FACTORS ASSOCIATED WITH UTILIZATION OF HEALTH FACILITY BASED DELIVERY SERVICES AMONG MOTHERS IN KACHERI SUB-COUNTY, KOTIDO DISTRICT

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PRELIMINARY PAGES

Declaration

I hereby declare that this is my original work, is not plagiarized and has not been submitted at any other institution for any award

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12th December 2023

Approval

The Research proposal has been written under my supervision and has been submitted under my approval

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19th December 2023

Dedication

I dedicate this book to my family members. Special dedication goes to my Parents Kotol Phillip and Auma Veronica Kotol, my brothers, sisters, my beloved husband Nyangweso Francis Dekaps, my daughters Edvine Nesta and Melinda Precious.

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List of Appendices

List of abbreviations and acronyms

ANC	**Ante Natal care**
CSOs	**Civil Society Organizations**
MDGs	Millennium Development Goals
SDG	Sustainable Development Goal
TBA	Traditional Birth Attendants
UBOS	Uganda Bureau of Statistics
UNICEF	United Nations International Children`s Fund
UNFPA	United Nations Population Fund
VHT	Village Health Team
WHO	World Health Organisation
WHO	World Health Organization

Table of Contents

ABSTRACT

Introduction: This study was conducted to determine the factors associated with health facility utilization during delivery among mothers in Kacheri Sub County, Kotido District. The major aim in this study was to determine the level of utilization of facility deliveries and the factors associated with health facility delivery services among mothers in Kacheri Sub County, Kotido District.

Methods: A facility-based analytical cross-sectional research design, was considered more appropriate to study the level and determinants of health facility delivery among mothers in Kacheri Sub County, Kotido District. The research study was conducted in two health facilities that serve the communities in Kacheri sub-county in Kotido district that is Kacheri HCIII and Lokiding HCII. A sample of 384 mothers was determined using Cochran Formula (Cochran 1977). A structured questionnaire was used during data collection through face to face interviews with selected participants. The Statistical Package for Social Sciences (SPSS) Version 7 was used to analyze the data by identifying predictors that are independent for the use of health services for childbirth, logistic regression was employed. The odds ratio (OR) and their confidence level of 95% were presented.

Results: The study findings indicate that majority of the mothers in the study 244 (62.6%) delivered in health facilities compared to 112 (28.9%) deliveries occurred at home without any assistance of skilled personnel as compared to 25(6.4%) were deliveries conducted by traditional birth attendants and others (on the way) 09(2.3%) delivery occurs on the way to health facility respectively. The study also identified ANC visits, Education levels, marital status, employment, proximity to a medical facility, and frequency of prenatal care visits are known as important predictors with delivering in health facilities.

Conclusion and recommendations: Although the utilization of health facilities deliveries in Kacheri sub-county was moderately high compared to those who gave birth at home. The study identified the education levels, marital status, employment, proximity to a medical facility, and frequency of prenatal care visits as major predictors associated with delivering in health facilities. Besides, mothers who attended some formal education had some knowledge on the benefits of health facility delivery and interest in delivering in the health facility. The study recommends intensifying sensitization of mothers, frequent ANC visits, improving transport systems and sensitizing the communities to keep younger girls in schools to prevent teenage pregnancies as key in improving health facility deliveries.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Maternal mortality remains an important indicator on the global health agenda.

In 2019, the global MM ratio was recorded at 211 per 100,000 live births (WHO, 2019). Numerous studies have shown that home births are linked to a number of pregnancy complications that could harm the mother and child both during and after delivery; many of these risks, such as infections and postpartum hemorrhage, can result in death. These also raise the likelihood that the infant will forgo essential medical care, such as vaccinations and postnatal care for the mother and her child.
[Bob Daraga 2016]. The five main complications of pregnancy—hemolysis, unsafe abortion complications, infections, hypertension, and obstructed labor—account for the greatest number of pregnancy-related deaths (Turu, 2013).

Many global efforts are being implemented to bring down the rate of maternal deaths and morbidity; in Latin America and the Caribbean, this has produced better outcomes by encouraging mothers to give birth in medical facilities. In Asia and Africa, where maternal and infant mortality rates are still high, more work must be done (Darega, 2016). In comparison to the number of maternal deaths across the globe which stands at 216 deaths per 100,000 live births, the Sub-Saharan Africa has the highest number of women losing their lives due pregnancy complications at childbirth standing at 567deaths per 100,000 live births (WHO,2017).Yet according to WHO and UNDP, by

2030, no nation should have a MM above140 per 100,000 live births, according to SDG3.1(WHO&UNDP,2019).

Births in medical facilities have higher odds of being safe than home births, and increasing institutional deliveries is crucial to lowering the number of pregnancy-related deaths. The WHO advises health facilities around the world to be fully furnished with medical supplies and trained healthcare professionals, and that women should have easy access to these facilities. Deliveries that occur in medical facilities have been shown to be crucial in preventing avoidable deaths of mothers and newborns (Meyer, 2017). The term "institutional delivery" describes the giving of birth in any approved medical facility by trained medical personnel. For the safety and well-being of the mother and her child, it is imperative that women receive support and care from the moment of conception, during childbirth, and beyond. Approximately 20 million women conceive each year worldwide; of these, 71% received assistance and care from qualified health providers in 2014, a notable increase from 59% in 1990 (MDG,2015).

Among the factors leading to the high rates of women and newborns losing their lives observed worldwide is restricted access to professional healthcare services during childbirth. Given that most maternal fatalities and obstetric complications occur during childbirth, which can only be attended to by trained birth assistants. The best way to lower maternal mortality is to use facility-based health care services. The use of medical professionals by women during childbirth is considered a crucial requirement for attaining Sustainable (Kinney, 2010).

There are various factors that influence whether or not women give birth in medical facilities. Important determinants include the mother's age, education, and level of decision-making in her household, as well as her socioeconomic status. Many initiatives have been put in place around the world to promote the habit of delivering from health facilities among women, but they haven't produced the expected outcomes, particularly in low- and middle-income nations.

Only 1 in 10 births worldwide take place outside of medical facilities; the other 9 take place in hospitals in Europe and Central America. However, in West/Central Africa and Eastern/Southern Africa, 59 and 63 percent of births, respectively, were delivered in medical facilities (UNIICEF, 2020).

Several women in the Sub-Saharan African region are unable to deliver at health facilities within the hands of skilled birth attendants despite the efforts to improve health service delivery and behavior change initiatives (Olah, 2019)

In the world, the sub-Saharan Africa and southern Asia region still record an increasing number of women delivering with assistance from skilled birth attendants. Over the past 15 years, professional healthcare or assisted childbirth has increased by 20% in the sub-Saharan African region and 40% in the Southern Asia (UNICEF ,2020).

Rate of MM in Uganda is decreasing over the past ten years, from 418/100,000 live births to 336/100,000 live births in 2016 (UDHS). This has been influenced by a several determinants including decrease in shortage of medical personnel but also the delays in the

community, individual, and medical facility levels. Although roughly two thirds of childbirths in Uganda do take place away from health facilities, there has been an increase in those happening at health facilities over the last ten years (Nigusie et al., 2020).

In an attempt to curb the number of women losing their lives due to pregnancy and childbirth in the nation, Uganda has worked hard to improve healthcare for women during delivery services government health facilities and to popularize health facility-based delivery (Mulogo et.al, 2006). Efforts to ensure a safe birth have been implemented through provision of supportive healthcare personnel, clean environment during delivery and management of maternal and newborn health conditions.

The location of a mother's delivery is crucial for both her and the baby. The location of delivery is typically determined by a variety of social, economic, and cultural factors. (Dewau et.al, 2021). These can include, among other things, the length of time a mother must travel to get to a medical facility and the price and caliber of care provided. The decisions on where to give birth from within developing countries are influenced by conditions in which many of these facilities operate; many are notorious for their inefficiency, drug stock-outs, and rude medical staff(Mulogo et.al, 2006). In Karamoja region, chances that mothers will choose to deliver in a health facility are still very slim, many opt decide to deliver with support from traditional birth attendants (TBAs)

Kacheri Sub County in Kotido district has a high rate on pregnancy related deaths yet there no study has been made to examine issues that hinder mothers to access health

facility-based deliveries. This study explored the determinants of women seeking healthcare during childbirth in Kacheri Sub County.

The study findings will be crucial for Kotido district but also the Karamojong region at large as they can be used as evidence to push forward implementations aimed at improving health facility delivery services utilization thus reducing the preventable maternal mortality cases

1.2. Problem Statement

Despite government efforts in improving maternal health care in Karamoja region specifically in Kotido district through provision of incentives to the mothers and to the health workers to increase the utilization of facility-based deliveries for example, provision of free mama kits, abolition of the user fees in all public health facilities in 2001 amongst other incentives. The health facility deliveries are still low.

Besides, the Maternal health indicators of Kotido District have remained alarming. It was reported that over 27teenage deaths were registered within Kotido district in In September 2020 to September 2021, Yet the fertility rates are high compared to the national rates and the institutional deliveries have remained too low (<1%). Moreover, the traditional birth attendants have remained very active in Karamoja region, yet their services are being discouraged by government (The independent 2020)

Throughout the Karamoja Sub region, Kotido has the highest number of women losing their lives due to pregnancy and child birth, these statistics have worried local leaders and efforts to improve on the quality of maternal healthcare are in vain. Earlier studies

indicate that at least 39 women died due to pregnancy complication and childbirth since September 2020 and these included teenagers (The independent Newspaper, 2020).

Several factors could be contributing to the poor maternal health statistics in Kotido district include the habit of women delivering from home or without skilled birth attendants and this is due to several economic, cultural and religious determinants (N. Esther, 2018).

Therefore, this study was intended to establish the level of utilization of health facility deliveries and the related factors that influence mothers in Kotido district.

These findings are a beginning point to assessing the level of utilization of the health-based deliveries and identifying the factors that influence the use of health facilities and to give appropriate and relevant recommendations for strengthening maternal health in the Kotido and the region at large

1.3 The Study Purpose

The improvement of maternal health greatly depends on evidence to support specific interventions. Assessing the level at which mothers go for healthcare during delivery and the associated determinants in Kacheri Sub County will provide the necessary information for planning and implementation purposes. The results will also help Government, Development partners and Civil Society Organizations (CSOs) to develop comprehensive approaches in strengthening maternal health care in not just Kacheri Sub County but Karamoja region and the country at large.

1.4 General Objective

The overall aim of the study is to establish the factors associated with health facility utilization during delivery among mothers in Kacheri Sub County, Kotido District.

1.4.1 Specific Objectives

The specific objectives include;

1. To determine the level of Utilization of health facility-based delivery services among mothers in Kacheri Sub county, Kotido district
2. To examine the factors associated with the utilization of health facility-based delivery services among mothers in Kacheri Sub County, Kotido district

1.5 Research question

The study will be guided by the following research questions;

1. What is the level of utilization of health facility-based delivery services among women in Kacheri sub-county, Kotido District?
2. What are the factors associated with the utilization of health facility-based delivery services in Kacheri Sub-County, Kotido District?

1.6 Study Scope

1.6.1. Content Scope:

The study mainly focused on the level of utilization of health facility-based delivery services and related factors that influence such facility-based services in Kacheri Sub-county.

1.6.2 Time Scope:

The study was conducted for a period of two months between December 2022 and January 2023

1.6.3 Geographical scope:

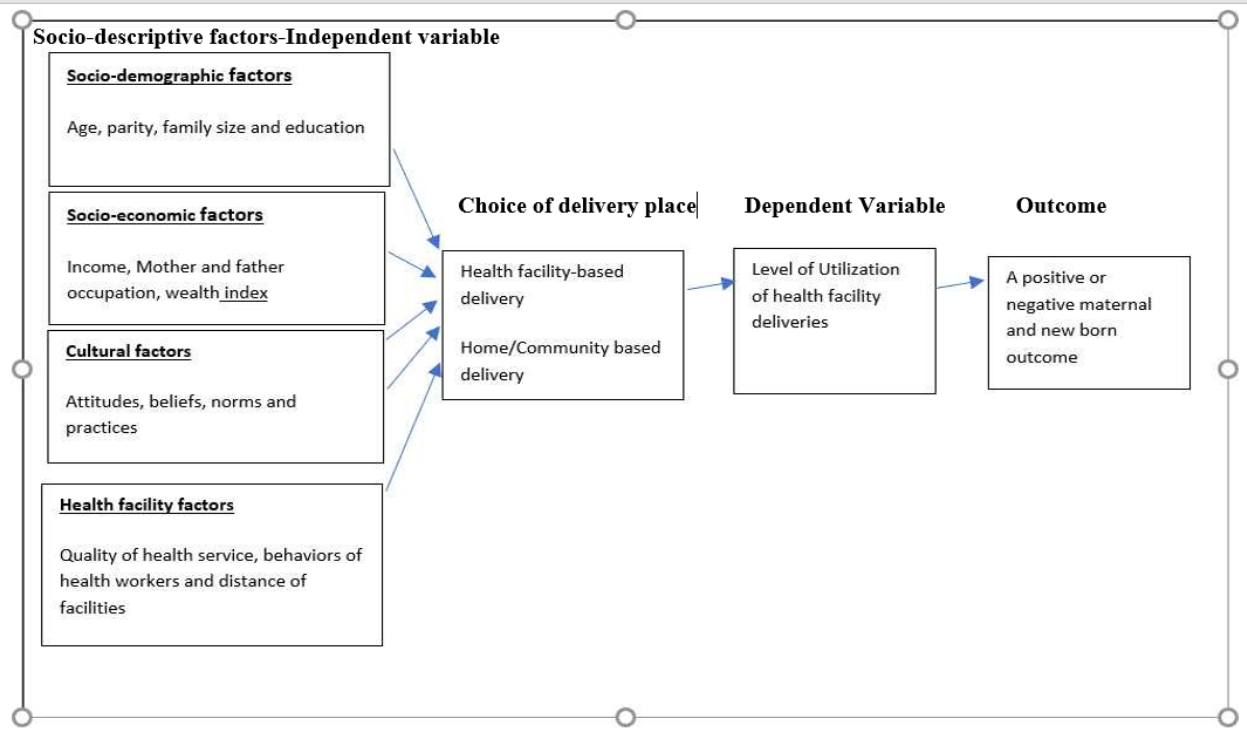
The study was carried out in Kacheri sub-county in Kotido district in Karamoja Sub region. The district is boarded Kaabong district in the North, Moroto district in the East, Napak in the south and Abim in the west. The district has six sub counties, 24 parishes and 199 villages. Kacheri Sub-County is made up of 4 parishes and 26 villages. The parishes are Kacheri, Kacheri Ha, Lokiding and Losakuca. The Sub County is estimated to have a population of 34,200people in 2020. The sub county is seated on an area of 1,074 **km²** with a population density of **31.84/km²** [2020].

Kotido district is among the high contributors to the high maternal mortality figures in the region and this can be explained by the low intake on modern contraceptives who prevalence stands at only 6% due to the cultural and religious beliefs surround reproductive health services including family planning. Other factors contributing to the high maternal death figures is the inadequate health workers in health facilities, longer distances to health facilities, limited equipment in health facilities etc. Kacheri sub-county in Kotido district is selected for this study because it's among the areas in which high numbers of women are leaving in poverty and many tend to deliver from home without support from skilled birth attendants.

1.7 Justification of the study

Karamoja region especially Kotido District, has stalled in reducing the high teenage pregnancy and number of women dying as a result of pregnancy complications and child birth. There is need to identify the definite factors influencing women's decisions and healthcare seeking behaviors during deliver. The findings and recommendations from the study will help Government, Development Partners and CSOs with maternal health initiatives to come up with comprehensive approaches of strengthening maternal health care in Kotido District and the Karamoja region at large. There is limited literature on this topic specifically in Kotido District and Karamoja region at large. This information would be helpful to future researchers and public health experts.

1.8 CONCEPTUAL FRAMEWORK OF FACTORS ASSOCIATED WITH UTILIZATION OF HEALTH FACILITY BASED DELIVERY SERVICES AMONG MOTHERS IN KACHERI SUB-COUNTY, KOTIDO DISTRICT



The framework above visualizes the different factors that influence mothers' decisions on place of birth. The framework shows the demographic, social economic and cultural factors as well as the health facility-based factors that might influence mothers to either deliver either a facility or at home. The framework also shows the possible outcome depending on the choice of a place where a mother decides to deliver from.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter includes a synthesis of other studies carried out on the factors associated with institutional deliveries in various in different regions and countries results that were found. The literature review looked at the global maternal mortality rates and the general factors associated with it. It also looked at studies around utilization of health facility and the influencing factors which included the social economic factors, communal and health facility-based factors.

2.1 Global Maternal Mortality rate

Maternal mortality (MM) is an issue of greater worry to the global public health and it is among the greatest barriers to the realization of global maternal health agendas. Several strategies have been designed worldwide to put an end to all preventable maternal deaths and achieve SDG 3.1 that aims at the reduction of the global maternal mortality rate to less than 70/100,000live births, although majority of these have been implemented (Gates foundation, 2022).

Approximately 295,000 women lost their lives because of pregnancy complications and child birth in 2017 and several of these deaths (94%) were in low- and middle-income countries and many of these were avoidable. The Sub-Saharan Africa and Southern Asia had about 86% of all the estimated global MM numbers in 2017 and the Sub-Saharan

African region holding about two thirds (196, 000) of the maternal deaths and Southern Asia had one–fifth of these maternal deaths (WHO,2007).

The maternal mortality rates in Uganda reduced from 418/100,000 live births in 2006 to 336/100,000 in 2016. Although the reduction was significant, over 6000 women and adolescent girls still die each year due to pregnancy related causes which can be avoided.

2.2 Maternal mortality causes

Excessive bleeding, infections, hypertension due to pregnancy, obstructed labor, Anemia, Abortion are the known most common causes of maternal deaths. Other causes include ectopic pregnancies and causes that are not directly related to pregnancy (United Nations & UNICEF 2007).

Malaria, delays at different levels including individual, communal and health facility delays are also associated with the high numbers of women losing their lives; With timely and effective access to maternal mortality services from professional personnel, several of these pregnancy complications can be managed and deaths prevented. Women need to seek healthcare from qualified personnel during antenatal care, delivery, and post-partum periods (TDHS, 2010)

2.3 Associated factors of Utilization of Health facility delivery services

The connection between prompt access and provision of quality delivery health services at health facilities during deliveries with safe delivery are being researched and documented for some time. A big number of deliveries in low- and middle-income countries

happen without skilled health workers and this due to several socio-cultural factors' financial constraints and health facility accessibility (Gabrysch ,2009). Gabrysch and Campbell reported that cultural and social factors have a bigger connection on the decision of women seeking care. The decisions by women to seek healthcare at health facilities during delivery is greatly influenced by their knowledge on the benefits of delivering with skilled attendance for herself and her newborn.

There is also an issue of cost which looks at the ability of the women and their families to afford the cost of transportation associated with the delivery at the facility. Physical accessibility is also a great contributor in the decision making to seek healthcare at health facilities by the mothers during delivery. Challenges associated with access to health facility based hinder the realization of SDG on maternal mortality reduction and pother global goals. Health facilities also play a significant role in improving the state of maternal health thus it should be emphasized as its one of the critical steps in realizing the maternal health global agendas.

Social demographic factors related to delivery in health facilities

The level of education for the mothers is an important predictor of a woman's choice for place of delivery. There are higher chances that mothers with little or no formal education will not seek healthcare during delivery, and those with higher education levels will deliver at hospitals (Belam et al, 2006).

In Cambodia, a study indicated there are more chances that women who attends more than seven years of school will choose to give birth at a health facility which is quite the opposite with those who didn't attend school (Yanagasawa et al, 2006). A number of studies indicate that education levels of a woman strongly impact on their decisions

to deliver at health facilities compared to the uneducated ones, it is on that note that encouraging women to stay in school and finish at least secondary education can be a strategy to increase health facility-based deliveries.

Another study showed that mothers giving birth to their first children in the Sub-Saharan Africa and them being older are more likely to deliver at health facility (Dunlop, 2014).

Economic factors related to health facility delivery

The economic status for a mother and her family is a key factor in the choice of place to deliver thus the mother and her husband's occupation is very critical. Women who have better income sources have the possibility to cater for the needed resources for health facility-based delivery.

Addai ,2000 reports that women engaged in agriculture and other informal sources of income may find it difficult to give birth at health facilities as a result of lack of enough financial resources to meet the needs of delivering at health facilities which may include the transport costs. Wives whose partners are economically well off have higher chances of giving birth at health facilities. The transport costs especially for women in rural areas can also be a challenge to access health facilities for delivery (Magoma, 2010).

In a study by Bolam et al 1998 in Nepal, 18% of women who had their deliveries from home had planned to give birth at health centres but failed to get transportation means and ended up having their child birth at home.

Health services factors

Inadequate knowledgeable and health workers who are able to effectively provide maternal health services can also be an issue for the failure of women to access health

facility delivery services. A number of studies have documented that health workers choose to refer mothers in some cases because they do not possess the necessary skills to help mothers deliver safely and mothers who fall victim of these scenarios will shun ever delivering in those specific health facilities (Shankwaya, 2008).

The low privacy levels in health facilities in low- and middle-income countries are is also a big push factor for women who would give birth at health facilities. Mothers prefer places that will assure them with respect, dignity and outmost privacy while giving birth and many find these with TBAs (Mrisho,2018).

The behaviors of health professionals and their attitudes are important influencers on whether a mother will choose to deliver at health facilities. Women who have experienced abuse and other forms of disrespect from health professionals may refuse to go back due to the bias among women about health workers in health facilities and many have turned to home based delivery which risks their lives (Mrisho et al 2008).

Cultural related factors

Cultural Perceptions affect the choice of women delivering at health facilities thus healthcare providers should ensure that their services are culturally sensitive and these should be provided in a friendly manner. A study by Sabit Ababor in 2021, revealed that there were several cultural beliefs and practices that influenced the choice of a mother to give birth at health facilities which included women having more trust in TBAs, the cultural practices carried out at childbirth which may contradict the healthcare guideline's and policies, the taboos on male involvement and myths about healthcare interventions.

The fact that women know that TBAs and relatives are can easily be accessed and are able to provide the much-needed care in the respectful manner pushes them away from health facilities since they are not sure they will get the same services in that setting. (Magoma, 2010)

Mrisho, 2018 in Tanzania indicated that women tend to keep labor a secret because some pregnancy complications like Eclampsia have different connotations surrounding them, In different settings, Eclampsia may mean that a woman committed adultery during pregnancy and to correct that she is made to name all the men she committed the adultery with (Mrisho, 2007).

The beliefs and norms within communities should be given much attention because they are important factors in in the decision-making process of a mother on place of delivery. Some cultures believe that there is no need for health facility-based delivery for a normal delivery and only prioritize complicated pregnancies that may require C-sections that were identified at antenatal care.

A study conducted in northern Tanzania, the findings indicate that the TBAs are responsible for determining the place of birth for a mother and it's their responsibility to make the necessary arrangements and also plan the diet of a mother when done giving birth (Mogoma,2010)

Antenatal attendance (ANC)

Antenatal care is a critical factor in the choice of where to deliver from by the mother. In scenarios where ANC is not effectively and efficiently provided, mothers will shun to delivery in health facility, but in situations where mothers are provided with quality

information about why it is critical for them to give birth at health facilities and the risk of giving birth without health workers, many will deliver in health facilities where there is skilled care.

Mothers are provided with information on the expected date of delivery but in most cases, this is not fully explained to them by the health workers and they do interpret it as the actual day of delivery. This brings a difficult situation for the mother when the labor starts way before the day they expected to deliver and many ends up failing to seek health facility-based delivery services even when they had planned to do so (Pembe, 2010 & Magoma 2010).

2.4. Summary of literature review

The literature review presents important information that can be used to improve the maternal health situation in Uganda and other countries in sub-Saharan Africa. The researcher reviewed studies related to the utilization of institutional delivery facilities and the factors influencing the use of health facility delivery services including the social, economic, cultural and facility-based factors. The main themes included; the global maternal mortality rate, maternal mortality causes, the associated factors of utilization of health facility delivery services, the economic factors, the health services factors, cultural factors and antenatal attendance.

Evidence indicates that most mothers globally especially in sub-Saharan Africa still die of preventable pregnancy and child birth complications although the SDG 3.2 aims at the reduction of the global maternal mortality rates (Gates foundation, 2022). In Uganda, the maternal mortality rates are said to have reduced from 2006 to 2016,

though there are still many young women dying during child birth due to factors ranging from financial, socio-cultural, individual, accessibility and health facility factors.

Another study by Rutaremwa et al reported that factors associated with a composite outcome depends on the health care package including antenatal care, skilled birth attendance amongst other factors. The evidence provided by previous studies on the determinants of health facility utilization in Uganda have a national face or focused on urban districts. Limited studies have conducted on rural districts of Karamoja region, specifically Kotido district. Understanding the factors that influence utilization of health facility delivery services in Kotido district is relevant for development and prioritization of evidence-based and context friendly interventions to improve utilization of health facility delivery services in Kotido district.

CHAPTER THREE

METHODS

3.0 INTRODUCTION

This section explains methods that were used to conduct this research. The study design, the study area and population, the sampling size and procedures, the data collection, management and analysis procedures, the inclusion and exclusion criteria and the ethics to considered while carrying out this research study

3.1 The Study Design

Facility-based Analytical Cross-sectional Study was used. This design was considered more appropriate because the study aims at determining the level of utilization of health facility-based delivery services and factors associated with mother seeking maternal healthcare services during delivery in Kacheri Sub County, Kotido District.

3.2 The study area

The research study was conducted in two health facilities that serve the communities is Kacheri sub-county in Kotido district. The Sub County consists of three parishes and 23 villages; these mainly access services from four facilities which include; Apa Lopama HCII, Lokiding HCII, Losakucha HHCII, and Kacheri HCIII. Data was collected from Kacheri and Lokiding health facilities.

3.3 The study population

The research study looked at women within the reproductive age group (15 to 49) who have given birth in the past one year in the health facility, and living in kacheri sub-county, Kotido district as its study population. The estimated total population of Kacheri Sub County is 34,200 of which 24percent of thus population include women and girls in the child bearing age.

3.4 Sampling process

3.4.1 The sample size

The number of women utilizing health facility-based delivery services were unknown thus the Cochran Formula (Cochran 1977) was used to determine the sample size. The formula is expressed as follows $N=Z^2pq/e^{2,}$ where

N- sample size

Z= Critical value of desired confidence selected

P=proportion of an attributed estimated that us present in the population q=1-p

E= level of precision desired

Assumed that the maximum variability, which is equal to 50% (p-0.5), 95% confidence level with precision of +5%

P= 0.5 and hence q=1-0.5=0.5; e= 0.05; Z=1.96

Hence, $N= (1.96)^2(0.5)\ (0.5)/\ (0.05)^2$ 384.16

Hence the sample size is 384

The sample size was distributed proportionately according to the level of health facility where 174 respondents were selected from Kacheri HCIV and 70 respondents were selected from Lokiding HCIII.

3.4.2 Sampling technique

The study was facility based and at each facility, the study recruited mothers who;

I. Have Children of 1 year and below
II. Are returning for postnatal care
III. Are returning for family planning services
IV. Are seeking any reproductive services as long as they have given birth in the past year from the period of the research study

A systematic random sampling technique was used to select participants. A sampling interval at each facility was calculated by dividing the total population of women served by each facility by the assigned sample size. The selected mothers were interviewed until sample size was completed.

3.6 Inclusion and Exclusion Criteria

All women in their reproductive age (15-49) who had a baby within the last 12months accessing services in the study facilities. These were permanent residents Kacheri Sub County without considering the place of birth and the outcomes

The research study excluded mothers with mental problems or those that were seriously ill and couldn't provide the needed information. The study also excluded mothers below 15 years and above 49 at the time of data collection but also mothers who didn't consent to participate in the study

3.7. Data collection tools and procedures

A structured questionnaire was used during data collection through face to face interviews with selected participants. Data collectors and supervisors were trained for a day data collection tools and methods. All data collectors were required to speak both English and at least two of the local languages used with the Kacheri Sub County. The data collection tool was pretested among 5% of the total sample in 2 health facilities in another sub county near Kacheri Sub County.

Consent was sought from every mother who qualified for the study; their rights to participation was explained to them and given a chance to make an informed consent. A one on one interview was carried out with those who give consent and the interviews were done in a private place. Data collection took place every day for a period of two weeks and it was counterchecked for accuracy and completion on each data collection day.

3.8 Processing and analyzing data

Completed questionnaires were reviewed for accuracy and whether they were fully completed, data on questionnaires that passed the quality checks was entered in Statistical Package for Social Sciences (SPSS) Version 7.

Data entry was followed by cleaning and running frequencies and sorting out responses that were out of rage. To determine the significant relationships between the dependent and independent variables, Cross tabulation was used

Once found that the P value of the independent variable and the dependent variable is less than 0.05, the relationship is deemed significant. To ascertain relationships between independent variables and the result, the chi-squared test was employed.

In order to identify predictors that are independent for the use of health services for childbirth, logistic regression was employed. The odds ratio (OR) and their confidence level of 95% were presented.

3.9 Quality assurance

To ensure that the instrument a valid and reliable, developed questionnaire was pre-tested on other Sub-Counties within Kotido District. This is to ensure that the tools are precise and concise and easy for the respondent to respond appropriately. Training for the data collectors was done before the data collection process to familiarize them with the study topic and the tools. During the study, the researcher held debriefing meetings at the end of every day's work with the research assistants to compare the findings, share experiences and lessons learnt for the next day's work.

3.10 Variables

3.10.1. Dependent variables

Utilization of health facility-based delivery services is the dependent variable and measured as the proportion of women who report that they accessed maternal

healthcare services during delivery at a health facility in the last 12 months before the study compared to the proportion of those that didn't access maternal healthcare services at health facilities during delivery in the same period.

3.10.2 Independent Variables

Independent Variables are those factors that have an influence on the utilization of health facility based maternal health services by the mother and these are looked at on different levels

Socio demographic characteristics; these include maternal and paternal education level, parity, age, marital status, size of the family, occupation etc.

Economic factors; employment of both mother and his spouse, family income, wealth index

Health facility factors; behavior and attitudes of health professionals, inadequate drugs and medical supplies, long distances to access health facilities etc. **Cultural factors;** cultural belief and practices, perceptions about access to health facilities delivery services.

3.11. Ethical Consideration

3.11.1 Ethical Conduct Principals

There are five principles for conducting ethical research according to Tolich and Davidson ,1998); these include; Voluntary participation, do no harm, informed consent, avoid deceit and confidentiality of participants

Voluntary Participation; Participants will have the opportunity to voluntarily agree to participate in the study or decline. Participants will still have a right to withdraw from the study or decline from responding to some questions.

Informed Consent; all participants consented to participate in the study, consent was secured before the start of the interviews and participants signed a consent form after fully understanding what it entails

Respect for anonymity and confidentiality; anonymity and privacy for all participants were ensured all through the study period, all participants had individual interviews and no participants were able to know the other. All documents containing names like the consent forms and transcriptions are kept safely and no third party can access them

Beneficence and non-maleficence (To do no harm); the researcher considered both beneficence and non-maleficence of the study all through the study. The researcher considered all possible benefits and consequences of the study.

Respect for privacy; an invasion of privacy happens when private information such as beliefs, attitudes, opinions and records, is shared with others, without the participants' knowledge or consent. A researcher cannot decide on behalf of other persons on those delicate issues. All aims, instruments and methodology must be discussed with the prospective subject and the research workers prior to the investigation. The researcher will ensure that no third party unless authorised will have access to personal details of the participants.

3.11.2; Ethical Approval

Ethical approval was sought from and granted by the Research Ethical Committee of Uganda Christian University, Kotido District Health Office and the management of different health facilities.

3.11.3 Limitations of the study

This study excluded mothers in the community who would be a viable source of information on the barriers and challenges for health facility delivery. Therefore the data in this study is a subject to bias of having eliminated that category of mothers.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

Introduction

This chapter focuses on factors associated with utilization of health facility-based delivery services among mothers in Kacheri Sub County, Kotido District. The chapter begins by reflecting the demographic characteristics of the respondents and then analyze, interpret and presenting the findings in respect to study objectives of the study.

Table 4.0: Demographic Characteristics of Respondents.

Variables	Frequency	Percentages	Cumulative Percentage
Sex			
Female	**390**	**100.00**	**100.00**
Marital Status			
Married	311	79.74	79.74
Divorced /Separated	32	8.21	87.95
Widowed	44	11.28	99.23
Single never married	3	0.77	100.00
Total	**390**	**100.00**	
Age			
18-21	86	22.05	22.05
22-25	136	34.87	56.92
26-29	129	33.08	90.00
30+	4 3	10.00	100.00
Total	**390**	**100.00**	
Education Level			
None	285	73.08	73.08
Some Primary level	49	12.56	85.64
Completed primary	4	3.59	89.23
Educ Some secondary Educ	21	5.38	94.62
	10	2.56	97.18

Completed secondary Educ Vocational & technical trng	7	1.79	98.97
Tertiary/University	4	1.03	100.00
Total	**390**	**100.00**	
Religion			
Catholic	321	82.31	82.31
Anglican	52	13.33	95.64
Pentecost	16	4.10	99.74
Muslims	1	0.26	100.00
Total	**390**	**100.00**	
Wife Occupation			
House wife	243	62.31	62.31
Peasant	61	15.64	77.95
Pastoralist |	13	3.33	81.28
Self-employed	44	11.28	92.56
Salary earner (government)	6	1.54	94.10
I don't work |	23	5.90	100
Total	**390**	**100.00**	
Husband Occupation			
Peasant	163	41.80	41.80
Pastoralist	83	21,28	63,08
Self-employed	53	13.59	76.67
Salary earner (government)	19	4.87	81.54
I don't work |	59	15.13	96.67
Others	13	3.33	100.00
Total	**390**	**100.00**	

Source: Primary data

Under descriptive statistics the study had only female respondents that included, women (mothers) from Kacheri Sub County, Kotido District, that were interviewed giving 390 as the total of respondents. In analyzing the demographic characteristics of the

respondents, the following variables were considered; age, sex, education level, marital status, religion and occupation of mothers and together with their husbands.

Majority of the respondents are married, 311(79.7%) followed by widow with 44(11.3%) then 32(8.2%) divorced or separated while the single (never married) were 3(0.8%) as shown in the table above. It was also found out that most of the respondents had their age between 22 to 25 giving 136(34.9%), rank second was the age group between 26-29 with 129(33%) as compared to those aged between 18-21 and above 30 years with 86(22%) and finally 43(10%) respectively.

It was also discovered that most of the respondents 285 (73%) didn't attain any level of education followed by 49(12.6%) had attained some level in the primary, while 21(5.4%) had reached at certain level in secondary school compared to 10(2.6%) that completed secondary level and only 7(1.8%) of the respondents that completed the of Vocational & technical training.

The results showed that under religious section the majority of the 321(82.3%) were catholic then 52(13%) Anglican, while 16(4%) belong the Pentecost mothers and only one respondent was a Muslim in the study. Furthermore, the researcher wanted to know the main occupation of the mother and it was discovered that the entire occupation for these mothers was 243(62.3%) as house wife, followed by those that are peasants with 64(15.6%), then 44(11.3%) are self-employed, while 6(1.5%) ,23(5.9%) were salary earners and unemployed respectively. For the case of the husband occupation it was further noted that the majority of the respondents were peasants 163(41.8%), then 83(21.3%) are pastoralists while 59(15%) are not employed but 19(4.9%) are employed by the government or are salary earners, finally the concluded that 13(3%) of husbands engaged

in different kind of work which was not mentioned in the study under the table4.0 above.

4.2 Utilization of maternal and child health care services

Underutilization of MCH services we considered antenatal clinic attendance where at least pregnant women have to visit for care before delivery.

Table 4.2: Antenatal clinic attendance (n=390)

Number of visits	Number	Percentages
Less than 4	111	34.26
4 times	133	41.05
More than 4 times	80	24.69
Total	**390**	**100**

Source: Stata output

Out 390 respondents, 133 (41%) that most women attended antenatal clinic (ANC) 4 times during the period of pregnancies, followed by133(34.3%) those who attended less than 4 times finally 80(24.7%) attended more than 4 times. For the women who attended antenatal clinic less than four visits these respondents said the reasons for non-attendance were that they didn't see any importance of attending antenatal clinic beyond those visits as indicated in the table above.

4.2.1 Place of child delivery of the respondents

The researcher was interested to know which place the women gave birth to and below are their responses in the table. This variable was also used to determine the level of health facility delivery.

Table 4.2.1: Place of child delivery of the respondents

Place of child deliver	Number	Percentages
At Home	112	28.72
TBA's Home	25	6.41
Health facility	244	62.56
Others (On the way)	09	2.31
Total	**390**	**100**

Source: Stata output

From the table 4.2.1 above indicates that most women 244 (62.6%) delivered in health facilities to be able to deliver under the assistance of skilled health worker then 112 (28.9%) deliveries occurred at home without any assistance of skilled health personnel as compared to 25(6.4%) were deliveries conducted by traditional birth attendants and others (on the way) 09(2.3%) delivery occurs on the way to health facility respectively.

4.2.2 Reasons that made respondents not delivering in health facility

Effort was done to investigate reasons why the respondents failed to delivery in the healthy facilities as shown in the table 4.2.2

Table 4 .2.2 Reasons for not delivering in health facilities (n=146)

Reasons	Frequency	Percentages
Lack of transport to HF	60	41.09
Long distance to health facility	40	27.39
Sudden onset of Labour	15	10.27
Bad behavior of health workers	20	13.69
Poor belief to modern medicine	10	6.84
Others	1	0.68
Total	**146**	**100**

Source: Stata output

Out of 390, about 146 (37.44%) of the women delivered without assistance of skilled personal attending to them and reasons they gave included the 60 (41%) of the respondents delivered outside the Health facilities because they could not afford the transportation cost to health facilities followed by 40(27.39%) due to long distance from home to health facilities. The other responses were the bad behavior of health workers with 20(13.69%) then 15(10.27%) for the Sudden onset of Labor as compared 10(6.84%) to the Poor belief to modern medicine finally 1(0.68%) presence of traditional birth attendants.

4.3 Social –Economic factors and Health Facilities

This was classified as household head, income earner, and wealth Index analysis was employed for the women average income for the households and this was ranked from 1-6 and 1(<100,000) being the smallest while 6(510,000+) as the largest. The establishment of the association between place of delivery and socio-economic characteristics of the household as shown in the table below.

Table 4.3: Social- Economic characteristic and delivery in Health facilities n = (390)

Variables	**HF delivers**	**Home delivery**	χ^2 **(P-Value)**
Household			
Your self	40(11.6)	25(55.5)	
Your husband	300(86.9)	20(44.5)	11.10(0.002)
Others	0.(0.0)	05(1.4)	
Total	**340**	**50**	
Main income			
Your self	90(27)	26(43.3)	3.720(0.031)
Your husband	240(73)	20(33.3)	
Others	0(0,0)	14(23)	
Total	**330**	**60**	
Average income			

<100,000	27(17.08)	200(86.2)	
100,000-200,000	70(44.30)	32(13.79)	
210,000-300,000	27(17.08)	0(0.)	20.458(0.000)
310,000-400,000	13(8.22)	0(0	
410,000-500,000	15(9.5)	0(0.0)	
510,000+	6(3.8)	0	30.40(0.000)
Total	**158**	**232**	

Source: Stata output

Despite the fact that delivery in health facilities depends on socio -economic characteristics, it was revealed that most households were headed by male which was statistically significant with (P=0.02<0.05) meaning that household headed by male have high chance of wives delivering in health facilities.

Under main income of the household head was significant with P<0.05(0.031) meaning that if the main income of the household comes from women, they more like to delivery from health centers as compared to main income from their male counterpart.

The results also show that households which had an Average income between 310,000-510,000+ with P=0.000<0.05 are more likely to delivery their kids in health facilities as compared to the households that earn <300,000 Uganda shillings.

4.4 ANC Attendance and Health facility delivery

Table 4.4 below illustrates women who attended ANC and delivered in health facilities

ANC attendants	HF delivers (%)	Home delivery (%)	χ^2 (P-Value)
Yes	324(83.07)	60(16.93)	
No	0(0.0)	6(100)	5.716(0.039)
Total	**324**	**66**	
Less than 4 times	111(45.49)	112(80.0)	
4 Times	73(29.91)	24(17.14)	
4 and above	34(13.93)	4(2.16)	20.041(0.000)
Total	**244**	**140**	

Source: Stata output

From the study results out of 384 respondents attended antenatal clinic, 324(83.07%) delivered in health facilities and 6 (100%) of the respondents who had never attended antenatal clinic at least once they all delivered without assistance of skilled personnel. The relationship between antenatal clinic visits and delivery in health facilities is statistically significant with P=0.000<0.05 as women who attend antenatal clinic are more likely to deliver in health facilities compared to those who do not attend at all.

4.4.1 Distance travelled from home and delivery in health facilities

Table 4.4.1: Distance from home and delivery in health facilities (n=390)

Distance	HF delivery	Home delivers	χ^2 (P-Value)
Less than5 Km	100(51.02)	104(53.61)	
6 Km+	96(48.98)	90(46.39)	10.12 (0.004)
Total	**196**	**194**	**390**

Source: Stata output

The study revealed the time taken to reach health facility of less than 5kilometers is 100(51) that means they live less than five kilometers from health facility and about

the women (49%) spent more time to reach health facility that means they lived more than five kilometers from health facility. There is strong association between delivery in health facilities with the distance as women who lived more than 5 kilometers from health facilities tend to deliver in other venues 90(46.39%) compared to those who lived within 5 kilometers from health facility and this true with p=0.004<0.05 as indicated in the table 4.4.1

4.5 Health facility factors

Table 4.5: Health Facility factors and institutional deliveries

Covariate	OR	95%C1	P-value
Distance to HF			
Less than 5 Km	Reference		
Over 6 Km	0.662	0.307-0.787	0.040
ANC visit			
Less than 4 times	Reference		
More than 4 times	3.515	1.771-2.921	0.001

Source: Stata output

From the research results, the associations that found to be statistically significant in the bivariate analysis at a (P <0.05) were also included in the multivariate analysis to determine which factors best explained or predicted delivery in health facility. The health system variables that were statistically significant P>0.05) included, frequency of antenatal clinic visit, distance from home to health facility.

Table 4.5.1, shows that after controlling for other factors under multivariate analysis variables include religion, head of household and husband occupation were found to be insignificant and were excluded in the subsequent steps of analysis as in table below. Furthermore, it shows that completing secondary education is significant with a p-value

of (0.002<0.005) which means that a mother who has completed secondary education is five times more likely to deliver in a health facility compared to the other counter-parts.

Another significant factor was the distance from the health facility, mothers who reside in areas with a distance of over 6 kilometers from the health facility are more unlikely to deliver in a health facility with a p-value of (0.000<0.005). The longer distances from the health facilities discourage mothers to access care. Antenatal care attendance was also a significant factor in determining health facility delivery at a p-value of (P=0.000<0.005), mothers who attended ANC more than four times and above were close four times more likely to deliver in a health facility compared to their counter-parts who attended less than four times.

Table 4.5.1 Multivariate analysis of the predictors of delivery in health facility

Covariate	AOR	95%C1	P-value
Education			
No formal education	Refer-		
Some primary education	6.848	1.175-37.208	0.031
Completed primary Edn	5.374	0.551-50.771	0.191
Some secondary education	6.149	1.005-36.292	0.032
Completed Secondary level	5.391	1.281-43.290	0.002
Vocational and tech.train-	4.231	0.778-44.130	0.020
Tertiary Education	4.003	0.772-52.901	0.000
Religion			
Muslim	Refer-		
Catholic	2.121	0.152-22.108	0.660
Others	0.334	0.056-1.782	0.115
Marital status			
Married	Refer-		
Others	0.111	0.017-2.117	0.002
Head of household			
Yourself	Refer-		
Husband	0.607	0.012-4.214	0.791
Others	0.203	0.160-2.326	0.288

Husband occupation			
Peasant	Refer-		
Pastoralist	7.630	0.807-88.041	0.081
Self employed	7.007	0.421-80.777	0.174
Employed by government	10.119	0.500-170.910	0.880
Distance to HF			
Less than 5km	Refer-		
Over 6 Km	0.288	0.1621-0.488	0.001
ANC visit			
Less than 4	Reference		
4 and above	3.761	1.331-5.006	0.000
Socio economic status			
<100,000	Reference		
100,000-200,000	0.485	0.206-I.222	0.110
210,000-300,000	2.276	1.052-4.731	0.032
310,000-400,000	0.373	0.851-0.170	0.013
410,000-500,000	0.955	0.532-2.184	0.908
510,000+	2.982	1.973-4.817	0.875

4.6 Social cultural factors and delivery in health facility

Table 4.6.1: Social cultural factors and delivery in health facilities

Variables	**HF delivers**	**Home delivery (%)**	χ^2 **(P-Value)**
Is there any traditional practice done			
No	0	381(97.69)	
Yes	0	9(2.31)	17.10(0.009)
Total	**0**	**390**	

Source: Stata output

Under the Social cultural factors and delivery in health facilities all variables in table 4.6.1 were significant in the study with P<0.05, beside delivery in health facilities, some women attend and delivered by the use of traditional (TBAs) methods with only

9(2.31%) meaning that most respondents do not engage in giving birth through the help of TBA's.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0: Introduction

The chapter presents the summary, conclusion and recommendations derived and drawn from the study findings after presenting, analyzing and discussing them

5.1: Summary of Findings

The study aimed at ascertaining levels at which mothers accessed and utilized maternal healthcare services during delivery and the associated factors in Kacheri Sub-County. The study had two objectives including to determine the levels at which women utilize health facility-based delivery services in Kacheri Sub county and to identify the associated factors that are linked to the utilization of health facility-based delivery services among women in Kacheri Sub-county.

5.3. Level of Utilization of health facility-based delivery services

The study findings indicate that most women 244(62.6%) in Kacheri subcounty delivered in health facilities under the assistance of a skilled health worker as compared 112(28.7%) deliveries at home and 25(6.4%) deliveries conducted by traditional birth attendants. This study identified ANC visit as an important predictor. According to the findings, most mothers who attended antenatal clinics gave birth in the health facility while those who never attended antenatal gave birth at home without the help a skilled health worker.

This finding relates with a study conducted by Magoma et at (2010) in the rural Tanzania and Mwebasa et al 2021, in Uganda that revealed that prenatal care and early and full attendance of ANC visits improves facility-based deliveries and post-natal care utilization respectively.

5.4. Determinants of health facility delivery

5.4.1 Comparison of women who attended ANC and delivered in health facilities

Health professionals can advise women on where to deliver or educate them about their pregnancy status through antenatal care (ANC) services, enabling them to make an informed delivery decision. A risk assessment conducted during ANC may specifically recommend that a medical facility be the place of delivery, as in the case of twin pregnancies. According to the study's findings, majority of the mothers who attended prenatal clinics gave birth in medical facilities, and those who had never attended prenatal clinics at least once gave birth without the aid of trained professionals. Other researchers in other studies have claimed that home deliveries were 66 (19.9%) which is particularly a low figure. The lack of transportation and long distances to health facilities the negative attitudes of the medical staff, and the availability of TBAs that are well-respected in their communities for their friendliness are some of the reasons why the mother was able to give birth in a medical facility. In contrast, research conducted in the rural north of Tanzania revealed that over 90% of the mothers received prenatal care even though just a few of them gave birth at a hospital (Magoma et al 2010). Another contrasting finding was from a study in Uganda that

showed that early and full attendance of ANC visits improves facility-based deliveries, postnatal care utilization and consequently improve maternal and child health. This is because during pregnancy, ANC attendance plays vital role in towards positive pregnancy outcomes because it is through these visits that screening and treatments of pregnancy complications such as preeclampsia, anemia, sexually transmitted infections, and non-communicable disease such as diabetes is done. Other services provided during this time include weight and height measure, tetanus immunization, provision of supplements such as folic acid, provision of information on behavioral modification and prevention and treatment of intermittent malaria (Mwebesa et.al 2021).

Among other factors influencing the choice of place to give birth from for expectant women is the distance they must travel to access healthcare, especially in village areas where hospitals are far away from the communities. In this study, a slight majority of the participants lived within 5km from the health facilities, and they were able to deliver from a nearby health facility as compared to the rest who delivered from home. Numerous studies conducted in developing nations have also found a strong correlation between the distance and delivery in a health facility. In comparison to those who lived within 5km, participants that lived more than 5km away from the health facility had a 0.2 times lower likelihood of using one during childbirth (OR=0.237, 95%CI=0.307-0.787 P value< 0.040).

The researcher found that some few mothers who gave birth at home due to the long distance and the lack of transport had planned to deliver at health facilities but decided to deliver from home due to these challenges. This result is similar to what was discovered in another study by (Mrisho 2007) who found out that 84% of the participants had

plans of delivering at hospitals but ended up delivering from home due to transportation issues. Another similar finding is shown in study from Ethiopia where freely available transport service for the pregnant mothers was reported to cause substantially reduced pregnancy-related mortality in Ethiopia. If a mother perceived that the distance to a health facility is considered to be a barrier, they were less likely to utilize services, however the distances were subjectively assessed from the mothers estimates of how far or near they reside from the nearby facility (Fisseha et.al 2017).

The implication of this result is the relevance of the proximity of health facilities in facilitating access to health care like delivery. The mothers who live nearer to health facilities face less barriers compared to their counterparts who live far away.

The study results indicate that majority of the mothers who attended ANC many times gave birth in health facilities as compared those who went less times. Antenatal care attendance had a positive correlation with hospital - based delivery. Mothers that went for prenatal clinics have higher chances of delivering at health facilities than those who never go for them.

It also revealed that although women may go at the health facilities, they may fail to deliver if there is no medical supplies and equipment and health workers. On top of the scarcity, skilled labor force is not effectively distributed with greater concentration in cities and a lower concentration in rural areas. The survey found that a small number of the women who had intended to give birth in a hospital instead gave birth at home due to the inadequate and unwelcoming care they experienced there.

5.4 Economic status and choice of place to deliver from

The economic strength in the household, which is influenced by women who are typically wealthier and thus have an easier time supporting their husbands' and their own occupations, is one of the main determinants of the place of birth. Wives of higher-ranking employees may have easier access to birthing centers. High status employment and the cost of providing skilled care are correlated (Gabrysch & Campbell 2009).

To find the factors that effectively determined the choice of a mother to deliver at health facilities, the research results indicated which associations to include in a Multivariant analysis. These connections were statistically significant in the bivariate analysis at a ($P<0.05$). Another variable of statistical significance included the degree of education attained by the woman, her marital status, her religion, her husband's employment (barring the category of those employed by the government, the number of times she visited the prenatal clinic, the distance between her home and the health facility, and socioeconomic factors. Furthermore, several studies have shown that skilled attendance during delivery was positively correlated with women's socioeconomic status.

According to this study, women with a fair socioeconomic status (310,000–400,000) had higher chances of delivering in health facilities (AOR=2.276, 95%CI=1.052-4.731, $P=0.000<0.0005$) than women in other socioeconomic status clusters.

5.6 Cultural factors associated to health facility delivery

The mother's decision to seek healthcare is at times influenced by the cultural and social factors than the circumstances pushing them to health facilities. Several studies have shown that certain traditional beliefs affect the choice of where to give birth. For instance, women believe that home births are the only setting suitable for a typical delivery and that hospital births are only appropriate for challenging deliveries, according to a study done in northern Tanzania (Magoma 2010). 82 (22.3%) of the participants in the study noted that they can give birth at home and this explains the increase in number of women giving birth at home. This finding is supported by other studies like Magoma, which discovered that customary birth attendants in the Masai tribe select the site of births.

According to Magoma, 2010, traditional birth attendants in the Masai tribe select the site of deliveries and arrange for the postpartum nutrition that new mothers require. In contrast to Mrisho's earlier research conducted in Zambia, where birth was kept a secret because any complications meant that the mother was promiscuous, and the solution was to disclose that those she slept with. (Mrisho, 2007).

In Zambia, the communities have a specific way they want the placenta buried so that a woman continues giving birth and this is contrary to how the health facility dispose it off through burning in the incinerator (Shankwaya, 2008) No traditional beliefs hindering health facility-based deliveries were found in this study. From the research finding, the statistically significant association that was found in the bivariate ($p<0.05$) were also done in the multi-variant analysis to understand which factors effectively explained the choice to deliver at health facilities

Variables that were statistically significant Includes women education level, marital status, religion, husband occupation (expect the category of those Employed by government P>0.05), the number of times for antenatal clinic visit, the distance to the health facility and the social economic factors.

CHAPTER SIX

CONCLUSION AND RECOMMEDATIONS

6.1 CONCLUSION

Although the utilization of health facilities deliveries in Kacheri sub-county was moderately high compared to those who gave birth at home and with the TBA. The study identified the education levels, marital status, employment, proximity to a medical facility, and frequency of prenatal care visits as major predictors associated with delivering in health facilities.

Besides, Education levels, marital status, employment, proximity to a medical facility, and frequency of prenatal care visits are known to have a significant connection with delivering in health facilities. Several prenatal care visits and educational attainment both increased the chances of delivery in hospitals; however, the possibility of women giving birth in health facilities declined the longer they stayed away from health facilities.

There was the economic status issue, whereby women who made between 210,000 and 400,000 Ugandan shillings on average can travel from their homes to healthy centers for prenatal care and most likely also purchase the supplies needed to give birth in reputable medical facilities.

It was established in this study that the distance from the health facilities continues to be a barrier to delivery in health centers which puts many mothers at risk that some were documented as having given birth from home and others on the way. This result

shows how mothers in Karamoja region are still faced with a numbers of barrier s to access to quality maternal and child health care services.

In addition, the mothers who attended ANC for more than four times and above were much more likely to deliver in a health facility than the other counterparts. This result clearly shows that ANC services need to be strengthened and more efforts are needed for mothers to start them early and complete as currently recommended by WHO.

Lastly, all study variables under the categories of social and cultural factors and delivery in medical facilities were significant with $P<0.05$. In addition, some women attend and deliver babies in medical facilities using traditional (TBA) methods, indicating that most respondents do not give birth using traditional method.

In conclusion, it is generally acknowledged that maternal health care services delivered by skilled health professionals who are properly trained and equipped play a significant protective role against morbidity and mortality among mothers and newborns.

6.2 RECOMMENDATIONS

From findings discussed above, below are several recommendations to improve health facility delivery rates:

- The District Health Office needs intensify awareness creation and encourage mothers to attend ANC so that they are motivated to deliver from the health facilities.

- The District needs to also ensure that the ANC services offered to the mother include a comprehensive package so that mothers can be encouraged to start early ANC while also ensuring to complete all the visits
- There is need to improve the accessibility of health facilities in rural settings by improving transport systems
- Further efforts to improve the transport for mothers who need to access delivery in health facilities especially using ambulances
- There is need to sensitize communities to take children to school and also courage the younger girls to keep in school.

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LIST OF APPENDICES

APPENDIX 1: CONSENT FORM

LEVEL AND FACTORS ASSOCIATED WITH HEALTH FACILITY BASED DELIVERY SERVICES AMONG MOTHERS IN KACHERI SUB-COUNTY, KOTIDO DISTRICT

Consent to participate in the study

Greetings, I am ……. from Uganda Christian University. I am working on this research project entitled **"Utilization of health facility based delivery services and the associated factors among mothers in Kacheri sub-county, Kotido district; health facilities based cross sectional study."** I would like to talk to you about this issue.

Purpose of the study

The purpose of the study is to collect information on the utilization of health facility based delivery services and the associated factors in Kacheri Sub County, Kotido district. You are being asked to participate in this study because you have particular knowledge and experiences that may be important to the study.

What participation Involves

If you agree to participate in this study the following will occur:

1. You will sit with a trained interview and answer questions about utilization and factors affecting delivery in health facilities. Your comments will be acted upon to improve the situation in this area.

2. You will be interviewed only once for approximately 20-30 minutes in a private setting.
3. No identifying information will be collected from you during this interview, except your age, marital status and level of education.

Confidentiality

I assure you that all information collected from you will be confidential. Only individuals working with me in this research will have access to the information. We will be compiling a report, which will contain your responses without any reference to individuals. We will not put your name or other identifying information on the records of information you provided. You may refuse to answer any particular question and may stop the interview at any time.

Right to withdraw and Alternatives

Taking part in this study is completely your choice. If you choose not to participate in the study or if you decide to stop participating in the study you will not get any harm. You can stop participating in this study at any time, even if you have already given your consent. Refusal to participate or withdraw from the study will not involve penalty or loss of any benefits to which you are otherwise entitled.

Benefits

The information you provide will help to find out factors that affect delivery in health facilities in Kacheri Sub County and the report generated will be used for only academic purposes

In Case of Injury

We do not anticipate that any harm will occur to you or your family as a result of participation in this study.

Who to contact

If you ever have questions about this study, you should contact Principal Investigator, AKECH TOSQUINE HARRIET on 0774205566

Research Ethics violation;

In case of ethical issues pertaining this research or questions about your rights, contact UCUREC chairperson; Prof. Peter Waiswa, 0772405357, pwaiswa@musph.ac.ug or UCUREC Manager; Mr. Osborn Ahimbisibwe, 0775737627, oahimbisibwe@ucu.ac.ug

Agreement of the Participant

Do you agree to participate in the study?

I …….. have read and understood the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of participants ……..

Signature of research assistant……..

Date of signed consent ……

APPENDIX II: ASSENT FORM

LEVEL AND FACTORS ASSOCIATED WITH HEALTH FACILITY BASED DELIVERY SERVICES AMONG MOTHERS IN KACHERI SUB-COUNTY, KOTIDO DISTRICT

Ascent form for participants between ages 15 to 18 in the study

Greetings, I am ……. from Uganda Christian University. I am working on this research project entitled "Utilization of health facility based delivery services and the associated factors among mothers in Kacheri sub-county, Kotido district; health facilities based cross sectional study." Your parent(s) know we are talking with you about this study. This form will tell you about the study to help you decide whether or not you want to take part in it.

Purpose of the study

The purpose of the study is to collect information on the utilization of health facility based delivery services and the associated factors in Kacheri Sub County, Kotido district. You are being asked to participate in this study because you have particular knowledge and experiences that may be important to the study. We expect that you will be in this research study for less than 30minutes. There are no risks to your participation in this study and your feedback will be beneficial to the study and the improvement of maternal health in Kacheri sub County

What participation Involves

If you agree to participate in this study the following will occur:

1. You will sit with a trained interview and answer questions about utilization and factors affecting delivery in health facilities. Your comments will be acted upon to improve the situation in this area.
2. You will be interviewed only once for approximately 20-30 minutes in a private setting.
3. No identifying information will be collected from you during this interview, except your age, marital status and level of education.

Confidentiality

I assure you that all information collected from you will be confidential. Only individuals working with me in this research will have access to the information. We will be compiling a report, which will contain your responses without any reference to individuals. We will not put your name or other identifying information on the records of information you provided. You may refuse to answer any particular question and may stop the interview at any time.

Right to withdraw and Alternatives

Taking part in this study is completely your choice. If you choose not to participate in the study or if you decide to stop participating in the study you will not get any harm. You can stop participating in this study at any time, even if you have already given your consent. Refusal to participate or withdraw from the study will not involve penalty or loss of any benefits to which you are otherwise entitled.

Benefits

The information you provide will help to find out factors that affect delivery in health facilities in Kacheri Sub County and the report generated will be used for only academic purposes

In Case of Injury

We do not anticipate that any harm will occur to you or your family as a result of participation in this study.

Who to contact

If you ever have questions about this study, you should contact Principal Investigator, AKECH TOSQUINE HARRIET on……

Research Ethics violation;

In case of ethical issues pertaining this research or questions about your rights, contact UCUREC chairperson; Prof. Peter Waiswa, 0772405357, pwaiswa@musph.ac.ug or UCUREC Manager; Mr. Osborn Ahimbisibwe, 0775737627, oahimbisibwe@ucu.ac.ug

Agreement of the Participant

Do you agree to participate in the study?

I …….. have read and understood the contents in this form. My questions have been answered. I agree to participate in this study.

Signing below means that you have read this form and that you are willing to be in this study

Signature of participants ……..

Signature of research assistant……..

Date of signed consent ……

APPENDICE III: QUESTIONNAIRE

LEVEL AND FACTORS ASSOCIATED WITH HEALTH FACILITY BASED DELIVERY SERVICES AMONG MOTHERS IN KACHERI SUB-COUNTY, KOTIDO DISTRICT

SECTION 1; GENERAL INFORMATION ***(To be filled in by the interviewer)***	
Interviewer's name	
Date of the Interview	
Village	
Interview ID	

SECTION 2; RESPONDENT CHARACTERISTICS		
2.1	Sex	1 = Male 2 = Female
2.2	Age in complete years	…….
2.3	Marital status	1 = Married (or living with partner as if married) 3 = Divorced/Separated 4 = Widowed 5 = Single never married
2.4	Education level	1 = No education 2 = Some primary education 3 = Completed primary education 4 = Some secondary education 5 = Completed secondary education 6 = Vocational and technical training

		7 = Tertiary education (Diploma/Degree)
2.5	Religion	1. Catholic 2.Anglican 3.Pentecostal 4. Seventh day Adventists 5. Muslim
2.6	What is your Occupation?	1. House wife 2. Peasant 3. Pastoralist 4. Self employed 5. Employed by Government 6. I don't work 7. Other specify…….
2.7	Parity	
2.8	What is your husband's Occupation?	1. House wife 2. Peasant 3. Pastoralist 4. Self employed 5. Employed by Government 6. Doesn't work

		7. Other specify…….
2.9	9. How many people are living with you in your house hold? ……	
Section 3; Social Economic Factors		
3.1	Who is the head of the house hold?	1. Yourself 2. Your husband 3. Other specify ……..
3.2	Who the main income earner of the family	1. Yourself 2. Your husband 3. Other specify ……..
3.3	How much on average do your house-hold make	1. 0 100000 2. 100000.....200000 3. 200000.....300000 4. 300000.....400000 5. 400000.....500000 6. 50000 and above
3.4	When did you have your last birth?	
3. 5	Have you ever attended Antenatal clinic in your last pregnancy?	1. Yes 2. No (If no skip to question 3.4)

3. 6	If yes, how many times did you attended in the last pregnancy?	1. Less than 4 times 2. Four Times 3. More than Four times
3.8	If no why?	1. I didn't see any importance of antenatal clinic 2. Long distance to health facility from home. 3. High cost of services. 4. Bad behavior of health workers 5. Other specify …….
3. 9	Where did you deliver your last baby?	1. At home 2. TBA's home 3. Health facility 4. Other specify ……
3. 10	Was that the place you intended to deliver?	1. Yes (if yes skip to question number 3.11) 2. No
3.11	If no where did you intended to deliver?	1. Own home 2. TBA's home 3. Health facility

		4. Other specify ……
3.12	What are the reasons that made you to deliver the place you had delivered?	1. Lack of transport to health facility 2. Long distance to health facility 3. Sudden onset of labour 4. Bad behavior of health workers 5. Poor belief to modern medicine 6. Other specify …….
	Health Facility Factors	
3.13	What is the means of transport when a pregnant mother referred to district hospital?	1. Own transport 2. Public transport 3. Ambulance 4. Other specify ……..
3.14	Are you able to afford the cost of transport when referred to another health facility?	1. Yes 2. No (skip to 3.16)
3.15	If yes what will you do to get money to reach a required health facility?	1. Borrowed money from neighbor/ friend 2. Sell property 3. Sell a piece of land 4. Refuse referral

3.16	On average how far is the health facility from your home?	Kilometers…….. Hours ……..
3.17	Are you happy with the services provided at your health facility?	1. Yes (If yes skip to question 3.19) 2. No
3.18	If no, what things make you unhappy with the services provided at your facilities?	1. No drugs and supplies 2. Bad behavior of health workers 3. Lack of privacy 4. Other specify …….
3.19	What makes women not deliver in the nearby health facility?	1. Sudden onset of labour 2. Bad behavior of health workers 3. Long distance to health facility 4. Presence of TBA's 5. Other specify …….
3.20	What is your recommendation for improving services in your health facility	1. Increase number of health workers 2. Improve availability of drugs and supplies

		3. The health workers should respect the women 4. We need ambulance 5. Other specify ……
	Cultural Factors	
3.21	Is there any traditional habit in your community that should be done before delivery?	1. Yes 2. No
		If Yes, Please mention this habit
3.22	Is there any traditional issue that prevents women to deliver in health facilities at community?	1. Yes 2. No
		If yes, please mention this issue

UGANDA CHRISTIAN UNIVERSITY

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SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: 19th March 2024

Name of Candidate: Akech Tosquine Harriet **Reg. No:** RJ20M21/102

Title of Dissertation: Factors associated with utilization of health facility-based delivery services among mothers in Kacheri Sub-County, Kotido District.

SN	COMMENTS BY EXTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1	The title needs to be improved for example ''level'' of what?	Noted and corrected	Cover page and throughout the report
2	Under dedication, it would suffice to say ''I dedicate this book to my family members.'' Since the author is known, there is no need to re state it here.	Corrected	Page iv
3	Under abstract, 1st sentence after methods, impression is created that the study was based on one health facility yet later talks of a number of health facilities. That aspect should be corrected in the	Changed and the two health facilities captured	Abstract.

	narrative. The odds ratios and not ''odd ratio'' should be used in the report in the abstract.		
4	The study was health facility based and so, there is bias in that respondents based at home could be substantially different from the hospital based with respect to the study subject and design.	Declared as limitation of the study	Pg. 13 and Pg 22
5	The last paragraph under abstract above the conclusion and recommendations should be revisited and repackaged to improve the English and clarity of the narrative.	corrected	abstract
6	The 1st sentence under problem statement is too long and fussy. It needs repackaging to state clearly, 1st and foremost the actual problem under questions before proceeding deeper.	Corrected	Problem statement
7	The general objective should address the question of ''and then what?'' at the end of the objective ie should be action oriented. The rest of the objectives and research questions are well put	Corrected	Pg 12
8	The study score is well described and well justified. Improve the conceptual framework by labelling, socio descriptive factors on the left column, interviewing variables affecting outcome variables.	corrected	Pg. 16/17
9	The literature review chapter is wide in scope and covered most of the factors within the conceptual framework. However, at the end of the chapter, there is need to provide a summary that would highlight the ''research gap''.	This section has been included	Pg. 25

SN	COMMENTS BY INTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1			
2			
3			
4			
5			

SN	COMMENTS BY VIVA VOCE PANNEL	ACTION TAKEN	INDICATOR
1	How did the conceptual framework inform your study?	Noted	Added detail in this section
2	How did you use the systematic random sampling in the study?	Corrected	Added detail in this section
3	Why did you consider a health facility study not a community study?	Corrected	Included explanation in this section
5	Through more light on the design	Corrected	Added detail in this section

Akech Tosquine Harriet — Candidate's Name

Signature 

26th/04/2024

Ms. Jacqueline Kobusingye — Supervisor's Name

Signature 

26-04-2024