours. This is made possible by focusing on the attitudes and beliefs of individuals. In this study, the experiences of male partners had a potential of positively influencing the quality of antenatal care pregnant women received during the antenatal period.

The services provided and made available could influence how male partners perceived antenatal care. According to Rosenstock, 1974, the HBM is based on three assumptions; Firstly, it assumes that a person will take a health related action if that person feels that a negative health condition can be avoided. Secondly, there is an assumption that a person will take action if that person has a positive expectation and that, by taking a recommended action, negative health condition will be avoided. Lastly it further assumes that a person takes a health related action if the person believes that she/ he can successfully take the recommended action. The HBM has six constructs as earlier outlined, which represent the perceived threats and net benefits.

a. Perceived severity

In this study, men with pregnant women would realize the susceptibility of their partners to maternal complications of pregnancy. Therefore, they would realize the consequences of not engaging themselves in Another is because in the model, a person recognizes that she/he is susceptible to a certain problem, and realizes the serious physical, psychological and social implications that may follow (Rosenstock, 1974).

b. Perceived benefits

A person needs to believe that by taking a certain action, it will assist her/him avoid or prevent a problem from occurring. It is this belief which gives them confidence to take action because they are sure of the results (Rosenstock 1974). If men as individuals strongly believe that involving themselves in ANC would enhance the maternal experience of their partners, it is likely they will engage themselves in ANC and promote wellbeing of their partners.

It was therefore established in this study that male involvement in ANC enhanced the experience of antenatal mothers.

c. Perceived barriers

There could be several barriers that can affect people's decision making in taking particular actions, such as costs of services, time spent whilst waiting to be served, and accessibility to services (Rosenstock 1974). In this study, barriers that may affect the participation of male in ANC were identified. Some of the barriers included the prolonged time spent before being served, lack of privacy in the MCH department and inadequate information available on male involvement in ANC.

d. Cues of action

This designates strategies used to activate readiness of men to be involved in antenatal care. In this study level of knowledge of men regarding ANC services was identified as the most critical component for men to participate in antenatal care. Therefore employing strategies such as media campaigns on the importance of male involvement in antenatal care was important in making the male partner realise the importance of male involvement in ANC.

e. Self-efficacy

Self-efficacy refers to the strength of an individual's belief in their own ability to respond to novel or difficult situations and to deal with any associated obstacles or setbacks (Peltzer et al, 2015). In this study it was hoped that men would realise that they had the ability to get involved in ANC when the rightful information was given to them. Application of the HBM in this study was assumed to help recognition of the prime motivation for men with antenatal women. This motivation enhanced self-efficacy in that, it brought in the realization that, lack of involvement in ANC would result in poor maternal and neonatal outcome.

f. Perceived threat

A perceived threat is any possible danger that is experienced by a person subjectively and out of proportion to the real or physical danger (Peltzer et al., 2015). In this regard, it was assumed that men with pregnant women would have a clear understanding of the consequences of not being involved in ANC. Therefore it was hoped that men would realize the importance attached to male involvement in ANC.

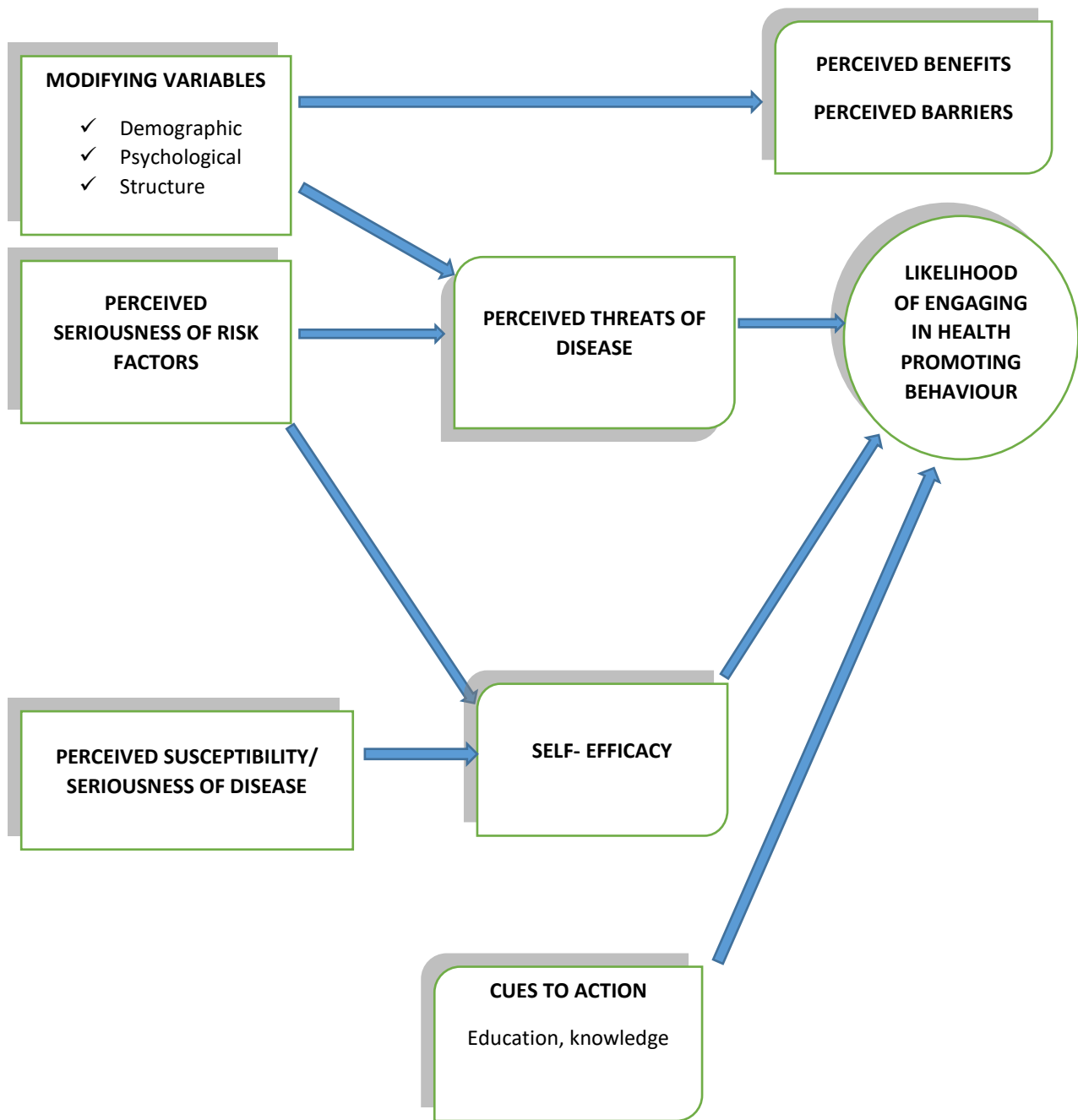


Figure 1.1 The non-modified Health Belief Model (Glanz et al., 2002).

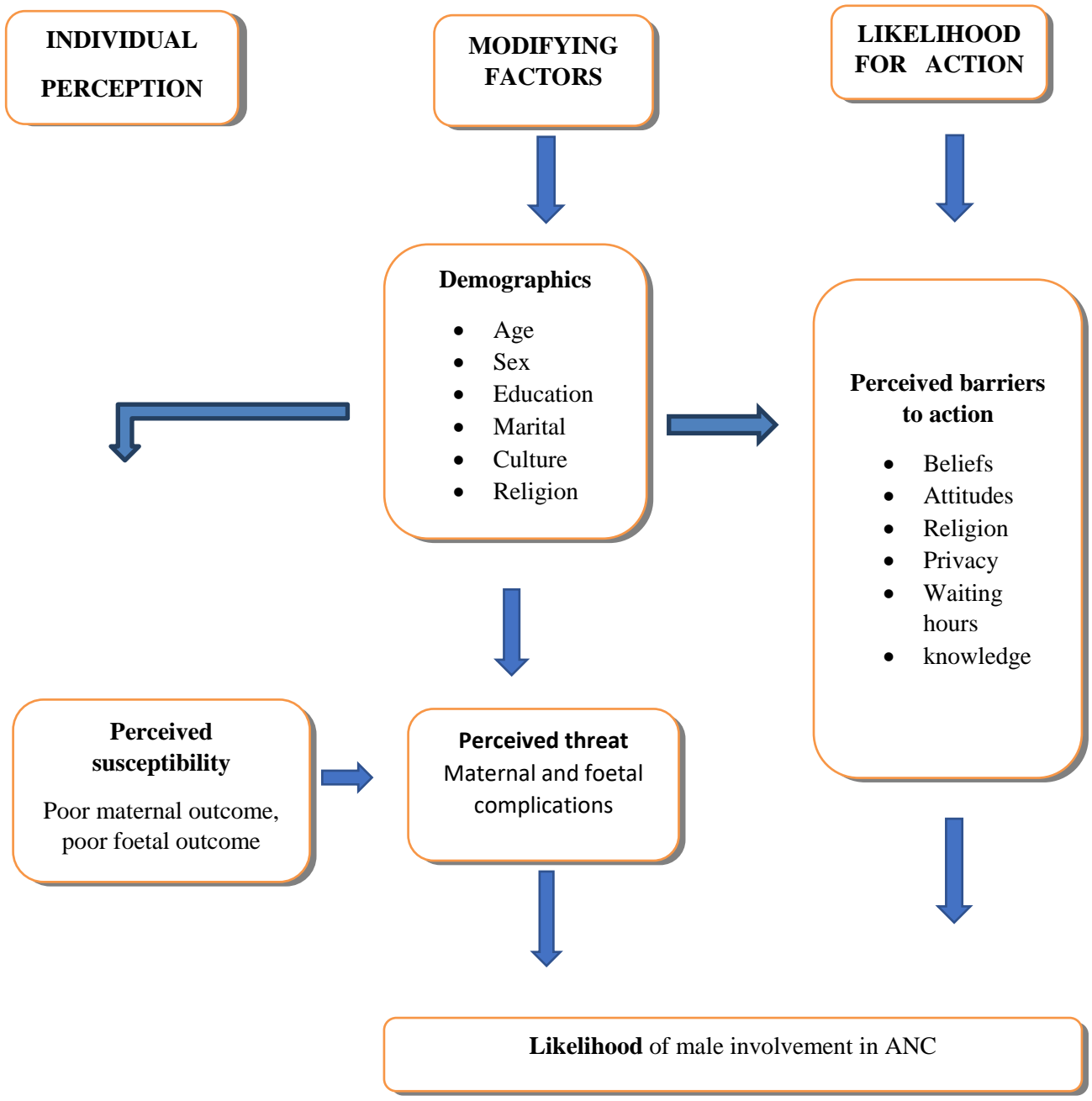


Figure 1.2 Modified HBM of determinants of male involvement in ANC.

1.4 Justification of the study

Despite the interventions instituted by the government and stakeholders to encourage men to participate in ANC, there has been a downward trend in male involvement in ANC as observed in Lusaka urban district. Although research has been conducted on this subject, much attention has been given to other precise areas of male involvement in ANC such as eMTCT of HIV/AIDS. Additionally; the available literature has not yielded the much needed results. It is for this reason that understanding factors affecting male involvement in antenatal care services in Lusaka urban district was important in order for health service managers and health workers to design interventions that would encourage and maintain male involvement in ANC which was likely to improve maternal and child health outcomes.

Therefore it was hoped that the findings of this study would be of use to the health policy makers and other stake holders for developing health public policies as regards integrated reproductive health. Program managers would be able to develop strategies to promote male involvement in ANC. The health care providers would also be able to improve service provision with a focus of promoting male involvement in ANC from an early stage. Consequently, the findings might help to enhance family and social support system for pregnant women in Lusaka urban district. The study will also contribute to the existing body of knowledge with regard to; what is known about male involvement in ANC, and factors that influence men's involvement in ANC and that, it would bring out critical issues concerning the best possible practical methods to use in incorporating men in antenatal care.

1.5 Research questions

What factors influence male involvement in ANC in Lusaka urban district?

1.6 Research objectives

1.6.1 General objectives

To determine factors associated with male involvement in antenatal care in Lusaka urban district.

1.6.2 Specific objectives

1. To determine the level of awareness of men on male involvement in antenatal care.
2. To assess the level of male involvement in antenatal care.

3. To determine factors associated with male involvement in antenatal care.

1.7 Hypothesis

1.7.1 Statistical hypothesis

There is an association between male involvement in Antenatal Care and service related and social cultural factors.

1.8 Variables and cut off points and indicators

Table 1.2 Variables and cut –off points

VARIABLES	INDICATORS	CUT OF POINTS	QUESTION NUMBER
<i>DEPENDENT VARIABLE</i>			
Male Involvement in ANC	Not involved	Never been involved in ANC and is able to score 0-4 correct responses to male involvement in ANC questions	13-23
	Involved	Has been involved in ANC as advised by the health care providers and is able to score 6-10 correct responses to male involvement in ANC questions	
<i>INDEPENDENT VARIABLES</i>			
Knowledge about male involvement in ANC	Low	If the participant has no, little or scanty knowledge on male involvement in ANC and is able to score 0-4 correct responses on knowledge questions	13-23
	High	If the participant has knowledge on male involvement in ANC and is able to score 5-10 correct responses to knowledge questions.	

Attitude	Bad	If the participant has no interest and they don't feel like getting involved in ANC and are able to score 0-4 correct responses to attitude questions	24-27
	Good	If the participant has interest and they feel that they should be involved in ANC and is able to score 5-10 correct responses to the attitude questions	
Income status	Low	Monthly income of K1000 and below and are able to score 0-3 correct responses to economic status questions	8-11
	Medium	Monthly income of above K1000 –K3000 and are able to score 4-6 correct responses to economic status responses	
	High	Monthly income of above K3000 and are able to score 7-10 correct responses to economic status questions	
Health care system	Good	If the health facility has adequate space, has male friendly health workers, and the clients are attended to in the shortest time possible.	13-23
	Poor	If the facility does not adequate space to accommodate men, if the health workers are not male friendly and clients are not attended to in the shortest possible time.	

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Studies have been conducted worldwide on factors associated with male involvement in ANC. However, few studies have been conducted in Zambia. Literature review for this study focused on published studies and the process of reviewing the literature was done to identify scientific, evidence based literature that would add value to this current study. Scientific studies were searched electronically and this included sites such as HINARI, CINAHL, PubMed, and Science Direct. Other literature sources included international and local publications and books. Literature selected was not older than ten years. The selected literature in this chapter was discussed under the following headings: overview of male involvement in ANC, service related variables, social and economic variables, prevalence of male involvement in ANC and finally a conclusion to the literature reviewed.

2.2 Overview of male involvement in ANC

The belief that men should be involved in sexual and reproductive health has gained momentum. In recent years, efforts in many countries have sought to broaden men's responsibility for their own reproductive health as well as that of their partners (Walston, 2010). This implies that the role which men play with regards to the reproductive health is extended to that of their partners.

The focus on reproductive health programs involving men received heightened attention at the 1994 Cairo International Conference on Population and Development. The conference addressed and suggested ways in which men would be involved in reproductive health, such as attending antenatal clinics and being allowed to be present in the delivery suits. Despite, the positive developments, it is not clear today, as to what extent are men involved in antenatal care globally. This can be attributed to Health Management Information System tools that are incapable of capturing all areas of men's involvement in maternal health (UNFPA, 2013). The available tools mainly capture the critical role men play in the elimination of Mother to Child Transmission of HIV and neglect other areas such as the financial and emotional contributions men make towards their pregnant women.

For men to have a strong and positive influence on women's health and the much needed access to care the need for male involvement in maternal health services is obvious, and male involvement is becoming even more critical in the delivery and uptake of maternal health care services during the

antenatal period. In order to persuade male involvement in antenatal care, emphasis needs to be focused on the understanding of men's reproductive behaviour and the influence they may have on their female partners (Adamehak et al., 2013). This is because men are the key stakeholders in decision making at household level.

2.3 Service related factors

2.3.1 Attitude of male partners towards ANC

Male involvement in ANC is considered as one of the important aspects of quality Antenatal Care. This is because a male partner is considered as a major stakeholder in the health of the pregnant woman in terms of, decision making and making finances available (Britta et al., 2007). However, despite being a major stake holder, a study conducted in Katmandu, Nepal, on barriers to and attitudes towards promoting husbands involvement in maternal health, it was revealed that men had a bad attitude towards ANC because female and male members of staff exhibited negative attitude towards men who escorted their wives for ANC (Britta et al, 2007), this played a major role in hindering their participation in ANC. This is because men felt intimidated and unwelcome and hence opted to shun attending ANC with their partners in the bid to avoid the health workers. Therefore, negative behaviour exhibited by the health care providers did not promote male involvement in ANC and instead led men to develop bad attitude towards ANC. Contrary to a quantitative research done in Nepal in 2013, in which men were barred from attending ANC, a research conducted in United Kingdom showed a convivial health care system in which men were encouraged and were positive about participating in all ANC activities. This further demonstrated the optimistic fatherhood that was developed in all men who were closely involved in ANC (Draper, 2013). The improved participation in antenatal care by men was as a result of the cordial environment that was made available by the health care team.

According to the health belief model, perception towards a health concern influences an individual's health seeking behaviour. According to a study done in selected nations across the continent of Europe, men felt ignored and inadequately informed since most antenatal education focus on female partners thereby leaving no room for concerns as men (Draper, 2013). In a quantitative survey, conducted among 600 Danish fathers, 40 percent of the fathers felt that health care providers did not involve them adequately during consultations (Madsen et al., 2002). This left men feeling unwanted and thereby promoted a negative attitude towards ANC.

In a study done in rural Tanzania on exploring opportunities on male involvement in pregnancy, participants reported unwillingness on attendance and participation in antenatal care services as a result of the uncomfortable feeling of being indulged in the women only affair. However, they were generally positive about their wives' attendance and considered it safe due to the benefits they would get, such as preventing complications (Vermeulen et al., 2016). The negative attitude in this regard is purely being derived from self-stigma arising from the cultural tag, of antenatal being exclusively for women.

In another thesis conducted by Gathuto (2014) in Kenya only 5 percent of men felt confident and positive of the services provided by the health workers as they were treated fairly when they escorted their wives for ANC. However, the study revealed that 31.5 percent of the health workers were rude, cruel and ignored men. This led men to develop a bad attitude towards ANC and could be the reason men kept off the clinic to avoid bitter exchanges with the members of staff. Some men were highly discouraged from attending ANC with their spouses because of the harsh behavior exhibited by some health workers, which included calling them names and preventing them from accessing antenatal services with their partners. This further made them to feel unwelcome and disrespected during the antenatal visits. Several other studies highlighted this problem and it was revealed that health workers mistreated pregnant women in presence of the partners indirectly embarrassing men (Auvien et al., 2013; Byamugisha et al., 2010). Due to these embarrassing situations, men opted to avoid antenatal clinics and chances of men returning for antenatal clinics in the future were completely diminished.

Negative attitude by men towards ANC has been perpetuated by a belief held by health workers that men are not supposed to attend ANC. This led male participants to avoid ANC at all costs in Malawi, in that, health care providers were so much attached to the idea of Maternal Child Health services being only for women and children such that they never had the initiative to involve husbands or male partners in the care of their wives. The study also revealed reluctance on the part of the health care provider to involve men in the care of their pregnant partners (Kululanga et al., 2012). This study demonstrates that clinging on to bad traditional practices by the health care providers resulted in the lack of enthusiasm among men with pregnant women to be involved in antenatal care.

The Zambia 2010 midterm United Nations General Assembly for maternal health basing on the 2002 and 2007 ZDHS amplified the findings in the studies above. It was revealed that men rarely

attended ANC and maternity services because health institutions were not male friendly (UNGASS, 2010). This negative attitude by men could be attributed to the long-standing tradition of antenatal clinic in the country, being a service provision site mainly for women and incorporating of men in the antenatal services was rather a taboo.

2.3.2 Maternal and Child Health Department Infrastructure

In 2007, Britta conducted a study in Nepal, Katmandu in which it was revealed that the health institutions had inadequate space to cater for both men and women in ANC. This led to formulation of retrogressive policies, which did not allow the male partner to be present during counselling sessions and the related activities. This was despite women disclosing the willingness to have their husbands present in ANC. The furthest point men could go was the reception area. From the study it is apparent that lack of space led to formulation of policies to justify why men should not be part of the antenatal sessions denying men of the much needed opportunity of learning about antenatal care with their partners.

A study conducted by World Health Organisation in 2013 revealed that in some countries especially, Asia and Africa, clinics were often unable to concurrently accommodate pregnant women and their partners because of a lack of space. Due to this factor of limited physical space to accommodate male partners, men felt uncomfortable. In line with the findings by WHO a study conducted in Gambia, West Africa, revealed that women found it difficult to be accompanied by their husbands as they attended ANC in various health institutions due to inadequate space (Secka, 2014).

In Malawi, infrastructure stands out as a major barrier to male involvement in ANC. A study done by Kululanga et al (2012) revealed that most men felt ashamed and uneasy to be spotted at ANC, an area perceived to be for women. In this research, it was observed that existing infrastructure had inadequate space and hence lacked privacy. Therefore, women and men were denied physical and verbal privacy whilst attending ANC as the spaces provided were merely basic shelters, in open areas. Furthermore in situations where space was guaranteed, Theuring (2010), notes that men were excluded from entering consultation rooms by health workers in a rude manner. Hence fear of being rebuked led to the majority of men shunning the ANC.

A study conducted in Lusaka Zambia, unveiled Luba-Kasai men as shunning ANC due to inadequate space and poor infrastructure in MCH departments. The majority of men opted to wait

for their spouses away from the service provision points (Auvinen, 2014). Furthermore the study revealed that health institutions were reluctant to have their MCH departments expanded as they saw no need of accommodating men. This is the picture obtained in many of the urban health centres in Lusaka providing antenatal services.

2.3.3 Waiting time during ANC visits

Time is of paramount importance, a comparative study conducted by Adelekan, Edoni and Olayele, (2013), revealed that men in Bangladesh, Brazil, and Nigeria were too busy to wait at the clinic for the long procedures that women needed to go through. This is because accessing antenatal services involves one spending long hours at the facility, especially in highly populated places. This is in line with a research conducted in Kenya, where it was also revealed that frequently women and their partners were waiting for a long time before being served because of burdensome administrative procedures. Therefore women married to men in the paid workforce, were often not in a position to spend virtually the entire day participating in ANC services (Nungari, 2014).

Locally, a study conducted on a small scale in Zambia at Arakan Garrison Hospital on men's perspective on male participation in antenatal health care, revealed that 20 percent of men who were previously involved in ANC wished not to be involved in ANC as they identified time wasting during the provision of services as an hindrances to male involvement in ANC (Mulongo, 2015). This can be attributed to the high numbers of antenatal women attending antenatal clinic against a small number of health workers. Therefore studies reviewed globally, regionally and locally reveal that men are discouraged from attending antenatal clinics due to prolonged periods of waiting, despite some being resilient.

2.4 Social cultural and economic factors

2.4.1 Level of education

A study in conducted in Uganda revealed that men who had completed 8 or more years of education were twice more often involved in antenatal care compared with those with less than 8 years of education(Ditekemena et al., 2012). This is because the more time an individual spends in school the more they are likely to have increased levels of understanding and perception of health related matters. In relation to this concept, it is expected that males who are highly educated tend to involve themselves in antenatal care more than the uneducated. These findings are reflected in a study

conducted in Malawi and Zambia where it was revealed that, men who had spent much time in school understood maternal health matters more than the uneducated counterparts. Additionally the educated men were able to use the internet for sourcing information on maternal related matters (Matongo et al., 2014). The educated men usually have information at their disposal, in that; they have multiple sources of information such as the print and electronic media.

2.4.2 Knowledge levels

Inadequate knowledge about ANC and its benefits has a negative impact on utilization of antenatal care services by men and their partners (pregnant women). This has led men to be unaware of problems that result from not involving themselves in ANC with their spouses (WHO, 2015). This is because low levels of knowledge imply lack of awareness on the concept of male involvement in antenatal care and the value of engaging in it.

Around the world, men play critical roles in woman's ability to seek health care, yet a global review of researches done in Asia, part of Europe and Sub Saharan Africa demonstrated men being unaware of services provided in maternal and child health department of health institutions. This was highlighted by about 13 percent of researches reviewed where men saw no need to attend ANC due to lack of in- depth knowledge and understanding of what ANC entails (Morfwa et al., 2013). This is mainly due to the low sensitization campaigns on the importance of male involvement in ANC and its benefits.

Findings from a study done on male attendance of skilled antenatal care in a peri-urban district in Northern Uganda revealed that only 47 percent of men were aware of at least three services offered at antenatal clinics. However, they could not elaborate adequately what these services entail (Tweheyo et al, 2010). This had a bearing on the level of male involvement in ANC with subsequent attendance of antenatal clinics. Those who knew much about the services offered during ANC are those who frequently attended ANC visits with their spouses.

The low levels of knowledge has been perpetuated by having IEC materials mainly prepared in English making it difficult for the majority of men who may not read and understand these leaflets which are mainly offered to them by their spouses who attend ANC sessions. A recent study conducted in Lusaka district investigated this factor and it was revealed that, the materials provide in antenatal clinic were mainly in English and lacked the concept of male involvement in ANC

(Auvinen, 2014). This is so because the majority of the literature distributed during antenatal clinics or any other health gatherings mainly focus on maternal and child issues.

A further study conducted on the exploration of barriers to male participation in antenatal clinic in Mumbwa district of Zambia, revealed that about 80 percent of men were not aware of the other services offered in antenatal clinic, as they only knew that the health of the mother was taken care of during her pregnancy. In addition, the majority of men, 80 percent, perceived male involvement in ANC as merely escorting their partners to the clinic (Nguni, 2014). This is because male involvement has not been embarrassed as an important component to maternal wellbeing of the mother.

2.4.3 Income levels

Financial constraints of men have been identified as impacting health services uptake and male involvement in ANC. A qualitative study conducted in Western Kenya (Reece et al, 2010) found that the costs for transport to enable men to travel to the clinics and for blood tests and counselling were identified as barriers to male involvement in ANC. Men talked about their perceived principal responsibilities as providers but could not fully execute such duties because of lack of funds. Thus, time spent at clinics and away from work or other income generating activities was clearly perceived as a barrier to their participation in ANC program.

A positive economic status is believed to be a determining factor for men's involvement in reproductive health matters of their partners. A study conducted in Guatemala revealed that the more financial stable the man was the likelihood it became of him to participate in ANC (Carter, 2002). This is because a financially stable man is able to provide for his partner in many areas, such as transport for his pregnant woman to the health centre for antenatal clinics; he is also able to provide adequate nutrition to the woman and is able to participate in the preparations such as buying of baby clothes. Therefore a financially stable male partner is expected to fully participate in ANC. This finding in Guatemala is consistent with the local scenario. In a study conducted in Chinsali district of Zambia, it was revealed that, men who had enough money, shared part of that money with their wives and, were able to afford transportation to the clinic. Apart from that, they were able to provide all the basic requirements for their wives during the antenatal period (Kani, 2013). Therefore the higher the income levels of the man, the more involved he becomes in ANC.

2.4.4 Tradition beliefs on male involvement in ANC

Culturally, men do not seek health information and services due to traditional notions of masculinity, it is considered that asking for help or getting involved in maternal health issues is viewed as a sign of weakness. Larsson et al., (2010) noted that the norm that men should not show weakness, for example by seeking health care, dictated against men attending ANC alongside their wives or partners. This is characteristic of the power structures associated with patriarchal relationship between men and women where men are considered to be more knowledgeable than the women; this perpetuates ignorance and leads to low male involvement in antenatal care.

Globally, cultural practices and beliefs may not be consistent; however they are institutionalised to particular regions. In Africa, for instance, in Cote d'Ivoire, male involvement in ANC was hindered by perceptions that antenatal care is a woman's activity and that it is shameful for a man to be found in such settings (Gold et al., 2009). This is consistent with cultural beliefs in other parts of the continent. A research conducted in Tanzania, Mbeya, revealed that it was considered to be culturally right for men not to participate in antenatal care activities (Theuring et al., 2009).

In a study conducted in Mumbwa, Zambia by Nguni (2014) it was shown that men would not accompany women to the clinic for Antenatal care because culturally men are not allowed to be found where women are getting health services like antenatal and in labour ward. The research further revealed that, if a man sees a woman naked or in uncompromised sitting arrangement, he would get blind. All these issues among others deterred men from getting involved in ANC. This situation if not checked has the potential to perpetuate the low levels of male involvement in antenatal care.

2.5 Prevalence of male involvement in ANC

In study conducted in Kathmandu, Nepal, India male involvement was at 39.3%, this was related to low education levels of men (Bhatta, 2013). This is because men who are less educated may not fully comprehend the concept of male involvement in ANC compared to those who are highly educated. However in another qualitative study in India, male involvement in ANC was high among men who had attained tertiary education and were noted to have increased levels of knowledge (Draper, 2013). This clearly validates the earlier sentiment that increased level of knowledge is attributed to the higher level of education attained by men. The higher the level of education, the more knowledgeable one becomes.

A qualitative study conducted in Ghana by Graymah et al (2017) on male involvement in maternal health care at Anomabo in the Central Region, revealed low male involvement in ANC. This was as a result of strong negative social cultural perceptions and health care attitudes. This barred men from involving themselves in antenatal care resulting in undesirable maternal health outcome. In another study done in Uganda on determinants of male partner involvement in antenatal care in Wakiso District, male involvement in ANC was very low at six percent and this was attributed to lower income earnings (Kariuki et al., 2016). A clear demonstration of the impact low income earnings have on the level of male involvement in ANC. Quality antenatal care is demanding on the part of the man as he needs together with the expecting woman to have in place baby layette, money for transport and other requirements ready during the antenatal period. However, when funds are not available, it's a receipt to low male involvement in ANC.

In an exploratory descriptive study conducted in South Africa on male partners' views of involvement in maternal healthcare services at Makhado municipality clinics, Limpopo province the study findings were that male involvement in ANC care was low as men viewed maternal health issues as women matter and the majority of the participants revealed unwillingness to participate in maternal issues (Nesane et al., 2016). This could be attributed to the huge negative bearing African cultural norms have on male participation in maternal health matters. Furthermore, a study conducted in Zambia, Chinsali district revealed male involvement to very low, 30 percent, this was attributed to the community's stigmatization of men who were involved in antenatal care ,as they were viewed to be less men and weak.

2.6 Conclusion

The literature review set the stage for understanding factors associated with male involvement in antenatal care. This chapter covered a broader review of literature on male involvement in ANC. It is clear that globally male involvement has not been given the much needed attention despite being a critical component in improving maternal experience during antenatal period.

However, it is important to take note that, the majority of the studies done did not tackle the issue of male involvement in antenatal care exclusively, but also focused on other areas of maternal and child health such as elimination of Mother to Child Transmission of HIV/AIDS.

This study has enabled health care providers to review factors associated with male involvement in ANC in Lusaka urban district and ensure that improvement are seen by coming up with strategies which are evidence based.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology that the researcher used to obtain answers to the research questions. It will set out various stages and phases that were followed in order to complete the study at hand. Research methodology is the entire strategy for the study, from identification of the problem to final plans for data collection (Castillo, 2009). It is the blue print for the collection, measurement and subsequent analysis of data.

In this section the researcher identified the procedures and techniques that were used in the collection, processing and analysis of data. The chapter includes the following; research design, target population, data collection instruments, data collection procedures and finally data analysis and ethical considerations.

3.2 Research design

The study used a cross-sectional quantitative approach aimed at factors that are associated with male involvement in antenatal care in Lusaka urban district. This design helped the investigator to quantify attitudes, opinions, behaviours and other defined variables and generalize results to a larger sample population (Polit and Beck, 2008). It also helped the researcher collect data at one point in time.

3.3 Research setting

The study was conducted in Lusaka urban district, located within Lusaka province at an altitude of 15⁰ south of the equator. It occupies 360squarekilometers and has a population of more than 6.5 million people (CSO, 2016). The research was conducted at five clinics which included; Kanyama, Chilenje, Kabwata, Kalingalinga and Chawama health facilities. All these centres offer maternal reproductive health services and were purposefully selected for the study because they are centrally located and reported high numbers of antenatal attendance. It is at these sites where participants for the study were drawn.

3.4 Study population

Lusaka urban district had a population of approximately 2,526,102 as of the year 2017. Of the 2,526,102, women of child bearing age were 555,742 in comparison to the population of men of 707,308 (Lusaka district health office, 2017). The accessible population comprised of all men aged between 15 and 65 years and the target population included all men married or not married and had a pregnant partner during the period of the study or before and were present at the selected health centres.

3.5 Sample selection

Sampling involves selecting a group of people, events, behaviours, or other elements with which to conduct a study. In this study, five (5) out of ten (10) health facilities in Lusaka urban district were selected to participate using systematic sampling. All the ten clinics were arranged in alphabetical order with a sampling frame of 1 to 2. Men who participated in the study were then selected by simple random sampling. Small and identical pieces of paper with numbers written on them from one to the number of patients on that day were put in a box after folding them. The numbers represented the men as listed on the sampling frame. The pieces of paper were then thoroughly mixed together by shaking a box. Then one piece of paper was blindfold picked at a time without replacement until seven participants were selected per day and finally the required sample size for the study was reached. The method ensured that each participant had an equal chance of being included in the sample and this was feasible in terms of financial, human and also material resources.

3.5.1 Inclusion criteria

The inclusion criteria to this study included the following;

- Willing to give informed consent.
- Being present at the selected study site at the time of the study.
- Aged between 15 and 65 years.
- Had a pregnant woman at the time of the study or before.

3.6 Sample size

To calculate the sample size, the prevalence proportion was used. The sample size was calculated manually as follows;

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

N= Sample required

Z= Z statistic at 1.96

P= the expected prevalence at 0.5

d=acceptable accuracy range (+/- 0.05)

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

n= **383**

3.7 Data collection tool

In this study, a pretested structured interview schedule was used. It was written in simple language so as to ease understanding of the information. Interpreted copies in Nyanja were made available to avoid any communication barriers that may arise. The questionnaire had closed ended questions to allow quick recording of responses and save on time (Polit and Hungler, 2009; Basavanthappa, 2009). Structured interview schedule was chosen because of the following advantages:

- It can be used on both the literate and illiterate.
- Non-verbal behaviour and mannerisms can be observed
- Questions can be clarified if they are misunderstood

3.7.1 Validity

To ensure validity, extensive literature review was conducted on recent literature on various aspects of male involvement in ANC. Experts in ANC and research supervisors examined the questions to determine whether they would elicit desired responses on the variables to be measured so that the conclusions would be drawn with respect to the study population. In addition the questions were constructed in a simple, clear and precise way in order to give respondents chance to give clear and precise answers. In addition all the dependent variables as well as the confounders were considered in this study by capturing them in the interview schedule during data collection and data analysis.

3.7.2 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. A pilot study was carried out at Mtendere Health Centre to test the correlation of the responses for consistency and hence reliability. The clinic had almost the same settings in terms of geo location, population, social, physical, and economic determinant of health with other urban health institutions which were used in the study. Reliability of the interview schedule was maintained by training the research assistants in the use of the instrument. The questions were simplified, concise and brief. During the pre-test (pilot), respondents were asked if they had any questions that they would not understand. This gave room for alteration of the questions. Any items missing in the questionnaires were added and the unsuitable ones eliminated. The pilot study aimed at determining the reliability of the questionnaire including the wording, structure and sequence of the questions.

3.8 Data collection technique

The data collection techniques that were used for this study were face to face interviews. The respondents were interviewed with the help of the research assistants and they were asked to respond to the same questions in the same order. The interviewers wrote down the responses using verbatim technique. All interviews were conducted between 09:00 and 16:00 hours. Each day a maximum of 15 respondents were interviewed. The research assistants were selected on the basis of language, critical thinking and knowledge of the subject matter.

The interviews were conducted face to face. The process of data collection was carried out in the following way;

1. Men available at the health institution at the time of the interview accompanying pregnant partners or seeking other health services , were considered as part of the sampling population and therefore they were approached with respect
2. The researcher introduced himself in a language that was understood by the respondent in order to make them at ease.
3. An explanation of the purpose of the study was given in simple terms to enable the respondents to take part in the research fully informed
4. Each respondent was interviewed in privacy in order to maintain confidentiality for approximately 20-30 minutes. Respondents were assured that the information obtained would only be used for the research purpose and names would not be entered on the questionnaire.
5. The information obtained was stored in a confidential place and was not exposed for other people to access.
6. The respondents were informed that participation was voluntary and they could withdraw from the study if they so wished and this would not affect their obtaining health care in any way
7. After the explanation, the researchers got consent signed by each respondent
8. Once the consent was obtained, the researchers would then proceed to ask the respondents questions using the structured interview schedule.
9. The respondents were thanked after the interview.

3.9 Pilot study

Piloting of the data collecting tool was done at Mtendere clinic of Lusaka urban district. The centre was considered because it had similar characteristics to the research setting that was being used in the study. The purpose of the pilot study was to identify any part of the instrument that was difficult to understand or misinterpreted by the respondents, determine whether the sequencing of the questions was effective, determine the acceptability of the questions and willingness to respond or answer questions, detect any errors in the questionnaire for the main study and assess the appropriateness and clarity of the questions. The pilot study consisted 10% of the sample size and the respondents were selected using simple random sampling. The pilot study helped correct any errors within the structured scheduled interview.

3.10 Data analysis

After data collection, the structured interview schedules were sorted out according to their serial numbers. Sorting out of data was done immediately the structured interview schedule were collected to check for completeness and to ensure that any mistakes were corrected there and then. Responses from open ended questions were categorized and coded before entering on the Statistical Package for Social Scientists (SPSS) version 22 program. Responses from closed ended questions were entered directly on SPSS. The data was analysed electronically using SPSS. Chi square test was used to determine the association between the dependent variable (male involvement in ANC) and the independent variables (knowledge on male involvement, attitude towards male involvement in ANC, income levels of the respondents and health care system). Further modelling was done using binary logistic regression for the dependent which was male involvement in ANC with the independent variables; knowledge on male involvement, attitude towards male involvement in ANC, income levels of the respondents and health care system.

3.11 Ethical and cultural consideration

Ethical clearance was obtained from the University of Zambia Biomedical Research Ethics Committee reference number 012-07-18. Written permission to conduct the research will be obtained from Lusaka district Health office (DHMT). The purpose and nature of the study was explained to the study participants. Those who agreed to take part in the study were asked to sign a consent form and the illiterate men were asked to thumb stamp the consent form which was written in Nyanja and English. Those who participated in the study were not be remunerated in any way.

The respondents were not exposed to any physical harm as the research did not involve any invasive procedures. Respondents were assured of anonymity and confidentiality during the interview as they were interviewed in privacy. Respondent's names were not written on the interview schedule and no one person apart from the researchers was allowed to access research data.

3.12 Limitations of the study

The study included only urban participants who have more access to services and information hence the views of men in the rural parts of Lusaka were not considered in this study. Additionally, this study only considered men as the study respondents; this made it impossible to validate their views as pregnant women were not included in the study.

CHAPTER FOUR

PRESENTATION OF STUDY FINDINGS

4.1 Introduction

This chapter presents findings on factors associated with male involvement in antenatal care in Lusaka urban district. Three hundred and eighty three (383) participants participated in the study. The questionnaires were administered by the researcher and the research assistants in five (5) selected Lusaka urban district health centers and the response rate was 100 percent. The results have been presented in frequency tables, figures, pie charts and cross tabulations to show relationships among variables to sequence and sections of the interview schedule.

4.2 Data presentation

4.2.1 Male involvement in ANC

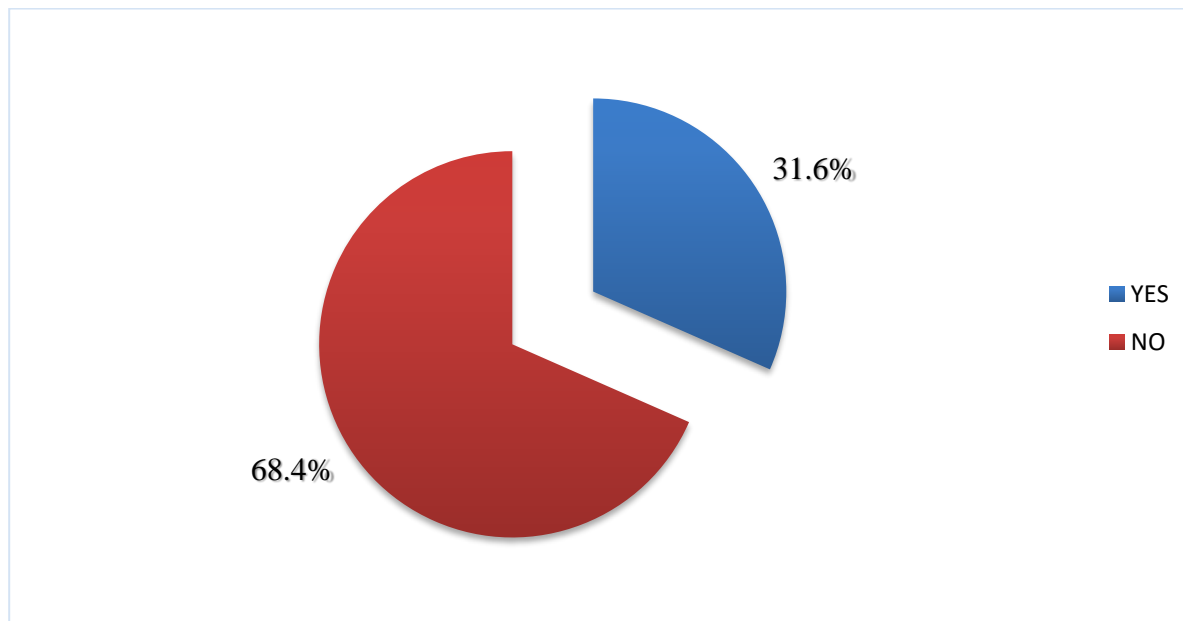


Figure 4.1: Male involvement in ANC (n=383)

Figure 4.1 shows the level of male involvement in antenatal care among men in Lusaka urban district. The findings of this study indicate that of the three hundred and eighty three men sampled, the majority of the participants 261(68%) were not involved in antenatal care and only 122 (32%) were involved.

4.2.2 Men's awareness about male involvement in ANC

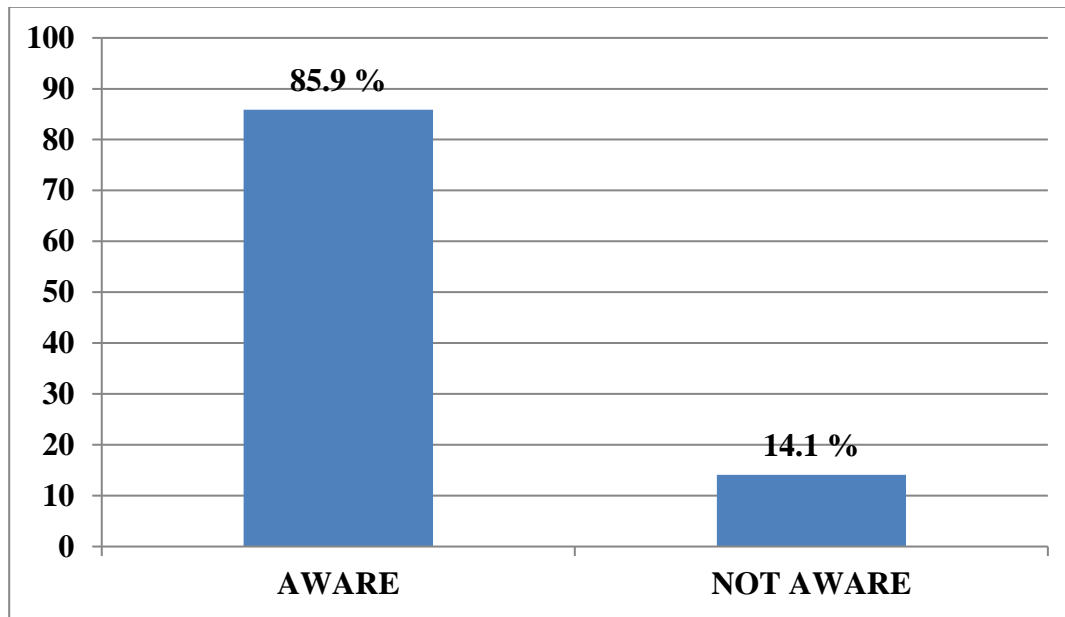


Figure 4.2: Awareness of male involvement in ANC (n=383)

Figure 4.2 shows the level of awareness of men on male involvement in ANC. Responding to the specific objective on the levels of participants' awareness of male involvement in ANC, as expected, the findings of this study indicated that the majority 329 (85.9 %) of the participants were aware of the concept of male involvement in ANC, whilst the minority 54 (14.1%) were not aware about male involvement in ANC. The high levels of awareness on male involvement in ANC could be attributed to Lusaka being an urban area and therefore information was easily accessed by the participants.

4.2.3 Socio- demographic characteristics of participants

Table 4.1a: Socio-demographic characteristics of the study population (n=383)

Demographic characteristic	Frequency	Percentage (%)
Age of participants		
15-24	97	25.3
25-34	142	37.1
35-44	118	30.8
45-49	26	6.8
Total	383	100
Marital status		
Single	26	6.8
Married	302	78.8
Divorced	29	7.6
Widowed	26	6.8
Total	383	100
Years in present marriage		
Below 2 years	58	15
2-4 years	122	32
5-6 years	64	17
Above 6 years	58	15
Not married	81	21
Total	383	100
Type of marriage		
Monogamy	287	75
Polygamy	15	4
Not in any marriage	81	21
Total	383	100

4.2.3 Socio-demographic characteristics of participants

Table 4.1b: Socio-demographic characteristics of the study population (n=383)

Demographic characteristics	Frequency	Percentage (%)
Religion		
Christian	313	81.7
Muslim	30	7.8
Buddhist	3	0.8
Others	37	9.6
Total	383	100
Educational level		
None	34	8.9
Primary	109	28.5
Secondary	119	31.1
College	72	18.8
University	49	12.8
Total	383	100
Employment status		
Employed	152	39.7
Unemployed	116	30.3
Self employed	105	27.4
Pensioners	10	2.6
Total	383	100
Level of income		
Above K5000	81	21.1
K3000-k5000	100	26
K1000- k2999	63	16
Below k1000	139	36
Total	383	100
Participants number of children		
No children	14	3.6
1-3	232	61
4-6	120	31
7-9	17	4.4
Total	383	100

The socio-demographic characteristics of the participants captured during the recruitment are shown in Table 4.1a and 4.1b. All participants indicated their age. The age range was between 15 and 49 years. Majority 142 (37.1%) of the participants were aged between 25 – 34 years. The study further revealed that the majority 302 (78.9%) of the participants were married, 26 (6.8%) were single, 29 (7.6%) were divorced and 26 (6.8%) were widowed. Of the married, almost half 122 (40.4%) of the participants had spent between 2-4 years in their marriage and the majority 287 (75%) were in monogamy marriages. The study further revealed that the majority 313 (81.7%) of the participants were Christians, this was an expected finding as Zambia is a Christian nation. Of the participants, 119 (31.1%) had attained secondary school level of education, indicating that they completed Grade 12 and the majority 152 (39.7%) were formally employed. In this study it was discovered that the majority 139 (36%) of the participants had a monthly income of below K1000, with 232(61%) having children ranging 1-3.

4.2.4 Knowledge of male involvement in ANC

Table 4.2: Participants' knowledge of male involvement in ANC (n=383)

Variable	Category	n (%)
Ever heard about male involvement in ANC	Yes	287 (74.9%)
	No	96 (25.1%)
Sources of information on male involvement in ANC	Health personnel	172 (44.9%)
	Media	67 (17.4%)
	Friends and relatives	42 (10.9%)
	Other sources	102 (26.6%)
Acknowledgement of men's involvement in ANC	Yes	329 (85.9%)
	No	54 (14.1%)
Participants opinion of whether men should be involved in ANC	Yes	348 (90.9%)
	No	35 (9.1%)
Acceptance of the responsibility of taking care of the pregnant partner	Yes	369 (96.3%)
	No	14 (3.7%)
Ways of male involvement in ANC	Provision of finance	61 (15.9%)
	Emotional and physical support	202 (52.8%)
	Helping with house chores	15 (3.9%)
	Others (provision of food)	105 (27.4%)
Stage at which men should be involved in ANC	When pregnancy is confirmed	305 (79.6%)
	When a pregnant mother complains of neglect	26 (6.8%)
	During preparations to go to the birthing place	44 (11.4%)
	When a couple decides to have a child	8 (2%)
Known benefits of male involvement in ANC	Monitoring of foetal progress	276 (72.1)
	Detection of maternal complications	47 (12.3%)
	Opportunity to be tested together	33 (8.6%)
	Promotes woman's sense of being loved	20 (5.2%)
	Access to reproductive health information	7 (1.8%)
Awareness of complications associated with lack of male involvement in ANC	Yes	107 (27.9%)
	No	276 (72.1%)
Knowledge levels	High	164 (42.%)
	Low	219 (57.1%)

According to Table 4.2, study findings revealed that the majority 287 (74.9%) of the participants had heard about male involvement in ANC, of these, the majority 172 (44.9%) disclosed their source of information on male involvement to be the health personnel. This meant that the most likely source of information for participants was the health institutions where health workers operated from. However, 67(17.4%) of the participants heard about male involvement through the media, this included the print and electronic media. More than half 329 (85.9%) of the participants acknowledged that men were supposed to be involved in ANC and 348 (90.9%) were of the opinion that men should be involved in ANC. The study findings further revealed that most 369 (96.3%) of the participants accepted that it was their responsibility to care of their pregnant partners during antenatal period. The majority 202 (52.8%) of the participants indicated emotional and physical support as a way of involving themselves in ANC. More than half 276 (72.1%) of the respondents revealed monitoring of fetal wellbeing as a benefit of male involvement in ANC, whilst, 33 (8.6%) identified taking tests together, such as HIV as a benefit. Overall, the majority 276 (72.1%) had low levels of knowledge.

4.3.4 Health care system attributes related to male involvement in ANC

Table 4.3: Health care system related attributes to male involvement in ANC (n=383)

Variable	Category	n (%)
Access point for antenatal care	Private health institution	42 (11%)
	Government health institution	341 (89%)
Participate in ANC clinics	Yes	195 (50.9%)
	No	188 (49.1%)
Reasons for not participating in Antenatal visits	Unfriendly health personnel	30 (15.9%)
	Infrastructure is inadequate	30 (15.9%)
	Long queues	110 (58.5%)
	Other reasons	18 (9.5%)
Reasons for participating in ANC	Served quickly	102 (54.2%)
	Need to be part of the sessions	14 (7.4%)
	Health personnel are friendly	57 (30%)
	Symbol of care and love	15 (7.9%)
Health care system	Poor	170 (44%)
	Good	213 (55.6%)

Study findings in Table 4.3 above shows that the majority 341 (89%) of the participants, accessed antenatal care services with their partners from government health institutions. This increase in the

number of participants accessing antenatal care from government health institutions with their partners is related to services being free. The study further revealed that more than half 195 (50.9%) of the participants accompanied their partners to antenatal clinics and the majority 102 (54.2%) revealed that they escorted their partners because they were served quickly. This was the motivation for accompanying their partners for ANC. However, 110(58.5%) of the participants shunned antenatal clinics due to long queues. Generally, the health care system according to study findings was good, 213 (55.6%).

4.3.5 Economic factors related to male involvement in ANC

Table 4.4: Economic related factors related to male involvement in ANC (n=383)

Variable	Category	n (%)
Employment status of male respondents	Employed	152 (39.7)
	Unemployed(no economic activity)	116 (30.3%)
	Self employed	105(27.4%)
	Pensioners	10 (2.6%)
Monthly income for respondents	Above K5,000	81 (21.1%)
	K3,000- K 5,000	100 (26.1%)
	K1,000- K2,999	63 (16.4%)
	Below K1,000	139 (36.3%)
Economic status	Low	154 (40.2%)
	High	229 (59.8%)

Table 4.4 shows the economic status of the respondents who participated in the study. The majority 152(39.7%) of the respondents were employed, meaning they had a stable income every month and this was the largest proportion of the participants. Meanwhile, 105 (27.4 %) were self-employed as they engaged in other income generating activities on their own. The least 10(2.6%) had retired from their formal employment. Overall, economic status was high amongst the respondents, 229(59.8%).

4.3.6 Respondent’s attitude related to male involvement in ANC

Table 4.5: Attitude related factors to male involvement in ANC (n=383)

Variable	Category	n (%)
Accompanying partner for ANC?	Yes	195 (50.9%)
	No	188 (49.1%)
Reasons for not participating in ANC	Unfriendly health personnel	30 (16%)
	Inadequate infrastructure	30 (16%)
	Long queues(prolonged waiting time)	110 (58.5%)
	Busy schedules	213(55.6%)
Reasons for participating in ANC	Some health personnel are friendly	57(29.2%)
	Accommodated in the MCH department	21(10.8%)
	Accompanying partner for ANC results in being attended to swiftly	102(52.3%)
	It is an opportunity to participate in the caring for the pregnant partner	15(7.7%)
Attitude	Bad	188(49%)
	Good	195(51%)

Majority of the respondents 195 (50.9%) accompanied their partners for antenatal clinics and of these respondents, 57(29.2%) indicated that some health personnel were friendly and the majority 102(52.3%) revealed that they participated in ANC because they were attended to swiftly by the health personnel, a practice embraced by many MCH departments. However, the majority 213(55.6%) did not participate in ANC because they had busy schedules.

4.3.7 Associations between male involvement and dependent variables

Table 4.6: Associations between male involvement and Knowledge, Attitude, Health care system and Economic status

Variable		Male involvement in ANC		P Value
		Not involved	Involved	
Knowledge about male involvement in ANC	Low	197 (90%)	22 (10%)	p< 0.001
	High	65 (39.6%)	99 (60.4%)	
Attitude towards male involvement in ANC	Bad	147 (78.2%)	41 (21.8%)	p <0.001
	Good	115 (59%)	80 (41%)	
Health care system	Poor	139 (81.8%)	31 (18.2%)	p <0.001
	Good	123 (57.7%)	90 (42.3%)	
Economic status	Low	121 (78.6 %)	33 (21.4%)	p <0.001
	High	141 (61.6 %)	88 (38.4 %)	

From the Cross tabulation above in Table 4.6, statistically significant associations were observed between male involvement in ANC and knowledge about ANC ($p < 0.001$), attitude towards involvement in ANC ($p < 0.001$), health care system ($p < 0.001$) and economic status ($p < 0.001$). A higher proportion of respondents with high knowledge (60.4%) were involved in ANC as compared to respondents with low knowledge whose involvement stood at 10%. In respondents with good attitude towards involvement in ANC, the rate of involvement (41%) was higher than in respondents with bad attitude where it stood at 21.8%. In terms of the health care system, good health care was associated with a higher rate of male involvement in ANC (42.3%) as compared to bad health care where involvement was at 18.2%. Similarly, respondents with a high economic status were more involved in ANC (38.4%) as compared to those with a low economic status whose involvement rate was at 21.4%.

Binary Logistic Regression determining the independent variables associated with male involvement in antenatal care

The binary logistics regression was the final analysis done in order to examine the effect each independent variable had on male involvement in antenatal care. Odds ratio measures of effect were obtained as described in Table 8.

Table 4.7: Binary Logistic regression determining variables associated with male involvement in ANC

Variable	Odds ratio	95% C.I.	P value
Knowledge			
Low ***	1	- -	1
High	10.964	6.297-19.089	<0.001
Attitude			
Bad ***	1	- -	1
Good	0.665	0.211-2.091	0.485
Health care system			
Poor ***	1	- -	1
Good	2.961	0.906 – 2.661	0.072
Economic status			
Low	1	- -	1
High	0.062	0.880-2.661	<0.001

A binary logistic regression test was done as shown in Table 4.7 above to check the combined effects of Knowledge, Attitude, Health Care Systems and Economic Status on the involvement of males in ANC. From the analysis, it was observed that changes in Knowledge from low to high, Attitude from bad to good, Health Care Systems from poor to good, and Economic Status from low to high would all impact significantly on the outcome of the model. Changes in knowledge and economic status from low to high impacted significantly on the model, with a p-value of <0.001 respectively, while changes in the other variables were not statistically significant, with p-values

ranging from 0.072 to 0.485. Changes in knowledge from low to high raised the odds of involvement in ANC 10.964 times.

CHAPTER FIVE

DISCUSSION OF FINDINGS AND IMPLICATIONS TO THE HEALTH CARE SYSTEM

5.1 Introduction

The discussion of the study is based on analysis of data collected from a sample of three hundred eighty-three male respondents using an interview schedule. Drawing on quantitative data, the aim of the study was to determine factors associated with male involvement in antenatal care in Lusaka urban district. The chapter also includes the implications of the findings to the health care system, recommendations drawn from the findings and the study limitations.

5.2 Socio demographic characteristics of the participants

The study results revealed that of the respondents 37 percent were aged between 25-34 years, and the least (6.8%) fall in the age range 45-49 years. This age group is the most active in terms of child bearing because it has high fertility levels and is also attributed to the young age revolution experienced in Lusaka in which the majority of the residents are below 25 years (CSO, 2010) a finding consistent to current study findings. However the result is inconsistent with studies done in some developing countries. Berhamu (2015), in Ethiopia reported that men aged 36 years and above were more involved in ANC compared to those less than 36 years.

More than half (78.9%) of the respondents in this study were married. The reason being that, the majority of the respondents were drawn from men who were available at the health facility and could have escorted their wives for antenatal clinic at the time of data collection. Additionally, married males are more likely to be involved in their partners' maternity care as they are likely to have a deeper sense of responsibility towards their pregnant partners. Furthermore, married men usually possess positive communication skills and are more responsible during the antenatal period, compared to other relationships. These findings are consistent with a study conducted in New Delhi, India where married men were more involved in ANC than men in other relationships (Sinha, 2008); this was attributed to the extra responsibilities they adopted as heads of households during the

antenatal period. Of those who were married, 37.1 percent were aged between 25- 34 years. This is the age at which the majority of men, become independent and settle into marriage, a finding which is in line with Lusaka Province Analytical report based on the 2010 census in which the majority of men were married by the age of 25 years (CSO, 2010).

According to this study, the majority (91.1%) of the respondents had attained formal education with 31.6 percent reaching tertiary level of education. This is attributed to Lusaka being urban where the majority of the residents have easy access to educational services such as schools, colleges and universities. This is consistent with findings of Bhatta (2013) in Kathmandu, Nepal where sixty-four percent of the respondents who were involved in ANC had formal education and that there were positive health benefits, such as good maternal and fetal outcome. These positive educational outcomes were related to increased levels of education of men. Furthermore, there is a strong suggestion by studies that a male partner's higher level of education influences positively his involvement in ANC (Kakaire et al., 2011; Nanjala et al., 2012; Odimegwu et al., 2015). However, this is inconsistent with a study done by Ameu (2011) in Tanzania in which men who had not attained formal education were more involved in ANC than the educated counterparts. The current study revealed a statistically significant relationship between education and male involvement in ANC ($P=0.02$).

The study established that most (88.9%) of the respondents were Christians and were involved in ANC. This was an expected finding, as Lusaka urban district is populated mainly with Christians and the minority of residents belonging to other religions. This is attributed to Lusaka being largely a Christian city, with over 80 percent of the population believing in the Christian faith (Africa safari, 2015).

Slightly below half (39.7%) of the respondents were employed out of which 39.3 percent were involved in antenatal care. Study findings revealed that those who were employed were more involved in antenatal care than the unemployed and the retired ($p<0.001$). This demonstrates that high income level had a positive impact on the level of male involvement in ANC. Therefore, this meant that male partners who were employed had finances to support their spouses. This finding is consistent with a study conducted in Uganda by Kinuthia (2016) in which men of higher income earnings were more involved in ANC compared to participants with low income levels. To further

support this outcome, a study conducted by Craymah et al., (2017) in Ghana, established that unemployment was associated with low levels of male involvement in ANC as it was an indicator of financial inaccessibility to healthy facilities. However, the result is inconsistent with studies done in some developing countries. Berhamu and Tekelab (2014) in Ethiopia reported that men who were unemployed and had less income were two times more likely to be involved in ANC compared to those who were in formal employment and had a steady income.

This study indicates that, with regards to the number of children a family has, men in families with fewer children were more involved in antenatal care than those with larger families. From the respondents surveyed, the majority (60.6%) had between one to three children and were more involved in ANC ($p=0.015$). The possible explanation could be that smaller families had more resources to sustain them and support the pregnant partner more easily than larger families. On the contrary, Frances et al., (2015) in Myanmar recognized that families with more children were more involved in ANC; this was related to the vast experience that larger families had in maternal related health issues. However, this is not a common finding; Tweheyo et al., (2010) in Northern Uganda found that the intention to have more children was associated with lower male involvement in ANC, in that men with larger families were not involved in ANC as expected.

5.3 Knowledge on male involvement in ANC

Through this study it was established that the majority (75%) of the study respondents had heard about male involvement in ANC. This can be attributed to Lusaka being an urban area with the majority of the respondents having easy access to information. This finding is contradicting with Dharma (2013), whose study demonstrated that the vast majority of men in Nepal had no formal education but had heard about male involvement in antenatal care and demonstrated greater involvement in the care of their spouses during the antenatal period. This finding clearly showed that regardless of education level attained men were still knowledgeable on male involvement. Current study findings revealed that the majority (44.9%) of the respondents' source of information were health workers from different health institutions in Lusaka urban district. This evidently demonstrated the effectiveness of the health information delivered at health institutions, as the majority of the respondents acknowledged health personnel, exclusively, the midwives and nurses as a source of much information. Similarly, in a qualitative study conducted by Singh et al., (2014)

in two towns, Maligita and Kibiki in Uganda, it was revealed that most of the respondent's sources of knowledge were health workers. The findings affirm Sally et al., (2010) assertions in a descriptive cross sectional study conducted in East and Western Kenya that in any community, trained nurses and midwives constitute a knowledgeable class with regards to medical information.

The other sources of information on male involvement in ANC included the media, accounting for the majority (54%) of the respondents. This can be attributed to Lusaka being an urban district and the majority of the respondents had access to print and electronic media compared to other areas of the country. This finding is consistent with a study done in Malaysia in which the majority of men interviewed cited the media as their source of information on male involvement in ANC (Matthews et al., 2015). However, this finding is contrary to what Kapitatu et al., (2016) found in study in Malawi in which 46 percent of the respondents revealed that the media was not among their sources of information on male involvement in ANC. Furthermore the study findings indicated that 10.9 percent of the respondents revealed that friends and relatives were their source of information. This is an important finding, in that, it is an indication that respondents had social interactions in which valuable information was shared. This correlates with a study conducted in Guinea by Howard et al., (2008) where despite health workers being the primary source of reproductive health information for all respondents in the study, more men than women obtained information from non-health sources such as friends, relatives and the media.

Respondents had different perception on the commencement of male participation in ANC. The majority (79.6%) of the respondents indicated that the time for male involvement in ANC was when pregnancy was confirmed, 6.8 percent, when the pregnant woman complained of being neglected by their partners, further 11.4 percent indicated that the time they would be involved in ANC when their wives were about to go to a birthing place and the least 2 percent indicated that the optimal time was when the couple decided to have another child. These varied perceptions can be attributed to lack of uniformity and standardization of health education offered to men.

Knowledge of the complications that may arise due to lack male involvement in ANC is vital, as it has the capacity of enhancing male involvement in ANC. Furthermore, the result of this study showed that 27.9 percent of respondents were able to recognize complications that would arise if men were not involved in ANC. However, the majority (72.1%) of the respondents were not aware of the complications. This could be attributed to the low levels of knowledge amongst the respondents as established in this study. This is inconsistent with a study done in Ambo town in

Ethiopia in which 70 percent of the respondents were knowledgeable of the complications as a result of lack of male involvement in ANC (Dereje et al., 2016). This difference in the two studies can be attributed to unavailability of comprehensive and well prepared information on male involvement in ANC in Lusaka urban district.

5.4 Health care system and attitude of respondents

The majority (89%) of the respondent's spouses accessed their ANC from government run health institutions and only 11 percent were accessing ANC from private health institutions. This is because in Zambia and particularly Lusaka, ANC services are offered for free to pregnant women. Secondly, this could be attributed to the assertion by World Health Organisation in its 2014 country profile on health, in which the majority of Zambians were classified as being poor and could therefore not manage to meet medical expenses in private health institutions where ANC services are offered at a cost. Therefore, the cost attached to services at private health institutions is one of the contributing factors for respondents' spouses to have accessed ANC at public health institutions. Contrary to this finding, a study done by Isatou et al., (2012), revealed that the majority (70%) of women accessed ANC services from private institutions as they were highly satisfied with services offered.

Despite women mostly initiating the seeking of antenatal care during pregnancy, it was anticipated that men would accompany their spouses during all antenatal visits. This is an important criteria considered for male involvement in ANC. In this study, it was established that slightly above half (50.9%) of the respondents accompanied their partners for antenatal clinics and 49.1 percent did not. This undesirable finding could be attributed to the long queues as revealed by 58.5 percent of the respondents which were as a result of increased numbers of women attending antenatal services against a limited number of skilled personnel. This translated into couples spending more time at clinics; additionally MCH department infrastructures in Lusaka urban district were inadequate and did not cater for men who accompanied their spouses.

To assess other reasons for respondents' non-involvement in antenatal clinics, 15.9 percent of the respondents identified inadequate infrastructure and unfriendly health workers respectively as reasons for not attending ANC. These study findings are in agreement with results of a study done

in Adamawa state of Nigeria by Mful et al., (2016) in which men stated that long waiting hours attributed to long queues and poor and inadequate infrastructure prevented them from attending ANC. Similarly, Ebba (2013) found that men mostly stayed away from attending antenatal clinics due to long waiting time for antenatal and laboratory services, repeated antenatal visits and inadequate infrastructure to house men. However the current study findings do not tally with a study conducted in Mazabuka, Zambia in which men were encouraged to attend ANC through being offered space whilst attending antenatal care with their partners and were served swiftly and described treatment by health workers as excellent (Lungu, 2012).

5.5 Relationships between male involvement and independent variables

Respondent's level of involvement in ANC was determined by the level of knowledge they possessed. Male involvement in this study increased from 10 percent in respondents with low knowledge to 60.4 percent in respondents with high knowledge. This evidently demonstrated that knowledge in ANC has a positive effect on male involvement in ANC. Similarly, studies have demonstrated that men who are knowledgeable and have access to health education are more likely to accompany their spouses or partners for antenatal clinic and are more likely to get engaged in making decisions that are beneficial to their pregnant partners (JHPIEGO, 2015; Katz et al., 2009; McPherson et al., 2010).

The majority (59%) of the respondents exhibited good attitude and their rate of involvement in ANC was higher (41%) than in respondents with bad attitude (21.8%). Good attitude encompassed positive behaviors such as being supportive to the pregnant woman financially, emotionally and physically and these attributes promoted male involvement in ANC. These study findings are consistent with findings in quantitative study by Adenike et al., (2013) in Nigeria in which the majority, 56.6 percent of the respondents involved in ANC had a positive attitude.

In terms of the health care system, the study revealed that good health care system was associated with a higher rate of male involvement in ANC (42.3%) as compared to bad health care where involvement was at 18.2%. This huge difference in male involvement in ANC could be attributed to the fact that, poor health care demotivated men to participate in ANC, unlike good health care system which has a positive impact.

To substantiate this finding, a study by Gathuto (2014) in Kenya, established that bad health services such as harshness exhibited by health workers kept men off the service delivery areas. Similarly, respondents with a high economic status were more involved in ANC (38.4%) than those with a low economic status whose involvement rate was at 21.4 percent. The economic status in this study entails the amount of money study respondents were able to generate monthly. Therefore, respondents with high monthly income were more involved in ANC, because they had enough resources to use throughout the antenatal period. From further study findings, it was observed and established that, changes those with high knowledge compared to those with low knowledge, good attitude as compared to bad attitude, good health care systems as compared to bad health care systems, and high economic status would all impact significantly on the levels of male involvement in antenatal care ($p < 0.001$). This demonstrated the impact independent variables had on the outcome variable, male involvement in ANC. The odds of being involved for those with high knowledge were 10.964 times compared to those with low knowledge, making it more significant to the study.

5.6 Level of male involvement in ANC

Results from this study however indicate that, male involvement in ANC in Lusaka urban district was very low at 32 percent. This was due to factors such as low economic status, poor attitude of the male partners, poor infrastructure and low levels of knowledge on ANC. This study is consistent with the study in Kenya by Muia et al (2000), in which male involvement in ANC was low at only 13 percent. A study done by Britta et al (2013) in Nepal also revealed that only 39.3 percent of husbands were actively involved in ANC with their women. However, a study by Nesane et al., (2016) in South Africa, indicated higher male involvement in ANC than findings in this current study.

5.7 Implications of the study to Nursing

5.7.1 Nursing practice

The study findings showed that of respondents who were involved in ANC, only 42 percent had high levels of knowledge, a finding statistically significant to this study. It is therefore important that nursing staff and other health workers offer consistent and clear explanations on the importance of male involvement in ANC. In addition different platforms such as the print and electronic media should be utilised to promote and improve male involvement in ANC.

5.7.2 Nursing administration

This study shows that there was low (31.6%) involvement of men in ANC in Lusaka urban district a finding that calls for immediate interventions. It is necessary that improvements in staffing and infrastructure for mother and child health departments are worked on. The policy makers and reproductive health coordinators should do continuous monitoring, evaluation and review of the ANC strategies.

5.7.3 Nursing Education

In this study 85.9 percent of the respondents were aware about male involvement in ANC. Despite this positive finding, nurses should receive education on how to incorporate men in ANC. Consequently, nursing schools should graduate nurses who are competent enough and culturally sensitive to handle the aspect of male involvement in ANC and other areas of maternal and child health. This is through enhancing of their capacity to provide consistent reproductive health information to couples on a variety of subjects. There is also an urgent need to increase on the numbers of men trained in reproductive health programs such as midwifery, as the paucity of male staff at health facilities could be discouraging men from seeking the services with their partners.

5.7.4 Nursing Research

The study examined factors associated with male involvement in ANC in Lusaka urban district. There is need to do future research that will be both qualitative and quantitative in nature, with a focus on both pregnant women and their partner's satisfaction of ANC services. This will help to solicit information on factors associated with male involvement in ANC.

5.8 Conclusion and recommendation

5.8.1 Conclusion

The study determined the factors associated with male involvement in ANC in Lusaka urban district. The results of this study suggest that male involvement remains low (31.6%) with the

majority of the respondents exhibiting low (42.1%) levels of knowledge, a finding statistically significant ($p < 0.001$). Knowledge about male involvement in ANC, attitude of the male partners towards ANC, economic status of the respondents and health care system were found to be factors that are associated with male involvement in ANC. The study achieved its intended objectives as it revealed factors associated with male involvement which included health care system, economic status and attitude of the respondents. The level of awareness about involvement in ANC was ascertained as being at 85.9 percent with the level of male involvement in ANC at 31.6 percent. This calls for concerted efforts by all concerned personnel, through intensifying dissemination of information and continuous education on the availability of services as well as the benefits of male involvement in ANC.

The study therefore accepts the hypothesis that there is an association between male involvement in ANC and service related and social cultural factors.

5.8.2 Conclusion according to the Health Belief Model's major tenets

This study used the Health Belief Model. The model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action, explain engagement or lack of engagement in health promoting behavior.

This study established a low perceived risk of lack of male involvement in ANC as serious. The majority (79.6 %) of the respondents acknowledged that they needed to be involved in ANC from the time pregnancy was confirmed; however, 72.1 percent of the respondents were unaware of the possible complications that may arise due to their lack of involvement in ANC. This explains the low male involvement in ANC in this study.

Perceived barriers to male involvement in ANC were identified as long queues, poor infrastructure and unfriendly health personnel at points of access to services. This calls for a need to emphasize benefits of male involvement in ANC so that men can outweigh the perceived barriers in order for behavioral change to occur. In addition, men in this study were rightly aware of the period they needed to engage in ANC, as being the time pregnancy was confirmed. This could be the initial step in motivating them to get involved in the care of their pregnant women.

The commonest source of information for the respondents about male involvement in ANC was the health personnel (44.9 %). If these health personnel could embark on continuous dissemination of

information about male involvement in ANC through the media, health education talks in clinics and churches, the level of men involvement in ANC would raise.

There is need therefore, for dissemination of more information on male involvement in ANC as it has proven benefits to both for the mother and the unborn child.

5.8.3 Recommendations

As a measure to enhance male involvement in ANC, among men in Lusaka urban district, the following recommendations may help improve male involvement in ANC from the early stage of pregnancy:

1. Ministry of Health needs to provide health education messages targeting men through the media and community sensitisation on the importance of male involvement in ANC.
2. The Nurses and Midwives should emphasise the benefits of early male involvement in ANC who would be fathers so that benefits of male involvement in ANC are known in advance
3. Information Education Communication materials should be made available and distributed to places such as shopping malls, bars and churches for easy consumption by men

5.8.4 Future Research

Future research should focus on views of both pregnant women and their partner's satisfaction of ANC services.

5.8.5 Plans for dissemination of findings

The results of the study were presented at the post graduate seminar week on the 12th of October, 2019 held at Post graduate department, UNZA great east road campus. Then, the results were later presented to at the School of Nursing Sciences in February, 2019. The results will also be presented to various stake holders involved in the provision of maternal and child health at various fora such as, workshops and conferences. Lusaka Urban District health office would be given a copy of the study results report.

The results would be published in the School of Nursing Journal of Nursing and Midwifery, UNZA.

In addition four copies of the bound report would be printed and submitted to the following;

1. School of Nursing Sciences
2. UNZA Medical Library and Main library
3. Ministry of Health
4. Researcher

REFERENCES

- Adelekan, A. L., Edoni, E. R., and Olaleye., O. S. (2013). **Married Men Perceptions and Barriers to Participation in the Prevention of Mother-to-Child HIV Transmission Care in Osogbo, Nigeria.** *Journal of Sexually Transmitted Diseases*, 2014, 680962. Available from: <http://doi.org/10.1155/2014/680962> at 02:30hrs.
- Auvinen, J., Kylmä, J., Valimaki, M., Bweupe M., and Suominen., T. (2013). **Male Involvement and Prevention of Mother-to-Child Transmission of HIV in Sub-Saharan Africa: An Integrative Review.** *Midwifery Journal*, vol 30, no. 1, pp 17-27, 2014. Available from: <https://www.ncbi.nlm.nih.gov>
- Abubakar, I.S., Galadanci, H.S., and Aliyu, M.H. (2010). Birth Preparedness, Complication Readiness and Fathers' Participation in Maternity Care in a Northern Nigerian Community. *African Journal of Reproductive Health* 2010, 14:21-32. Available from: <https://www.ncbi.nlm.nih.gov> on 19.08.2018 at 12:30hrs
- Boskey, E., (2018) 'Health belief model', Retrieved from <https://www.verywell.com/health-belief-model-3132721> 19.08.2018 at 12:50 hrs.
- Bhatta, N.D., (2013). Involvement of males in antenatal care, birth preparedness, exclusive breast feeding and immunizations for children in Kathmandu, Nepal. *BMC pregnancy and childbirth*, vol. 13(1), Available from: <https://bmcpregnancychildbirth.biomedcentral.com>
- Britta, C., Mullany, S., Becker M.J., (2007). The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: results from a randomized controlled trial, *Health Education Research*, Volume 22, Issue 2, 1 April 2007, Pages 166–176, available from <https://doi.org/10.1093/her/cyl060> on 20.10.18 at 18:00hrs
- Fraser., M. and Cooper., A. (2007). **Myles textbook for Midwives.** 14th ed. Churchill Livingstone, Philadelphia. Geneva, Switzerland.
- Cohen., S. and Burger, M. (2014). Partnering: A new approach to sexual and reproductive health; Technical Paper No. 3. United Nation Population Fund.
- Char., A. (2011). Male involvement in family planning and reproductive health in rural central India. Finland, University of Tampere.

Central Statistical Office, Ministry of Health, Tropical Diseases Research Centre, University of Zambia & Macro International Inc. (2013-2014), **Zambia Demographic and Health Survey 2013-2014**. Calverton, Maryland, USA: CSO and Macro International Inc.

Draper.,H.and Ives., J. (2013). Men's involvement in antenatal care and labour: Rethinking a medical model. Birmingham: Elsevier Ltd, Elsevier Inc.

Dharma, N. B., (2013).Involvement of Males in Antenatal Care, Birth Preparedness, Exclusive Breast feeding and Immunizations for Children in Kathmandu, Nepal.University of California, San Francisco.

Glanz, K.,Rimer B.K., Lewis F.M., (2002).Health behaviour and health education: theory, research and practice. San Francisco: Wiley and Sons.

Graham,W.J., (2002). Male involvement and prevention of mother to child transmission of HIV in sub-Saharan Africa an integrative review, SAGE.

Gathuto, M.N., (2014).Factors influencing male participation in antenatal care in Kenya: a case of Kenyatta National Hospital, Nairobi, Kenya. University of Nairobi.

Hochbaum, G. M., (1958). Public participation in medical screening programs: A sociopsychological study. (Public Health Service, PHS Publication 572). Washington, DC, U. S. Government Printing Office.

Godlove, N.N., Meyer, D.J., Tih, P.M. and Nkusai, J., (2010). Barriers to men's participation in antenatal and prevention of mother-to-child HIV transmission care in Cameroon. *Journal of Midwifery and Women's Health* Volume 55, No. 4, July/August, 2010. Accessed from <https://onlinelibrary.wiley.com> on 20.10.18 at 12:05hrs

Jayne, E.M., and Maureen D.R., (2014). *Myles Text book for Midwives*. Elsevier Ltd, UK.

Jennings, L., Na, M., Cherewick, M., Hindin, M., Mullany, B., and Ahmed, S. (2014). Women's empowerment and male involvement in antenatal care: analyses of Demographic and Health Surveys (DHS) in selected African countries. *BMC Pregnancy and Childbirth*, vol14, issue number 297. Accessed from: <https://doi.org/10.1186/1471-2393-14-297> on 20.11.18

Tweheyo, R., Konde-Lule,J., Tumwesigye, N.M.,Sekandi J.N., (2010). Male partner attendance of skilled antenatal care in peri-uranGulu district, Northen Uganda.

Kani, M., (2013) mother's Social Constructions of Male Involvement in Maternity Care inChinsaliDistrict, The University of Zambia.

Kululanga, L.I., Sundby, J., Malata, A. and Chirwa, E., (2012) Male Involvement in Maternity Health Care in Malawi. African Journal of Reproductive Health, 16, 145-157.Accessed from: [https:// www.ncbi.nlm.nih.gov](https://www.ncbi.nlm.nih.gov) on 18.11.18 at 11:00hrs.

Kinanee,J.B., and Ezekiel-Hart J., (2009). Men as partners in maternal health: Implications for reproductive health counseling in Rivers State, Nigeria. Journal of Psychology and Counseling vol. 3, issue 1:039-044. Accessed from: [https:// www.academicjournals.org](https://www.academicjournals.org) on 12.08.18 at 09:00hrs.

Lusaka District Health Office, Health Managment Information System 2014 -2016 records.

Lindstrand, A.,Bergstrom.S.,Rosling.H., Rubenson.B., Stenson .B., and Tylleskar,T., (2006).Global health an introductory text book.Studentlitteratur AB, Sweden.

Mullick, S., Kunene, B. and Wanjiru,M., (2005).Involving men in Maternity care: Health service delivery issues (2005); Available at:https://www.popcouncil.org/pdfs/frontiers/journals/Agenda_Mullick05.pdf Accessed on 15.02.18.

Muloongo, H., (2015). Men's perspectives on male participation in antenatal health care with their expectant wives at Arakan Garrison Hopsital in Lusaka , Zambia. Master Degree dissertation, University of Zambia.

Morfaw ,F.,Mbuagbaw ,L., Thabane, L., Rodrigues ,C., Wunderlich, A.P., Nana ,P. andKunda J., (2013).Male involvement in prevention programs of mother to child transmission of HIV: a systematic review to identify barriers and facilitators. US National Library of Medicine.

Mullany,B.C., Becker S, Hindin M.J.,(2006). The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: results from a randomized controlled trial. Available from: <http://www.acdemic.ouo.com> on 29.05.18 at 02:30hrs.

Nguni, C.M., (2014). Exploration and description of barriers to male participation in antenatal and prevention of mother to child transmission of HIV services in Mumbwa district in Zambia. University of Western Cape, South Africa.

Nesane, K., Maputle, S.M., Shilubane, H., (2016). Male partners' views of involvement in maternal healthcare services at Makhado Municipality clinics, Limpopo Province. University of Venda, South Africa.

Polit, D.F., and Hungler, B.P., (2012). Nursing Research: Principles and Methods, 7th ed. Lippincott Williams and Wilkins, Philadelphia.

Peltzer, K., Mosala, T., Dana, P., Fomundam, H., (2015). Follow-up survey of women who have undergone Prevention of Mother to Child Transmission (PMTCT) in a resource poor setting in South Africa. JANAC.

Secka, E., (2014). Men's involvement in care and support during pregnancy and childbirth. A qualitative study conducted in the Gambia. University of Oslo, Norway.

Theuring, S., Mbezi, P., Luvanda, H., Jordan-Harder, B., Kunz, A., and Harms, G., (2010). Male involvement in PMTCT services in Mbeya Region, Tanzania. Charite University, Germany.

United Nations. Report of the International Conference on Population and Development, (1995). Cairo, Egypt. Retrieved from <https://www.ippf.org/> on 10-10-2009

World Health Organization. Programming for male involvement in reproductive health: Report of the meeting of WHO regional advisers in reproductive health WHO/PAHO, Washington, DC, USA, 5-7 September 2014. Geneva, Switzerland. Retrieved from <http://www.whqlibdoc.who.com> on 10-10-2017.

Walston, N., (2014). Challenges and Opportunities for Male involvement in Reproductive Health in Cambodia. USAID Policy Project. Retrieved from <http://www.policyproject.com/pubs/countryreports> on 16.03. 2017

World Health Organization, (2002). Programming for male involvement in reproductive health. Report of the meeting of WHO Regional Advisors in reproductive health. WHO/PAHO, Washington DC, USA 5-7 September 2001. Geneva: WHO: 54-57. (WHO/FCH/RHR/02.3).

APPENDICES

APPENDIX I: INFORMATION SHEET

TITLE OF SYUDY: FACTORS ASSOCIATED WITH MALE INVOLVEMENT IN ANTENATAL CARE IN LUSAKA URBAN DISTRICT

I, Mwila Kennedy; a student of Master of Midwifery Women and Child's health at the University of Zambia is kindly requesting for your participation in the research study mentioned above, because it is important to investigate factors associated with male involvement in ANC. Before you decide whether or not to participate in this study, I would like to explain to you the purpose of the study, any risks or benefits and what is expected of you. Your participation in this study is entirely voluntary. You are under obligation to participate; you may choose to participate or not to participate. You have the freedom to withdraw at any point even during the interview. Refusal to participate in the study will not affect your care at the hospital. If you decline to participate, no privileges will be taken away from you. If you agree to participate, you will be asked to sign a consent form in front of someone. Agreement to participate will not result in any immediate benefits.

PURPOSE OF THE STUDY

The study will determine factors associated with male involvement in ANC. This is important as the information obtained will help the district health office in Lusaka and the Ministry of Health to take measures in ensuring that men are involved in the care of their pregnant partners during the antenatal period.

PROCEDURE

The study involves a face to face interview with the data collectors who will ask you a set of questions using a structured questionnaire. After signing the consent form, you will be asked relevant questions and your responses will be recorded on the questionnaire. The interview will take about 30 minutes.

RISKS AND DISCOMFORTS

There is no risk involved in this research though part of your time will be utilized to answer some questions. Some questions may seem to sensitive and personal. Care will be taken not to embarrass you.

BENEFITS

There is no direct benefit to you by participating in this study, but the information which will be obtained will help the policy makers to come up with measures to help engage men in ANC. No monetary favors will be given in exchange for information obtained, but education will be given on the benefits of male involvement in ANC.

CONFIDENTIALITY

Your research records and any information you will give will be confidential to the extent permitted by law. You will be identified by a number, and personal information will not be released without your written permission except when required by law. The Ministry of Health, the University of Zambia Research Ethics Committee or the School of Nursing may review your records again but this will be done with confidentiality

APPENDIX II: VOLUNTARY CONSENT FORM DECLARATION

TITLE OF STUDY:

FACTORS ASSOCIATED WITH MALE INVOLVEMENT IN ANATENATAL CARE IN LUSAKA URBAN DISTRICT

I have been explained to and I understand the nature, confidentiality, purpose, benefits, risks and discomforts of the research in which I have been requested to participate. I also understand that taking part in this study is purely voluntary. I further understand that even after having agreed to take part in this study, I can at any time withdraw without having to give an explanation.

The opportunity to ask questions about the research was given and I have been answered to my satisfaction

I therefore agree to participate.

I _____ hereby called the respondent understands the guidelines of this study and I am willing to participate in the study.

Dated this _____ day of _____ 2018

Signature / thumb print of respondent _____

Witness _____

PERSONS TO CONTACT FOR PROBLEMS OR QUESTIONS

1. Kennedy Mwila, University of Zambia , School of Nursing Sciences , PO Box 50110, Lusaka, Cell: 0977 325 848, Email: kennedymmwesa@yahoo
2. Mr Yolanda Banda, University of Zambia , School of Nursing Sciences , PO Box 50110, Lusaka, Cell: 0977 504 109, yolanbanda@yahoo.com
3. The Chairman , Research Ethics Committee, University of Zambia, PO Box 50110, Lusaka +260-1-256067, unzarec@unza.com

THE UNIVERSITY OF ZAMBIA

SCHOOL OF NURSING SCIENCES

SEMI-STRUCTURED INTERVIEW SCHEDULE

**TOPIC: FACTORS ASSOCIATED WITH MALE INVOLVEMENT IN ANTENATAL
CARE IN LUSAKA URBAN DISTRICT**

DATE OF INTERVIEW: _____

PLACE OF INTERVIEW: _____

NAME OF INTERVIEWER: _____

SERIAL NUMBER: _____

INSTRUCTIONS FOR THE INTERVIEWER

1. Introduce yourself to the respondent
2. Explain the reason for the interview
3. Do not write the name of the respondent on the interview schedule
4. Tick the most appropriate response to the question or fill in the answer on the space provided.
5. Assure the respondent of confidentiality and anonymity.
6. Provide time for the respondent to ask questions at the end of the interview.
7. Thank the respondent at the end of each interview.

SECTION A

SOCIO-DEMOGRAPHIC DATA

1. How old were you at your last birth day?

- a. 15-24 years
- b. 25-34 years
- c. 35-44 years
- d. 45-49 years

2. What is your marital status?

- a. Single
- b. Married
- c. Divorced
- d. Windowed
- e. Cohabiting

3. Years in present marriage

- a. Below 2 years
- b. 2-4 years
- c. 4-6 years
- d. Above 6 years

4. Type of marriage

- a. Monogamy
- b. Polygamy

5. Religion

- a. Christian
- b. Muslim
- c. Hindu
- d. Buddhist
- e. Other (specify)_____

6. If Christian what is your denomination

7. What is your level of education?

- a. None
- b. Primary
- c. Secondary
- d. College
- e. University

8. Employment status

- a. Employed
- b. Unemployed
- c. Self employed
- d. Pensioners

9. If employed, what is your occupation?

10. Monthly personal income

- a. Less than K3000
- b. K3000-K5000
- c. K1000-K3000
- d. Less than K1000-no income

11. Residential area

- a. High density
- b. Medium density
- c. Low density
- d. Others specify _____

12. How many children do you have?

- a. 1 to 3
- b. 4 to 6
- c. 7 to 9
- d. 10 and above

SECTION B KNOWLEDGE MALE INVOLVEMENT IN ANC

13. Have you ever heard about male involvement in ANC?

a. Yes

b. No

14. If your answer is yes in question 13, where did you hear from?

a. Health personnel

b. Media

c. Friends

d. Relatives

e. Other specify _____

f.

15. By the way, do you know that male partners can be involved in ANC?

a. Yes

b. No

16. In your opinion do you feel men should be involved in ANC

A. Yes

B. No

17. Do you feel it is your responsibility to take care of you partner during pregnancy?

a. Yes

b. No

18. If your answer to question 17 is yes, how should you be involved in ANC?

a. Provision of finances

b. Emotional support

c. Financial support

d. Others specify _____

19. At what stage should men be involved in ANC

- a. When pregnancy has been confirmed
- b. When the pregnant woman complains of being neglected by the male partner
- c. During preparation to go to the birthing place
- d. Others specify _____

20. What do you understand by Male involvement in ANC?

21. What are the benefits of a male partner involvement in ANC?

- a. To monitor the progression of the pregnancy
- b. To detect any abnormalities of pregnancy
- c. The woman has an opportunity of being given iron supplements
- d. The woman has an opportunity of being immunised
- e. Others specify _____

22. Are you aware of any complications that might arise due to lack of male involvement in ANC?

- a. Yes
- b. No

23. If yes, which problems do you know?

SECTION C: SERVICE RELATED FACTORS

24. Where does your partner access antennal care from?

- a. Private health institution
- b. Government health institutions
- c. Other specify _____

25. Do you escort your partner for ANC?

- a. Yes
- b. No

26. If the answer to question 25 is no, why don't you escort your partner for ANC?

- a. The health personnel are unfriendly
- b. The infrastructure is inadequate to accommodate men
- c. There are long cues
- d. Others specify _____

27. If the answer to question 25 is yes, why do you escort your partner for antenatal?

- a. The health personnel are friendly
- b. The infrastructure has enough space to accommodate men
- c. We are attend to quickly
- d. Others specify _____

SECTION D SOCIO-CULTURAL FACTORS

28. Do you know of any socio-cultural beliefs that may hinder male involvement in ANC

- a. Yes
- b. No

29. What cultural beliefs hinder male involvement in ANC?

30. Do you know of any misconceptions that hinder male involvement in ANC?

- a. Yes
- b. No.

31. If your response to question 30 is yes state those misconception concerning male involvement in ANC

THE END

APPENDIX IV: REQUISITION LETTER TO LUSAKA DISTRICT HEALTH OFFICE



THE UNIVERSITY OF ZAMBIA SCHOOL OF NURSING SCIENCES

Tel: +260 211 252453
Fax: +260 211 252453
Website: www.unza.zm
Email: dean-nursingscience@unza.zm

School of Nursing Sciences Building
University Teaching Hospitals
P.O Box 50110
Lusaka, Zambia

6th March, 2017.

The District Medical Officer,
Lusaka District Medical Office,
P.O Box 50827,
Lusaka.

Dear Sir/Madam,

**RE: PERMISSION TO COLLECT INFORMATION FOR RESEARCH PROPOSAL
DEVELOPMENT – MWILA KENNEDY (2016144808)**


Mwila Kennedy is currently a student pursuing Master of Science in Midwifery and Women's Health at the University of Zambia, School of Nursing Sciences.

The student is required to carry out a research study in partial fulfilment for the masters degree. His research title is, "Factors Associated with Male Involvement in Antenatal Care in Lusaka Urban District". The student is currently at the level of proposal development.

The purpose of writing this letter is to request your office to allow the student to collect the information required for the development of his research proposal.

Your support is highly appreciated.

Yours faithfully,


Mwalisa Mbewe Shitima (Mrs)
LECTURER/RESEARCH SUPERVISOR

Cc: Dean, School of Nursing Sciences
Assistant Dean (PG), School of Nursing Sciences
File

**APPENDIX V: AUTHORISATION TO CONDUCT RESEARCH FROM LUSAKA
DISTRICT HEALTH OFFICE**

P. O. Box 50827
Lusaka
Tel: +260-211-235554
Fax: +260-211- 236429



REPUBLIC OF ZAMBIA

**MINISTRY OF HEALTH
LUSAKA DISTRICT HEALTH OFFICE**

6th July, 2017
Mwila Kennedy (2016144808)
University of Zambia
School of Nursing Sciences
Lusaka


In reply please quote:
No:.....

**RE: REQUEST FOR AUTHORITY TO COLLECT INFORMATION FOR
RESEARCH PROPOSAL DEVELOPMENT**

Refer to the above subject matter.

The Lusaka District Health Office has granted you permission to collect information for research proposal development on the research title, **'Factors Associated with male involvement in antenatal care (ANC) in Lusaka urban district'**

By this letter the health centre in charges are advised are advised to accord you the necessary assistance that you need and ensure that the research findings are shared with the district


Dr. W. Mbeve
AG CLINICAL CARE DIRECTOR
LUSAKA DISTRICT

APPENDIX VI: REQUISITION LETTER TO UNZABREC

Kennedy Mwila

The University of Zambia

Ridgeway Campus

School of Nursing Sciences

PO Box 50110

Lusaka

9th July 2017

The Chairperson

Biomedical Research Ethics Committee

Ridgeway Campus

PO Box 50110

Lusaka

Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a postgraduate student at Ridgeway Campus, School of Nursing, pursuing my Master degree in Midwifery and Women's Health. I am scheduled to conduct research in Lusaka Urban district on factors associated with male involvement in antenatal care (ANC).

This is in view of the sharp decline in male involvement in ANC as shown by the latest statistics in the district. This is however despite efforts that could have been instituted by the government and the relevant stake holders. The research will contribute positively to the body of knowledge and it will also enhance the formulation of strategies on improving male involvement in ANC.

Your favourable response will be appreciated.

Yours faithfully,

Mwila Kennedy



0978122543

student number: 0016144808

APPENDIX VII: AUTHORISATION LETTER FROM UNZABREC



THE UNIVERSITY OF ZAMBIA

BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@unza.zm
Assurance No. FWA00000338
IRB00001131 of IORG0000774

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

10th October, 2018.

REF. No. 012-07-18.

Mr. Kennedy Mwila
University of Zambia,
School of Nursing,
P.O. Box 50110,
Lusaka.

RE: "FACTORS ASSOCIATED WITH MALE INVOLVEMENT IN ANTENATAL CARE (ANC) IN LUSAKA URBAN DISTRICT" (REF. No. 012-07-18)

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee (UNZABREC) on 3rd October, 2018. The proposal is approved. The approval is based on the following documents that were submitted for review:

- a) Study proposal
- b) Questionnaires
- c) Participant Consent Form

APPROVAL NUMBER

: REF. 012-07-18

This number should be used on all correspondence, consent forms and documents as appropriate.

- **APPROVAL DATE** : 10th October, 2018
- **TYPE OF APPROVAL** : Standard
- **EXPIRATION DATE OF APPROVAL**: 9th October, 2019
After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the UNZABREC Offices should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING**: All SAEs and any other serious challenges/problems having to do with participant welfare, participant safety and study integrity must be reported to UNZABREC within 3 working days using standard forms obtainable from UNZABREC.
- **MODIFICATIONS**: Prior UNZABREC approval using standard forms obtainable from the UNZABREC Offices is required before implementing any changes in the Protocol (including changes in the consent documents).
- **TERMINATION OF STUDY**: On termination of a study, a report has to be submitted to the UNZABREC using standard forms obtainable from the UNZABREC Offices.
- **NHRA**: Where appropriate, apply in writing to the National Health Research Authority for permission before you embark on the study.
- **QUESTIONS**: Please contact the UNZABREC on Telephone No.256067 or by e-mail on unzarec@unza.zm.
- **Other**
 - Please be reminded to send in copies of your research findings/results for our records. You're also required to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study.

Yours sincerely,

Dr. S.H Nzala
VICE-CHAIRPERSON

**APPENDIX VIII: REQUISITION LETTER TO NATIONAL HEALTH RESEARCH
AUTHORITY**



**THE UNIVERSITY OF ZAMBIA
SCHOOL OF NURSING SCIENCES**

Tel: +260 211 252453
Fax: +260 211 252453
Website: www.unza.zm
Email: dean-nursingscience@unza.zm

School of Nursing Sciences Building
University Teaching Hospitals
P.O Box 50110
Lusaka, Zambia

1st October, 2018.

The Director
National Health Research Authority
Lusaka.

Dear Sir/Madam,

**RE: REQUEST FOR PERMISSION TO COLLECT DATA, A RESEARCH STUDY
MWILA KENNEDY (2016144808) UNZABREC REF No 021-07-18**

Mwila Kennedy Is currently a student pursuing a Masters in Midwifery programme at the University of Zambia, School of Nursing Sciences. He is required to carry out a research study in partial fulfilment of the programme. His research title is "**Factors Associated with Male Involvement in Antenatal Care (ANC) in Lusaka Urban District**".

The purpose of writing this letter is to request your office to allow the student to collect data.

Your support is highly appreciated.

Yours faithfully,

MR. Yolanda Banda
LECTURER/RESEARCH SUPERVISOR

Cc: Dean, School of Nursing Sciences
Assistant Dean (PG), School of Nursing Sciences
File

APPENDIX IX: AUTHORITY TO CONDUCT RESEARCH FROM NATIONAL HEALTH RESEARCH AUTHORITY



THE NATIONAL HEALTH RESEARCH AUTHORITY
Paediatric Centre of Excellence
University Teaching Hospital
P.O. Box 30075
LUSAKA
Telephone: +260 211 250309 | Mobile: +260 95 5632726
Email: znhrasec@gmail.com | Website: www.nhra.org.zm

25th October, 2018

Mr Kennedy Mwila
University of Zambia
School of Nursing Sciences
P.O Box 50110
LUSAKA

Re: Request for Authority to Conduct Research

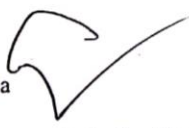
The National Health Research Authority is in receipt of your request for authority to conduct research titled “**Factors Associated with Male Involvement in Antenatal Care (ANC) Lusaka Urban District**”.

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA quarterly from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,

Dr. Godfrey Biemba
Director/CEO
National Health Research Authority



All correspondences should be addressed to the Director/CEO National Health Research Authority