PSYCHOLOGICAL FACTORS THAT PROMOTE MATERNAL HOME DELIVERY IN KIBERA INFORMAL SETTLEMENT IN NAIROBI COUNTY, KENYA

BY

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C50/10056/07

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS (COUNSELING PSYCHOLOGY) OF KENYATTA UNIVERSITY.

JUNE 2013

DECLARATION

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

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DEDICATION

This research project is dedicated to my family.

ACKNOWLEDGEMENT

A number of people were instrumental in making this study a success. They both directly and indirectly contributed to its shape. Without acknowledging these peoples' help, this study would not be complete. I do extend my very sincere gratitude to my supervisors, Dr. Merecia A Sirera and Dr. Maureen Mweru for their valuable patience and guidance in supervising this project to its conclusion. I particularly appreciate their constructive criticism which helped me think deeper concerning the project.

I also take this opportunity to acknowledge my family for the great support during the research and putting together the project since it took a lot of time to do this. I am greatly indebted to my classmates cooperation and motivation in bringing the project to its conclusion. Finally, I am greatly indebted to the Almighty God for his grace that was sufficient for me throughout the period of writing this project. I am so thankful for his divine wisdom, strength and excellence. Without these, I would not have come this far.

ABSTRACT

Home births continue to be witnessed in the informal settlements in spite of the risks involved, but it is not clear why they persist. The objectives of the study were to: establish whether there is any effect of social and cultural practices on home delivery in Kibera informal settlement; establish psychological factors that promote home delivery among mothers in Kibera informal settlement; establish whether there is any effect of a pregnant woman's (or mother's) level of education on home delivery; and establish the strategies that can be put in place to improve hospital delivery in order to discourage home delivery The study was guided by the Health Belief Model and the Behavioural Model of Health Services Utilisation. A mixed survey method design was used for the study. The study targeted all women of between 18 and 49 years of age who had previously given birth at home in the Kibera informal settlements in Nairobi County. Using Snowballing sampling technique 45 women who had given birth at home were identified and participated in the actual study. Data was collected by use of questionnaires and interview schedules where all 45 women were given questionnaires to fill while five out of these were interviewed. Prior to the actual data collection, a pilot study was carried out in Kibera informal settlement among five women who had previously given birth at home. The pilot study helped to improve the reliability and validity of the instruments by ironing out any ambiguities found in the data collection tools. Data collected was both qualitative and quantitative. Quantitative data collected was analysed using both descriptive and inferential statistics, coded and entered into Statistical Package for Social Sciences (SPSS) programme for analysis. Data analysis was presented in form of frequency distribution tables, bar graphs and pie charts. A Chi -square test was conducted to find out the relationship between mothers' level of education and influence on home delivery. Qualitative data was put under themes consistent with the research objectives. The study established that social and cultural practices, psychological factors and level of education had a significant influence towards maternal home delivery. In particular women's beliefs, attitude and perceptions had a great impact towards their decision making on maternal home delivery or maternal hospital delivery. It was established from the findings that culture, lack of education, poverty and accessibility to hospitals were major reasons that influenced women's decision on where to give birth to their babies. Preference for home delivery was associated with social support emanating from strong cultural background that honoured and celebrated motherhood. However, the major reason which inclined women to prefer hospital delivery was associated with good medical advice and service in case of complications during birth. Based on the findings, the study recommends that health facilities should improve their support services for mothers delivering in their facilities to attract more support and participation from community members who would like to work together with health authorities to jointly design suitable health systems that can respond to the maternal health needs hence eradicating negative social and cultural practices in the society. In addition the government needs to work towards increasing accessibility to hospitals by formulating programs to cater for maternity fees to ensure that all women get access to health facilities. The major reason which influenced most of the women to prefer maternal home delivery was low level of education, therefore, this study recommends that education and in particular women's education should be promoted. Chi-square test results revealed that women with higher level of education were less likely to engage in social and

cultural practices and therefore, were psychologically inclined to deliver in hospital. On the other hand, results of the analysis showed that women with low level of education were more likely to engage in social and cultural practices and hence, psychologically inclined to deliver at home. Further, the government should promote campaigns to sensitize women on importance of maternal hospital delivery and hence highlight dangers related to maternal home delivery

Table of Contents

DECLARATION ..... **ii**

DEDICATION ..... **iii**

ACKNOWLEDGEMENT ..... **iv**

ABSTRACT ..... **v**

LIST OF TABLES ..... **x**

LIST OF FIGURES ..... **xi**

ABBREVIATIONS AND ACRONYMS ..... **xii**

OPERATIONAL DEFINITION OF TERMS ..... **xiii**

CHAPTER ONE **1**

1.0 INTRODUCTION 1

1.1 Background to the Study 1

1.2 Statement of the Problem 8

1.3. The purpose of the study 8

1.4 Objectives of the Study 9

1.6 Research Questions 9

1.7 Justification and Significance 9

1.8 Scope and Limitations 11

CHAPTER TWO **12**

2.0 LITERATURE REVIEW 12

2.1 Introduction 12

2.2 Theoretical Framework 12

2.3 Review of Related Literature 19

2.4 Conceptual Framework 34

CHAPTER THREE **35**

3.0 METHODOLOGY **35**

3.1 Introduction 35

3.2 Research Design....35
3.3 Site of the Study....36
3.4 Study Population....36
3.5 Sampling Techniques and Sample Size....37
3.6 Research Instruments....37
3.7 Pilot Study....38
3.8.1 Validity....38
3.8.2 Reliability....39
3.9 Data Collection Procedure....40
3.10 Data Analysis....40
3.11 Data Management and Ethical Considerations....41
CHAPTER FOUR....42
4.0 DATA ANALYSIS AND DISCUSSION....42
4.1 Introduction....42
4.2 Demographic Factors of the Study Respondents....42
4.3 Effect of Social and Cultural Practices on Home Delivery....47
4.4 Psychological Factors that Promote Home Delivery among Mothers....52
4.5 Effect of a pregnant woman's (or mother's) level of education on home delivery....57
4.6 Strategies that can be put in place to improve hospital delivery in order to discourage home delivery....60
4.7 Summary....64
CHAPTER FIVE....66
5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS....66
5.1 Introduction....66
5.2 Summary of the Study....66
5.3 Conclusion....69
5.4 Recommendations of the Study....70

5.5 Study limitations 71

5.6 Areas for Further Research 71

REFERENCES 72

APPENDICES 78

Appendix 1: Research Authorization 78

Appendix 2 79

Work plan 79

Appendix 3 80

Research Budget 80

Appendix 4 81

Letter of Introduction to Respondents 81

Appendix 5 82

Questionnaire 82

Appendix 6 87

Interview Guide 87

LIST OF TABLES

Table 4.1: Age of the respondents.....45

Table 4.2: Number of children.....47

Table 4.3: Women's responses on impacts of social and cultural practices on home delivery.....48

Table 4.4: Women's responses on psychological factors that promote home Delivery.....53

Table 4.5: Influence of social and cultural practices on home delivery across level of education.....57

Table 4.6: Influence of psychological factors on home delivery across level of Education.....57

Table 4.7: Strategies that can be put in place by the government to promote maternal hospital delivery.....60

Table 4.8: Strategies that can be put in place by the community to improve maternal health of women in Kenya.....62

LIST OF FIGURES

Figure 2.1: Behavioural Model of Health Services Use.....17

Figure 2.2: Conceptual Framework: Factors promoting maternal home delivery.....34

Figure 4.1: Women's level of education.....43

Figure 4.2: Respondents' occupation.....45

Figure 4.3: Marital status of the respondents.....46

Figure 4.4: Influence of social and cultural practices on home delivery.....51

Figure 4.5: Influence of psychological factors on home delivery.....56

ABBREVIATIONS AND ACRONYMS

APHRC	-	African Population and Health Research Centre
FANC	-	Focused Antenatal Care
HBM	-	Health Belief Model
NGOs	-	Non-Governmental Organizations
NVSR	-	National Vital Statistics Reports
SPSS	-	Statistical Package for Social Sciences
TB	-	Tuberculosis
WHO	-	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Home delivery: Refers to the act of an expectant mother giving birth at home without the help of trained health care providers.

Hospital delivery: Refers to the act of an expectant mother giving birth at a hospital with the help of trained health care providers.

Psychological factors: These refer to the internal states that are likely to facilitate or motivate the decision of a mother to deliver at home or hospital, and include the perceived seriousness, perceived susceptibility, perceived benefits, and perceived barriers of engaging in the health seeking behavior.

Social and cultural practices: These refer to factors within the family or the society which shape and determine the contexts of a person's health seeking behaviour, including attitudes, customs, traditions and preferences.

Traditional Birth Attendant: A person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through apprenticeship.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Health practitioners have warned about some risks attached to giving birth. They have observed that the choice that a pregnant woman makes to deliver at home unassisted or under the supervision of a traditional birth attendant may pose a danger to the mother and newborn (Mwamwenda, 2004: Stoppard, 2005). However, we continue to see and read reports about women delivering in their homes. For instance, a study done by Price (2002) in Tanzania found out that 84% of women who deliver at home intended to deliver in a health facility but could not do so because of distance. Moreover, another study done in Zambia in 2003 pointed out that people just do not have the money to pay the transportation costs (Zambia Demographic Health Survey, 2003). These findings indicate that, although health facilities are available in most of the rural areas, it is still difficult to utilize the services, most likely due to distance and cost of transport. To avoid such costs and disturbances, women decide to give birth at home and only access health facilities when there are other life threatening complications. In Kibera for example, although near major hospitals in the city, the place is congested and with unplanned structures that would make it impossible for the health practitioners to reach the mother in case of an emergency.

Maternal home delivery has been shown to lead to complications and maternal deaths in developed and developing countries. According to World Health Organisation figures, 585,000 women throughout the world die each year due to problems related to pregnancy and delivery (Aguiler and Gilbes, 2007). Fifty five percent of those deaths are in Asia and forty percent in Africa. Industrialised countries account for

only one percent of these deaths. In a review of the maternal mortality trends in developed countries, Loudon (2000) established that due to high incidences of home delivery, high maternal mortality was a feature of the Western world (such as the United States, England, Wales and other European countries) from the mid-19th century to the mid-1930s. Loudon (2000) further stated that during this time, maternal mortality rates tended to remain on a high plateau, although there was wide disparity between countries in the height of the plateau. From around 1937, maternal mortality rates began to decline everywhere, and within 20 years, the inter-country differences had almost disappeared. The decline in maternal mortality rates was so dramatic that current rates for developed countries are between one-fortieth and one-fiftieth of the rates that prevailed 60 years ago.

Currently, efficient health systems and maternal health care policies in the developed world have led to a decline in maternal home delivery to insignificant levels (Aquiler and Gilbes, 2007). For example, Holland allows homebirths for pregnant women who are in a low risk group (women who are healthy and progression of their pregnancy has been straight forward with no complication). It is estimated that one third of pregnant women in Holland per year give birth at home. Maximum health security is put in place for them in case of complications. These include having a stand by nurse, regular checks by a health practitioner or health workers and provision of quick means of transfer to a medical facility in case of emergency. As a result young pregnant women in Holland choose to deliver at home rather than in hospital which does not offer the familiarity of home where the pregnancy has developed and where the would be mother feels safe and psychologically comfortable (Aguiler and Gilbes, 2007: McFarlane, 1977).

The National Vital Statistics Reports (NVSR) (2010) show that in the United States of America, in the last several decades, there have been considerable changes in child bearing patterns. Historically, the percentage of out of hospital births (including home births) declined from 44% in 1940 to 1% in 1969 (NVSR, 2010) and has remained about 1% for several decades. However, after a gradual decline from 1990 to 2004 the percentage of home births increased by 5% to 0.59% in 2005 and remained steady in 2006. In 2006, there were a total of 24,970 home births (NVSR, 2010). Home births were higher for non Hispanic white women, married women, women aged 25 and over and women with several previous children.

In African countries, high rates of maternal home delivery have been established. For instance, a study on the factors affecting maternal health care seeking behaviour in Rwanda by Jayaraman, Chandrasekhar and Gebreselassie (2008) established that most women prefer to deliver at home, either with or without the assistance of professional birth attendants. Similar findings were reported in Nigeria (Okafor & Rizutto, 1994), and in Tanzania, where Bicego, Curtis, Raggers, Kapiga & Ngallaba (1997) established that 84 percent of women who gave birth at home intended to deliver at a health facility but did not due to distance and lack of transportation.

Further, in sub Saharan Africa, the lifetime risk of dying in pregnancy or childbirth is 1 in 13, the highest in all the regions of the world. WHO (2007) reported that for instance in Rwanda, maternal mortality rate is estimated to be 1300 per 100,000 live births.

In Kenya as stated by the Kenya Demographic and Health Survey (2003) only 42 percent of women have a skilled attendant present at delivery, while 28 percent of women deliver with a traditional birth attendant (TBA); slightly over one-fifth deliver

with a relative, and nearly one tenth of women deliver entirely alone. The majority of the deliveries with a skilled attendant occur in health facilities. Overall, 26 percent of all deliveries occur in public health facilities, and three out of five births occur at home. However, these aggregate figures conceal wide provincial disparities. Delivery at home, for example, is more than twice as common in rural as in urban areas, and the proportion of births with a skilled attendant ranges from only 29 percent in Western province to 79 percent in Nairobi (KDHS 2003). Giving birth in hospitals may not be affordable to many women. Groups like pregnant women from informal settlements like Kibera who could be from a low income bracket are left out since there is no incentive to target them for hospital delivery.

Women may choose homebirths for a variety of reasons, including a desire for a low-intervention birth, to be in a familiar environment surrounded by family and friends and cultural or religious concerns (Boucher, Bennett, McFarlin, Freeze, 2009).

The arguments for home birth are primarily that it is more natural; pregnancy and delivery is treated as a normal process (rather than an illness) and that the birth is less likely to be traumatic if the mother is in a comfortable or familiar setting (Johnson & Daviss, 2005). She is surrounded by the family who give her emotional support and also help in different ways. This implies a psychological well being of mother and baby (Bee, 1989; Papalia, Olds, Feldman, 2006).

The understanding of the physiology of a woman reveals the need for the woman to be relaxed and able to control her environment to let labour take place normally. When labouring, a woman feels safe and private when she has the ability to move around and deal with her labour pains in whatever way that works for her. Her body responds by releasing the labour hormone oxytocin which makes the uterus to

contract efficiently. Edwards (2006) and Campbell & McFarlane (1994) explain that the woman will also produce endorphins that reduce pain because she is in familiar surroundings; her body is less likely to produce adrenaline, the flight or fight hormone which interrupts labour hormones and actually makes labour slower and painful. This has the implications that giving birth in a familiar environment has physical, psychological and social benefits. The immediate family plays a major role of helping and giving the woman emotional support. They welcome the new born immediately because they do not have to wait for the baby to come from hospital, allowing immediate bonding with the father and other siblings.

Mothers who prefer to deliver at home have been found to prefer traditional birth attendants because of the social-organisation of home births, their socio-physical closeness to their clients, their acceptability and availability as well as the responsiveness of their care to the socio-cultural and economic sensitivities of women. Neggusie (1988) explains that the traditional birth attendant helps the mother during her pregnancy with behavioural prescriptions and counselling services during the prenatal period. Her work is both preventive and curative and she deals with the physical, emotional and psychological problems of the pregnant woman. Izugbara, Ezeh, Fotso (2008) and Negussie (1988) cite that much of her treatment is based on the equilibrium principle and the importance of the mother being in harmony with the people, the ecology and with herself.

The traditional birth attendants not only provide delivery services but continue to counsel the pregnant women in the community. As a result, these pregnant women have developed trust and confidence in them. This has contributed to fostering a strong client – therapist relationship between the traditional birth attendants and the women who seek their services. Negussie (1988) furthers says that this is so

especially when the woman has previously given birth at home. When the mother has had no problem with her previous deliveries at home, she believes that the next one also will go well. This is because her social environment influences her thinking, beliefs and values in turn impact her behaviour. Beliefs have a significant effect on delivery care behaviour.

Notably however, beliefs like the above can be a false assurance of successful delivery with her next pregnancy. This is because each pregnancy should be treated individually and as having its own issues. Giving birth at home may be the best option for a woman but a case may arise which is beyond the skills of the traditional birth attendants. For example if a caesarean section was required because the baby is lying in a transverse position (situated across) or the mother has narrow pelvic bones, the traditional birth attendant may be unable to provide the necessary assistance.

This would place the life of the mother and baby in danger. The mother could also experience psychological stress that may affect the life of the baby as well. It is therefore important that from the moment a woman learns that she is pregnant; she should receive regular health care. Equally, it is important that she delivers in a health facility.

Research (Bee, 1989; Papalia et al, 2006) further reveals that though most pregnant women have delivered at home without any difficulties, emergencies do occur, can be sudden and unpredictable requiring immediate action. For example, for a small minority of babies, the passage through the birth canal is a particularly harrowing journey and can be traumatising for both the mother and the baby leaving behind both physical and psychological scars.

In line with the above views, there have been several reports about women who have lost their lives while giving birth at home in Kenya (Fotso, Ezeh & Oronje, 2008). In urban Kenya, one would expect the number of maternal deaths to be lower given the existence of many well-equipped health facilities, but this is not necessarily the case. Research by the African Population and Health Research Centre (APHRC, 2009) in informal settlements in Nairobi County revealed that these areas have a maternal mortality of 706 deaths per 100,000 live births, which is higher than the country's average. The research has further revealed that nearly half of expectant women in informal settlements deliver either at home, with the assistance of traditional birth attendants or in unlicensed and unregulated health facilities that lack capacity to handle even minor obstetric complications. However, even though the reports of risks associated with home delivery are on the increase, women continue to deliver at home. Several warnings issued by the Ministry of Medical Services continue to be ignored while mothers and babies continue to die.

This study therefore sought to establish factors that promote maternal home delivery in Kibera informal settlement, Nairobi County. Mothers in the informal settlements currently do not enjoy improved maternal health. According to Dzila (2010), mothers in informal settlements such as Kibera still face the same challenges of either losing their babies or developing complications due to lack of access to proper maternal care. Most women in Kibera informal settlement opt to deliver at home either with the assistance of a traditional birth attendant or unassisted. It was therefore important to determine the factors that promote maternal home delivery in Kibera informal settlement.

1.2 Statement of the Problem

The problem underlying this study is that in informal settlement areas, home births still continue in spite of the risks but it is not clear why they persist. Research by the African Population and Health Research Center (APHRC, 2006) in informal settlements in Nairobi County has shown that pregnant women in these areas do not seek health care during pregnancy and delivery. Such women may suffer trauma at the time of delivery in their homes. The research has further revealed that nearly half of expectant women in informal settlements deliver either at home, with the assistance of traditional birth attendants who may not be able to handle an emergency beyond their skills (APHRC, 2006). This is despite the fact that the government offers free maternal health services in public hospitals (Birungi & Onyango-Ouma, 2006). Understanding factors that make women choose to deliver at home instead of hospitals can provide important information that could help to develop health promotion programmes that can enable health workers to improve their services in a way that will attract women to hospitals to promote maternal health care. It is for this reason that the researcher proposed to undertake this study to establish the factors associated with maternal home delivery in Kibera informal settlement.

1.3. The purpose of the study

The purpose of this study was to establish factors that promote maternal home delivery in Kibera informal settlement, Nairobi County with an aim of what needs to be done to encourage hospital delivery. To achieve this objective, the following specific objectives guided the study:

1.4 Objectives of the Study

1. To establish whether there is any effect of social and cultural practices on home delivery in Kibera informal settlement.
2. To establish psychological factors that promote home delivery among mothers in Kibera informal settlement.
3. To establish whether there is any effect of a pregnant woman's (or mother's) level of education on home delivery.
4. To establish the strategies that can be put in place to improve hospital delivery in order to discourage home delivery.

1.6 Research Questions

1. What effect do social and cultural practices have on home delivery in Kibera informal settlement?
2. What psychological factors promote home delivery among women in Kibera informal settlement?
3. What effect does education level attained by mothers have on home delivery?
4. Which strategies can be put in place to improve hospital delivery in order to discourage home delivery?

1.7 Justification and Significance

This study was justified and beneficial because delivery is a health issue that affects women, the unborn and the newly born hence, the whole society. Through this one single act of delivery, a mother births a new life, a new generation. It is also through this single act in which the continuity of a nation lies. However, delivering a baby may be full of complications and may pose a danger to the would-be-mother and baby. This requires that delivery is done in an environment that ensures security for

the mother and the baby. However, women continue to take risks and deliver in an environment that they are not assured of their health security. It is only through understanding the factors that contribute to the risk taking behaviour of the would-be-mothers, that effective intervention mechanisms can be put in place to encourage the mother to seek hospital delivery.

The study on factors that promote maternal home delivery was significant because it would bring about awareness of the risks that surround home delivery.

It would be beneficial in the following ways:

a) The policy makers may benefit from the research because it would give them a base for developing new programs and improving existing ones for the betterment of reproductive health intervention programs. This would benefit the health of both the mother and the baby.
b) The data may be useful to the Ministry of Medical Services especially the Reproductive Health Division which is the custodian of the National Reproductive Health Programme.
c) The findings of the study may be useful to the general population of women by increasing the awareness of factors that may impact negatively on their physical and psychological health in case of complications in home delivery.
d) The findings of the study may be useful to the practising counsellor who may facilitate positive change in women, in families and communities in his/her intervention on issues that arose out of the study.
e) The outcome of the study may be useful to the health educators in restructuring their programs tailored to counter irrational beliefs that affect women around the periods of pregnancy and delivery.

f) The research findings may benefit the community within which the pregnant woman lives. The findings will sensitise them on how to treat issues surrounding a pregnant woman's health with a serious approach for the good of the mother's and baby's health.

g) The research findings may bring about implications for further research.

1.8 Scope and Limitations

The research study investigated the psychological factors that promote maternal home delivery in Kibera informal settlement, Nairobi County. Although there are other factors promoting maternal home delivery, the study confined itself to social and cultural practices and psychological factors. The study was limited to Kibera informal settlement only. This is because the issues that pregnant women in Kibera face may be unique to their surroundings. Their views may not be representative of the views of other pregnant women in other non-urban and/or non-informal settlement areas of Kenya. Another limitation was that some of the target respondents were not willing to participate in the research. To overcome this, the researcher created rapport with respondents and assured them of confidentiality.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of related literature to the study. The chapter first presents the theoretical framework of the study. Then a review of related literature is given, covering the following: The Kenya National Health Policy, socio cultural factors and child birth, psychological factors associated with maternal home delivery, socio-economic cost and accessibility of maternal health care, and education and home delivery. The conceptual framework of the study is also presented at the end of the chapter.

2.2 Theoretical Framework

According to Mugenda and Mugenda (2003), a theory is a set of concepts or constructs and the interrelations that are assumed to exist among those concepts. In this study, the two theoretical models that the researcher used provided the basis for guiding the study.

The researcher utilised two models, the Health Belief Model and the Behavioural Model of Health Services Utilisation. These models were intended to shed light on various variables that are of concern in this study.

2.2.1 Health Belief Model

The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the United States Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health screening program. Since then, the HBM has been adapted to explore a variety of long

and short-term health behaviours. This study was guided by the Health Belief Model as constructed by Rosenstock in 1966 to examine the factors that promote maternal home delivery in Kibera informal settlement, Nairobi County. The Health Belief Model (HBM) is by far the most commonly used theory in health education and health promotion (Glanz, Rimer, & Lewis, 2002). The underlying concept of the original HBM is that health behavior is determined by personal beliefs or perceptions about a disease and the strategies available to decrease its occurrence (Hochbaum, 1958). Personal perception is influenced by the whole range of intrapersonal factors affecting health behavior.

Understanding why people engage or do not engage in certain behaviour is important because it provides health workers with a way to change behaviours and promote utilization of health promoting programmes such as maternal hospital delivery. Armed with knowledge about the determinants of health behaviours, psychologists attempt to intervene to change behaviours. Psychologists have tried different techniques to get people to do what is healthy by designing interventions based on various theories (Baumeister and Bushman, 2007). One theory that has received considerable attention in health promotion is the Health Belief Model. The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviour by focusing on the attitudes and beliefs of individuals.

HBM, as constructed by Rosenstock (1966), is based on four constructs:

1. Perceived susceptibility (an individual's assessment of their risk of getting the condition).
2. Perceived severity (an individual's assessment of the seriousness of the condition, and its potential consequences).

3. Perceived barriers (an individual's assessment of the influences that facilitate or discourage adoption of the promoted behaviour).
4. Perceived benefits (an individual's assessment of the positive consequences of adopting the behaviour).

To understand why people engage in certain behaviour in order to make a difference in their health, the researcher looks at the four constructs of the Health Belief Model.

2.2.1.1 Perceived Seriousness

The construct of perceived seriousness speaks to an individual's belief about the seriousness or severity of a disease or a health-threatening condition. While the perception of seriousness is often based on medical information or knowledge, it may also come from beliefs a person has about the difficulties a disease would create or the effects it would have on his or her life in general (McCormick-Brown, 1999). In this study, pregnant women in informal settlements may view home delivery as being of little threat to health, and therefore opt to deliver at home. However, if women were informed of the possible complications during delivery, and their effects on the mother and the baby, they could opt to deliver at the hospital. In this case, the mother's perception of home delivery might be that it is health-threatening.

2.2.1.2 Perceived Susceptibility

Personal risk or susceptibility is one of the more powerful perceptions in prompting people to adopt healthier behaviors: the greater the perceived risk, the greater the likelihood of engaging in behaviors to decrease the risk. This is what prompts people to take precautionary measures such as vaccination against diseases (Belcher et al., 2005). In this study, it is expected that women who believe maternal home delivery to be health threatening will have a higher preference to seek maternal health care in

hospitals. On the other hand, mothers who perceive themselves as not susceptible to complications during child birth will most likely prefer home delivery.

2.2.1.3 Perceived Benefits

The construct of perceived benefits is a person's opinion of the value or usefulness of a new behavior in decreasing the risk of developing a disease or a health-threatening condition. People tend to adopt healthier behaviors when they believe the new behavior will decrease their chances of developing a disease (Turner, Hunt, DiBrezzo & Jones, 2004). Perceived benefits play an important role in the adoption of secondary prevention behaviors, such as maternal hospital delivery. When a mother perceives antenatal and postnatal health care as beneficial to the mother and the baby, maternal health care services will be sought. However, when no such benefits are perceived, the mother may not choose to deliver in the hospital (Prata, Graff, Graves & Potts, 2009).

2.2.1.4 Perceived Barriers

Since change is not something that comes easily to most people, the last construct of the HBM addresses the issue of perceived barriers to change. This is an individual's own evaluation of the obstacles in the way of him or her adopting a new behavior. Of all the constructs, perceived barriers are the most significant in determining behavior change (Janz & Becker, 1984). In order for a new behavior to be adopted, a person needs to believe that the benefits of the new behavior outweigh the consequences of continuing the old behavior (Centers for Disease Control and Prevention, 2004). This enables barriers to be overcome and the new behavior to be adopted. Women living in informal settlements may need to overcome barriers such as non-affordability of hospital fees by either saving for hospital care over the period of pregnancy or

consider setting up village emergency kits that would be utilized for their hospital care.

The four major constructs of perception are modified by other variables, such as culture, education level, past experiences, skill, socioeconomic status and motivation (Stretcher & Rosenstock, 1997). These are individual characteristics that influence personal perceptions. If applied to a health-related behaviour such as maternal health seeking for pregnant women, the HBM predicts use of hospital maternal health care services in the following situations: if a mother perceives that she is highly susceptible to maternal complications, that maternal complications are a severe health threat, that the benefits of hospital maternal health care services are high, and that the costs of such action are comparatively low. This would also be true if she is subjected to cues to action that are external, such as media advertisements promoting hospital maternal health care services.

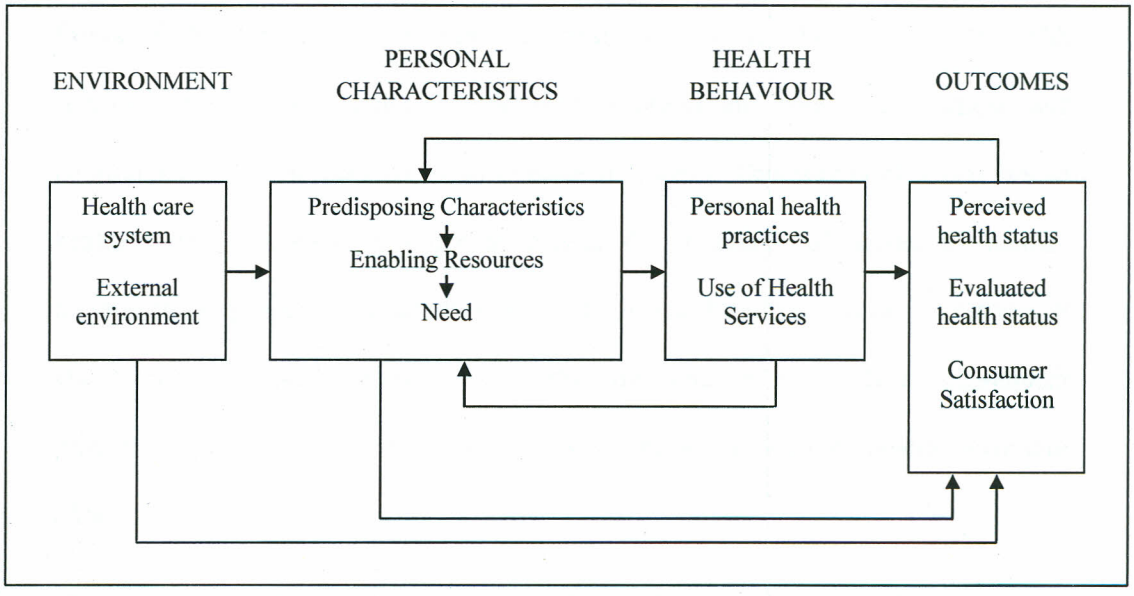
2.2.2 Behavioral Model of Health Services Utilization

Andersen (1995) developed a behavioural model that portrays the multiple influences on health care services' use and, subsequently, on health status (see Figure 2.1 below). There are two important key elements described in this model, which can affect health care behaviour and finally influence the health outcomes, namely environment and population characteristics. Health care system and external environment are grouped as environment factors. Health care system refers to national health policy, resources and organization, while physical, political and economic components are part of the external environment. Both factors are important input for population characteristics.

This model suggests that personal health practices and people's use of health services are functions of the following three categories:

1. **Predisposing characteristics**: These are factors that present the preceding ill health and need for care, such as demographic factors, social structures and health beliefs. Demographic factors such as age and gender represent biological urges the likelihood that people will need health services. Social structure is measured by a broad array of factors that determine the status of a person in the community, his or her ability to cope with and command the resources to deal with these problems, and how healthy and unhealthy the physical environment is likely to be (education, occupation, ethnicity, etc.). Health beliefs are attitudes, values and knowledge that people have about health and health care services that might influence their subsequent perceptions of need and use of these services (Andersen, 1995).

Figure 2.1: Behavioural Model of Health Services Use



Source: Andersen (1995), p. 8

2. **Enabling resources:** which provide patients with the means to makes use of the services (Andersen, 1995). Community and personal enabling resources must be available for use whenever needed. For example, health personnel and facilities must be available and people must have the means and know how to get to those services and make use of them. Income, health insurance, a regular source of care and travel and waiting times are some of the measures that can be important in this respect (Andersen, 1995).

3. **Need:** which refers to health status, perceived by the individual or evaluated by the health providers (Andersen, 1995). It is how people view their own general health and functional state as well as how they experience the symptoms of illness, pain and worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional health care.

Personal health services such as diet, exercise and self care interact with the use of formal health care services to influence health outcomes. The measures of health services' use in this model include those representing type, site, purpose and coordinated services received in an episode of illness. This model also consists of health status outcomes in order to extend the measures of access to include dimensions which are particularly important for health policy and health reform. It also depicts feedback loops showing that outcome in turn affects subsequent predisposing factors and perceived need for services as well as health behaviour (Andersen 1995 p.7).

The Behavioural Model of Health Services Utilisation is applicable to this study since it gave insight into the factors influencing maternal home delivery in relation to socio-

cultural factors, psychological factors and level of education. The model assisted the study to conceptualise the predisposing characteristics such as education level and occupation, enabling resources such as income and health services that are already in place and the need for health services which is a psychological factor.

2.3 Review of Related Literature

This section gives a review of literature on the Kenya National Health Policy and factors that promote maternal home delivery. Discussed under the section are the socio cultural factors and child birth, psychological factors associated with maternal home delivery, affordability and accessibility of maternal health care, and level of education and home delivery.

2.3.1 The Kenya National Health Policy

Reproductive health policies in Kenya focus on family planning, antenatal care, obstetric and post natal care. These policies address the key issues involved and aim to reduce maternal death which occurs at various stages in pregnancy if the right services are not provided (East African Sub regional Support Initiative for the Advancement of Women, 2010). In October 2007, Kenya's Ministry of Health (MOH) formally approved and adopted the country's first ever National Reproductive Health Policy with the theme, "Enhancing the Reproductive Health Status for All Kenyans." The policy provides a framework for equitable, efficient, and effective delivery of high-quality reproductive health services throughout the country, and emphasizes reaching those in greatest need and most vulnerable. It aims to guide planning, standardization, implementation, and monitoring and evaluation of reproductive healthcare provided by various stakeholders (USAID, 2007).

The reproductive health policy focuses on strengthening community midwifery practices and redefining the role of traditional birth attendants become advocates of safe motherhood, which is expected to contribute to enhanced maternal health (USAID, 2007). The current National Reproductive Health Strategy covering the period 2009 to 2015 provides clear guidance and alignment with implementation of the National Reproductive Health Policy (Ministry of Public Health and Sanitation (2009). The current maternal health care policy in Kenya is influenced by the World Health Organisation's (WHO) package referred to as Focused Antenatal Care (FANC). Under this package, WHO recommends a minimum of four Ante Natal Clinic visits for a pregnant woman – ideally, at 16 weeks, 24-28 weeks, 32 weeks and 36 weeks. WHO considers this important as each visit ensures care that is appropriate to the overall condition and stage of pregnancy and includes: identification of pre-existing health conditions, early detection of complications arising during pregnancy, health promotion and disease prevention, and birth preparedness and complication planning.

The WHO focused ANC package was introduced on a pilot basis in Kenya in 2001, but its acceptability among service providers and clients, the content and coverage of services, and the sustainability of the approach are not well understood (Birungi & Onyango-Ouma, 2006). Since the ante natal clinic package was not well understood in the beginning, it may have been a setback to Kenya introducing the comprehensive FANC service package as recommended by WHO with additional components to respond to nutritional health needs. It was expected that this package would promote maternal health and hospital delivery. Despite this, maternal health needs may be on the rise as home delivery continues to be an issue of concern.

However, Kenyan researchers such as Owino (2011) report that over half of the recorded births in Kenya occur at home with rural births amounting to 60%, and that one in ten births occur without the mother having any assistance. As a result, maternal mortality is still high especially in the rural areas and the informal settlements where access to health services is still a challenge (EASSI, 2010). This is despite Kenya committing to the Millennium Development Goals 5 and various international commitments.

The National Reproductive Health Policy recognises that all pregnant women need to have access to professional medical care throughout their pregnancy and after delivery. However, the policy notes that there is little change in the proportion of women choosing to deliver in health facilities even when these are accessible. However, little is known as to why many women choose to deliver at home. As stated in the theoretical framework above there are various factors that could influence a woman's decision among them the belief system and associated psychological benefits.

2.3.2 Socio-Cultural beliefs and Child Birth

Bee (1989) says that all cultures have beliefs and rituals that surround life's major events including pregnancy. Customs surrounding childbirth reflect the beliefs, values and resources of a culture. Social and cultural factors play a crucial role in the decision making process on maternal services utilization. Failure to integrate them into the provision may explain in part why policies often produce ineffective health services (Glei, Goldman and Rodriguez, 2003). In traditional societies, childbirth is viewed as a normal event (Jordan, 1978). It takes place at home and is highly supported by the family to meet the need for emotional and physical care and support

(Steinberg, 1996). According to Jordan, (1978), childbirth is a biosocial phenomenon: it involves a universal physiological process which is associated with specific socio-cultural practices differentially defined by each society. Childbirth differs from many conditions that require medical treatment.

Although childbirth and the immediate postpartum period are generally treated as a traumatic event in which both mother and child are vulnerable, childbirth is a regularly expected process for most women during part of their lifetime (Jordan, 1978). Research by Uzma, Underwood, Atkinson and Thackrah (1999) on post-partum health in a Dhaka informal settlement, Bangladesh revealed that women perceived that childbirth is a natural act of God and did not expect delivery complications. In Uganda, a study by Amooti-Kaguna and Nuwaha (2000) on the factors influencing choice of delivery sites in Rakai district established that the perception of normal versus abnormal pregnancy can influence the delivery site. The study further established that mothers went to clinics only if they knew that they usually get complications in labour (Amooti-Kaguna and Nuwaha, 2000).

Fikree, Ali, Durocher and Rahbar (2004), in a study among women living in low socio-economic settlements of Karachi, Pakistan, found that despite 53.3 percent of women reporting at least one illness symptom, many of them delay seeking health care. Some women in the study believed that heavy vaginal bleeding and foul smelling vaginal discharge are caused by the rigors of labour and delivery and should therefore be endured. They also believed that it is important to release unclean, menstrual blood retained in the uterus during pregnancy (Fikree et al., 2004). In India, profuse bleeding after delivery (Choudhry, 1997) may be viewed as a good sign linked to the purification of the uterus, but which is considered dangerous by medical practitioners. Another study by Kabakian-Khasholian et al,

(2000) found that some women may prefer to wait at home until the intervals between contractions are short. They prefer the comfort of their own home and delay going to the hospital as much as possible. The findings of studies cited above suggest that from a cultural perspective, symptoms that may suggest complicated delivery are not taken seriously hence no health security mechanism are put in place.

Afsana and Rashid (2001), based on a research on the challenges of meeting rural Bangladeshi women's needs in delivery care, reported that most women preferred the squatting or kneeing position when giving birth which had been used for generations and which was more comfortable for them. Health workers were medically trained to deliver the baby with the woman in a lying down position. In addition, the research by Afsana and Rashid (2001) found that hospitals were perceived as a place for treating pathological phenomena. Receiving treatment from a hospital thus implied that something 'abnormal' had happened to their bodies. It is a common perception that a woman would be forced to undergo surgery if she gave birth in a biomedical establishment. If the scar remained unhealed it would affect their regular household chores, sexual relationship and eventually their social status (Afsana and Rashid, 2001).

In Nigeria, Asowa-Omorodion (1997) conducted a study to determine women's perceptions of the complications of pregnancy and childbirth in two Esan communities of Edo state. The study established that most health problems were perceived as the consequence of one's sins. Complications in pregnancy were often assumed to be caused by committing extra-marital affairs or being bewitched by their spouses. Consequently, women tend to accept complications in pregnancy and after delivery as punishment for their sins, and men are often lukewarm over

providing financial assistance or allowing their wives to seek treatment (Asowa-Omorodion, 1997).

In Botswana, a study by Chipfakacha (1994) to determine the attitudes of women towards traditional midwives in the Kalahari region reported that although 47 percent of women attended antenatal care at health facilities, 82 percent preferred to give birth at home and actually none attended a health facility for postnatal care. Women were reluctant to entrust the disposal of their placenta and other products of conception to strangers, such as the hospital nurses, and they felt that home deliveries were more convenient and safer (Chipfakacha, 1994).

The gender and religion of hospital birth attendants can also influence decisions by women to seek hospital delivery services or not. Unlike traditional birth attendants, health workers most likely come from outside the locality. Paul and Rumsey (2002) argue that in some regions, rural women do not usually converse with unknown persons, particularly men. This behaviour is pertinent because most deliveries at rural health centres are attended by male physicians, and may be regarded as social and religious barriers to the use of health facilities for delivery purpose (Paul and Rumsey, 2002). The preference for a female obstetrician to attend an uncomplicated delivery also emerged among women in Beirut hospitals which serve communities known to be conservative and religious (Kabakian-Khasholian *et al.*, 2000).

In Kenya, GOK/UNICEF (1992) and Kanogo (2005) explain that many cultures treat pregnancy simply as a natural occurrence and obtaining health care during pregnancy may not seem important to a pregnant woman whose culture defines pregnancy as a natural condition. These beliefs deter the pregnant woman from accessing scientific knowledge from hospital which would enable her to understand the course of her

pregnancy and what is expected of her. Some of the beliefs that govern a pregnant woman's behaviour around the periods of pregnancy and delivery may be harmful to the mother's and baby's health. For example, the persistent use of harmful cultural practices such as the use of traditional oxytocic medicines during the term of pregnancy can lead to complications like high rates of foetal distress and ruptured membranes (Kamatenesi-Mugisha, Oryem-Origa, *et al.,* 2005).

2.3.3 Socio-cultural practices and child birth

Shangase et al (2005) found that black South African women use traditional medicines or herbs like Imbelekisane (a herbal mixture with oxytocic properties) to induce labour because they believe that this herb or medicine expedites the birthing process. The traditional birth attendants prepare Imbelekisane before touching the pregnant women and then rub it in their hands when doing the inspection. They specially use it when shaking the woman's belly so as to make the baby move and this helps in changing the baby's position in case it was reverse. The Zulu women also use Isililambezo, a herbal mixture as a preventive health tonic during pregnancy. The knowledge and use of these traditional medicines are associated with supernatural powers and hence some of the preparations and treatments are followed by rituals and the chanting of incantations. However, studies (Ebrahim, 2007, Mabina, Pitsoe & Moodley, 1997) suggest that the use of traditional medicine during pregnancy may contribute to high rates of foetal distress and ruptured uterus. The shaking of the mother's belly is not recommended because of its association with many complications, for example, premature separation of the placenta.

2.3.4 Psychological Factors Associated with Maternal Home Delivery

Three main psycho-social factors have been identified that predict behaviour intention: attitudes, social influences, and self-efficacy (Duong, 2005). A person's attitude towards a specific behaviour is a result of the consequences that a person expects from performing the behaviour. Social influence is as a result of social norms relevant to the behaviour, support from others to perform or refrain from the behaviour, and whether others perform or refrain from the behaviour themselves. Self-efficacy expectations can be seen as a person's belief whether she can perform the desired behaviour and can cope with barriers that may hinder actual performance. The implication of the model is that health behaviour of women can depend on their attitudes, their perception of social norms and social support, and their self-efficacy expectations. External sources such as social, demographic, and economic variables are expected to influence behaviour through behavioural determinants and intentions (Amooti-Kaguna and Nuwaha, 2000).

Previous childbirth experiences can influence the attitudes, self-efficacy of mothers and decision on the utilization of maternal services. In a cross-sectional survey by Bhatia and Cleland (1995) involving 3,595 married women aged under 35 who had at least one child under five in South India, approximately 10 percent of the sample reported a problem during pregnancy, the most common of which were severe vomiting, swelling of hands and face, hypertension and fever. Bhatia and Cleland (1995) reported that these women were much more likely to seek an institutional delivery than problem-free women. This implies that women either make an appropriate response to symptoms of possible disorders or are referred by practitioners. Similarly, a history of prior childbirth complications was significantly

related to the probability of having an institutional delivery (Bhatia and Cleland, 1995).

In relation to the Health Belief Model (Rosenstock, 1966), previous childbirth experiences can influence a woman's perception of the personal risk or susceptibility, which is one of the more powerful perceptions in prompting people to adopt healthier behaviors. Indeed, Paul and Rumsey (2002), based on their research in rural Bangladesh, demonstrated that experience of delivery complications is the most important determinant in deciding the use of health facilities and/or trained traditional birth attendants for childbirth. Complicated deliveries were often assisted by trained medical personnel either at home or at a modern health facility than delivery facing no complications (Paul and Rumsey, 2002).

Perceived seriousness of the consequences of home delivery can also influence attitudes and behavior of expectant mothers, as demonstrated in the Health Belief Model (Rosenstock, 1966). A study in India by Navaneetham and Dharmalingam (2002) found that a woman who had a stillbirth in the past was about 75-80 percent more likely to deliver the child in an institution compared to those who had not experienced any stillbirth. The implication of this is that since still birth or death of the child is viewed as a serious outcome of complications, mothers who have experienced this in the past develop positive attitudes toward hospital delivery. In a population based, cross-sectional study of 255 women aged 16-54 in rural Zimbabwe; the most important significant determinants of increased likelihood of hospital delivery were the use of maternity waiting shelters and complication during the last pregnancy (van den Heuvel *et al.*, 1999).

Perceived benefits of health behaviour have also been shown to influence health seeking behaviours, as expounded by the Health Belief Model. This has been demonstrated through studies which show that experience with antenatal care provided by health workers can influence the decision on the utilization of health facilities for delivery (Duong, 2005). An association between the use of antenatal care and health facility delivery was observed in Ethiopia (Kwast and Liff, 1988), Uganda (Amooti-Kaguna and Nuwaha, 2000), India (Bloom, Lippeveld and Wypij, 1999) and Zaire (Dujardin et al., 1995). For instance, in a study with a sample of 300 low to middle income women who had given birth in India, Bloom, Lippeveld and Wypij (1999) reported that women with high level of antenatal care use were much more likely to use safe delivery care than those with low level of antenatal care (73 percent and 22.7 percent respectively). Similar results were obtained for women delivering in a health facility relative to those who delivered at home (Bloom, Lippeveld and Wypij, 1999). Nevertheless, some studies indicated that while the antenatal care utilization is high (between 85-95 percent), the percentage of women delivering in medical facilities is considerately lower. This suggests that the quality of visits is more important than the actual number of antenatal care visits (Munjanja, Lindmark and Nystrom, 1996; Menown, Arehbold and Wills, 1993). In this regard, the researcher considered the psycho social factors that influence pregnant women's behaviour that consequently influences their decision to deliver at home or in hospital.

2.3.5 Socio-Economic Cost and Accessibility of Maternal Health Care

Other studies (Anson, 2004; Glei, Goldman and Rodriguez, 2003) revealed no significant effects of family income on maternal health decisions. The study by Anson (2004) in China found that per-capita income and living arrangements were not significantly related to utilization of any of the maternal care services after controlling

for age, education and parity (Anson, 2004). In rural Guatemala, Glei, Goldman and Rodriguez (2003) found out that the lack of an association between family income and utilization of biomedical services is not surprising because many pregnant women rely on government facilities that provide services at little or no cost (Glei, Goldman and Rodriguez, 2003). It would be interesting to find out how income levels influence the utilization of maternal health services among women in Kibera informal settlement.

A study by Gertler, Rahman, Feifer and Ashley (1993) on the determinants of pregnancy outcomes and targeting of maternal health services in Jamaica showed that living standard of the household is an important factor affecting institutional delivery. Rich women were found to be much more likely to deliver in a hospital than their rural peers in Jamaica (Gertler et al., 1993). Another study on utilization of maternal health care services in Southern India revealed that women with a high standard of living were about 3-5 times more likely to deliver in a health care institution than those with lower living standard (Navaneetham and Dharmalingam, 2002).

Associated with income is the occupation of women, which researchers have identified to influence decisions about maternal health seeking behaviour. Based on a research conducted in India, Desai and Jain (1994) reported that working women have greater control over resources in the household. They are likely to have greater knowledge about pregnancy and childbirth due to freedom of movement outside the household. They also tend to seek information on services available for pregnancy care during work. Desai and Jain further established that if women do not earn income as they work in their family business, they are expected to have little control over resources in the household and thus their ability to seek health care services would be limited. Another study in Jamaica conducted by McCaw-Binns,

La Grenade and Ashley (1995) reported that women employed in higher order professions such as doctors, teachers, and related professions were found to attend antenatal care early but women dependent on their parents did not. Housewives, the unemployed and women in middle level positions were often late attendees of antenatal care (McCaw-Binns, La Grenade and Ashley, 1995). On the other hand, research by Desai and Jain (1994) and Basu and Basu (1991) in rural South India concluded that work by women in developing countries is poverty-induced and therefore likely to have negative impact on the use of health care services as it involves opportunity and monetary costs.

GOK/UNICEF (1992) highlights that 60 percent of women in Kenya deliver at home despite the existence of health facilities that can provide the needed health care. Most of these births are concentrated in rural areas and in urban informal settlement areas. The concentration of births in rural areas is as a result of lack of access to health care due to distance. This translates to affordability of either hiring a vehicle to the facility or being able to call for an ambulance. Most pregnant women or their families are not able to afford these services and as a result, the woman delivers at home. While in informal settlement areas, most pregnant women are from low socio-economic status and therefore may not afford basic health care let alone delivery in a health facility.

2.3.6 Level of Education and Home Delivery

GOK/UNICEF, (1992) reiterates that education is now recognised around the world as a basic prerequisite for development. Besides encouraging changes in behaviour which aim to improve the human condition, education also instils self-confidence and self-reliance in the individual and enables informed decision making in such areas as health care. Today, studies (Caldwell, 1990; Mekonnen and Mekonnen, 2003; and

Navaneetham and Dharmalingam, 2002) show that education has a measurable impact on the role of women in their reproductive role. There is a high correlation between maternal education and child survival and development (Caldewell, 1990) which depends to a considerable degree on the mother's self assurance and her capacity to take action. When women are educated, many positive results accrue, for example in health care.

A study in India by Navaneetham and Dharmalingam (2002) reported that women with no education were more likely to deliver a baby at home than hospital. In rural areas of the Philippines, Becker, Peter, Gray *et al.*, (1993) established that the effect of women's education on the utilization of maternal services was large with an 11 percent increase in the likelihood for use of maternal services for each additional year of schooling. Similarly a study by Mekonnen and Mekonnen (2003) on factors influencing the use of maternal healthcare services in Ethiopia showed that education of women positively predicted the use of delivery services. Women with primary and at least secondary education were more likely to use maternal healthcare services compared to women with no education (Mekonnen and Mekonnen, 2003).

In rural Nigeria, a study by Tuladhar, et al (2009) shows that maternal education and occupation are found to be most consistently associated with the use of health institutions for delivery. So, lack of education can indeed be a factor associated with home delivery because a pregnant woman may choose to deliver at home due to lack of informed decision and affordability.

GOK/UNICEF, (1992) further argues that maternal education attainment is particularly important showing a consistent and significant decrease in home deliveries with increasing levels of education. Women with a high level of education

are less likely to choose to deliver at home as compared to women with a low level of education.

According to Nzomo (1993), equipping a pregnant woman with education means that half the battle is won. Education means that one is better able to understand health care messages. A woman who has been educated is more likely to seek health care including prenatal and postnatal care. The opportunities for a paying job are high, thus increasing the woman's earning capacity.

Educated mothers are considered to have greater awareness of the existence of maternal health care services and benefits in using such services (Duong, 2005). Educated mothers are also likely to have better knowledge and information on modern medical treatment and have greater capacity to recognize specific illness. As education empowers women, they will have greater confidence and capabilities to make decisions to use modern health care services for themselves and for their children (Raghupathy, 1996). Education also enables women to take personal responsibility for their own health and health of their children (Caldwell, Reddy and Caldwell, 1989). However, little research has been done to establish whether education influences the decision for women to deliver at home in Kenya and more so in rural areas and informal settlements such as Kibera. As such, in this research education was one of the variables under investigation in relation to home delivery in Kibera.

2.3.7 Summary of the Reviewed Literature

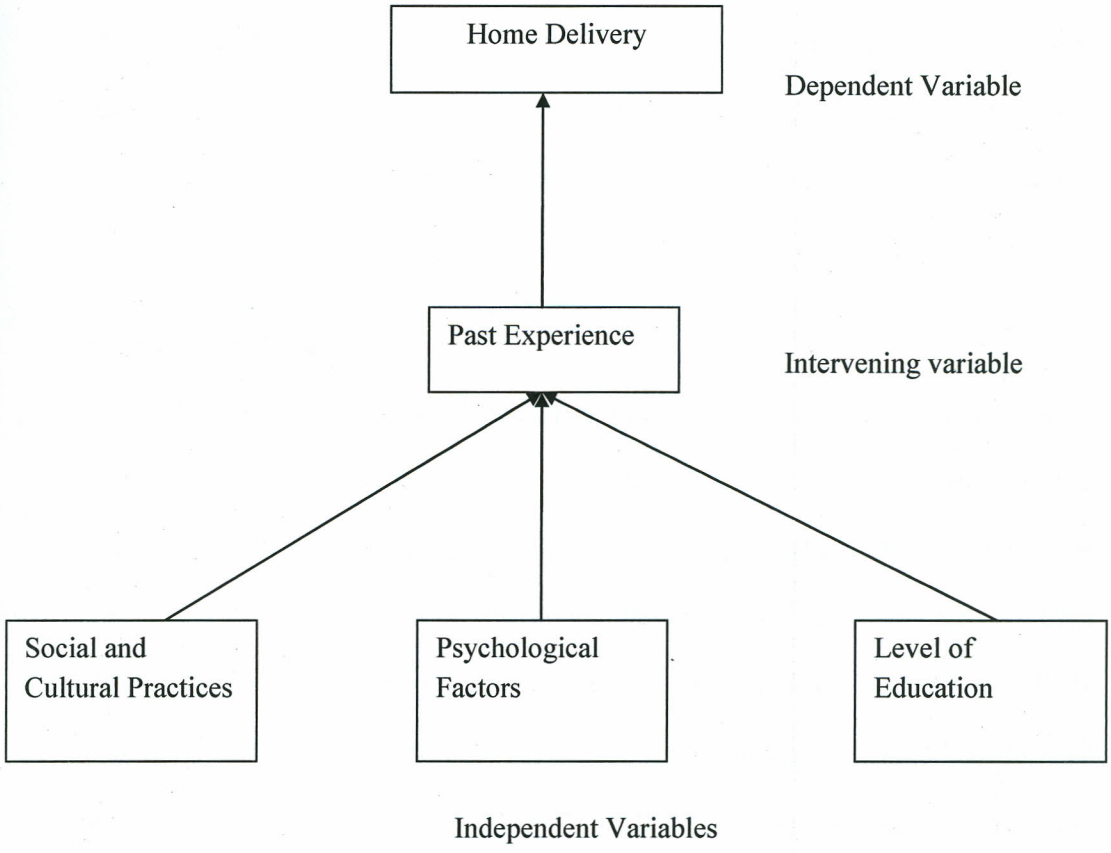
This chapter has given a review of literature related to the study. It emerged from the literature that there are a number of factors that influence maternal home delivery decisions. The reviewed literature indicates that there are social factors that could

influence maternal home delivery. These include socio-cultural beliefs and rituals. The review also shows that there could be psychological factors. These include attitudes, social influences and self efficacy. Previous studies have also shown that the level of education influences maternal home delivery, relatively, women with higher education tend to seek hospital delivery. The researcher however did not come across any studies conducted among Kenyan informal settlement populations. It is therefore not clear what factors are associated with maternal home delivery for women in informal settlements, such as those living in Kibera, Nairobi County. Consequently, this study attempted to establish factors that promote maternal home delivery in Kibera informal settlement, Nairobi County.

The literature reviewed together with the theoretical framework selected to inform this study sheds light in various aspects that are of interest to this study, hence providing a conceptual framework that can guide the study. Next is the conceptual framework captured diagrammatically sums up the concepts viewed as important in guiding this study.

2.4 Conceptual Framework

Figure 2.2: Conceptual Framework: Factors promoting maternal home delivery



Source: Developed by Ekessa (2011)

As shown in Figure 2.2, the independent variables of the study include socio-cultural practices, psychological factors and level of education factor. These factors have an influence on a woman's decision to deliver at home or hospital, which is the dependent variable. The link between the independent variables and decisions to deliver at home or hospital can also be influenced by women's' past experiences with home or hospital delivery, which is the intervening variable of the study.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter focuses on the methodology to be used in the study. It deals with description of the research design, target population, sample and sampling procedures, the development of research instruments, data collection procedures and data analysis techniques.

3.2 Research Design

The study utilized survey mixed method research design. This is a research approach that combines both qualitative and quantitative approaches. The design is more than simply collecting and analyzing both qualitative and quantitative data; it also involves the use of both approaches in tandem so that the overall strength of a study is greater than either qualitative or quantitative research (Creswell & Plano-Clark, 2007). Through the quantitative aspect, variables can be measured so that numbered data can be analyzed using statistical procedures. Through the qualitative aspect on the other hand, data is collected in the participant's setting, data analysis conducted inductively building from particulars to general themes, and the researcher makes interpretations of the meaning of the data. The mixed methods design was suited to the study because the researcher was interested in understanding more generalized and objective factors that contribute to home delivery as well as in-depth understanding of subjective factors such as beliefs that may influence home delivery. In essence, the objectives of this study may be better assessed using both qualitative and quantitative methods.

3.3 Site of the Study

The study was carried out in Kibera informal settlement in Nairobi County and it involved women who had previously given birth at home. The Economist (2007) states that Kibera is the largest informal settlement in Africa and has a population of 1.2 million people. It is located approximately 5 kilometres to the southwest of Nairobi city centre and has an approximate area of 2.5 square kilometres/256 hectares/630 acres. The population density is 2000 per hectare. The Economist (2007) further states that there are a number of villages including, Kianda, Soweto, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Siranga/Undugu, Makina and Mashimoni. The population is made up of 50 percent workforce who are employed in the nearby industrial area (usually in semi-skilled and unskilled jobs) and 50 percent are unemployed.

Kibera was chosen because it is the largest informal settlement in Africa and has many residents who are in a low income bracket (The Economist, 2007). Kibera has a cosmopolitan outlook where many cultures fuse together because Kibera residents come from all the major ethnic groups of Kenya meaning women from different cultural backgrounds are found in the informal settlement. There is a lack of government clinics or hospitals. Health providers are charitable organisations and private clinics. All these factors could contribute to maternal home delivery.

3.4 Study Population

The study population comprised of women of between 18 and 49 years who had previously given birth at home in the Kibera informal settlements in Nairobi County. The bracket age of 18-49 years has been chosen because most women choose to have children during this period.

3.5 Sampling Techniques and Sample Size

The researcher used snowballing sampling technique to contact women who had given birth at home. This method is useful when the population that possesses the characteristics under study is not well known and there is need to find subjects. Initial subjects who had delivered at home were identified by contacting key informants from the churches and NGO in the informal settlement. The few identified subjects named and introduced others who had the required characteristics until the researcher acquired the intended number of subjects. This is because it was not easy to tell whether a woman has delivered at home or not and since childbirth is a private issue, women may not be willing to discuss the subject openly. Using the snowball method, an appropriate sample of 45 women of between 18 and 49 years of age who had previously given birth at home participated in the research. All the women were given questionnaires and out of the 45, five were interviewed. The researcher utilised a small sample because it is difficult to tell the women who had given birth at home. In addition some were not willing to talk about their delivery due to their beliefs. The identification of respondents through snowballing sampling technique was also limiting in that the researcher would only get access to those women who had given birth at home and are known to the first identified group. Further, home delivery being a sensitive subject, many women would not have volunteered to be interviewed.

3.6 Research Instruments

The study employed two instruments for data collection, a questionnaire and an interview schedule. Gay (1992) maintains that questionnaires give respondents freedom to express their views or opinion and also to make suggestions. On the other hand, interviews are considered appropriate when the sample is small since a researcher is able to get more information from respondents than would be possible

using a questionnaire (Kiess and Bloomquist, 1985). Since some of the respondents did not have formal education the researcher used some research assistants to guide those who could not read or write to ensure they participated.

3.7 Pilot Study

Prior to the actual study, a pilot study was conducted among five women who had previously given birth at home. These women were not included in the final study. The pilot study acted as a template for the researcher to assess the type of response she would expect in the field. The pilot study also helped the researcher to improve reliability and validity of the research instruments by testing the instruments.

The researcher made the following changes: from the questionnaire, the researcher deleted one question on the specification of gender of respondents since all respondents being interviewed were women; the titles "interview guide for women" and "questionnaires for women" were changed to "interview guide" and "questionnaire".

3.8.1 Validity

To verify validity of the research instruments, a pilot study was carried out. The pilot study helped the researcher to improve validity of research instruments by testing the instruments prior to the main study. This allowed for any correction, ironing out any ambiguities and improvement of data collection tools.

Validity is defined as the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda and Mugenda, 1999). In other words, validity is the degree to which results obtained from the analysis of the data actually represents the phenomena under study. In addition, Borg and Gall (1989) state that validity of an instrument is the degree to which it measures what it purports to measure.

3.8.2 Reliability

To verify reliability of the research instruments, a pilot study was carried out. The pilot study helped the researcher to improve reliability of research instruments by testing the instruments prior to the main study. This allowed for any correction, ironing out any ambiguities and improvement of data collection tools.

Mugenda and Mugenda (1999) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. The split-half technique of reliability testing was used to assess the reliability of the research instruments. The questionnaires which had been administered to the pilot sample respondents once, and the questionnaires were divided into two halves. After this a correlation was taken between the two halves to estimate the reliability of the questionnaires. The Pearson Correlation coefficient (*r*) was used to estimate the correlation coefficient of the two tests. The following formula was used in the Split-half technique of reliability testing

$$\text{(i)} \quad \mathbf{r} = 1 - \frac{6\sum (D)^2}{N (N^2 - 1)}$$

Where:

r = correlation coefficient

N = sample size,

$\sum$ = summation of scores,

D = deviations of the scores

$$\text{(ii)} \quad SH = 1 - \frac{2r}{1 + r}$$

Where:

SH = Split half

r = correlation coefficient

According to Gay (1992) any research instrument with a correlation coefficient of between 0.70 and 1.00 is accepted as reliable enough. The researcher obtained a correlation coefficient of 0.651, which is close enough to the coefficient of 0.7 recommended by Gay (1992).

3.9 Data Collection Procedure

The researcher visited the identified respondents to administer questionnaires and conduct interviews. The researcher personally administered the questionnaires and conducted interviews with the study participants. The respondents were assured that strict confidentiality would be maintained in dealing with the responses. The researcher was available throughout to offer assistance to the respondents and made any necessary clarifications. Data collection took place on a day to day basis within a period of two weeks.

3.10 Data Analysis

Data analysis procedures employed both quantitative and qualitative procedures. By using qualitative methods, the researcher was able to collect data and explain phenomena more exhaustively (Mugenda and Mugenda, 2003). Qualitative data was analysed through coding and organising into themes and concepts. Out of these, theories and generalisations were made. Quantitative data was analysed using inferential and descriptive statistics that is, frequency counts, percentages, means and standard deviation and Chi-square test. Quantitative data analysis required the use of a computer spreadsheet, and for this reason the Statistical Package for Social Sciences (SPSS) was used. Chi-square test was used to test whether mothers' level of

education had any influence on home delivery. The results of data analysis were presented using frequency distribution tables, bar graphs and pie charts. Martin and Acuna (2002) state that SPSS is able to handle large amounts of data, and given its wide spectrum of statistical procedures purposefully designed for social sciences, it is also quite efficient.

The qualitative and quantitative data was then triangulated to come up with a rich description of the findings. According to Cohen et al (2000) triangulation helps check on the biasness therefore enhancing validity of the findings.

3.11 Data Management and Ethical Considerations

After approval of the proposal from Kenyatta University, the researcher obtained a letter of introduction from the university's Graduate School to take to the National Council for Science and Technology, from where a permit to conduct the research was issued. After this, the researcher visited the respondents to administer the questionnaire and conduct face-to-face interviews. The researcher ensured confidentiality of participants' identity by ensuring that their names would not be recorded in the questionnaires. Research data was kept confidential by coding and keeping it under lock and key.

CHAPTER FOUR

4.0 DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents data analysis and discussion of the results. The main objective of the study was to establish factors that promote maternal home delivery in Kibera informal settlement, Nairobi County. The findings of the study are presented based on the following research objectives.

i. To establish whether there is any effect of social and cultural practices on home delivery in Kibera informal settlement.
ii. To establish psychological factors that promote home delivery among mothers in Kibera informal settlement.
iii. To establish whether there is any effect of a pregnant woman's (or mother's) level of education on home delivery.
iv. To establish the strategies that can be put in place to improve hospital delivery in order to discourage home delivery.

The chapter is organized into five sections. Section one covers background information of the study respondents while the remaining four sections address each research objective.

4.2 Demographic Factors of the Study Respondents

The study included a sample of 45 women with maternal home delivery in Kibera informal settlement. Table 4.1 shows the age bracket of the study respondents.

Table 4.1: Age of the respondents

Age in years	Frequency	Percent
18-20 years	6	13.3
21-30 years	20	44.4
31-40 years	13	28.9
41-50 years	6	13.3
Total	**45**	**100.0**

Of the 45 women who participated in the study, 20 (44.4%) were aged 21-30 years, 13 (28.9%) were aged 31-40 years while 6 (13.3%) were aged 41-50years. This shows that most of the respondents were aged between 21-40 years. Maternal age is an important variable of understanding the level of utilization of health facility in general and maternal health care services in particular among pregnant women and nursing mothers. This is because the age influences the length of time a woman is exposed to the risk of pregnancy (NDHS, 2003). Maternal age has been found to be positively associated with awareness and utilization of maternal health care service in many societies. Figure 4.1 shows academic qualifications of the study respondents.

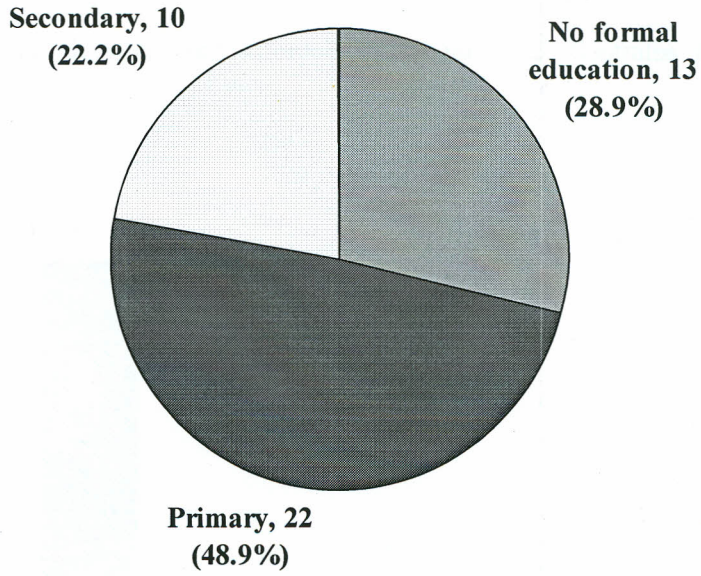


Figure 4.1: Women's level of education

As Figure 4.1 shows, 22.2% of the respondents had attained secondary education, 48.9% had primary education whereas 28.9% had not attained any formal education. This shows that majority of the women in Kibera informal settlement were semi illiterate. The researcher did not come across a study that had been carried out on literacy of women in informal settlements. However, little research has been done to establish whether education influences the decision for women to deliver at home in Kenya and more so in rural areas and informal settlements such as Kibera. Since some of the respondents did not have formal education the researcher used some research assistants to guide those who could not read or write to ensure they participated. The low level of education suggests that most of the women may lack awareness of the existence of maternal health care services and benefits of using such services. This, as a result may influence them negatively hence undergoing maternal home delivery. In agreement with the findings, a study by Tuladhar, et al (2009) shows that maternal education and occupation are found to be most consistently associated with the use of health institutions for delivery. So, lack of education can indeed be a factor associated

with home delivery because a pregnant woman may choose to deliver at home due to lack of informed decision and affordability. Figure 4.2 illustrates respondents' occupation

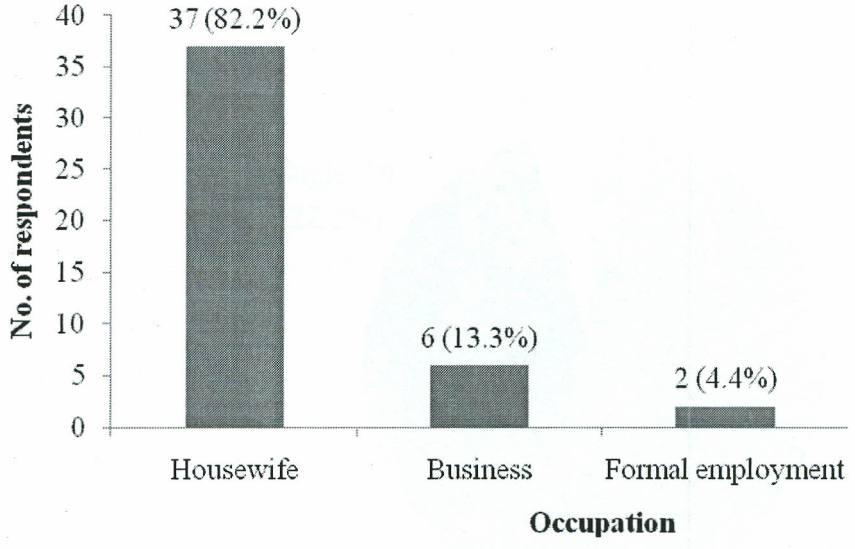


Figure 4.2: Respondents' occupation

As shown in Figure 4.2, 37 (82.2%) women were housewives, 6 (13.3%) were running businesses while 2 (4.4%) were in formal employment. This shows that majority of the women were engaging in house chores and therefore were not expected to have any income generating activities. This could hinder their access to maternal health services and hence lead a majority of them to undergo maternal home delivery. In line with findings, research conducted by Desai and Jain (1994) reported that working women have greater control over resources in the household. They are likely to have greater knowledge about pregnancy and childbirth due to freedom of movement outside the household. They also tend to seek information on services available for pregnancy care during work. Desai and Jain (1994) further established that if women do not earn income as they work in their family business, they are

expected to have little control over resources in the household and thus their ability to seek health care services would be limited.

Figure 4.3 presents marital status of the study respondents

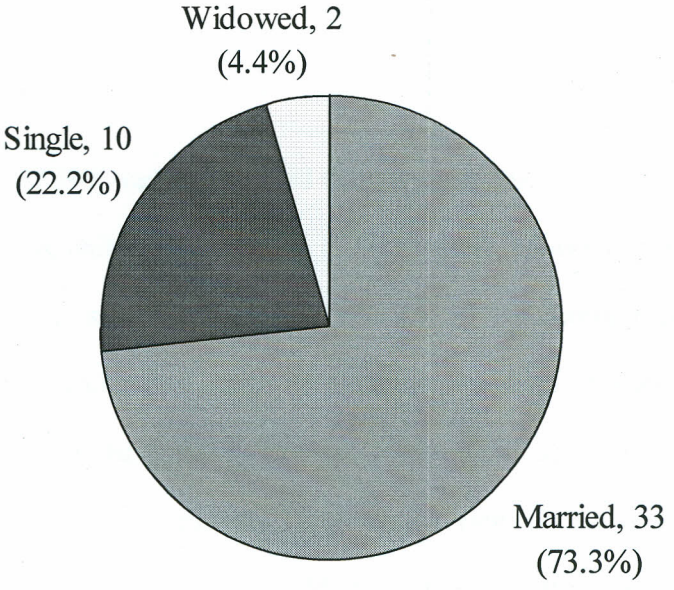


Figure 4.3: Marital status of the respondents

Figure 4.3 shows that 73.3% of the women were married, 10 (22.2%) were single while 2 (4.4%) were widowed. This shows that majority of the women were married and therefore perception of child bearing was expected to be shared by both men and women. However, a report by the World Health Organization has shown that men's views are more influential than women's views in making family decisions (WHO, 2000). This could be the same case in Kibera informal settlement because family decisions are delegated to men who are heads in patriarchal households and this could influence the women's choices they make in healthcare.

Table 4.2 shows number of children each respondent had.

Table 4.2: Number of children

Number of children	Frequency	Percent
1-2	17	37.8
3 -5	19	42.2
6 -10	8	17.8
Over 10	1	2.2
Total	**45**	**100.0**

As Table 4.2 shows, 17 (37.8%) women indicated that they had one or two children, 19 (42.2%) had three to five children with only 1 (2.2%) woman indicating that she had over 10 children. This shows that a significant (62.2%) proportion of the respondents had over three children. This could therefore minimize utilization of maternal health care facility as large family size causes resource constraints in the family (Wong, Popkin, Guiley and Akin, 1987). In a similar view, Mckinlay (1972) found that women with a large number of children underutilize available health services because too many demands on their time force them to forgo health care.

4.3 Effect of Social and Cultural Practices on Home Delivery

Social and cultural factors play a crucial role in the decision making process on maternal services utilization. Failure to integrate them into the provision may explain in part why policies often produce ineffective health services (Glei, Goldman and Rodriguez, 2003). In relation to this, the first objective of the study sought to establish whether there is any effect of social and cultural practices on home delivery in Kibera informal settlement. To address this objective, study respondents were presented with nine statements in which they were required to state their agreement levels on a four-point Likert scale. The scale ranged from 1 to 4 with 1 denoting strongly disagree, 2 denoting disagree, 3 representing agree and 4 signifying strongly

agree. Table 4.3 illustrates women responses on impacts of social and cultural practices on home delivery.

Table 4.3: Women's responses on impacts of social and cultural practices on home delivery

Social and cultural practices	SD		D		A		SA	
	f	%	f	%	f	%	f	%
In my culture, only designated persons can dispose of the placenta, thus giving birth at hospital would go against this tradition	21	46.7	9	20.0	3	6.7	12	26.7
Since children are a gift from God, there can be no complications when giving birth at home	21	46.7	8	17.8	6	13.3	10	22.2
It is against my culture to give birth away from home	16	35.6	18	40.0	2	4.4	9	20.0
In hospitals, men are usually present when a woman is giving birth, which is against my culture	22	48.9	8	17.8	8	17.8	7	15.6
I can only use traditional medicine during pregnancy, which is not available in hospitals	22	48.9	10	22.2	4	8.9	9	20.0
Complications arise during childbirth because the mother is evil	21	46.7	11	24.4	7	15.6	6	13.3
My society believes babies should be delivered at home	24	53.3	9	20.0	3	6.7	9	20.0
As long as a woman has no complications during pregnancy there is no problem giving birth at home	26	57.8	7	15.6	4	8.9	8	17.8
I can only deliver with the help of a traditional birth attendant from my community (my tribe)	25	55.6	11	24.4	5	11.1	4	8.9

As shown in Table 4.3, 33.4% of the respondents agreed that only designated persons can dispose of the placenta, thus giving birth in hospital would go against this tradition. This shows that a significant proportion of the respondents believed that it was against the culture if the placenta was disposed by somebody else apart from the

designated persons in the community. This appears to be hinderence for some women from attending a hospital for child birth and hence prefered home delivery. In agreement to these findings, Chipfakacha, (1994) found out that women were reluctant to entrust the disposal of their placenta and other products of conception to strangers, such as the hospital nurses, and they felt that home deliveries were more convenient and safer. Results also revealed that 24.4% of the women agreed that it was against the culture to give birth away from home. This shows that these women were of the views that the best place for the child birth was only at home.

Results in the Table further implied that 33.4% of women had a negative attitude towards hospital delivery due to the fact that men are usually present when a woman is giving birth, which is against their culture. Paul and Rumsey (2002) argue that in some regions, rural women do not usually converse with unknown persons, particularly men. This behaviour is pertinent because most deliveries in rural health centres are attended by male physicians, and may be regarded as social and religious barriers to the use of health facilities for delivery purpose (Paul and Rumsey, 2002). In addition, 28.9% of the respondents indicated that they can only use traditional medicine during pregnancy, which is not available in hospitals. This implies that a notable number of women were influenced by social and cultural factors and therefore felt that home delivery is the best in comparison with the hospital delivery. The major factors that could have negatively influenced them were lack of education, affordability, distance from home to hospital and lack of awareness on dangers associated with home delivery.

In line with these findings, a previous study done in Rwanda by Jayaraman, Chandrasekhar and Gebreselassie (2008) established that most women prefer to deliver at home, either with or without the assistance of professional birth attendants.

Similar findings were reported in Nigeria (Okafor & Rizutto, 1994), and in Tanzania, where Bicego, Curtis, Raggers, Kapiga & Ngallaba (1997) established that 84 percent of women who gave birth at home intended to deliver at a health facility but did not due to distance and lack of transportation.

However, results in Table 4.3 further revealed that there were some women in Kibera informal settlement who were not influenced by social and cultural practices on home delivery. Specifically, 67.6% of the respondents disagreed that only designated persons can dispose of the placenta, thus giving birth in hospital would go against this tradition. Majority of the respondents also disagreed that; it was against the culture to give birth away from home (75.6%), society believes babies should be delivered at home (73.3%) and I can only deliver with the help of a traditional birth attendant from the community (80.0%). This shows that a significant proportion of respondents in Kibera informal settlement were inclined to deliver in hospital. These could be perhaps due to the fact that Kibera is a multi-ethnic settlement. This could also be attributed to intercultural interactions and intercultural marriages that give Kibera a cosmopolitan face thus influencing some women not to adhere to social cultural practices meaning that the women could be more enlightened and had discarded retrogressive cultural practices.

To determine the overall influence of social and cultural practices on home delivery, an overall scores was computed for each respondent. This scores were computed based on the nine aspects of social and cultural practices. The highest possible score one would obtain was a score of 36 while the lowest score one would obtain was a score of 9. Scores were grouped into three categories; scores ranging between 9 and 18 was categorized as not influenced by cultural practices, scores ranging 19 to 27 was categorized as moderately influenced whereas scores ranging between 28 and 36

was categorized as greatly influenced by social and cultural practices. Figure 4.4 illustrates overall influence of social and cultural practices on home delivery.

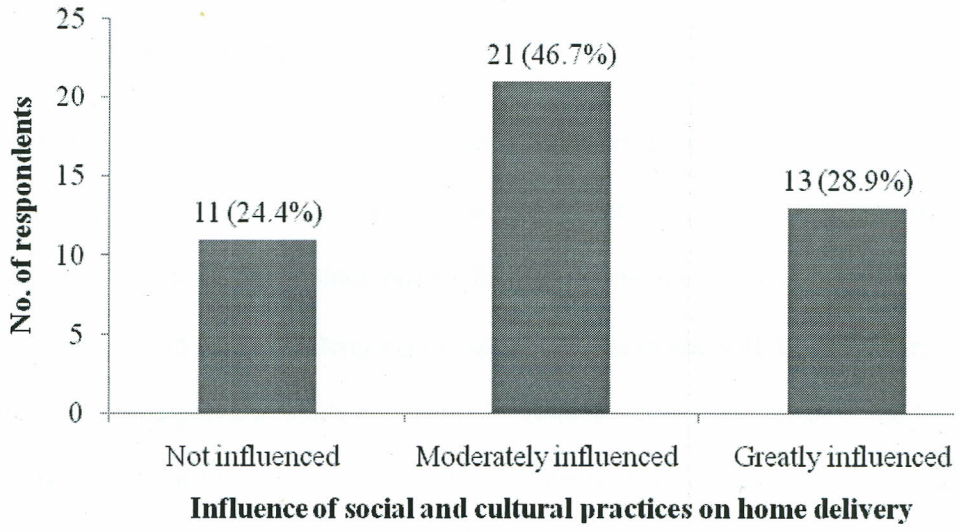


Figure 4.4: Influence of social and cultural practices on home delivery

Figure 4.4 shows that 28.9% of the women were greatly influenced by social and cultural practices, 46.7% were moderately influenced while 24.4% were not influenced at all by social and cultural practices.

During the interview, the researcher noted that social and cultural practices associated with child birth in the community were; disposal of the placenta must be done by a person designated in the community, traditional medicines can only be found at home, hospital delivery is for weak mothers' and community beliefs that child birth should only be done at home. This implied that social and cultural practices still existed in the society. In agreement with the above mentioned social and cultural practices, Bee (1989) says that all cultures have beliefs and rituals that surround life's major events including pregnancy. Customs surrounding childbirth reflect the beliefs, values and resources of a culture. Social and cultural factors play a

crucial role in the decision making process on maternal services utilization. In traditional societies, childbirth is viewed as a normal event (Jordan, 1978). It takes place at home and is highly supported by the family to meet the need for emotional and physical care and support (Steinberg 1996).

The major reasons which influenced women to prefer home delivery included; lack of funds, family beliefs that a woman should deliver within the surrounding environment, fear of death since one of the family member died in hospital during child delivery and fear of undergoing caesarean section in hospital. In agreement with these findings, a previous study conducted by Boucher, Bennett, McFarlin and Freeze (2009) found out that women may choose homebirths for a variety of reasons, including a desire for a low-intervention birth, to be in a familiar environment surrounded by family and friends and cultural or religious concerns.

4.4 Psychological Factors that Promote Home Delivery among Mothers

The second objective of the study was to find out psychological factors that promote home delivery among mothers in Kibera informal settlement. To respond to this objective, study respondents were required to state their agreement levels on 10 psychological factors that promote home delivery. The scale ranged from 1 to 4 with one denoting strongly disagree and four strongly agree. The results obtained are presented in Table 4.4.

Table 4.4: Women's responses on psychological factors that promote home delivery

Psychological factors	SD		D		A		SA	
	f	%	f	%	f	%	f	%
Giving birth at hospital is better because if complications occur one gets medical assistance	3	6.7	1	2.2	7	15.6	34	75.6
Giving birth is a natural phenomenon, and the pain and bleeding are normal occurrences	5	11.1	3	6.7	8	17.8	29	64.4
Sometimes I fear that giving birth at home will result in complications	9	20.0	4	8.9	10	22.2	22	48.9
Those who develop complications during child birth are weak	19	42.2	10	22.2	7	15.6	9	20.0
Those who develop complications during childbirth are sinners/evil	21	46.7	10	22.2	5	11.1	9	20.0
Giving birth at home is comfortable because I am in my own house	25	55.6	8	17.8	4	8.9	8	17.8
Giving birth at home is better because it is very cheap	24	53.3	11	24.4	2	4.4	8	17.8
I am not at risk of developing any complications during child birth at home	25	55.6	8	17.8	7	15.6	5	11.1
Even if I develop complications during home delivery, I will recover successfully	26	57.8	10	22.2	4	8.9	5	11.1
Hospitals are not affordable; I will just give birth at home	27	60.0	9	20.0	4	8.9	5	11.1

As Table 4.4 shows, 91.2% of the respondents agreed that giving birth in hospital is better because if complications occur, one gets medical assistance. This was a clear indicator that majority of the women had a positive attitude towards hospital delivery since there was room for seeking medical advice in case of complications. Thirty seven (82.2%) women felt that giving birth is a natural phenomenon, and the pain and bleeding are normal occurrences. This shows that most of the women felt that there were no differences when giving birth at home and hospital. In addition, 71.1% of the respondents agreed that sometimes they feared that giving birth at home would result

in complications. This shows that a considerable proportion of respondents had a negative attitude towards home delivery and therefore was psychologically inclined to deliver in hospital. In agreement with the findings, a study by Navaneetham and Dharmalingam (2002) found that a woman who had a stillbirth in the past was more likely to deliver a child in an institution compared to those who had not experienced any stillbirth. The implication of this is that since still birth or death of a child is viewed as a serious outcome of complications, mothers who have experienced this in the past develop positive attitudes toward hospital delivery.

On the other hand, a notable number of respondents were psychologically inclined to deliver at home. In particular, 35.6% of the respondents felt that those who develop complications during child birth are weak. This therefore implies that, sometimes women who viewed themselves as strong could not go to hospital for child birth. This is because they believed that they would not develop any complications during maternal home delivery. The women perceive that childbirth is a natural act of God and did not expect complications. This perception also influenced their choice of delivery site. They believed that if they developed complications it was a matter of bad luck and this would either happen at home or in the hospital. Although childbirth and the immediate postpartum period are generally treated as a traumatic event in which both mother and child are vulnerable, childbirth is a regularly expected process for most women during part of their lifetime (Jordan, 1978). Research by Uzma, Underwood, Atkinson and Thackrah (1999) on post-partum health in a Dhaka, Bangladesh informal settlement, revealed that women perceived that childbirth is a natural act of God and did not expect delivery complications. In Uganda, a study by Amooti-Kaguna and Nuwaha (2000) on the factors influencing choice of delivery sites in Rakai district established that the perception of normal versus abnormal

pregnancy can influence the delivery site. The study further established that mothers went to clinics only if they knew that they usually get complications in labour (Amooti-Kaguna and Nuwaha, 2000).

Results in the table also revealed that 20.0% of them also felt that even if they developed complications during home delivery, they would recover successfully. Moreover, 26.7% of them indicated that giving birth at home is comfortable because there was privacy and also it was very cheap (22.2%). In agreement with the findings, previous studies have shown that some women felt shy while delivering in the presence of many health staff and therefore preferred home delivery. Affordability of hospital fees, affordability of transportation and the needs of other children for example food were other factors which contributed to preference of home delivery instead of hospital delivery (Bicego, Curtis, Raggers, Kapiga & Ngallaba, 1997).

In order to determine the influence of psychological factors on home delivery, an average rating scores were computed for each respondent. This was done by adding the respondents scores on each of the ten psychological factors and dividing the results by ten to obtain an average. Scores of three and four (agree and strongly agree respectively) denoted that respondent was psychologically inclined to deliver at home whereas an average score of one and two (disagree and strongly disagree) signified that respondent was psychologically inclined to deliver at hospital. Respondents who agreed with the following statements were psychologically inclined to deliver in hospital; giving birth at hospital is better because if complications occur one gets medical assistance and sometimes I fear that giving birth at home will result in complications. On the other hand those who agreed with the following statements were psychologically inclined to deliver at home; giving birth at home is comfortable because there was a privacy and it's very cheap, I am not at risk of developing any

complications during child birth and even if I develop complications during home delivery, I would recover successfully. Figure 4.5 presents overall influence of psychological factors on home delivery

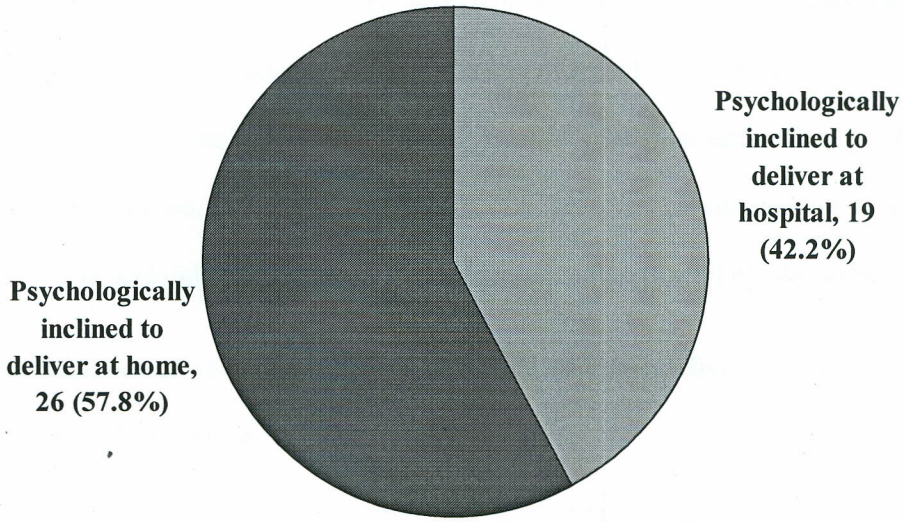


Figure 4.5: Influence of psychological factors on home delivery

As Figure 4.5 shows, 57.8% of the women were psychologically inclined to deliver at home. This is supported by the reasoned action theory which argues that attitude and perception predict behaviour. The results were also in line with the health belief model which shows how perception and attitudes predict health behaviour. Figure 4.5 shows that 42.2% of the respondents were psychologically inclined to deliver in hospital, meaning that they had a negative attitude and perception toward home delivery. These 42.2% of the respondents who delivered at home shows that there were other factors other than psychological factors that could have influenced them to deliver at home. This could be social and cultural practices, affordability or long distances to health facilities. Numerous barriers including lack of accessibility to health services and transportation to health services were identified as the reason for home delivery (Amooti-Kaguna & Nuwaha, 2000).

4.5 Effect of a pregnant woman's (or mother's) level of education on home delivery

The third objective of the study was to establish whether there is any effect of a pregnant woman's (or mother's) level of education on home delivery. To address this objective, Chi-square test was conducted at two levels. The first level shows the relationship between level of education and influence of social and cultural practices on home delivery while the second level shows level of education and influence of psychological factors on home delivery. Table 4.5 presents results obtained on influence of social and cultural practices on home delivery across level of education

Table 4.5: Influence of social and cultural practices on home delivery across level of education

Level of education	Influence of social and cultural practices on home delivery			Total	Chi-square statistics
	Not influenced	Moderately influenced	Greatly influenced		
No formal education	0	7	6	13	χ^2=10.541
Primary	6	9	7	22	
Secondary	5	5	0	10	df=4
Total	**11**	**21**	**13**	**45**	Sig.=0.032*

*Significant at $p<0.05$ level

Based on the Chi-square test, results of the analysis revealed that there was a significant relationship between influence of social and cultural practices on home delivery and level of education among women, (χ^2 =10.541, df=4, p=0.032) . Results shows that of 13 women who were greatly influenced by social and cultural practices, 6 had not attained any formal education while 7 had primary education. Among the 21 respondents who were moderately influenced, 7 had no formal education while 9 had primary education. However, those who were not influenced by social and

cultural practices at all, 6 had primary education while 5 had secondary education. This therefore implies that the lower the level of education the greater the level of influence and vice versa. This shows that women with high level of education were less likely to engage in social and cultural practices on home delivery as compared to those with low level of education.

Table 4.6 illustrates influence of psychological factors on home delivery across level of education among women.

Table 4.6: Influence of psychological factors on home delivery across level of education

Level of education	Influence of psychological factors on home delivery		Total	Chi-square statistics
	Psychologically inclined to deliver at hospital	Psychologically inclined to deliver at home		
No formal education	3	10	13	χ^2=12.287
Primary	7	15	22	
Secondary	9	1	10	df=2
Total	**19**	**26**	**45**	Sig.=0.002*

*Significant at p<0.05 level

As shown in Table 4.6, Chi-square test results showed that there was a significant relationship between influence of psychological factors on home delivery and level of education among women, (χ^2=12.287, df=2, p=0.002). Results in the table illustrates that among the 19 women who were psychologically inclined to deliver in hospital, 7 had attained primary education, 9 had secondary education whereas 3 had no formal education. However, 26 women who were psychologically inclined to deliver at home, 10 had no formal education, 15 had primary education while the remaining 1

had secondary education. This shows that level of education greatly influenced women's psychological factors on home delivery. Research by GOK/UNICEF, (1992) shows that education is now recognised around the world as a basic prerequisite for development. Besides encouraging changes in behaviour which aim to improve the human condition, education also instils self-confidence and self-reliance in the individual and enables informed decision making in such areas as health care. Other studies (Caldwell, 1990; Mekonnen and Mekonnen, 2003; and Navaneetham and Dharmalingam, 2002) also show that education has a measurable impact on the role of women in their reproductive role. There is a high correlation between maternal education and child survival and development (Caldewell, 1990) which depends to a considerable degree on the mother's self assurance and her capacity to take action. When women are educated, many positive results accrue, for example in health care.

In general, results presented in Table 4.5 and 4.6 reveal that level of education had a great impact towards home delivery. This is because education enables women to make informed decisions in such areas as health care. It emerged from the results that educated mothers are likely to have better knowledge and information on maternal health care services and have greater capacity on how to utilize them. This is because education empowers women with confidence and capabilities to make use of modern health care services for themselves and for their children (Raghupathy, 1996). Furthermore, researchers such as, Becker, *et al.*, (1993) established that the effect of women's education on the utilization of maternal services was large with an 11 percent increase in the likelihood for use of maternal services for each additional year of schooling. Similarly, a study by Mekonnen and Mekonnen (2003) on factors influencing the use of maternal healthcare services in Ethiopia showed that education of women positively predicted the use of delivery services. Women with primary and

at least secondary education were more likely to use maternal healthcare services compared to women with no education (Mekonnen and Mekonnen, 2003). This is because education enables women to take personal responsibility for their own health and health of their children (Caldwell, Reddy and Caldwell, 1989). Education also helps women to make informed decisions and also read and understand health care literature. However, a study by Navaneetham and Dharmalingam (2002) showed that women with no education were more likely to deliver a baby at home than hospital.

4.6 Strategies that can be put in place to improve hospital delivery in order to discourage home delivery

The fourth objective of the study was to establish the strategies that can be put in place to improve hospital delivery in order to discourage home delivery

Table 4.7: Respondents views on strategies that can be put in place by the government to promote maternal hospital delivery

Suggestions	Frequency	Percentage
Sensitize women on dangers of home delivery hence showing the importance of hospital delivery	43	95.6
Build more hospitals in the community and ensure they are well equipped with facilities e.g. maternity related facilities and ambulances in case of an emergency	36	80.0
Government should introduce a policy that can help all pregnant women to pay their maternity fees	32	71.1
Reduce hospital fees for pregnant women	31	68.9
Improve infrastructure e.g. road networks	21	55.6
Government can develop a strategy to provide nutritious foods for pregnant women	9	20.0
Introduce insurance policy for pregnant mothers	8	17.8
Introduce a policy that states all women must deliver in hospitals	7	15.6
Retrain maternity attendants on how to handle pregnant women	5	11.1

Table 4.7 shows that majority of the women were of the view that in order to promote maternal hospital delivery, the government should: educate women on the importance of hospital delivery and hence highlight dangers related to home delivery (95.0%). Build more hospitals in the community and also ensure that they are well equipped with maternity related facilities (80.0%) and introduce a policy that could help all pregnant women pay their maternity fees (71.1%). It should be noted that the new Jubilee government elected in March 2013 has now abolished maternity fees and this is viewed as a positive step towards increasing hospital delivery as per the researcher's findings; since this study had established that the cost of maternity fees at the hospitals was a major factor that stopped women from going to deliver in a hospital. In fact 71.1% of the respondents had suggested that government should reduce the maternity fee in all public hospitals. The respondents (55.6%) further suggested that the government should improve infrastructure such as road networks. Other strategies that were mentioned included; provision of nutritious foods for pregnant women, introduction of insurance policy for pregnant mothers, There are similarities from other parts of the country as supported by a research done by GOK/UNICEF (1992) which highlights that 60 percent of women in Kenya deliver at home despite the existence of health facilities that can provide the needed health care. Most of these births are concentrated in rural areas and in urban informal settlement areas. The concentration of births in rural areas is as a result of lack of access to health care due to distance. This translates to affordability of either hiring a vehicle to the facility or being able to call for an ambulance. Most pregnant women or their families are not able to afford these services and as a result, the woman delivers at home. While in informal settlement areas, most pregnant women are from low socio-

economic status and therefore may not afford basic health care let alone delivery in a health facility.

In addition to the above strategies, the women who were interviewed suggested that the government should; ensure that health centres in the community were well equipped with maternity facilities and are easily accessible; reduce hospital bills for pregnant women, provide facilities like ambulances in case of emergency, offer refresher courses for maternity attendants in order to improve their skills and also come up with a strategy to provide nutritious food for the pregnant women. They further recommended that the government should set aside funds for supporting campaigns organized by health workers to sensitize women on dangers of home delivery.

The respondents' views on strategies that can be put in place by the community members to improve maternal health of women are as shown in Table 4.8.

Table 4.8: Respondents views on strategies that can be put in place by the community to improve maternal health of women in Kenya

Suggestions	Frequency	Percentage
Community leaders should organize campaigns with the health workers to educate women on the importance of hospital delivery and hence eradicate negative social and cultural practices in the society	43	95.6
Community leaders should organize and start a project of financial savings where women can borrow loans and invest in income generating activities	29	64.4
Community members should offer support to health centres in the communities by providing items such as sanitary towels and cotton	26	57.8
Role models in the community should educate women on dangers of home delivery	17	37.8
Community members should engage in health centre development	15	33.3
Community to work with government on how to come up with nutritional supplements and/or food stuffs.	11	24.4

From Table 4.8, it can be observed that majority (95.6%) of the respondents suggested that community leaders should organize campaigns with the health workers to educate women on the importance of hospital delivery and hence eradicate negative social and cultural practices in the society. Over 50.0% of the women also suggested that community leaders should organize and start a project of financial savings where women can borrow loans and invest in income generating activities (64.4%). This would help eradicate lack in the society which is one of the factors that contributes to maternal home delivery. In addition, 57.8% of them also recommended that community members should offer support to the health centre in their communities by providing items such as sanitary towels and cotton to women after birth. This as a result would help to minimize problems related to poor hygiene in the health centre and therefore change the negative attitude some women have developed towards hospital delivery. This is because would-be-mothers are requested to purchase many items that are required for their use which they may not afford and this keeps them away from accessing and utilising hospital services. The following gives a picture of strategies that have been put in place to improve health care in developed countries

Currently, efficient health systems and maternal health care policies in the developed world have led to a decline in maternal home delivery to insignificant levels (Aquiler and Gilbes, 2007). The National Vital Statistics Reports (NVSR) (2010) state that in the United States the percentage of out of hospital births (including home births) declined from 44% in 1940 to 1% in 1969 and has remained about 1% for decades. Holland allows homebirths for pregnant women who are in a low risk group (women who are healthy and progression of their pregnancy has been straight forward with no complication). It is estimated that one third of pregnant women in Holland per year give birth at home. Maximum health security is put in place for them in case of

complications. These include having a stand by nurse, regular checks by a health practitioner or health workers and provision of quick means of transfer to a medical facility in case of emergency. As a result young pregnant women in Holland choose to deliver at home rather than in hospital which does not offer the familiarity of home where the pregnancy has developed and where the would be mother feels safe and psychologically comfortable (Aguiler and Gilbes, 2007: McFarlane, 1977).

During the interview, the researcher noted that the major strategies that community members suggested that should be put in place to assist women engage in safe child birth were; sensitizing the women on dangers of home delivery, advising them to go for antenatal care, organizing projects in the community that can generate income and to improve maternity services. Furthermore, food security was another issue for pregnant women; inadequate nutrition during pregnancy could result in adverse psychological effects on the mother and baby. In relation to this view, women who participated in the study suggested that community members could be of help in supporting pregnant women who do not have enough food to eat.

4.7 Summary

The study established that social and cultural practices, psychological factors and level of education had a great impact towards maternal home delivery. Chi-square test results revealed that women with higher level of education were less likely to engage in social and cultural practices and therefore, were psychologically inclined to deliver in hospital. On the other hand, results of the analysis showed that women with low level of education were more likely to engage in social and cultural practices and hence, psychologically inclined to deliver at home.

The major reasons which influenced women to engage in maternal home delivery were social and cultural beliefs, lack of education, affordability, distance from home to hospital and lack of awareness on dangers associated with home delivery. However, the major reason which inclined women to prefer hospital delivery was room for medical advice in case of complications during birth. This shows that appropriate interventions have to be initiated to counterbalance factors which contribute to home delivery and hence promote hospital delivery. The implications of these observations are: the government should ensure more effort is placed on women's education, increase accessibility of hospitals and formulation of programmes to cater for maternity bills. In addition, health facilities should improve their support services for mothers delivering in their facilities. This will attract more support and participation from community members who would like to work together with health authorities to jointly design suitable health systems that can respond to maternal health needs hence eradicating practices that impact negatively on women's health. This is in line with the underlying concept of the HBM theory which states that health behaviour is determined by personal beliefs or perceptions about a disease and strategies available to decrease its occurrence (Hochbaum, 1958). Understanding why people engage or do not engage in certain behaviour is important because it provides health workers with a way to change behaviours and promote utilization of health promoting programmes such as maternal hospital delivery.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary, conclusion and recommendations based on the study findings. It also gives areas for further research.

5.2 Summary of the Study

The main purpose of the study was to establish psychological factors that promote maternal home delivery in Kibera informal settlement. The study respondents were 45 women, aged between 18 and 49 years who had previously delivered at home in Kibera informal settlement. The following are the main study findings.

5.2.1 Effect of Social and Cultural Practices on Home Delivery

The study established that a notable number of women were influenced by social and cultural factors and therefore felt that home delivery is the best option in comparison with hospital delivery. The major social and cultural beliefs that influenced them included; disposal of the placenta can only be done by a designated person in the community (33.4%), it was against the culture to give birth away from home (24.4%) and men are usually present when a woman is giving birth at the hospital, which is against the culture (33.4%). This was a hinderance to some women in attending hospital for child birth and hence they prefered home delivery. The major factors which negatively influenced them to engage in those practices were; lack of education, affordability, distance from home to hospital and lack of awareness on dangers associated with home delivery.

5.2.2 Psychological Factors that Promote Home Delivery among Mothers

Results findings revealed that 57.8% of the women were psychologically inclined to deliver at home while 42.2% were psychologically inclined to deliver in a hospital. The major factors which positively influenced women's attitude towards hospital delivery were; giving birth at hospital is better because if complications occur one gets medical assistance (91.2%); giving birth at home would result to complications (71.1%) and giving birth is a natural phenomenon, and the pain and bleeding are normal occurrences (82.2%).

On the other hand, a notable number of respondents were psychologically inclined to deliver at home. The major factors which influenced them were: 35.6% felt that those who develop complications during child birth are weak. This therefore implies that, women who viewed themselves as strong could not go to hospital for child birth. This is because they felt that they would not develop any complications during maternal home delivery. Results also revealed that 20.0% of them also felt that even if they developed complications during home delivery, they would recover successfully. This meant that they did not fear occurrence of complications during child birth. Moreover, 26.7% of the respondents felt that giving birth at home is comfortable because there was privacy and also it was very cheap (22.2%).

5.2.3 Effect of a pregnant woman's (or mother's) level of education on home delivery

The Chi-square test revealed that there was a significant relationship between influence of social and cultural practices on home delivery and level of education among women, (χ^2=10.541, df=4, p=0.032). Results of the analysis showed that of the 13 women who were greatly influenced by social and cultural practices, 6 had not attained any formal education while 7 had primary education. However, those who

were not influenced by social and cultural practices at all, 6 had primary education while 5 had secondary education. This therefore implies that the lower the level of education the greater the level of influence and vice versa.

In view of psychological factors and education level, the study found out that there was a significant relationship between influence of psychological factors on home delivery and level of education among women, (χ^2=12.287, df=2, p=0.002). Results revealed that among the 19 women who were psychologically inclined to deliver at hospital, 7 had attained primary education whereas 9 had secondary education. However, 26 women who were psychologically inclined to deliver at home, 10 had no formal education while 15 had primary education. This shows that the level of education greatly influenced women's psychological factors on home delivery.

5.2.4 Strategies that can be put in place to improve hospital delivery in order to discourage home delivery

Following women's responses on strategies that can be put in place to promote hospital delivery, the findings revealed that majority of the respondents recommended that the government should; educate women on importance of hospital delivery and hence highlight dangers related to home delivery (95.0%); build more hospitals in the community and ensure that they are well equipped with maternity facilities (80.0%) and introduce a policy that could help all pregnant women to pay their maternity fees (71.1%).

For the community members, over 50.0% of the respondents suggested that; community leaders should organize campaigns with health workers to educate women on the importance of hospital delivery and hence eradicate negative social and cultural practices in the society, community leaders to help organize and start a project of financial savings where women can get loans and invest in income generating

activities (64.4%) whereas 57.8% of them recommended that community members should offer support to the health centres in their community by providing facilities such as sanitary towels to women after birth. This as a result would help to minimize problems related to poor hygiene in the health centre and therefore change the negative attitude some women have developed towards hospital delivery.

5.3 Conclusion

Based on the findings of the study, it can be concluded that social and cultural practices, psychological factors and level of education had a great impact towards maternal home delivery. Results revealed that women's beliefs, attitude and perceptions had a great impact towards their decision making on maternal home delivery or maternal hospital delivery. The study established that the major reasons which influenced women to engage in maternal home delivery were social and cultural beliefs, lack of education, affordability, distance from home to hospital and lack of awareness on dangers associated with home delivery. Social and cultural beliefs that influenced women to deliver at home were: disposal of placenta can only be done by adesignated person in the community, it was against the culture to give birth away from home and men are usually present when a woman is giving birth in a hospital which is against my culure. Education enables women to take personal responsobility for their health and their children (Caldwell, Reddy and Caldwell, 1989).Educated mothers are likely to have better knowledge and information on modern medical treatment and have greater capacity to recognise specific illness. Education empowers women to have greater confidence and capabilities to make decisions on health care. However, the major reason which inclined women to prefer hospital delivery was room for medical advice in case of complications during birth. This shows that appropriate interventions have to be initiated to counterbalance

factors which contribute to home delivery and hence promote hospital delivery. The implications of these observations are: the government should ensure more effort is exerted in women's education, increase accessibility of hospitals and formulation of programmes to cater for maternity bills. Role models in the community should also offer their support to the health centre in the community by sensitizing women on the dangers of home delivery and also providing items such as sanitary towels to women after birth. Consequently, this would decrease the likelihood of women's preference to maternal home delivery and instead promote maternal hospital delivery.

5.4 Recommendations of the Study

Based on the findings of the study, the following recommendations were made

I. Recognizing that the major reason which influenced most of the women to prefer maternal home delivery was low level of education, this study recommends that education and in particular women's education should be promoted. This would help in empowering women to take an active role not only in family decision making such as selecting place of birth but also productively engage in income generating activities in the community.

II. Social and cultural practices are barriers which negatively influenced women to engage in maternal home delivery. The study recommends that community members should work together with the health authorities to jointly design suitable health systems that can respond to the maternal health needs of women hence eradicate negative social and cultural practices in the society.

III. The government should increase support to the ministry of medical services in order to promote campaigns to sensitize women on importance

of maternal hospital delivery and hence highlight dangers related to maternal home delivery.

5.5 Study limitations

In the course of carrying out this research project, various challenges were faced. Time to administer the questionnaire was limited and some of the respondents failed to avail themselves for appointments. Financial constraint was another challenge which hindered the researcher to carry out the study in a large area, therefore the study findings cannot be generalized in other areas. Some of the respondents were also not willing to participate in the study. To overcome this, the researcher created a rapport and assured them of confidentiality.

5.6 Areas for Further Research

i. The current study focused on psychological factors that promote maternal home delivery, there is therefore need to carry out another study to find out psychological interventions that can be put in place to assist pregnant women experiencing difficulties during pregnancy.

ii. Since this study was limited to maternal home delivery, another study should be conducted to investigate utilization of maternal health services in Kibera informal settlement.

iii. A similar study should be carried out to find out how factors such as age, marital status and occupation promote maternal home delivery.

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APPENDICES

Appendix 1: Research Authorization

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349, 254-020-2673550
Mobile: 0713 788 787 , 0735 404 245
Fax: 254-020-2213215
When replying please quote
secretary@ncst.go.ke

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: **NCST/RCD/14/013/72**

Date: **4th February, 2013**

Joan Khainja Ekessa
Kenyatta University
P.O.Box 43844-00100
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application dated ***28th January, 2013*** for authority to carry out research on ***"Psychological factors that promote maternal home delivery in Kibera Informal Settlement in Nairobi County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for a period ending **31st August, *2013.***

You are advised to report to **the Provincial Commissioner and the Provincial Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR M.K. RUGUTT, PhD, HSC.
DEPUTY COUNCIL SECRETARY

Copy to:

The Provincial Commissioner
The Provincial Director of Education
Nairobi County.

OFFICE OF THE PROVINCIAL COMMISSIONER
RECEIVED
20 MAR 2013

"The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development".

Appendix 2

Work plan

Activity	2012		2013			
	Aug - Sept	Oct - Dec	Jan	Feb - Mar	Apr	May
Literature search Proposal development						
Proposal writing Proposal improvement						
Pilot study Data collection						
Data analysis & Report writing						
Project corrections						
Submission of final copy						

Appendix 3

Research Budget

Activity	Cost per unit	Quantity	Total (Kshs)
Proposal Writing			45,000
Typing services 40 pgs	@ 1,200	1 copy	1,200.00
Photocopying 40 pgs	@ 80	6 copies	480.00
Binding 40 pgs	@ 50	7 copies	350.00.00
Travelling	-	-	20,000.00
Sub-Total			**67,030.00**
Piloting			4,000.00
Photocopying of questionnaires 4 pgs	@ 8	20 sets	160.00
Travelling expenses	-	-	2,000.00
Sub-Total			**6,160.00**
Data collection			
Printing of questionnaires 6 pgs	@ 10		60.00
Travelling expenses	-	-	34,000.00
Data analysis	-	-	30,000.00
Sub-Total	-	-	**64,060.00**
Producing final copies	-	-	2,000.00
Hard cover binding	-	-	3,200.00
Sub-Total			**5,200.00**
GRAND TOTAL			**142,450.00**
10% contingency			14,245.00
TOTAL COST			**156,695.00**

Appendix 4

Letter of Introduction to Respondents

Joan Khainja Ekessa
Kenyatta University
Department of Psychology
P.O. Box 43844 – 00100
Nairobi.
Tel. 0724 561 205

07/01/2013

Dear Sir/Madam,

RE: PSYCHOLOGICAL FACTORS THAT PROMOTE MATERNAL HOME DELIVERY IN KIBERA INFORMAL SETTLEMENT, NAIROBI COUNTY, KENYA

I am a post graduate student at Kenyatta University pursuing a Masters degree in Counselling Psychology. I am conducting a study on psychological factors that promote maternal home delivery in Kibera, Nairobi County. The purpose of this letter is to request for your permission and cooperation in responding to the attached questionnaire as honestly as possible.

The attached questionnaire has been designed for this research purpose only. The information received shall remain absolutely confidential. You are therefore advised not to include your name or any other identification on it.

Thank you in advance.

J.K. EKESSA

M.A. (Counselling Psychology)
Kenyatta University

Appendix 5

Questionnaire

This questionnaire is designed to gather information about factors that promote maternal home delivery in Kibera informal settlement in Nairobi County. Kindly respond by ticking or filling in the appropriate responses to the questions or information needed. All your responses and information in the questionnaire will be confidential and will be used by the researcher for the purpose of this study only. So do not write your name in this questionnaire.

SECTION A: BIO DATA

1. Age

[ ] 18 – 20 [ ] 21 – 30

[ ] 31 – 40 [ ] 41 – 50

2. Level of education

[ ] No formal education [ ] Primary

[ ] Secondary [ ] College

3. Indicate what you do for your living (occupation)

[ ] Housewife [ ] Business

[ ] Formal employment [ ] No formal employment

4. Marital status

[ ] Married [ ] Single

[ ] Widowed [ ] Divorced

5. How many children do you have?

[ ] 1 – 2 [ ] 3 – 5 [ ] 6 – 10 [ ] over 10

SECTION B: MATERNAL HOME DELIVERY DECISIONS

1. From where did you deliver your last child?

[ ] Home [ ] Hospital

2. If at home, did you get the assistance of a traditional birth attendant?

[ ] Yes [ ] No

3. What made you decide to deliver at home?

[ ] Hospital is far

[ ] I fear hospitals

[ ] Did not have fare

[ ] It is safer to deliver at home

[ ] Others specify .....

4. Indicate whether you agree or disagree with the following statements

a. If I get pregnant again, I will deliver at home

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

b. It is too risky to deliver at home, so I would prefer hospital delivery

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

c. Hospital delivery is very expensive so I cannot afford

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

d. I would not advice my friend to deliver at home

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

e. There is no difference giving birth at home or at hospital, the risks are the same

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

SECTION C: SOCIAL CULTURAL PRACTICES AND HOME DELIVERY

State your degree of agreement or disagreement in relation to each of the given statements

1) My society believes babies should be delivered at home

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

2) Since children are a gift from God, there can be no complications when giving birth at home

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

3) As long as a woman has no complications during pregnancy there is no problem giving birth at home

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

4) It is against my culture to give birth away from home (e.g at hospital)

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

5) In hospitals, men are usually present when a woman is giving birth, which is against my culture.

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

6) Those who develop complications when giving birth, is because they are evil

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

7) In my culture, only designated persons can dispose of the placenta, thus giving birth at hospital would go against this tradition.

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

8) I can only use traditional medicine during pregnancy, which is not available in hospitals.

   [ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

9) I can only deliver with the help of a traditional birth attendant from my community (my tribe)

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

SECTION D: PSYCHOLOGICAL FACTORS AND HOME DELIVERY

State your degree of agreement or disagreement in relation to each of the given statements

1) I am not at risk of developing any complications during child birth at home.

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

2) Those who develop complications during child birth are weak

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

3) Those who develop complications during childbirth are sinners/evil

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

4) Giving birth is a natural phenomenon, and the pain and bleeding are normal occurrences

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

5) Even if I develop complication during home delivery, I will recover successfully

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

6) Sometimes I fear that giving birth at home will result to complications

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

7) Giving birth at home is better because it is very cheap

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

8) Giving birth at home is comfortable because I am in my own house

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

9) Giving birth at hospital is better because if complications occur one gets medical assistance

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

10) Hospitals are not affordable; I will just give birth at home.

[ ] Strongly agree [ ] Agree [ ] strongly disagree [ ] Disagree

SECTION E: STRATEGIES THAT CAN BE EMPLOYED TO PROMOTE MATERNAL HOSPITAL DELIVERY

1) Suggest what the government can do to improve maternal health of women in Kenya.

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2) Suggest what the community can do to improve maternal health of women in Kenya.

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Appendix 6

Interview Guide

1) Did you give birth at home or in a hospital?

2) What factors made you give birth at home/hospital?

3) What are some of the socio-cultural beliefs associated with child birth in your community?

4) How do such socio-cultural beliefs affect women's decision to deliver at home or hospital?

5) (a) Which one do you think is better, delivering at home or hospital?

   (b)What are your reasons for your answer to the question above?

6) What other factors influence women's decision to deliver at home or hospital?

7) How can the government assist women to engage in safe child birth?

8) How can the community assist women to engage in safe child birth?