

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI,
GHANA

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF POPULATION AND REPRODUCTIVE HEALTH

FACTORS INFLUENCING MALE PARTICIPATION IN ANTENATAL CARE IN THE
KUMASI METROPOLIS, GHANA

BY

SHAM-UNA UMAR

MAY, 2015

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI, GHANA

FACTORS INFLUENCING MALE PARTICIPATION IN ANTENATAL CARE IN THE
KUMASI METROPOLIS

BY
SHAM-UNA UMAR

A THESIS SUBMITTED TO THE DEPARTMENT OF POPULATION AND
REPRODUCTIVE HEALTH, COLLEGE OF HEALTH SCIENCES, SCHOOL OF
PUBLIC HEALTH, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF PUBLIC HEALTH IN POPULATION AND
REPRODUCTIVE HEALTH

MAY, 2015

DECLARATION

I hereby do declare that except for references to other people's work which have been duly acknowledged, this piece of work is my own composition and neither in whole nor in part has this work been presented for the award of a degree in this university or elsewhere.

SIGNATURE

DATE:.....

SHAM-UNA UMAR

(CANDIDATE)

SIGNATURE.....

DATE.....

DR. SAM NEWTON

(ACADEMIC SUPERVISOR)

SIGNATURE.....

DATE:.....

.....

(HEAD OF DEPARTMENT)

ABSTRACT

Male partners play a critical role in Reproductive Health and are gradually being incorporated into family planning programs, maternal care and HIV/AIDS prevention programs. There is however rare participation of men in ANC, labour, post-natal care (PNC) and management of infertility in this setting. For the very few men who would want to be involved in maternal care, existing situations (congestion in hospitals, attitude of health workers, socioeconomic restraints) militate against their full participation. This study was conducted to assess factors influencing male participation in ANC in the Kumasi metropolis. The study was a cross-sectional study involving 410 men 18 years and above who are partners of women who attend or have ever attended ANC or post-natal in the Kumasi metropolis. A total of three metropolitan hospitals were randomly selected from the five metropolitan hospitals. Data was collected by questionnaire and analysed using STATA version 11. Logistic regression was ran to assess the predictors of male ANC attendance in the Kumasi metropolis. All statistical tests were two-sided and considered significant at $p < 0.05$. Majority (65%) of the respondents had never accompanied their partners to antenatal clinic. Predictors of male participation in ANC in the multivariable analysis were age, level of education, marital status, distance to the facility, perception of programmes at ANC, having prior discussion on ANC with health worker, having prior discussion of ANC with friends and knowing another man who attends ANC with wife or partner. Personal recommendations to improve male participation in ANC included frequent advertisement on the TV or radio, reducing waiting time at ANC, giving men priority at the ANC and increasing male staff at the ANC. There should be improved efforts by stakeholders to ensure increased participation of men in their spousal participation in ANC.

DEDICATION

I dedicate this dissertation work to my family and friends. A special feeling of gratitude to my loving mum Zinatu Zakariya whose words of encouragement and advice have been an ever present phenomenon in my life and have served as a driving force and direction to all I have achieved in my life. My sister, Badaria, brothers Mohammed, Ismail and Abdul-Rauf have never left my side and are very special. I also dedicate this work to my many friends who have supported me throughout this work , most notably Yussif Issah of KNUST library.

I dedicate this work to my mentor and guardian Alhaj Professor S.Y. Peligah for readily taking me into his family and making every effort to see me take my rightful position leading up to my initial admission to the KNUST. He has ever since remained a father , teacher and guide to me. My dedications will not be complete without a mention of his wife Mrs. Peligah for all her care and concern, as well as Dr Addai of Chemistry Department, KNUST and his wife Madam Diana for their special endeavour to securing my deserved admission to the university in 1997. To all of you I say thank you.

ACKNOWLEDGEMENTS

I wish to express my special thanks to my supervisor, who was more than generous with his time and spent countless hours reading through and correcting my work and for his encouragement and tremendous patience. Thank you Dr. Sam Newton. I also thank all the lecturers of the School of Public Health of the Kwame Nkrumah University of Science and Technology for imparting so much knowledge to us during the course of the program.

I would like to acknowledge and thank my good friend Daniel Boateng for his able and careful statistical analysis of my data. I do pay a debt of gratitude to the Kumasi Metro Director of Health, Dr Awudzie Yeboah for his approval to use the selected facilities for data collection as well as to the management of the Tafo Government Hospital, North Suntreso Hospital and Manhyia Hospital for their permission to use their facilities for my data collection. Finally I would like to thank Mr. Umar Mohammed of Tafo Government Hospital for his assistance with the data collection and Ms. Joan Philippine Quarshie for helping me with the data entry.

TABLE OF CONTENTS

DECLARATION.....	iii
ABSTRACT	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
ABBREVIATIONS.....	xii
CHAPTER ONE.....	1
INTRODUCTION	1
1.0 Background	1
1.1 Problem Statement	2
1.3 Study Questions.....	5
1.4 General Objective.....	5
1.5 Specific objectives.....	5
1.6 Conceptual Framework	5
1.7 Definition of terms	8
CHAPTER TWO.....	9
LITERATURE REVIEW	9
2.0 Overview	9
2.1 Male Involvement in Maternal Health Care Services	11

2.2 Factors affecting Male Involvement in Maternal Health Care Services	15
CHAPTER THREE	20
METHODOLOGY	20
3.1 Study type and design	20
3.2 Study site	20
3.3 Study population	21
3.4 Sampling and sample size	22
3.5 Data collection techniques and tools	23
3.6 Pre-testing	25
3.7 Data Handling and Storage	25
3.8 Data Analysis Plan	25
3.9 Ethical Consideration	26
CHAPTER FOUR	27
RESULTS	27
4.0 Introduction	27
4.1 Background characteristics of respondents	27
4.2 Enabling factors in attending ANC among men	29
4.4 Men participation and experience with ANC	32
4.5 Factors influencing male participation in ANC	35
CHAPTER FIVE	44
DISCUSSION	44
5.0 Introduction	44
5.1 Utilization of ANC among men	44
5.2 Predisposing factors influencing ANC utilization	45
5.3 Enabling factors	47

5.4 Reinforcing factors	48
CHAPTER SIX	50
CONCLUSIONS AND RECOMMENDATIONS	50
6.0 Introduction	50
6.1 Conclusion.....	50
6.2 Recommendation.....	51
REFERENCES	53
APPENDIX A	57
QUESTIONNAIRE	57

LIST OF TABLES

TABLES	PAGE
Table 1: Sample size and sampling interval	22
Table 2: variables of the study	24
Table 4.1: summary of socio-demographic characteristics of respondents	29
Table 4.2: Summary of enabling factors in attending ANC	31
Table 4.3: Summary of reinforcing factors in ANC attendance	32
Table 4.4: Reponses on male participation in ANC	35
Table 4.5: Results of bivariate analysis of socio-demographic factors influencing ANC attendance	38
Table 4.6: results of bivariate analysis of enabling factors influencing ANC attendance	40
Table 4.7: Results of bivariate analysis of reinforcing factors influencing ANC attendance	42
Table 4.8: Multivariable analysis of demographic factors influencing AND attendance among men	43
Table 4.9: Multivariable analyses of demographic and enabling factors influencing male attendance in ANC	44
Table 4.10 : Results of multivariable analysis of all factors influencing decision to attend ANC	46

LIST OF FIGURES

FIGURES	PAGE
Figure 4.1 Bar chart of Responses on source of information about ANC	32
Figure 4.2 Pie chart of male participation in ANC	34
Figure 4.3 Bar chart of recommendations to improve male participation in ANC	36

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
AOR	Adjusted Odd's Ratio
CHRPE	Committee on Human Research, Publication And Ethics
CHAG	Christian Health Association of Ghana
ENT	Ear Nose And Throat
ICPD	International Conference On Population And Development
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
IPPF	International Planned Parenthood Federation
KATH	Komfo Anokye Teaching Hospital
KMHD	Kumasi Metropolitan Health Directorate
MCH	Mother and Child Hospital
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
MHS	Malawian Health Survey
MDHS	Malawi Demographic and Health Survey
NGO	Non-governmental Organisation
PNC	Post- natal Care
RH	Reproductive Health
STI	Sexually Transmitted Infection
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund

CHAPTER ONE

INTRODUCTION

1.0 Background

Globally, low male involvement in maternal health care services remains a problem to health care providers and policy makers. For many years, Reproductive Health (RH) issues focused on women in terms of Family Planning, Abortion, management of infertility, Sexually Transmitted Infections among others. Pregnancy and childbirth are privilege functions of women essential for the survival of our species but often accompanied by potential risks that women should be protected from, and this responsibility calls for collective support of the entire family notably the husband, the community and the state as a whole. The International Conference on Population and Development (ICPD) in Cairo 1994 was the turning point in recognizing the critical role of men in RH. Men's reproductive responsibilities received global attention at the ICPD and the Fourth Conference of Women in Beijing in 1995(WHO, 2001). Resolutions of both meetings advocated for men's shared responsibility, promotion of their active involvement in responsible parenthood, and reproductive and sexual health behaviour (WHO, 2001). Family planning policies were to be more extensive- including prevention and treatment of sexually transmitted infections and to equally attend to the needs of adolescents, men and the unmarried woman (Hansen 2006). Further, the role of men in reproductive health was to be elaborated in three different levels: Men as clients, men as partners and men as agents of positive change. Following the efforts by the ICPD, there have been a number of attempts to further buttress the need to actively involve men in various RH issues (Dewi 2009).

Gender norms (societal expectations of how men and women will behave) strongly influence access to Reproductive Health (RH) services and health-seeking behaviour. Majority of global reproductive health programs in developing countries involves education of women on issues concerning maternal health care and Family Planning (FP). However in many of these societies, it is the male partner who wields decision-making power in the relationship including when to have children, when to seek health care, or whether protection will be used during sex (Engender Health/Men as Partners, 2011). Male partners thus play a critical role in reproductive health and are gradually being incorporated into FP programs, maternal care and HIV/AIDS prevention programs. In sub-Saharan Africa, pregnancy and childbirth are viewed as solely a woman's issue (JHPIEGO, 2001). A male accompanying to attend ANC is rare and in many African communities it is unthinkable to find male partners accompanying the pregnant woman to the labour room (Babalola et al, 2009).

The situation in Ghana is similar to what pertains in other African countries. A cursory look at ANC attendance in any government health facility shows mostly women in attendance. The men seen at the ANC tend to be health workers and very few men brave the odds to accompany their partners for ANC.

1.1 Problem Statement

Ghana is a patriarchal country where issues surrounding pregnancy and child birth are largely seen as a domain of women. Men are to a large extent leaders and decision-makers at house hold and policy level (WHO, 2001). Additionally, division of responsibilities is drawn on the basis of gender and this favours men, which eventually makes them dominant in decision making process at household level, leaving women with little or no

say in matters that affect their reproductive life (WHO, 2001). However, the majority of reproductive health services in developing countries that promote sexual and reproductive health including care and support during pregnancy and child birth mostly focus on women (Ntabona, 2002).

The attempts at involving men in maternal care are yet to be fully accepted by the Ghanaian society. This is reflected in the rare participation of men in ANC, labour, post natal care (PNC) and management of infertility. For the very few men who would want to be involved in maternal care, existing situations (congestion in hospitals, attitude of health workers, socioeconomic restraints) militate against their full participation. Although, research in the area of male involvement in reproductive health issues is gaining attention recently to provide basis for appropriate interventions to incorporate men into this very import aspect of healthcare, there is little of such in Ghana.

Advocating for men's involvement in reproductive health including care and support during pregnancy and childbirth should not only be seen as rhetoric in health policies but rather implemented (WHO, 2001). This study seeks to identify the factors, which militate against male participation in Antenatal Care in the Kumasi metropolis and recommend strategies for improving the existing situation.

1.2 Justifications

The behaviour of men, their beliefs and attitudes affect the maternal health outcomes of women and their babies. The exclusion of men from maternal health care services could lead to few women seeking maternal health services and as a result worsening the negative maternal health outcomes for women and children. Increasingly, recognition is growing on

a global scale that involvement of men in reproductive health policy and service delivery offers both men and women important benefits (Walston, 2005). In order for African countries to achieve the Millennium Development Goal 5 of reducing maternal mortality by three quarters (MDG 5) by 2015 requires a 5.5% annual average reduction of maternal mortality. However the actual reduction in Sub Saharan Africa between 1990 and 2005 was only 0.1 % (WHO, 2008). This slow progress in reducing maternal mortality is as a result of a number of factors including lack of maternal health services, and in some cases where services exist, some husbands have been reported to refuse their wives to seek maternal health services (Conde-Agudelo and Belizán, 2000)

Since the Cairo International Conference on Population and Development (ICPD) in 1994, and the Beijing World Conference for Women in 1995, a lot of emphasis has been to encourage male involvement in reproductive health including maternal health (WHO, 2007). At the 1994 ICPD in Cairo the participating (179 nations) nations agreed on the action plan, which stated that” Changes in both men and women’s knowledge, attitudes, and behaviour are necessary conditions for achieving a harmonious partnership between men and women. This would open doors to gender equality in all spheres of life, including improving communication between men and women on issues of sexuality and reproductive health, and improving understanding of their joint responsibilities....” (UNFPA, 2004:29).

Studies done in several countries globally, have reported cultural, social, economic factors, policy issues and communication issues as the factors influencing male involvement. Identifying and overcoming these obstacles requires working with women, young people and men to better understand their needs and analyze their problems and to propose

acceptable solutions (WHO, 2004). Understanding the factors affecting male involvement in antenatal, delivery and postnatal care services in the Kumasi metropolis is important in order for health service managers and health workers to design interventions that will encourage and maintain male involvement which is likely to improve maternal and child health outcomes.

1.3 Study Questions

- What is the level of male involvement in ANC in the Kumasi metropolis?
- What are the predisposing, enabling and reinforcing factors that affect male partner participation in ANC?
- What strategies can be employed to improve the existing situation?

1.4 General Objective

The main objective of this study is to determine factors influencing male partner participation in ANC in the Kumasi metropolis

1.5 Specific objectives

- To determine the current level of male partner participation in antenatal services in the Kumasi metropolis
- To identify the factors in terms of predisposing, enabling and reinforcing, that affects male partner participation in ANC.

1.6 Conceptual Framework

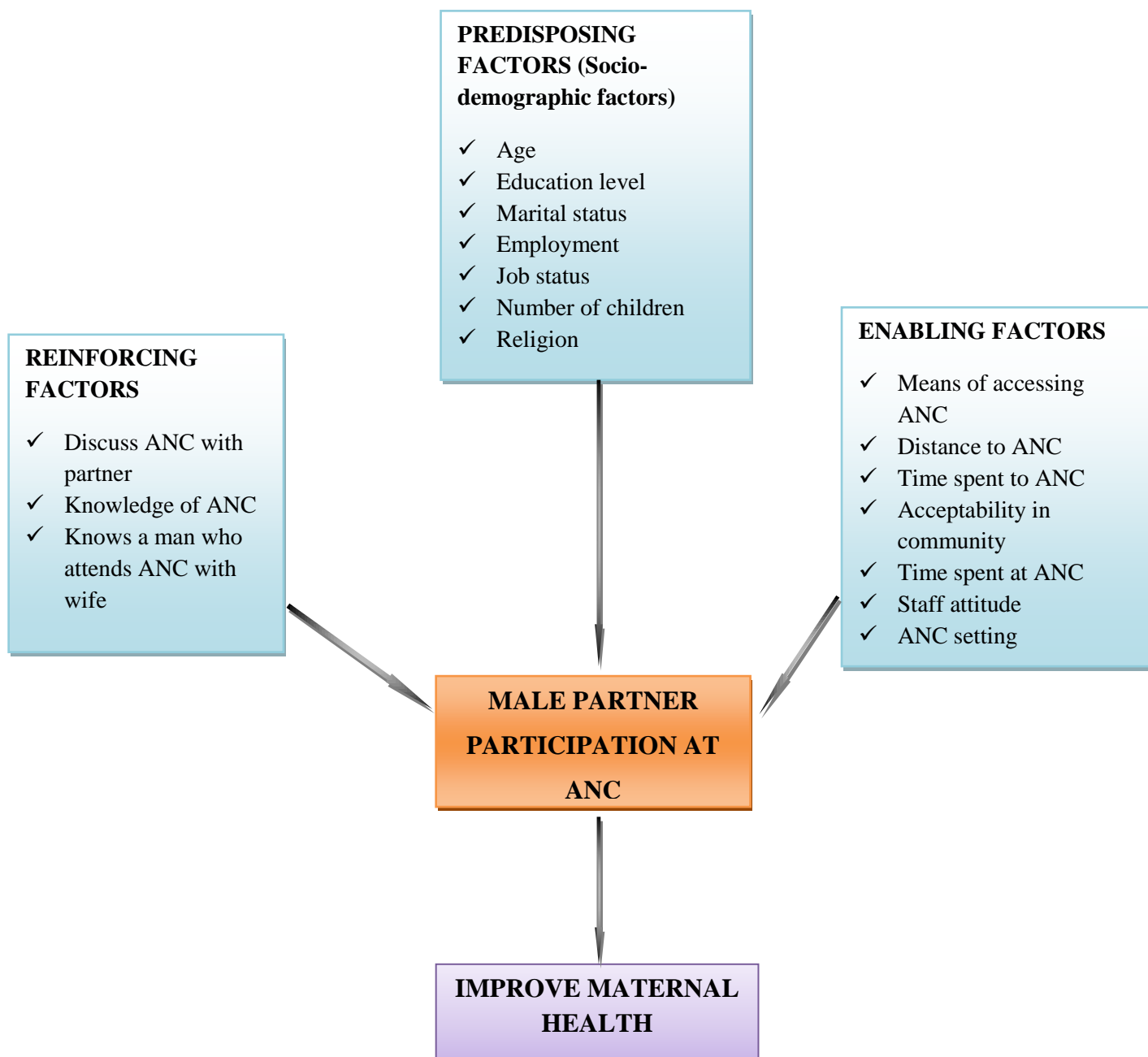
The conceptual framework was adopted and modified from the PRECEED and PROCEED model and the Safe Motherhood and Partnership Family Approach used to assess men's participation in family planning in Indonesia, 2007. This model explains that male participation in reproductive health is influenced by predisposing factors (demographic characteristics), enabling factors and reinforcing factors. Green et.al (2005) identified

factors, which influence human health behaviour. This was grouped into predisposing, enabling and reinforcing factors. These factors have been modified over the years and are used in the PRECEED and PROCEED models created as a participatory model for community health promotion and other health interventions. The PRECEED model has been adapted and modified for this project as it seeks to identify factors that influence behaviour.

Predisposing factors are those characteristics that make an individual likely to adopt a particular lifestyle or behaviour. Anderson in 1995, described them as the socio-cultural characteristics of individuals that exist prior to their illness. These he grouped into demographic characteristics, health beliefs and social structure.

Enabling factors are the logistics aspect of obtaining healthcare. They refer to conditions that are outside a person, but help him to either adopt or maintain a healthy lifestyle/ behaviour, or not. Anderson used enabling factors to describe factors that determine use of health services (Green, 2005). He grouped these factors into two groups; community enabling resources (e.g., health personnel and facilities must be available), and personal/family enabling resources (e.g., people must know how to access and use the services and have the means to get to them).

Reinforcing factors are the positive or negative influences or feedback from others that encourage or discourage health-related behaviour change (Green, 2005). These factors come from the influential people around us- family, friends, peers, service providers, politicians etc and they can encourage or discourage certain health related behaviour.



Source: Authors construct, modified from Green (2005).

1.7 Definition of terms

Antenatal Care: skilled care given to the pregnant woman before delivery

Male partner participation in ANC: Attendance to the ANC by male partner of the pregnant woman and exhibition of knowledge in danger signs of pregnancy, last menstrual period and postpartum contraception.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

The Safe Motherhood Initiative, launched in 1987 by WHO, UNICEF, UNFPA, the World Bank and other organizations placed maternal health at the forefront of international public health (Family Care International, 1997). Maternal health is the health of women during pregnancy, childbirth, and the postpartum period (WHO). It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality.

The goal of maternal health care services is to ensure that no woman or newborn dies or incurs injuries due to pregnancy and or childbirth. However to achieve this goal, maternal health service planners, service managers and providers need to view maternal health services in the context that women's potential to control and improve their wealth as well as their health is more limited than men's in most parts of the world (Engender Health, 2008). This prevents women from accessing critical health information and services and can lead to poor reproductive, maternal and child health outcomes, including unwanted infections and pregnancies. Because men have a strong influence on women's health and their access to care, the need for male involvement in maternal health services is becoming even more critical in the delivery and uptake of maternal health care services. According to Adamehak and Adebyao (1997), in order to encourage improved reproductive health, emphasis need to be focused on the understanding of men's reproductive behaviour and the influence to their wives.

Although Ghana like many other African countries has adopted international treaties on Sexual and Reproductive health, the reproductive health status of the country is far from ideal. ANC attendance of at least four visits is 78.2% whilst at least one visit is 97% (GHS, GSS and Macro International, 2009) and maternal mortality ratio (MMR) still hovers at unacceptably high levels with different authorities quoting different figures, none reassuring. For 2007, the Ghana Health Service report gave an MMR of 230/100 000 live births, WHO country statistic estimates quoted 451/100 000 live births whilst the Ghana Maternal Health Survey gave an estimate of 580/100 000 live births. Infant mortality and under five mortality rates are 50 and 74 per 1000 live births respectively. This is in sharp contrast with a country such as Egypt which recorded an MMR of 59/100 000 live births in 2006 and infant mortality and under five mortality rates as 27 and 32 per 1000 live births respectively (Hogan et al, 2010).

In Ghana as in many other countries, programs on maternal health focus more on women than their male partners. The few programs that target men tend to focus more on use of condoms and treatment of sexually transmitted infections. However, men undoubtedly play critical roles in sexual and reproductive health. It can thus be inferred that their health seeking behaviour will either compliment or impede efforts aimed at reducing maternal mortality. Strategies aimed at encouraging communities to participate in safe motherhood activities should take into account the need to involve men as well as appreciate the importance of the cultural and social aspects of making motherhood safe (Safe Motherhood Demonstration Project, 2004).

2.1 Male Involvement in Maternal Health Care Services

The International Conference on Population and Development 1994, defined Reproductive health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and process. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit to this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance for having healthy infant" (ICPD Program of Action, Paragraph 7.2).

From this definition, it is apparent that men as well as women play critical roles in reproductive health. It is in view of this that the ICPD 1994 came out with a Plan of Action which specifically states: "Changes in both men's and women's knowledge, attitudes, and behaviour are necessary conditions for achieving a harmonious partnership of men and women. The role of men in Reproductive Health was to be elaborated in three different levels

- Men as clients: To extend the same range of RH services to both men and women and to employ more male Family Planning personnel.
- Men as partners: To recruit men as allies and resources in improving maternal health and

- Men as agents of positive change: To work with men as sexual partners, fathers and community leaders. It seeks to move towards gender equity by looking at the way service is delivered to serve the interest of both men and women (ICPD, 1994)

In her report on "The role of WHO in addressing inequities between women and men", the WHO Director General in 2005 stated the need "to involve the fathers and other male decision-makers as well" in attempts at Reducing child mortality and improving maternal health. Unfortunately, the role of male partners is still largely unknown and untapped in many regions around the globe (Dudgeon et al, 2004). Decades after the ICPD and the Beijing conference, the involvement of men in reproductive health remain a new concept in developing countries.

With global efforts aimed at attaining the Millennium Development Goals 4 and 5, there have been some attempts aimed at involving men on the continent in Sexual and Reproductive Health. Studies conducted in Lesotho and Uganda identified barriers such as traditional gender roles, fear of losing respect from their peers, lack of communication skills, lack of knowledge and strong perceptions about masculinity (IPPF, 2005). From these studies, it was found that operational attempts to reach men are very limited, and have not yet been given high priority neither by the local governments, donor agencies, NGO's nor researchers. Generally men do not accompany their wives for ANC, postnatal care services and are not expected to be present during the delivery of their children.

The husband is often the primary decision maker, and wife's economic dependence on her husband gives him greater influence on major household decisions, as was reported in Nepal by Britta and others (2004) where 50% of the women had the final decisions about their own health care made by their husbands (Nepal Demographic and Health Survey, 2001). Studies have suggested that male involvement in maternal health results into positive outcome for not only the pregnant woman but also for the unborn child. Reporting findings of their studies, Pagel et al (1990) and Mutale et al (1991) concluded that social support; especially from the husbands or family has positive effects on foetal growth. In much poorer countries many of which have a patriarchal society, increase in male involvement during pregnancy has been seen as a possible factor in reducing the number of children born with low birth weight (Mira and UNICEF, 2000). However despite these benefits of male involvement in maternal health care services, the majority of interventions and services to promote SRH including care during pregnancy and childbirth in most countries have been exclusively focused on women (Ntabona, 2002). Yet it is important to assume that for all the steps leading to maternal survival there is always a man standing by to support the spouse before, during and after each pregnancy (Kainz, Eliasson and von Post, 2010).

2.1.1 Male Involvement in Antenatal Care

Societal allocation of roles to the men and women especially decision making influences utilization of ANC. It is therefore important for men to understand and appreciate the importance of attendance of ANC, delivery at a health facility and postnatal care services. A study done by Britta et al (2004) in Nepal revealed that only 40% of husbands accompanied their women attending ANC for the first time and that greater decision-making power for women was associated with lower husband accompaniment to ANC and lower overall male involvement. Other reasons reported for low male involvement in

maternal health care are that many men feel marginalized and left outside in their contact with the mother and child care services (Plantin, 2007; Britta, 2004). In effect men's involvement in the maternal health care system often stops at the doors to the clinic; yet to exclude men from the information on the benefits of antenatal care, counselling and services is to ignore the important role men's behaviours and attitudes may play in a woman's maternal health choices.

Male involvement in women's decision to attend ANC has been reported in some studies from Africa. For example according to a study conducted in Kano Nigeria, 17.2 % of women did not attend regular ANC because of husband denial (Adamu and Salihu, 2002). This fact of male's affecting utilization of ANC and delivery care is supported by the findings of the study done by Nyane (2007) in Tororo, Uganda in which she observed that some pregnant women when asked to come with their partners during the next ANC visit dropped out.

2.1.2 Delivery care

A number of studies have also shown that the presence of husbands in the labour room shortens the labour, reduces pain, panic and exhaustion of the women (Somer-Smith, 1999, Kennel et al, 1991, WHO, 2001). However, it is widely recognized that men are often marginalized by the maternal health care provided with limited access to basic information and knowledge to help them make informed choices and decisions in order to promote their own health as well as that of their families (Ntabona, 2002). Koisa (2002) reported that most men do not actually accompany their partners during labour or delivery. Part of the reason for the low male involvement have come a long way with the traditional attitude of health workers, coupled with notices in the health care premises, for example "men are

not allowed in the labour ward” which discourage men from giving support to their wives in ANC and labour (Muwa et al, 2008)

2.1.3 Postnatal care

Although RH guidelines make recommendations on women postnatal care attendance, reports from the 2008 GDHS (GHS, GSS and Macro International, 2009) shows that about three in five women (57 percent) receive a postnatal check-up within 24 hours of delivery, and about seven in ten (68 percent) are checked within the first two days. Only 7% of women receive postnatal care 3 to 41 days after delivery. If men are well sensitized about postnatal care services and their concerns addressed, the number of mothers seeking postnatal care is likely to increase. It is important therefore for all stakeholders to realize that maternal health is not just a woman’s issue because a mother’s health has a direct bearing on the health of her newborn.

2.2 Factors affecting Male Involvement in Maternal Health Care Services

A number of factors have been reported by several researchers as being responsible for influencing male involvement in maternal health care services. Some of which are noted in the paragraphs that follow in this segment. These factors are discussed under predisposing, enabling and reinforcing factors.

2.2.1 Predisposing Factors

Predisposing factors are those characteristics that make an individual likely to adopt a particular lifestyle or behaviour. These are antecedents in a person's life that motivates behaviour; his values, knowledge, attitudes and beliefs. Predisposing factors include: Age, sex, marital status, religion, and educational level among others. In a Malawian Health Survey (MHS), some characteristics, which may be related to health seeking behaviour were identified. Although general knowledge on pregnancy related issues and available

services were low among men, it was noted that knowledge increased with age, higher educational levels and being married (MHS, 2004).

Some men feel it is a duty to facilitate their wives in terms of transport and if they do not have means of transport they see no point in escorting them while both are walking. Yet in many situations in Africa where the man is economically in position to provide the basic necessities of life he tends to have more than one wife, which also negatively affects his willingness and ability to escort the wife to seek care. Multiple partner relationships promotes different interests for the man and his partners and this hamper possibilities for transparent decision making on maternal health service issues in addition to involvement in maternal health services of all his wives when needed. Reporting his findings, Ratcliffe (2001) noted that men are often involved in multiple sexual relationships that present a considerable challenge to fertility awareness and reproductive health programmes. Long working hours and difficulty in taking time off work to attend services were also cited as reasons why many men would be unable to participate in ANC care services in the study by Bulut and Molzan (1995).

2.2.2 Enabling factors

Enabling factors are the logistics aspect of obtaining healthcare. They refer to conditions that are outside a person, but help him to either adopt or maintain a healthy lifestyle/behaviour, or not. Anderson used enabling factors to describe factors that determine use of health services (Green 2005). The 2004 In Health Survey in Malawi questioned men as to what enabling factors discouraged them from attending ANC. Almost half of all fathers interviewed said the only available ANC was too far, 44% thought it was not necessary, whilst 12% said it was too costly. Not surprisingly though, 27% of men interviewed denied knowledge of ANC care and thus will not use the service (MDHS, 2004).

In Kenya, it was found that only 13% of women attending ANC were ever accompanied by their partners (Muia et al, 2000). On interview, both men and women in the study identified structural and attitudinal health service factors as well as sociocultural constraints playing a major role in 'keeping men away' from ANC. Women autonomy in the relationship or family have also been reported to influence men's participation in ANC. Reporting their findings from the study on women's autonomy and male involvement in Nepal, Britta et al (2004) concluded that higher women autonomy was associated with lower male involvement in pregnancy health.

Most of the factors relating to the health facility have also been described as playing a major role in men's participation in ANC. Generally research also shows that service related factors are more important than user related factors in affecting male involvement in maternal health care services. The most important ones pointed out include, long physical distance from the health unit, inconvenient clinic hours, long waiting time at the clinic, poor technical and interpersonal skills. These factors may actively discourage men from participating in maternal health care services. In Turkey, it was observed that health care workers were not supporting men who wanted to join in maternal health services (Cigdem et al, 1999). The same study noted that a lot of men come to the clinic with their wives but stop at the door to avoid interactions with health staffs. The study by Kasolo and Ampaire (2000) in Uganda also argued that poor knowledge of what is done at the health facility coupled with poor communication among spouses and the low status of women in the community greatly affect men's utilization of ANC services.

2.2.3 Reinforcing factors

Reinforcing factors are the positive or negative influences or feedback from others that encourage or discourage health-related behaviour change (Green 2005). These factors

come from the influential people around us- family, friends, peers, service providers, politicians etc and they can encourage or discourage certain health related behaviour. Some authorities refer to this as social influence. For example, a man who wants to accompany his pregnant wife to the ANC might be discouraged from doing so if no other man in the community attends ANC (Tweheyo, 2010). Education by health workers can also be seen as reinforcing factors. Unfortunately a lot of the education in pregnancy tends to over-concentrate on the woman leading to limited male partner knowledge on pregnancy.

The 2004 Malawian Health Survey (MHS) in Malawi asked male respondents about their knowledge on pregnancy complications. The data show that two in three men (65%) had no knowledge of any signs or symptoms that indicate that the pregnancy may be in danger. The most often cited sign of pregnancy complication is vaginal bleeding (11%). Abdominal pain and swelling of hands and feet are mentioned by 8 percent each of men, while high fever and difficult labour are mentioned by 7% and 6% of men, respectively.

Studies show that there is a general lack of interest on the part of men in some countries in Africa in their partners' reproductive health (WHO, 2005). Men often do not have access to information on maternal health issues and on their role in promoting maternal health resulting into majority of the men having insufficient information and knowledge with regard to maternal health. Communicating with men has been reported by some researchers to pose challenges for programmes, which historically have focused on serving women (Young & Kol, 1999). A study in Zimbabwe reported that, most men misinterpreted campaign messages promoting male involvement to mean that decisions should solely be left to men (Young and Kols, 1999). Sometimes couple dialogue may be the problem, once there is a communication breakdown for one reason or the other, the

whole family function fails. Kasolo and Ampaire (2000), highlighted an example of a breakdown in communication among couples when they reported that some men did not want to discuss ANC attendance with pregnant women because they considered pregnant women to nag a lot.

CHAPTER THREE

METHODOLOGY

3.1 Study type and design

This study was a descriptive cross-sectional design using both qualitative methods of data collection.

3.2 Study site

The study was carried out in the Kumasi Metropolis of the Ashanti Region of Ghana. Kumasi metropolis is the largest of the twenty-seven (27) political divisions (metropolis, municipality, districts) in Ashanti Region with an estimated population of 1,430,241 and annual growth rate of 3.4%. The metropolis is bounded in the north by Kwabre, Bosomtwe and Atwima Kwanwoma to the south; on the east is Ejisu and Atwima is on the west of the metropolis. This population is distributed in about seventy-six (76) communities in the metropolis.

3.2.1 Health Care System in Kumasi

The health system in Kumasi currently has three levels. The top level consists of one tertiary hospital (KATH), while secondary care hospitals (regional and district) make up the second level, and health centers make up the third. Komfo Anokye Teaching Hospital,, which is located at Bantama Sub-Metropolitan area serves as a reference Hospital for the rest of the hospitals in the metropolis. The regional hospital for Kumasi is the Kumasi South Hospital. It is situated at Chirapatre, within the industrial hub of the metropolis and serves the people of Asokwa, Ahensan, Atonsu, Esreso, Gyenyase and Kaase. The Manhyia Hospital, located at Ashanti Newtown near the Manhyia Palace, serves Manhyia, Krofrom, Ashanti Newtown, Aboabo and Asawasi communities. The Suntreso Government Hospital is located at North Suntreso and serves North and South Suntreso, Patasi Estate, Kwadaso, Adoato, Asuoyebo, Bremang and Suame. KomfoAnokye

Teaching Hospital (KATH) is an autonomous facility. Private hospitals and facilities are overseen by Ghana Health Services.

Health facilities in Kumasi include teaching hospitals (1); Quasi, -government health institution (4), CHAG institutions (3), MCH clinics (2), Community clinic (1) and Government/public hospitals (5). Majority of the health institutions in the metropolis are privately owned with 13 out of the 180 private health institutions being industrial clinics. Some of the sub-metro government hospitals serve as regional sites for different medical services, such as ear, nose and throat (ENT) surgery or sexually transmitted infections (STI) care. The Kumasi Metro Health Directorate oversees all sub-metro district hospitals. In addition to these sub-metro district hospitals, there are also quasi-governmental, private and mission hospitals, which offer similar levels of care to the government hospitals. Private facilities are under the jurisdiction of the Regional Health Directorate. There are also 122 outreach stations in Kumasi, located throughout the five sub-metro areas (KMHD, 2008).

3.3 Study population

The study population involves men 18 years and above who are partners of women who attend or have ever attended ANC or post-natal Care in the Kumasi metropolis.

Inclusion criteria:

- Men 18 years or above whose female partners provide evidence of clinically recognizable pregnancy (i.e valid ANC card/ultrasound scan).
- Men whose partners are attending post natal clinic in the Kumasi metropolis

Exclusion criteria: Non pregnant clients and pregnant women who do not attend ANC were excluded from the study. Men whose wives have never attended ANC were also excluded.

3.4 Sampling and sample size

3.4.1 Sample Size Estimation

The sample is estimated by using the formula

$$n = \frac{Z^2 pq}{d^2}$$

Where n = the desired sample size

z = the standard normal deviation 1.96

p = the proportion in the target population estimated to be 40% (0.40)

q = 1.0-p

d = degree of accuracy desired at 0 .05.

$$n = \frac{(1.96)^2 \times (0.40) \times (0.60)}{(0.05)^2}$$

$$n = 369$$

A non-respondent rate of 10% was factored and the sample size was rounded up to 410.

3.4.2 Method of sampling

Three out of the five sub metropolitan hospitals were randomly selected for the study. A stratified random technique was used to select respondents for the study. Based on the desired sample size and the average ANC attendance at the respective facility, a sampling interval was deduced per each facility, which was used to select respondents. The male partners of these women were contacted and interviewed. However, male partners who attend ANC with their partners were interviewed at the facility. The data collection was done in four weeks. Table 1 below gives details of the total attendants per months at each facility and how the required sample size for the facility as well as the sampling intervals were imputed.

Table 1: Required sample size and sampling intervals

Facilities	Total respondents per month	Required sample size per facility	Sample size for the week	Sampling interval
Tafo Hospital	$179 \times 4 = 716$	$(716/3132) \times 410 = 94$	$94/4 = 24$	$179/24 = 7$
Manhyia	$329 \times 4 = 1316$	$(1316/3132) \times 410 = 172$	$172/4 = 43$	$329/43 = 8$
Suntreso	$275 \times 4 = 1100$	$(1100/3132) \times 410 = 144$	$144/4 = 36$	$275/36 = 8$
Total	3132	410		

3.5 Data collection techniques and tools

The quantitative data for this study was collected mainly by administration of structured questionnaires to male partners of ANC attendees. Where applicable the questions were explained verbally in the requisite local language for those who could not understand English. Research assistants who were involved in the data collection were trained in local dialect – reverse translation to ensure uniformity in explaining the questions to respondents in the local dialect.

3.5.1 Study Variables

The study variables were divided into independent and dependent variables. The independent variables, which is based on the preceed-proceed model are further grouped into predisposing/demographics, enabling and reinforcing variables.

Table 2. Variables of the study

Objective	Independent variables	Conceptual Definition : independent variable	Scale of measurement	Data Collection Method	Type of statistical analysis
To determine factors that affect male ANC participation	Predisposing factors	Age, sex marital status, educational level, employment status, number of children	Discrete,Binary Nominal, Ordinal	Questionnaire, records	Univariable & Bivariate analysis, Logistic regression
	Enabling factors	Cost of ANC trip, time spent at ANC, programs organized at ANC, staff attitude	Nominal, Continuous, ordinal	Questionnaire, records	Univariable & Bivariate analysis, Logistic regression
	Reinforcing factors	Ever discussed ANC, Knows of any other man who attends ANC	Binary	Questionnaire	Univariable & Bivariate analysis, Logistic regression
To assess the level of male involvement in ANC	Percentage who attends or have ever attended ANC	Male participation and reasons: Why they attend, how many times they have attended.	Nominal , Ordinal, Discrete	Questionnaire	Univariable & Bivariate analysis, Logistic regression, Descriptive analysis
To recommend strategies of improving the existing situation	Recommend ations teased from interactions with clients, health workers	Views from clients on how to increase male partner ANC participation	Nominal	Questionnaire	Descriptive analysis

3.6 Pre-testing

Questionnaires and interview guides were pre-tested at KNUST Hospital to check for clarity, consistency and acceptability of the questions to respondents. Following this, the necessary corrections were made and questionnaires finalized for the actual field work.

3.7 Data Handling and Storage

The collected data from the questionnaires was entered into SPSS software programme version 22 (IBM, 2015). The data was checked for completeness and all corrections were made. These checks were done on regular basis and back-up copies saved on an external hard disc for safe keeping.

3.8 Data Analysis Plan

The questionnaires were coded (numbers assigned to the various categories of variables) before the analysis was carried out. The data for this study was analysed at the univariable and the multivariable level of analyses. The univariable analysis involved the overall description of the variables (independent and dependent variables) independently. The bivariate analysis on the other hand, which involved the analysis of two variables (i.e. the dependent variable versus the independent variable), was used to determine whether any association existed between the dependent and independent variables. This was done by using Pearson Chi-square (X^2) tests.

Multivariable logistic regression analysis was carried out to assess the odds of attending ANC. This was done by preselected variables based on literature and significant variables from the univariable analysis. This was used to examine the predictors of men's participation in ANC for the level of critical predictability and significance. STATA version 11 (StataCorp, 2015) was used for cleansing and standardizing data (to adjusted

form), and for analyzing data and performing chi-square and logical regression analysis for associations. All statistical tests were two-sided and considered significant at $\alpha = 0.05$.

Estimation model

A logit model was used to assess the odds of utilizing ANC among the male partners. In essence, the logistic model predicts the logit of Y (utilization of ANC) from X (covariates). The logit is the natural logarithm (\ln) of odds of Y , and the odds are ratios of probabilities (π) of Y happening (i.e. a male partner accompanying wife or partner to ANC) to probabilities ($1 - \pi$) of Y not happening (i.e. a male partner not accompanying wife or partner to ANC).

The logit model is expressed as:

$$\text{Logit}(Y) = \text{natural log(odds)}$$

$$= \ln \left[\frac{\pi}{1-\pi} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p \dots (2) \quad (\text{Peng, 2002})$$

Where: π is the probability of an event (in this case participation in ANC), α is the Y intercept (constant), β s are regression coefficients, and X s are a set of predictors (covariates).

3.9 Ethical Consideration

Ethical clearance for the study was obtained initially from the Committee on Human Research, Publications and Ethics (CHRPE) at KNUST, Kumasi. Once all these approvals were granted, informed consent was obtained from the respondents of the study. After explaining the purpose of the study to the participants, they were assured of privacy and confidentiality of the information they provided.

CHAPTER FOUR

RESULTS

4.0 Introduction

The findings for the study are presented in this chapter. All the questionnaires administered were analysed for this study. The presentation of the findings is in tables and figures. It is organized according to the background of the respondents, enabling factors and reinforcing factors for ANC attendance. The chapter also involves a multivariable analysis of factors influencing men's decision to attend antenatal clinic with their wives/partners.

4.1 Background characteristics of respondents

This section presents the background and socio-demographic characteristics of respondents involved in the study. Table 1 gives details of the socio-demographic characteristics of respondents. The mean age of respondents was 35years. Majority of the respondents were between 24 and 35 years of age with only 11.5% being above 44 years of age. Majority, 83.9% of the respondents were married or cohabitating whereas 13.7% were single and had never been married. About 39.8% of the respondents had attained JHS/JSS education whereas 34.4% had had secondary school education. Seven respondents (1.7%) had no formal education. Two hundred and five respondents constituting 50% were Muslims whereas 48.5% were Christians. Most of the respondents (91.7%) were employed and 45.1%, 15.6%, 26.9% of these were artisans, civil/public servants and traders/businessmen respectively. Among the respondents, majority earned more than GHS 120.00 with 29% earning up to GHS 500.00. Majority of them had children.

Table 4.1 Summary of socio-demographic characteristics of respondents

Variable	Number of respondents (n=410)	Percentage
Age		
– <25	23	5.6
– 25 – 34	180	43.9
– 35 – 44	160	39.0
– >44	47	11.5
Marital status		
– Single	56	13.7
– Married/Cohabiting	344	83.9
– Separated/Divorced/Widowed	10	2.4
Educational level		
– Primary	35	8.5
– JSS/JHS	163	39.8
– Secondary	141	34.4
– Tertiary	62	15.1
– No formal education	7	1.7
– Unknown	2	0.5
Religion		
– Christian	199	48.5
– Moslem	205	50.0
– Traditionalist	4	1.0
– Other	2	0.5
Employment status		
– Employed	376	91.7
– Unemployed	28	6.8
– Unknown	6	1.5
Main occupation		
– Artisan	185	45.1
– Farmer	12	2.9
– Civil/public servant	64	15.6
– Trader/businessman	110	26.9
– Other	39	9.5
Monthly income		
– <GHS 120.00	26	6.3
– GHS 120-500	94	22.9
– GHS 500-1000	34	8.3
– >GHS 1000	8	2.0
– No income	28	6.8
– Don't know	220	53.7
Number of children		
– None	155	37.8
– 1	79	19.3
– 2	77	18.8
– 3	52	12.7
– 4 or more	47	11.5

Source; Field data, 2014

4.2 Enabling factors in attending ANC among men

Table 4.2 presents the views of respondents on factors that could enable them attend ANC.

As shown, majority of the respondents would visit the facility by means of commercial vehicle (trotro or taxi) whereas 12.7% would walk to the facility. Majority of the respondents disclosed that they were not aware if it was acceptable in the community to accompany their wives to ANC whereas 30.2% were of the opinion that it was acceptable. It was also observed that, 36.8% indicated that it was acceptable among friends and family to accompany their wives to ANC whereas 14.4% did not share that opinion. Majority of the men lived within an estimated distance of less than 5km from the health facility and about 63% viewed this as near or very near to the health facility. Most of the respondents' perceived programmes organized at ANC as helpful.

Table 4.2 Summary of enabling factors in attending ANC

Variables	Number of respondents (n=410)	Percentage
Means of going to ANC		
– Walking	52	12.7
– By taxi	146	35.6
– By trotro	121	29.5
– Private car	84	20.5
– Other	7	1.7
Acceptable for man to accompany wife to ANC in community		
– Yes	124	30.2
– No	60	14.6
– Don't know	226	55.2
Acceptable among family and friends to accompany wife to ANC		
– Yes	151	36.8
– No	59	14.4
– Don't know	200	48.7
Perception about cost of travel to ANC (n=404)		
– Expensive	156	38.0
– Just ok	144	35.2
– Cheap	32	7.8
– Don't know	78	19.0
Estimated distance		
– <5km	170	41.5
– 5-20km	95	23.2
– 20-50km	30	7.3
– >50km	2	0.5
– Don't know	113	27.6
Rating of distance to the facility		
– Very far	15	3.7
– Far	130	31.7
– Near	162	39.5
– Very near	96	23.4
– Don't know	7	1.7
Perceptions about programs organized at ANC		
– Very helpful	173	42.2
– Helpful	196	47.8
– Unhelpful	7	1.7
– Complete waste of time	10	2.4
– Don't know	24	5.9

Source; Field data, 2014

4.3 Reinforcing factors in ANC attendance among men

Table 4.3 and Figure 4.1 below present results from male respondents on their awareness and source of information on ANC. As shown in table 4.3, majority of the respondents had their wives or partners ever discussing ANC with them. About 19.6% also indicated that their wives had never discussed ANC with them while 2.6% were not sure. However, on discussion of ANC with health workers and friends, majority of the men responded no (57.1% and 75.4% respectively). Majority of the respondents had not heard about ANC

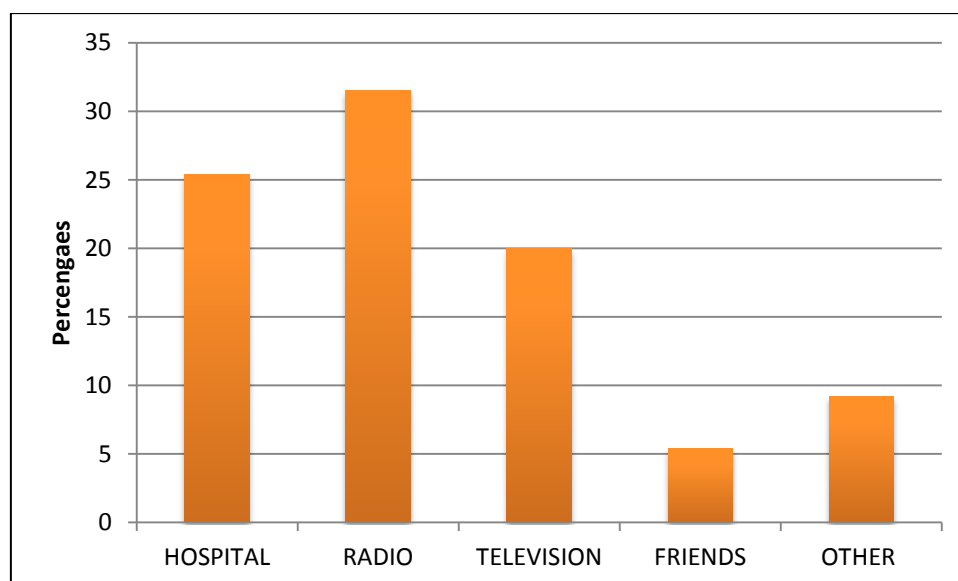
from any source whereas 32.8% said they had heard about ANC from other sources. Sources of information on ANC cited among respondents included hospital (25.4%), radio (31.5%), television (20%) and friends (5.4%) as detailed in Figure 4.1.

Table 4.3 Summary of reinforcing factors in ANC attendance

Variables	Yes	No	Not sure
	N (%)	N (%)	N (%)
Any of the following ever discussed ANC with you?			
– Wife/partner	305 (77.8)	77 (19.6)	10 (2.6)
– Health worker	128 (36.6)	200 (57.1)	22 (6.3)
– Friend	61 (17.2)	267 (75.4)	26 (7.3)
Heard or read about ANC from any source?	130 (32.8)	241 (60.9)	25 (6.3)
Know of any man who attends ANC with wife/partners	111 (26.0)	240 (60.6)	45 (11.4)

Source: Field data, 2014

Figure 4.1: Responses on source of information about ANC



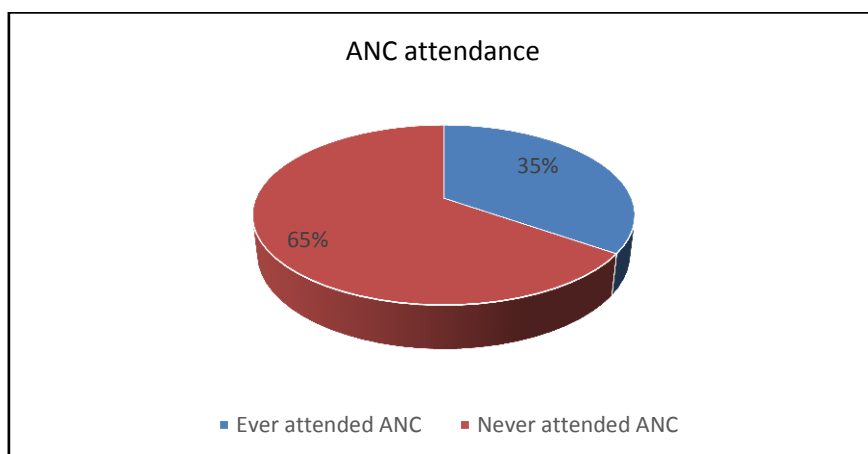
Source: Field data, 2014

4.4 Men participation and experience with ANC

Table 4.4 and Figure 4.2 presents results on participation and experience with ANC among the men studied. As shown in Figure 4.2, majority (65%) of the respondents had never accompanied their partners to antenatal clinic whereas 35% had done so. Personal reasons for accompanying wife to the ANC included being motivated by other men, a desire to know what happens at ANC, as a help and support to wife, wife being sick or weak, wanted wife and baby to be safe, being her first pregnancy and being happy with wife's pregnancy.

Among those who had ever been to ANC, most accompanied their partners on less than three occasions during the entire pregnancy period and majority of them spent 2 hours or more at the facility. About 48.2% of the men viewed the time spent at ANC as long. Majority of the men described the attitude of ANC and the entire ANC setting as very friendly and about 93% were of the opinion that accompanying their wives or partners to ANC will motivate them to attend in timely manner as detailed in Table 4.4.

Figure 4.2 Male participation in ANC



Source; Field data, 2014

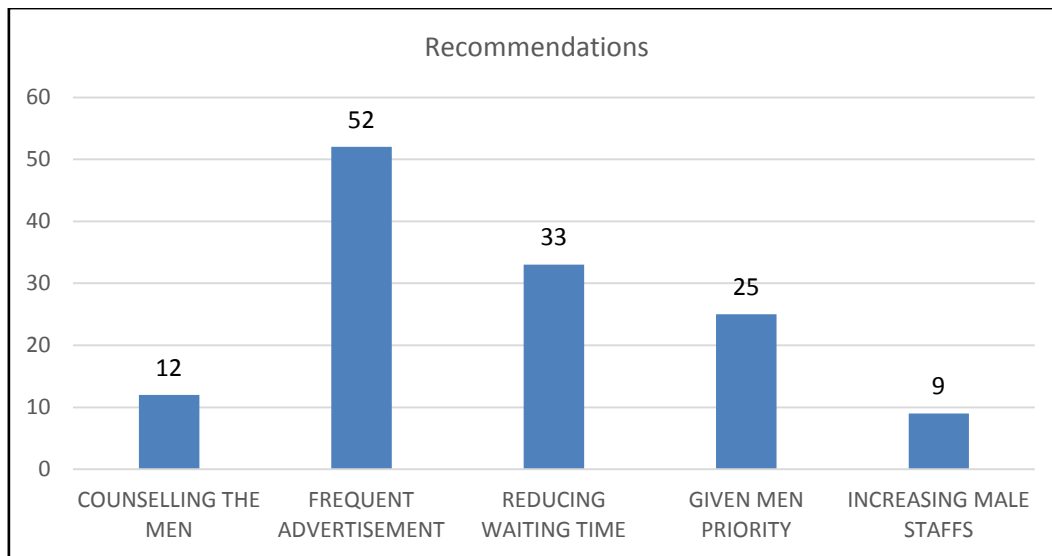
Table 4.4 Responses on men participation in ANC

Variables	Frequency (N=143)	Percentage
Number of times during pregnancy period		
– 1	45	31.5
– 2	21	14.7
– 3	29	20.3
– >3	45	31.5
– Don't know	3	2.0
Time spent at the ANC		
– <one hour	16	11.2
– 1 – 2 hours	39	27.3
– 2 – 3 hours	28	19.6
– 3 hours or more	54	37.7
– Don't know	6	4.2
Rate of time spent at the facility		
– Long	69	48.2
– Normal	49	34.3
– Short	17	11.9
– Don't know	8	5.6
Perception of attitude of ANC staff		
– Very friendly	86	60.0
– Friendly	39	27.3
– Normal	16	11.2
– Unfriendly/ rude	2	1.5
Perception about entire ANC setting during visit		
– Very friendly	82	57.3
– Friendly	38	26.6
– Normal	19	13.3
– Unfriendly	2	1.4
– Not sure	2	1.4
Believe accompanying your wife to facility motivate her to attend ANC in timely manner		
– Yes	133	93.0
– No	8	5.5
– Not sure	2	1.5

Source; Field data, 2014

On personal recommendations to improve male participation in ANC, some respondents cited frequent advertisement on the TV or radio as their source of information. Other recommendations included reducing waiting time at ANC, giving men priority at the ANC and increasing male staff at the ANC as shown in Figure 4.3.

Figure 4.3: Recommendations to improve male participation in ANC



Source; Field data, 2014

4.5 Factors influencing male participation in ANC

This section presents bivariate and multivariable analysis of factors that influence male participation in ANC. It involves a cross tabulation of the variables under consideration with outcome variable (male participation in ANC) and their corresponding p-values. The percentages were presented in rows to the percentages of each category that participated or did not participate in ANC

4.5.1 Predisposing factors to attending ANC among men

Table 4.5 below shows results of the bivariate analysis of the influence of predisposing (socio-demographic) factors on men's ANC attendance. In summary, only the educational level and marital status of respondents had significant association with male ANC attendance. The percentage of men who accompanied wives to ANC was however lowest among those who had basic education. As compared to men who were single, ANC attendance was significantly higher among men who were married (37.7% versus 12.5%; $p < 0.001$).

Table 4.5 Results of bivariate analysis of Socio-demographic factors influence ANC attendance

Variable	Attend ANC		p-value
	Yes N (%)	No N (%)	
Age			
– <25	30.4	69.6	0.68
– 25 – 34	34.3	65.7	
– 35-44	38.0	62.0	
– 44 and above	28.9	71.1	
Educational level			
– None	85.7	14.3	0.001
– Basic school	24.9	74.1	
– Secondary	43.4	56.6	
– Tertiary	42.1	57.9	
Marital status			
– Single	12.5	87.5	<0.001
– Married/cohabitating	37.7	62.3	
– Divorced/widowed	60.0	40.0	
Religion			
– Christian	30.8	68.2	0.1217
– Muslim	39.7	60.3	
– Traditional	0.0	100.0	
Employment status			
– Employed	34.9	65.1	0.513
– Unemployed	25.0	75.0	
Number of children			
– None	27.9	72.1	0.12
– 1-3	37.8	62.2	
– 4 or more	42.6	58.4	
Main occupation			
– Artisan	31.3	68.7	0.40
– Farmer	33.3	66.7	
– Civil/public servant	49.2	50.8	
– Trader/businessman	33.0	67.0	
Monthly income			
– <GHS 120.00	50.0	50.0	0.22
– GHS 120-500	50.0	50.0	
– GHS 500-1000	51.7	48.3	
– >GHS 1000	12.5	87.5	

Source; Field data, 2014

4.5.2 Enabling factors to attending ANC among men

Table 4.6 below shows results of the bivariate analysis of the influence of predisposing factors on men's ANC attendance. All the predisposing factors had significant association with men ANC attendance. As compared to those who would walk to the facility, men who would attend ANC by means of a private vehicle were more likely to attend ANC ($p < 0.001$).

The percentage of men who had ever attended ANC was higher among those who were of the opinion that it was acceptable in their community and among their friends to accompany their wife to ANC, as compared to those who believed otherwise. The percentage of ANC attendance was again higher among those with positive views of the distance from residence to the facility and the programmes organized at the ANC.

Table 4.6 Results of bivariate analysis of Enabling factors influence ANC attendance

Variables	Attended ANC		p-value
	Yes N (%)	No N (%)	
Means of going to ANC			
– Walking	28.0	72.0	<0.001
– By commercial vehicle (taxi or trotro)	27.2	72.8	
– Private car	58.3	41.7	
Acceptable in community to accompany wife to ANC			
– Yes	49.1	50.9	0.003
– No	31.6	68.4	
– Don't know	27.0	73.0	
Acceptable among family and friends to accompany wife to ANC			
– Yes	44.1	55.9	0.004
– No	33.9	66.1	
– Don't know	26.6	73.4	
Perception about cost of travel to ANC			
– Expensive	43.2	56.8	0.02
– Just ok	28.1	71.9	
– Cheap	31.2	68.8	
Perception about distance from residence to facility			
– Very far	46.7	53.3	<0.001
– Far	48.5	51.5	
– Near	27.6	72.4	
– Very near	22.3	77.7	
Perceptions about programs organized at ANC			
– Very helpful	41.6	58.4	0.05
– Helpful	30.8	69.2	
– Unhelpful	57.1	42.9	
– Complete waste of time	20.0	80.0	
– Don't know	0.0	100.0	

Source; Field data, 2014

4.5.3 Reinforcing factors to attending ANC among men

Table 4.7 below shows results of the bivariate analysis of the influence of reinforcing factors on men's ANC attendance. As shown in table 4.7, all reinforcing factors had statistically significant associations with ANC attendance.

Respondents whose wives or partners had discussed ANC with them showed increased likelihood of visiting ANC as compared to those whose wives or partners had had no prior discussion of ANC with them (37.5% versus 30.5%; $p=0.03$). Percentage of ANC attendance among men was also significantly higher among those who have had prior

discussions with health workers ($p<0.001$) and those who have ever discussed ANC with friends ($p=0.001$) as compared to their counterparts in the same group. Among the men studied, those who have ever heard or read about ANC from any source were more likely to accompany their wives as compared to those who had not (54.6% versus 25.1%; $p<0.001$). Respondents who knew of a man who had attended ANC with their wife or partners were also more likely to attend than those who did not.

Table 4.7 Results of bivariate analysis of reinforcing factors that influence ANC attendance

Variable	Attend ANC		p-value
	Yes	No	
Wife/partner ever discussed ANC with you?			
– Yes	37.5	62.5	0.03
– No	30.7	69.3	
– Not sure	12.5	87.5	
Health worker ever discussed ANC with you?			
– Yes	52.8	47.2	<0.001
– No	20.2	79.8	
– Not sure	5.0	95.0	
Friend ever discussed ANC with you?			
– Yes	57.4	42.6	<0.001
– No	27.4	72.6	
– Not sure	4.2	95.8	
Heard or read about ANC from any source?			
– Yes	54.6	45.4	<0.001
– No	25.1	74.9	
– Not sure	16.0	84.0	
Know of any man who attends ANC with wife/ partners			
– Yes	74.8	25.2	<0.001
– No	17.7	82.3	
– Not sure	20.9	79.1	

Source; Field data, 2014

4.5.4 Multivariable analysis

This section presents stepwise multivariable analysis of the predisposing, enabling and reinforcing factors, which influence attendance of ANC. Table 4.8, involves analysis of the

socio-demographic factors. In Table 4.9, the enabling factors were introduced whereas Table 10 involves a regression of all three factors considered in this study.

In Table 4.8, the regression analysis showed that among socio demographic characteristics, age, level of education and marital status could predict male participation in ANC. Men who were aged above 44 years showed a decreased likelihood to accompany their wives to the ANC as compared to those below 25years, holding other variable constant (AOR=0.1; $p<0.01$). Respondents who had some form of education had decreased odds of accompanying wives or partners to ANC as compared to those with no formal education as shown in Table 4.8. Men who were married or cohabitating were 11.3 times more likely to attend ANC as compared to those who were single (AOR=11.3; $p<0.001$).

Table 4.8 Multivariable analysis of demographic factors influencing ANC attendance among men

Variables	AOR	95% CI
Age (ref=<25)		
– 25 – 34	0.5	(0.1-1.7)
– 35 – 44	0.3	(0.1, 1.1)
– >44	0.1	(0.04, 0.6)**
Level of education (ref = no formal education)		
– Basic education	0.02	(0.003-0.2)***
– Senior secondary/ vocational	0.07	(0.007 - 0.7)*
– Tertiary	0.07	(0.007- 0.6)*
Marital status (ref=single)		
– Married/Cohabitating	11.3	(3.3 - 37.7)***
Religion (ref=Christian)		
– Moslem/Traditionalist	1.3	(0.8 - 2.1)
Employment status (ref=employed)		
– Unemployed	1.5	(0.4 - 5.3)
N	385	
Log likelihood	-221.257	
Prob> chi2	<0.0001	

(ref) = referent; (-) = omitted; (*) = $p<0.05$; (**) = $p<0.01$; *** = $p<0.001$; MAIN OUTCOME = ATTENDING ANC

As shown in Table 4.9, where the enabling factors were also adjusted for, the significantly positive association between being married and accompanying wife or partner to ANC was again observed. Among the enabling factors introduced, ANC attendance was

independently predicted by means of going to ANC and perceptions about cost of travel and distance to facility. As compared to those who walked to the facility, respondents who would visit ANC by means of commercial vehicle had decreased odds of attending ANC (OR=0.1; $p<0.05$). Negative perceptions about programmes at the ANC (not helpful) also decreased the likelihood of attending ANC among the men studied as detailed in Table 4.9.

Table 4.9 Multivariable analyses of demographic and enabling factors influencing male attendance in ANC

Variables	AOR	(95% CI)
SOCIO-DEMOGRAPHIC FACTORS		
Age (ref=<25)		
– 25 – 34	0.6	(0.2- 2.4)
– 35 – 44	0.3	(0.1 - 1.5)
– >44	0.3	(0.03 0.9)*
Level of education (ref = no formal education)		
– Basic education	0.01	(0.001, 0.2)**
– Senior secondary/ vocational	0.04	(0.003, 0.3)*
– Tertiary	0.07	(0.006, 0.8)*
Marital status (ref=single)		
– Married/Cohabiting	7.5	(1.8, 21.1)**
Religion (ref=Christian)	1.2	
– Moslem/Traditionalist		(0.6, 2.1)
Employment status (ref=employed)		
– Unemployed	2.0	(0.4, 10.2)
ENABLING FACTORS		
Means of going to ANC (ref = walking)	0.1	
– Commercial transport	0.5	(0.01, 0.87)*
– Private car		(0.05, 4.6)
– Acceptable for man to accompany wife to ANC (ref = yes)	0.5	(0.3, 1.1)
– How family/friends feel about a man attending ANC with wife/ partner (ref = yes)	0.8	(0.4, 1.7)
Perception about cost of travel to ANC (ref = Expensive)	1.0	
– Inexpensive/just okay		(0.5, 1.8)
Rate of distance to facility (ref=far)	0.4	
– No far		(0.2, 0.9)*
Perception of programe at ANC (ref=helpful)	0.2	(0.5, 0.9)*
– Not helpful/ waste of time		
N	372	
Log likelihood	-142.905	
Prob> chi2	<0.0001	
<i>(ref) = referent; (-) = omitted; (*) = $p<0.05$; (**) = $p<0.01$; MAIN OUTCOME = ATTENDING AN</i>		

As shown in Table 4.10, the adjusted odds ratios still showed a positive influence of being married or cohabitating on male participation in ANC. Among the enabling factors, negative perception about the helpfulness of programmes organized at ANC also decreased the likelihood of male attendance. With respect to the reinforcing variables, ever having discussed ANC with health worker or friend and being aware of a man who attends ANC with wife or partners significantly influenced decision to attend ANC. Holding other variables constant, respondents who had never discussed ANC with health staff or friend were less likely to attend ANC with wife or partner (AOR=0.2 and 0.3 respectively).

Table 4.10 Results of multivariable analysis of all factors influencing decision to attend ANC

Variables	AOR	(95% CI)
Age (ref=<25)		
– 25 – 34	0.5	(0.1, 4.5)
– 35 – 44	0.2	(0.02, 2.4)
– >44	0.1	(0.04, 0.8)*
Level of education (ref = no formal education)		
– Basic education	0.04	(0.001, 0.7)*
– Senior secondary/ vocational	0.05	(0.003, 1.1)
– Tertiary	0.1	(0.01, 2.7)
Marital status (ref=single)		
– Married/Cohabiting	8.9	(1.1, 25.3)**
Religion (ref=Christian)		
– Moslem/Traditionalist	1.1	(0.4, 2.5)
Employment status (ref=employed)		
– Unemployed	4.2	(0.3, 27.4)
ENABLING FACTOS		
Means of going to ANC (ref = walking)		
– Commercial transport	0.1	(0.01, 1.7)
– Private car	0.7	(0.04, 9.8)
– Acceptable for man to accompany wife to ANC (ref = yes)	0.9	(0.6, 1.4)
– How family/friends feel about a man attending ANC with wife/ partner (ref = yes)	0.6	(0.3, 1.1)
Perception about cost of travel to ANC (ref = Expensive)		
– Inexpensive/just okay	1.9	(0.8, 4.3)
Rate of distance to facility (ref=far)		
– No far	0.2	(0.08, 0.9)**
Perception of programe at ANC (ref=helpful)		
– Not helpful/ waste of time	0.2	(0.03, 0.9)*
REINFORCING FACTORS		
– Wife/partner ever discussed ANC with you? (ref = yes)	2.2	(0.6, 8.1)
– Health worker ever discussed ANC with you? (ref = yes)	0.2	(0.09, 0.6)**
– Friend ever discussed ANC with you? (ref = yes)	0.3	(0.1, 0.9)*
– Heard or read about ANC from any source? (ref = yes)	1.0	(0.4, 2.3)
– Know of any man who attends ANC with wife/ partners (ref = yes)	0.3	(0.2, 0.7)**
N	351	
Log likelihood	-94.346	
Prob> chi2	<0.0001	

(ref) = referent; (-) = omitted; (*) = $p<0.05$; (**) = $p<0.01$;

MAIN OUTCOME = ATTENDING ANC

CHAPTER FIVE

DISCUSSION

This chapter discusses the major findings of the study on male participation in ANC in the Kumasi metropolis, Ghana. Factors considered under study were predisposing or socio-demographic factors, enabling factors and reinforcing factors.

5.0 Introduction

Male involvement in maternal health services has received remarkable attention in recent years. This is as a result of the recognition of the importance in contributing to reducing mother and child mortalities (WHO, 2005). The ICPD programme of Action (1994) outlined the role of men in reproductive health at three different levels; men as clients, men as partners and men as agents of positive change; emphasizing on the extension of same range of RH services to both men and woman. This study was done to assess the level of male involvement in ANC and identify the factors contributing to male participation in ANC.

5.1 Utilization of ANC among men

Results from this study however indicate that, male participation in ANC is very low at 35% while 65% of the men involved in the study had never attended ANC with their wives or partners. Our study is consistent with the study in Kenya by Muia et al (2000), which found that only 13% of the women attending ANC were ever accompanied by their partners. A study done by Britta et al (2004) in Nepal also revealed that only 40% of husbands accompanied their women attending ANC for the first time.

Other studies however reported high participation of men in ANC. The study done in Omoro county Gulu district by Tweheyo (2009) for instance revealed that 65.4% of the males accompanied their wives for ANC and a participation rate of 63% was reported in Nigeria (Olayemi et al.; 2009). Reasons for accompanying wife to the ANC in this study included being motivated by other men, a desire to know what happens at ANC and regard for the safety of their wives and baby. Majority of the respondents believed education was inadequate and proposed improving the educational momentum through public education, using the mass media. Other recommendations included reducing waiting time at ANC, giving men priority at the ANC and increasing male staff at the ANC.

5.2 Predisposing factors influencing ANC utilization

The socio-demographic and cultural characteristics of individuals are antecedents in a person's life that motivates behaviour; his values, knowledge, attitudes and beliefs. These have been described as predisposing factors and influence health seeking behaviour (Anderson, 1995).

Results from this study indicate that the educational level and marital status of men influence their ANC attendance. Majority of respondents in this study were married or cohabitating. Whereas about 39.8% of the respondents had attained JHS/JSS education 34.4% had had secondary school education. Respondents who had some form of education had decreased odds of accompanying wives or partners to ANC as compared to those with no formal education. Men who were married or cohabitating were 11.3 times more likely to attend ANC as compared to those who were single (OR=11.3; $p<0.001$).

The finding of our study is similar to findings in the studies carried out in Omoro County (Uganda) and in Kenya. In Kenya, un-educated men were found to be less likely to participate in reproductive health. The study in Omoro County revealed that there was a

positive association between male educated and participation in ANC (Tweheho, 2009). Studies suggest that uneducated men tend to hold on to traditional beliefs which greatly impair interspousal communication leading to low male involvement in reproductive health (Nzioka, 2001).

This study was again consistent with a study of male participation in maternal health in India where men having at least secondary education are 1.3 times more likely to be present at the time of antenatal checkups of their wives and men having higher education 2.6 times more likely to participate in ANC's services of their wives in comparison to those with no formal education (Kumar¹ and Singh, 2006). This was also evident in the study by Tura in 2009, where husband's educational status was found to have a statistically significant association with antenatal care service utilization (OR=1.56, 95%CI: 1.11, 2.89).

This could be due the fact that respondents with higher education have much access to information about ANC and have better understanding of the importance of ANC and are able to make positive decisions including accompanying wives or partners to ANC. According to Cutler (2007), for many health outcomes, there are positive health consequences related to increased education and an almost linear negative relationship exists between mortality and years of schooling and between self-reported fair/poor health status and years of schooling. An increased level of education among husbands has the potential of not only increasing antenatal care utilization among men but also supporting and encouraging their wives and partners. This indicates the importance of knowledge and awareness in the utilization of health care. The study of male participation in maternal health services in India also established the contribution of increasing exposure to mass media in enhancing male participation in ANC where a significantly higher proportion of

men with exposure to mass media were reported to accompany their wives for ANC as against their counterparts who were not exposed to any mass media.

As compared to men who were single, ANC attendance was significantly higher among men who were married. The logistic regression analysis showed a positive influence of being married or cohabitating on male participation in ANC. Men who were married were 9 times more likely to attend ANC (OR=8.9; 95% CI=1.1, 25.3) and this association was observed when the enabling and reinforcing factors were added. This could be as a result of positive communication on antenatal care between married couples as compared to other forms of relationships.

5.3 Enabling factors

Enabling factors involve the logistics aspect of obtaining healthcare and could describe factors that determine the use of health services (Green, 2005). They help one to either adopt or maintain a healthy lifestyle/ behaviour, or not. In this study, the participation of men in ANC was influenced by means of going to ANC and perceptions about the distance to facility and perceptions about programmes organized at ANC. As compared to those who walked to the facility, respondents who would visit ANC by means of commercial vehicle had decreased odds of attending ANC (OR=0.1; $p<0.05$). Negative perceptions about the distance to facility and programmes organized at the facility decreased the likelihood of accompanying wife or partner to the facility. This is consistent with results from other studies around the continent that have also reported the influence of means and cost of transport as well as distance on health care utilization (Eijk et al, 2006; Muki, 2009; Kululanga, 2012).

Acceptability of a man accompanying wife or partner to ANC in the community and among family and friends had significant association with male participation in ANC in the bivariate analysis, with percentage of participation being higher among those who indicated it was acceptable. In the multivariable analysis, men who indicated that it wasn't acceptable in their communities or among friends to accompany a wife to ANC showed decreased odds of attending ANC although this was not significant. This could be attributed to traditional cultural norms regarding marital roles in our communities. Culture forms an integral part of daily living in the traditional African setting, where the man is the head of the family whereas child bearing, rearing and upbringing are the responsibilities of the woman, although these roles are being challenged. Similarly, one study from South Africa reported that service providers had a concern that men hold on to traditional beliefs and this influenced their involvement in maternal health issues (Mullick et al 2005). In a study in Malawi by Kululanga et al (2012), both men and women in that study viewed pregnancy and childbirth as the domain of women and expressed that they have been brought up to believe that maternal health services are for women and therefore do not expect men to participate in ANC.

5.4 Reinforcing factors

Reinforcing factors involves factors relating to the influential people around us: family, friends, peers, service providers, politicians etc and provide a feedback that encourages or discourage behavioural change (Green, 2005). In this study, having ever discussed ANC with a health worker or friend and being aware of a man who attends ANC with the wife or partner significantly influenced the decision to attend ANC. Holding other variables constant, respondents who had never discussed ANC with any health staff or friends were less likely to attend ANC with their wife or partner.

Results from this study revealed the influence of positive communication between couple and its influence on utilization of ANC among men. Male respondents whose wives or partners had discussed ANC with them showed increased likelihood of visiting ANC as compared to those whose wives or partners had had no prior discussion of ANC with them. This outcome was in line with the study by Nzioka (2001), which also established a relationship between impaired inter-spousal communication and low involvement in reproductive health services among men. It is also consistent with the study in Malawi by Kululanga et al (2012). In that study, the men that missed maternal health sensitization campaigns and whose wives did not communicate with them about the importance of their involvement expressed ignorance about husband's participation in maternal health care (Kululanga et al, 2012).

The study also revealed that having prior knowledge of ANC and being aware of a man who attends ANC with wife or partners significantly influenced decision to attend ANC. Respondents who had no knowledge of someone who attends ANC with the wife or partner had decreased odds of attending ANC as compared to their counterparts. This shows the importance of knowledge and awareness of ANC and its associated programmes on the decision of men to accompany their wives or partners to ANC.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

The purpose of this study was to assess the factors that influence male participation in ANC. The outcome of this study revealed a low level of male participation in ANC and this is influenced by interplay of predisposing, enabling and reinforcing factors.

6.1 Conclusion

6.1.1 Level of male participation in ANC

It can be concluded from the results that there is a low level of ANC attendance among men in the Kumasi metropolis. Men's reasons for accompanying wives or partners to the ANC included being motivated by other men to do so and a desire to know what happens at ANC and regard for the safety of their wives and baby.

6.1.2 Predisposing factors and utilization of ANC

Male involvement in ANC was influenced by the level of education and marital status of men. Increased educational level increased the likelihood of male involvement in ANC and men who were married or co-habiting were more likely to participate in ANC. Uneducated men might hold on to traditional beliefs and norms that do not favour male participation in ANC and this could hamper their involvement in ANC.

6.1.3 Enabling Factors

The study further revealed the influence of enabling factors on male participation in ANC. Attending ANC by means of a commercial transport might decrease the motivation to attend ANC. Further, improving the knowledge and awareness of men on the programmes

organized at ANC is an important way of improving male participation as men who had negative perception about programmes organized at ANC were less likely to accompany wives or partners to ANC.

6.1.3 Reinforcing factors

Finally, It can be concluded that positive discussions about ANC with wives, friends or health workers have positive influence on male attendance to ANC. Prior awareness of a man who has accompanied his wife to ANC also might motivate other men to participate in ANC. Efforts to improve male participation in ANC should revolve around improving awareness and understanding of husbands and partners of their contribution to ensuring a positive pregnancy outcome and reducing maternal and child mortality.

6.2 Recommendations

The following are recommendations for future health education and policy interventions to improve male participation in ANC;

- Increased knowledge and awareness among men have been shown to increase participation in ANC. There should be increased efforts to improve the knowledge and understanding of men about ANC through the use of mass media and other effective mass communication means.
- At the household level, pregnant mothers should be educated by the family heads and parents on adopting more positive inter-spousal attitudes to enhance positive communication with husbands and partners.
- Pregnant mothers should be counselled by care providers during ANC programmes to communicate effectively on maternal health issues to their husbands to improve their participation in ANC.

- At the community level, educational programmes that seek to demystify negative perceptions about male involvement in ANC and improve understanding of the benefits of male participation in ANC should be instituted by district and municipal public health directorates.
- Men should have interest in their pregnant wives/partners and should play an active role in ensuring positive pregnancy outcomes.
- Further studies need to explore specific social norms and beliefs that undermine male participation in ANC.

REFERENCES

- Adamu, Y.M. and Salihu, H.M. (2002). Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. *Journal of Obstetrics and Gynaecology*, 22(6):600–603.
- Ademchak DJ, Adebyao A (1997), Male fertility attitudes: neglected dimension of Nigeria fertility research. *Social Biology*, 34:57-67
- Andersen RM (1995). Revisiting the behavioral model and access to medical care: does it matter? *J Health Soc Behav*;36 (March):1-10
- Babalola S, Fatusi A. Determinants of use of maternal health services in Nigeria--looking beyond individual and household factors. *BMC Pregnancy Childbirth*. 2009;9:43.
- Britta and others Fapohunda B M, Rutenberg N (1999), Expanding men's participation in reproductive health in Nairobi, Kenya.
- Bulut and Molzan Turan (1995), Bringing fathers into the picture; postpartum family planning available at www.avsc.org. Accessed January 2009
- Cigdem .B, John M .P, Arzum G, Ayse Kin (1999). Involving Men as partners in reproductive health lessons learned in Turkey. Available at www.who.int, accessed 10th November 2008
- Conde-Agudelo, A., & Belizán, J. (2000). Maternal morbidity and mortality associated with interpregnancy interval: Cross sectional study. *BMJ*, 321, 1255-1259.
- Dudgeon,MR., & Inhorn,MC. (2004). Men's influence on women's reproductive health: medical anthropological perspectives. *Social Science & Medicine*, 59, 1379-1395.
- Engender health (2011). Male as partners, Johannesburg. [online]. <http://www.engenderhealth.org/our-work/gender/men-as-partners.php>

Family Care International (1997). The safe motherhood Action Agenda; priorities for the next decade, report on safe motherhood technical consultation, Colombo, Sri Lanka 18-23 October 1992.FCI New York

GHS, GSS and Macro International (2009). Ghana demographic health survey report, 2008. Ghana Health Service; Accra.

Hogan MC, Foreman KJ, Naghavi M et al (2010). Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. Lancet; 6736(10)60547-8

IBM (2015). <http://www-01.ibm.com/software/analytics/spss/>

International Planned Parenthood Federation (2005). Strategic framework, 2005-2015.

United Kingdom. African population research center.

JHPIEGO (2001). Maternal and Neonatal health (MNH) Program. Birth preparedness and complication readiness. A matrix of shared responsibilities. Maternal and Neonatal Health. 2001. pp. 23–31.

Kasolo.J and Ampaire C (2000), Knowledge, Attitudes and Practices of women and men towards safe motherhood in rural settings. A qualitative study done on behalf of Delivery of Improved Service for Health (DISH II) project

Koisa A (2002), Opportunities and Challenges for men's involvement: the regional reproductive strategy, Paper presented in the meeting of Regional adviser in Reproductive Health WHO/PAHO, Washington DC, USA 5-7 September 2001,World Health Organization.

Kainz G, Eliasson M, von Post I (2010). The child's father, an important person for the mother's well-being during the childbirth: A hermeneutic study. *Health Care Women Int.*;31:621–35.

Malawi Health Service (2004). *Malawian Health Survey*; Malawi

Muia, E., Olenja, J., Kimani, V., & Leonard, A. (2000). Integrating men into the reproductive health equation: Acceptability and feasibility in Kenya. The Robert Hebert Program on Critical Issues in Reproductive Health, Population Council.
<http://www.popcouncil.org/pdfs/ebert/FinalKenyaStudy.pdf>.

Mutale T, Creed F, Hunt LP (1991). Life events and low birth weight – analysis by infants preterm and small for gestational age. *British Journal of Obstetrics and Gynaecology*, 98:166-172.

Nepal Demographic and Health Survey (2001). Nepal

Ntabona Alexis (2002), Involving men in safe motherhood: the issues. Paper presented in the meeting of Regional adviser in Reproductive Health WHO/PAHO, Washington DC, USA 5-7 September 2001, World Health Organization.

Nyane L (2007), Factors associated with Antenatal care dropout among pregnant women in Tororo district. MPH dissertation Makerere University School of Public Health

Pagel MD et al. (1990). Psychosocial influences on new born outcomes: a controlled prospective study. *Social Science and Medicine*, 30:597-604.

Ratcliffe Amy (2002), Men's roles with multiple partners: challenges and opportunities Report of the meeting of W.H.O. Paper presented in the meeting of Regional adviser in

Reproductive Health WHO/PAHO, Washington DC, USA 5-7 September 2001, World Health Organization.

Safe Motherhood Demonstration Project (2004). Final report, 2004. Population council
International Conference on Population and Development (2004).
1994 <http://www.unfpa.org/public/icpd>

Somers-Smith MJ (1999). A place for the partner? Expectations and experiences of support during childbirth. *Midwifery*, 15:101-108.

StataCorp (2015). <http://www.stata.com/>

sUNFPA. (2004), Investing in people: National progress in implementing the ICPD Program of action 1994-2004

WHO (2014). Health topics; Women Health. [Online].
http://www.who.int/topics/maternal_health/en/

World Health Organization (2001), Programme for male involvement in reproductive health available at www.who.org accessed 20th October 2008

Young M Kim and Andreine Kols (2002), Counseling and communicating with men to promote family planning in Kenya and Zimbabwe. Paper presented in the meeting of Regional adviser in Reproductive Health WHO/PAHO, Washington DC, USA 5-7 September 2001, World Health Organization.

APPENDIX A
QUESTIONNAIRE
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY
DEPARTMENT OF COMMUNITY HEALTH

**RESEARCH TITLE: “MALE INVOLVEMENT IN ANTENATAL CARE IN THE
KUMASI METROPOLIS’**

QUESTIONNAIRE FOR RESPONDENTS

Introduction

Good morning/afternoon. I am a student at the University of Kwame Nkrumah University of Science and Technology, Kumasi. I will be conducting several meetings with people like you in this facility to find out your views and ideas concerning male involvement in ANC”. Be assured that your responses will not in any way be linked to your identity. You are kindly requested to answer the questions below by indicating a tick or writing the appropriate answer when needed.

THANK YOU

QUESTIONNAIRE ID:

SECTION I SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Age of respondent? [__ __] years
2. Marital status
 - i. Single ☐
 - ii. Married ☐
 - iii. Separated ☐
 - iv. Divorced ☐
 - v. Widowed ☐
 - vi. Cohabitation ☐
3. Education level
 - i. Primary ☐
 - ii. J. S. S ☐
 - iii. Secondary/tech./voc./ A-level/o-level ☐
 - iv. Tertiary ☐
 - v. No formal education ☐
4. Religion
 - i. Christian ☐
 - ii. Muslim ☐
 - iii. Traditional ☐
 - iv. Other ☐ (specify).....
5. Employment status
 - i. Employed ☐
 - ii. Unemployed ☐

6. What is your main occupation?
- i. Artisan (carpenter, mason, plumber, driver, etc.) ☐ ii. Farmer ☐
- iii. Civil / Public servant ☐ iv. Trader/ businessman ☐ otherspecify
7. How much do you earn per month? GHC.....
8. Number of children

SECTION II:ENABLING FACTORS IN ATTENDING ANC AMONG MEN

9. By what means would you go to ANC?
- i. walk ☐ ii. By taxi ☐
- iii. By trotro ☐ iv. Private car ☐ otherspecify
10. Do you think your community consider it acceptable for a man to accompany his wife/ partner to ANC ?
- i. Yes ☐ ii. No ☐ iii. Don't know ☐
11. Do you think your family and friends consider it acceptable for a man to accompany his wife/ partner to ANC ?
- i. Yes ☐ ii. No ☐ iii. Don't know ☐
12. How much would you/do you spend on transportation to the ANC on each visit? GHC.....
13. How do you view the cost of transport to ANC?
- i. Expensive ☐ ii. Not expensive ☐ iii. Cheap ☐
14. What is the estimated distance between your residence and the facility?
.....KM. area of residence
15. How do you rate the distance from residence to facility?
- i. Very Far ☐ ii. Far ☐
- iii. Near ☐ iv. Very near
16. What is your perception about programs organized at the ANC?
- i. Very helpful ☐ ii. Helpful ☐ iii. Not helpful ☐
- iv. Complete waste of time ☐ v. Don't know ☐ otherspecify

SECTION III:REINFORCING FACTORS IN ATTENDING ANC AMONG MEN

17. Have you ever held a discussion on ANC with any of the following people;

A. Wife or partner i. Yes ☐ ii. No ☐ iii. Not sure

B. Health worker i. Yes ☐ ii. No ☐ iii. Not sure

C. Friend i. Yes ☐ ii. No ☐ iii. Not sure

18. Have you heard or read about ANC from any source before?

i. Yes ☐ ii. No ☐ iii. Not sure

19. If yes please indicate source.....

20. Is there any man you know who attends ANC with his wife/partner?

i. Yes ☐ ii. No ☐ iii. Not sure

SECTION IV:MEN EXPERIENCES WITH ANC

21. Have you ever accompanied your wife to ANC?

i. Yes ☐ ii. No ☐

If the answer to question 21 above is yes , answer the questions below:

22. How many times during the entire pregnancy period?

23. What motivated you/ personal reasons to accompany your wife to ANC?

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

24. How long did you spent at the ANC?HoursMinutes

25. How will you rate the time spent the facility?

i. Long ☐ ii. Normal ☐ iii. Short ☐

26. How will you describe the attitude of staff at the facility?

i. Very friendly ☐ ii. Friendly ☐ iii. Normal ☐

iv. Not friendly ☐ v. Not sure ☐

27. How will you describe the entire ANC setting during your visit?

i. Very friendly ☐

ii. Friendly ☐

iii. Normal ☐

iv. Not friendly ☐

v. Not sure ☐

28. Do you believe you accompanying your wife to the facility will motivate her to visit the ANC in a timely manner?

i. Yes ☐

ii. No ☐

iii. Not sure

29. Is there anything you recommend to be improved to enhance men participation in ANC?

Please

state.....

.....

THANK YOU FOR YOUR TIME.