

**KNOWLEDGE AND PRACTICES ON UMBILICAL CORD CARE AMONG
MOTHERS ATTENDING YOUNG CHILD CLINIC IN MUTOLERE
HOSPITAL, KISORO DISTRICT**

**A RESEARCH REPORT SUBMITTED TO
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ABSTRACT

Clean cord care is considered as one of the essential newborn care practices recommended to reduce morbidity and mortality amongst the world's newborns. However cord infections are still prevalent because of unhygienic cord care practices and cultural belief in giving care to neonates.

Therefore the purpose of this study was to assess the knowledge and practices on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district.

A descriptive cross-sectional study design was employed and quantitative methods of data collection was used. 82 mothers were selected by purposive sampling technique. Data was collected using researcher administered questionnaire and analyzed using Microsoft excel and word.

Most mothers lacked adequate knowledge on the days which the cord takes to fall, and only few knew the advantage of cord care.

Practices for most mothers on cord care were mostly poor due to mothers delivering from home and traditional birth attendants. Applying substances on the baby's cord

Like herbs, oil and cow dung. Majority used to cut baby's cord with razor blade and majority used thread to tie the baby's cord which are not usually sterile materials making babies exposed to infections resulting in neonatal death.

Health education among mothers on; importance of hospital delivery, dangers of poor cord practice mainly on unhygienic application of substances on baby's cord, emphasizing aseptic techniques to prevent complications mainly neonatal death.

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Knowledge and practices on umbilical cord care among mothers attending young
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AUTHORIZATION

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DEDICATION

This work is dedicated to my family members, my classmate and friends who have together played a big role in my success

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I would like to acknowledge the contributions of the following individuals whom without them my studies would have not been easy.

First and foremost I would like to acknowledge my father Mr. AGABA JOHN and my mother Mrs. AGABA JACINTA, my uncle Mr. KATABAZI EMMANUIEL and

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May the Good Lord in heaven bless you all Amen.

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LIST OF ACRONYMS

ENC	Essential Neonatal Care
e.g.	Example
Etc	excerpter
<i>et al</i>	and others
HIV	Human Immunodeficiency Virus
KIU-TH	Kampala International University-Teaching Hospital
KIU-WC	Kampala International University-Western Campus
MoH	Ministry of Health
NMR	Neonatal Mortality rate
UBOS	Uganda Bureau of Statistics
WHO	World Health Organization
YCC	Young Child Clinic

DEFINITIONS OF TERMS

Care: is the provision of what is necessary for the health, welfare, maintenance and protection of someone or something.

Knowledge of Cord care: implies awareness of the recommended methods of cord care which are: tying the cord with cord clamp, cutting with clean object, cleaning with methylated spirit and keeping it clean; the range of cord separation time which is between 5 to 15days and knowledge of advantages of cord care which is to prevent cord infection.

Materials used: tools for cutting and substances use for cleaning or applying on the baby's umbilical cord.

Neonate: Any infant from birth to the 28th day of life.

Practice: refers to the actual manual performance of a specific task in relation to the standard conventional guidelines.

Umbilical Cord Care: refers to the various materials use in cord care, the reason for the choice of materials by mothers and the techniques use for cord care.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Umbilical cord care is one of the essential neonatal care that contribute towards neonatal health worldwide (Castalino, 2014). The WHO recommends improving newborn care practices at birth in order to reduce morbidity and mortality. These have been described as essential newborn care practices of which one of these essential practices is clean cord care which is very important in preventing early neonatal infections (Waiswa, 2010). Methods of caring for the umbilical cord vary greatly between communities depending on their cultural belief, religious belief and level of education (Bhatt *et al.*, 2015).

The umbilical cord is a unique tissue consisting of two arteries and one vein which at term is about 56cm in length and extends normally from the centre of the placenta to the umbilicus of the baby (Abba, 2008). In the developing countries most deliveries occur at home where health care services may not be available sometimes end up cutting the cord with materials such as scissors, sharp stone and so on and tie the cord with materials like strings, thread, strips of cloth excerppter (Obuekwe & Obuekwe, 2008). Even babies who are delivered in hospitals may be affected by traditional practices after discharge which most of the times lead to umbilical cord infection and death among the neonates (Sreeramaraddy, Josh, Sreekumaran & Giri, 2006).

About 3.3 million neonatal deaths occur around the world yearly (Oestergaard, 2011). Out of these deaths, more than 30% are caused by infections (Mullany, 2009). The

incidence of omphalitis (one cause of the neonatal death) in developing countries is generally scarce, available data estimate the risk to range between 2 and 77 per 1000 live births in hospital settings had fatality rates of between 1% and 15% depending on nature of omphalitis attack on neonates (Mir, 2011).

In Asia, National Institute of Population Studies (2008), reported that Pakistan accounts for 7% of global neonatal deaths, one in every 11 children born in Pakistan dies before reaching their fifth birthday due poor care. Neonatal tetanus that come as a result of poor cord care accounts for 7% of neonatal deaths, but accounts for more than 48% in Africa (Peter and Johnson, 2010). In Calabar South Local Government Area of 16 Cross River State of Nigeria, umbilical infection as a result of poor cord care is responsible for 49% of neonatal deaths (Antai and Effiong, 2009). In Uganda, 38,000 newborn deaths occur each year (Mbonye *et al.*, 2012). And the NMR is 27 per 1000 live births (UBOS, 2011).

According to the study conducted in Kasese and Kabarole western Uganda districts on assessment of maternal and neonatal health within the first 4 weeks after birth, revealed that poor neonatal cord care caused neonatal cord sepsis and tetanus to 398 (5.0%) and 113 (1.4%) neonates respectively, out of the 7895 neonates investigated (DeStegiter and Streeter, 2011). However, no study concerning knowledge and practices on umbilical cord care among Mothers attending Young Child Clinic has yet been done in Kisoro District particularly in Mutolere.

1.2 Problem Statement

Clean cord care is considered as one of the essential newborn care practices as recommended by the World Health Organization to reduce morbidity and mortality amongst the world's newborns. Despite this, cord infections are still prevalent in developing countries because of the high rates of unhygienic cord care practices and cultural belief in giving care to neonates (Opara, Jaja, Dotimi, & Alex, 2011).

About 130 million babies are delivered annually worldwide, 4 million (3.1%) die within first 28 days of life of which 25% of these deaths are as a result of umbilical infection due to poor cord care (Peter and Johnson, 2010). In African, most of the cord care is home based since two third of births take place at home (WHO, 2009).

Although in Uganda, there has been some improvement in NMR from 27 to 22 per 1,000 live births due to training programs for skilled birth attendants and other health workers launched by the MoH and availability of life saving commodities which have helped to raise newborn care standards (MoH, 2015; UBOS, 2011).

According to Mutolere Hospital annual report 2015/2016 indicated that 31% of 105 deliveries occur every month. These few statistics reflect only deliveries from the hospital facility situation. However, little or no information was available for the cases of home deliveries and even neonatal deaths from umbilical cord infection. From the researcher's experience who has been practicing as a student nurse, several cases of umbilical infections have been rushed to neonatal units often too late to be helped. It was therefore desirable to determine knowledge and practices on umbilical

cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district.

1.3 Purpose of the study

To assess the knowledge and practices on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district.

1.4 Specific objectives

- i. To assess the knowledge on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district.
- ii. To determine the practices on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district.

1.5 Research questions

- i. What do mothers attending young child clinic know about umbilical cord care in Mutolere Hospital, Kisoro district?
- ii. What are the practices on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district?

1.6 Justification of the study

Children are the future of any nation. The WHO has long advocated for umbilical cord care without application of any substance. However, in most developing countries and in situations where hygienic conditions are poor, it has recommended the use of antiseptic agent to reduce bacterial colonization and infections (WHO,

2013; Osuorah *et al.*, 2015). Despite its benefits in low income countries, mothers with cross cultures are still believed to engage in harmful cord care practices in Uganda particularly Kisoro Districts.

This study is undertaken to determine knowledge and practices on umbilical cord care among mothers attending young child clinic in Mutolere Hospital, Kisoro district. Findings from this study provide information to the health personnel on the various materials used by mothers for umbilical cord care practice, reasons for the choice of materials, and the basis on which health decision are made by mothers in relation to cord care. Academically, this study serves as reference to other researchers in related fields.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This reviews the reports and views of different scholars relating to the literature from other scholars about knowledge and practices on umbilical cord care among Mothers and is arranged according to the research objectives.

2.1 Knowledge on umbilical cord care among mothers

Knowledge is very crucial information when it comes to neonatal care. It is easy to detect that local knowledge in minority areas poses a great challenge to today's concepts of "knowledge system" and also this leave doubt on the introduction of external intervention strategies (Qian, 2008). For instances, according to WHO recommended that newborn cord should be kept clean and dry with nothing applied on it, maintain clean technique to minimize contamination by pathogens wash hands and put on gloves before handling umbilical stump, keep umbilical stump exposed to air or loosely covered with clean clothes (WHO, 2013). But these seem to the mothers as if it is bothering their understanding on what they already know before (Personal experience).

In one study done in Nigeria by Osuchukwu (2014), found 44.7% had good knowledge of standard umbilical cord management. They had the knowledge of tying the cord stump, cutting it with a clean object and cleaning with methylated spirit only with no application of any other material. While others accounted for poor knowledge, 31.3% knew use of herbs and isolated the baby, 16.9% knew use of herbs only and 7.1% applied nothing on the cord till it detached.

In addition, in the same study showed 34% their information were got from their mother/mother-in-law, 29.4% from church members and 9.5% from traditional birth attendants. These were regarded as poor sources of information, 27.1% got their information from health workers and it was regarded as good source (Osuchukwu, 2014). The explanation for this poor knowledge could be from the poor sources of information as majority of the respondents had information from their mothers, mother-in-laws, church members and Traditional birth Attendants (WHO, 2013).

Similarly, Senarath (2010), assessed the patterns of mothers' knowledge of newborn care practices as well as factors associated with poor knowledge. The respondents who were 446 mothers with newborn from five hospitals in Puttalam district of Sri Lanka were interviewed. The findings revealed that mothers had poor knowledge about hygienic umbilical cord care. The same study revealed that prime para 69%, and unemployed women 32%, were more likely to have poor knowledge. The result indicates that women who are pregnant for the first time lack experience regarding health care compared with those women in their subsequent pregnancies (Senarath, 2010).

According to Luka (2011), studied the mothers knowledge of cord care practice in an urban slum area in Nairobi, Kenya, where 307 mothers with infants attending clinics were interviewed using interview guide. The results showed that 91% of mothers knew of the need for hygiene while cutting and tying the cord. As for postnatal cord care, 40% had good knowledge and 66% had good practice.

However, the study on Home Delivery and Newborn Care among Women in Nigeria revealed that information about local herbs use for cord care are predominantly provided by older relatives such as mother-in-law, father-in-law, aunt, elders in the family, friends and at most times by the Traditional Birth Attendants (TBAs), who attend to more than 70% of deliveries in Nigeria (Ahmed & Verber, 2011). Hence this needs joint effort for focused health education not only for mothers alone.

Furthermore, putting into consideration that the knowledge of mothers on herbal preparation are much preferred in Africa countries for instance they know that it make the cord falls within 3-4 days of application; the wound heals faster and quicker, relief of pain therefore, where there is delayed cord separation usually increase parents' anxiety, thus all measures are taken to hasten cord separation (Basil, Kayode, Mark & Mbe, 2009; Bemor & Uta, 2011). According the study done in Nigeria showed that 82.7% mothers had poor knowledge of the stipulated range of time for cord separation which is between 5-15 days and 17.3% of the respondents had good knowledge (Osuchukwu, 2014).

2.3 Practices on umbilical cord care among mothers

Cord care practices including care of the stump, cutting and tying as per guideline in most time meant for the majority of the mothers who delivered at the facility. Some harmful practices occur with mothers who deliver at home, they apply harmful substances such as cow dung to the cord stump predisposing to infections. Principles of clean cord stump care stipulate keeping the cord dry and clean and nothing is applied on it, neither at home or in the health facility as suggested by World Health Organization on essential neonatal care (WHO, 2013).

Clean cord care has been identified as a proven intervention that saves newborn lives. Poor/unhygienic cord cutting and tying practices have been identified as risk factors for neonatal infection. There should be clean cord care procedures which are crucial in infection prevention. The umbilical cord should be cut with a clean (sterilized) blade and tied with clean (sterilized) materials, and no substances should be put on the cord stump (WHO 2008).

A study conducted on Newborn care practices among postnatal mothers in Garissa County, Kenya revealed the respondents in health facility, 93% used a pair of scissors to cut the cord while majority of those who delivered at home used a blade 87% and a few 5% used a knife. During delivery at health facilities all the materials used to cut cord were reported as clean in all cases, however, for home deliveries 12% used dirty material to cut the cord (Annastacia, 2015). Of those respondents who delivered at health facility 61% applied nothing on the cord stump while 37% applied Methylated spirit. Majority in home delivery cases had the cord applied 40% methylated spirit. An interesting finding was, 32 % and 8% applied oil and cow dung respectively (Annastacia, 2015).

Some traditional practices of newborn care may not be in accordance with the recommended guidelines. The fact that most births take place at home it shows that such traditional methods might be used more frequently (Marah, 2011). A study conducted in the BrongAhafo region of Ghana established that application of hot water and Shea butter on the cord was common and it is believed that applying nothing to the cord to force it off and help it heal would negatively affect the newborn baby including discomfort and potential death for the baby, discomfort for the mother because she is confined to the room till the cord stump is off, and a delay in the child becoming a human being among some ethnic groups (Moyer et al., 2012; Marah 2011).

A study in South western Uganda report, about 71,000 births per year where in this sub-region, many mothers are cared for and deliver in their rural villages with traditional birth attendants, and travel to hospital only for complication (Florence and Fortunate, 2015). There are various reasons for choice of substances for umbilical cord care, some of these substances and methods are based on traditional beliefs which often are interwoven with witchcraft, magic and taboo (Bello & Omotara, 2010).

The cord stump remains the major means of entry for infections after birth. Principles of clean cord stump care stipulate keeping the cord dry and clean and nothing is applied on it, neither at home or in the health facility. In agreement with Thompson, Udom & Ugoji (2011), revealed different approaches to cord care that have been evaluated in terms of their impact on timing of cord separation, bacterial colonization and infection.

The stump will dry and mummify if exposed to air without any dressing, binding or bandages. It will remain clean if it is protected with clean clothes and is kept from urine and soiling. No antiseptics are needed for cleaning. If soiled, the cord can be washed with clean water and dried with clean cotton or gauze. Local practices of putting various substances on the cord stump whether in health facilities or homes should be carefully examined and discouraged if found harmful and substituted with acceptable ones (WHO 2008).

Similarly, Basil et al. (2009), revealed that cow dung was applied to umbilical cord because of its high moisture absorption rate. It dries the cord rapidly, which is a potential benefits in many traditional cultures as the mother and baby cannot join the rest of the house hold until the cord falls off (Basil et al., 2009). According to Basil, Kayode et al. (2009), commented that

traditional beliefs should be taken into account when introducing clean cord care program in a community since their beliefs may conflict with program recommendation.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter describes the study setting in geographical terms, study design, study population, sample size estimations, sampling procedure, inclusion and exclusion criteria, study variables, research instruments, and data collection procedures. It further describes data management, data analysis and presentation, ethical considerations, study limitations and dissemination of results.

3.2 Study setting and rationale

The study was conducted at Young child clinic of Mutolere Hospital which is located in Mutolere-Nyakabande, Bufumbira East in Kisoro District. Mutolere is a private, non-profit, community hospital owned by the Roman Catholic Diocese of Kabale. It is accredited to the Uganda Catholic Medical Bureau, and it is administered by the little Sisters of Saint Francis, a religious congregation. The hospital was selected because of many people it serves from within Kisoro and from the neighboring districts of Rukungiri, Kanungu, Kabale and Neighboring borders of Democratic Republic of Congo and the Republic of Rwanda. The hospital provide many health services for both outpatient and inpatient departments such as; Antenatal clinic, Surgical, Maternal and Child Health including YCC and Family Planning, Laboratory, Radiology Theatre among others. Mutolere Hospital consists of various professional staff who are; Medical Officers, Medical Clinical Officers, Nurses, Midwives among others.

3.3 Study design and rationale

A descriptive cross-sectional study design was used and employed a quantitative method of data collection through the use of a researcher administered questionnaire. The design was considered because it enables data collection at specific point of time, it saves time and costs for the study and helped to determine knowledge and practice on umbilical cord care among mothers attending YCC at Mutolere Hospital.

3.4 Study population

The study enrolled mothers aged between 15 to 49years attending YCC at Mutolere hospital. This age group is a reproductive age who nurse neonates' cords and are still capable of getting pregnant and deliver therefore gave appropriate information for the study.

3.4.1 Sample size estimations

The sample size of the participant considered Kish and Leslie (1965), formula which state that;

$$n = \left(\frac{Z^2 p q}{d^2} \right)$$

Where

n=Desired sample size, **Z**= Standard deviation at confidence level of 95% = 1.96

p = Proportion of population with desired characteristics, **q**= proportion of population without desired characteristics. **d**=level precision

Therefore for this study;

n= desired sample size.

P= proportion of the population who are child-bearing mothers of age 15 to 49 years estimated at 50%= 0.5.

$$n = \left(\frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} \right)$$

$$n = 384$$

According to Kish and Leslie's formula (1965), the sample size would be 384 of Mothers aged between 15 and 49 years. However, I used a sample size of 82 respondents (Mothers aged between 15 and 49 years) due to limited time and resources for the study.

3.4.2 Sampling procedure

Purposive sampling was used to select participants in YCC Mutolere Hospital with the objective of choosing only child bearing age mothers who possess the characteristics of interest of the population so that the study results can be generalized.

3.4.3 Inclusion criteria

The study included only mothers aged between 15 and 49 years attending YCC in Mutolere hospital who were willing to participate freely in the study, stable physically and mentally during the study

3.4.4 Exclusion criteria

The study excluded mothers aged between 15 and 49 years who did not consent to participate in the study, non-child bearing mothers and those who could not communicate to the researcher by any means.

3.5 Study variables

3.5.1 Dependent variables

Umbilical cord care among Mothers attending Young child clinic

3.5.2 Independent variables

The knowledge on umbilical cord care among Mothers attending Young child clinic

The practices on umbilical` cord care among Mothers attending Young child clinic

3.6 Research instruments

The study used researcher administered questionnaire to collect information from respondents. The questionnaire contained both closed and open-ended questions. The closed ended questions were to enable the respondents choose from available options while the open-ended questions allowed them express their own ideas in their own words. Pre-testing of the questionnaire was done to test validity and liability before data collection.

3.7 Data collection procedures

Data collection was conducted using researcher administered questionnaire which was pre-tested few days on mothers attending YCC at KIU-TH before the actual data collection process

to check for validity and reliability. An introductory letter was obtained from KIU-WC school of nursing and was taken to medical supretendant of Mutolere Hospital Kisoro District to introduce the researcher to the study area. Approval to conduct the research was obtained from medical supretendant. During the time of data collection privacy was ensured and also respondents were informed that the information collected was confidential.

3.7.1 Data management

Data was managed to maintain maximum levels of confidentiality of information that was collected from each individual participant. Un authorized personnel was not allowed to access the data except the research. The study instrument was coded manually and edited, stored under lock and key, and only accessed by the researcher to avoid theft, loss and any other issues as they may arise. Back-up source of data storage like laptop, flash disk in addition to hand written copies was used to avoid loss of information.

Data was collected during day time to ensure safety during collection procedure.

3.7.2 Data analysis and presentation

Data was first analyzed manually using electronic calculators, also electronically by feeding into MS-Excel soft for analysis to generate descriptive and statistical information which is then presented in form of tables, figures, pie charts, bar graphs and frequency distribution tables.

3.8 Ethical considerations

Permission to carry out study was obtained from School of Nursing sciences of Kampala International University-Western Campus, Ethics Review Committee and Medical Superintendent of Mutolere hospital, Kisoro district. The study was on voluntary basis and the information was kept private and confidential.

3.9 Limitations of the study

Time was a limited factor during data collection since the researcher had to work on the research project as well as on other studies for the course. This however was managed by proper programming.

It was hard to obtain audience from mothers as it seemed to them as wastage of time. This however was overcome by creating good rapport.

3.10 Dissemination of the results

On completion of the report, a copy was disseminated to the Uganda nurses and midwives examination board, school of nursing of KIU-WC, medical supretendant of Mutolere hospital Kisoro district and another copy remained with the researcher for reference.

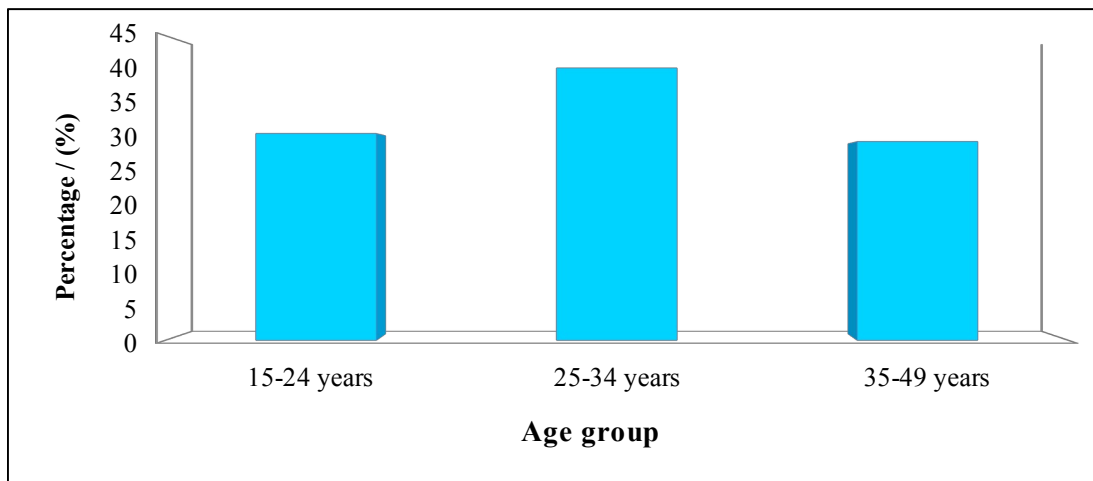
CHAPTER FOUR: RESULTS AND FINDINGS

4.0 Introduction

In this chapter, the results of knowledge and practice on umbilical cord care among mothers attending YCC in Mutolere Hospital are presented in form of tables, pie charts, graphs and frequency distribution tables. A total of 82 mothers aged between 15 and 49 years were interviewed

4.1 Demographic data of the mothers

Figure 1: A bar graph showing age group of the mothers n=82



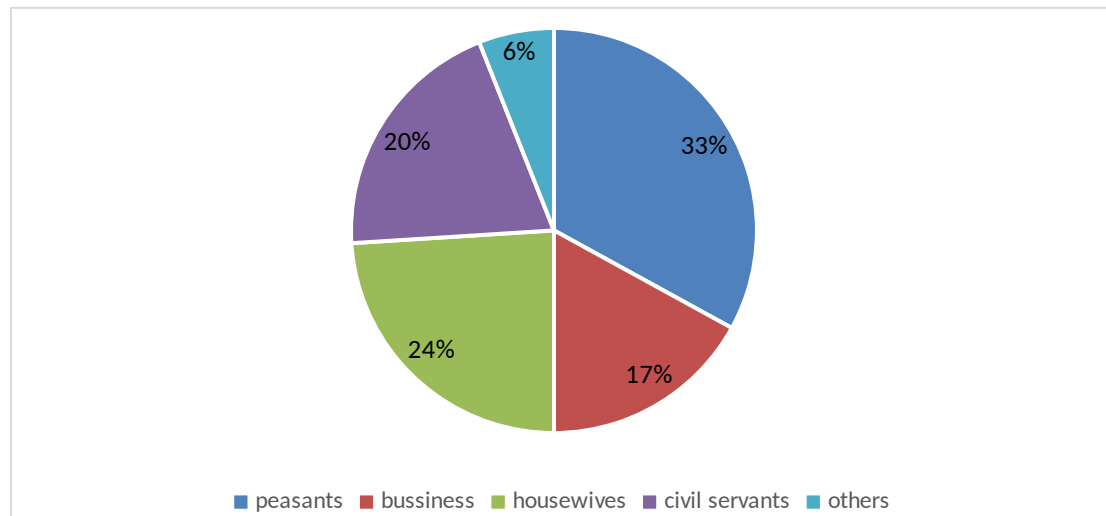
The majority of mothers 40.2% were in the age group of 25-34 years, and only 29.3% were in age group of 35-49 years.

Table 1: Shows the tribes of mothers n=82

Tribe of the mothers	Frequency (n)	Percentage (%)
Banyankole	5	6%
Bakiga	27	33%
Bafumbira	38	46%
Others	12	15%
Total	82	100%

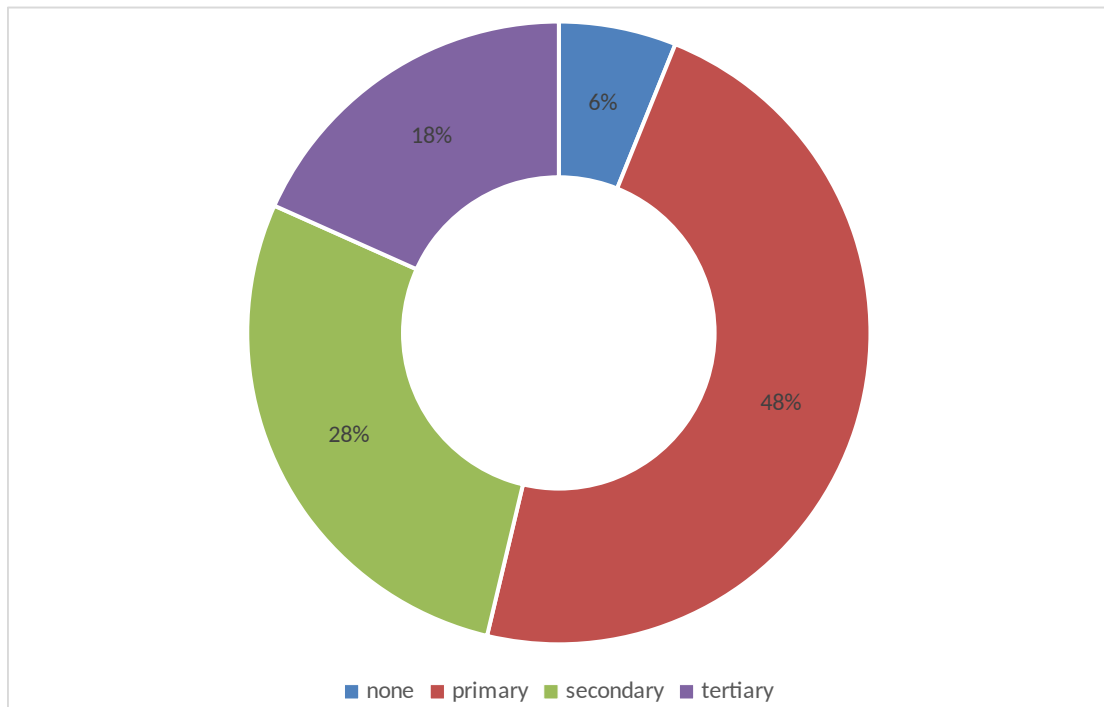
A large number of mothers 46% were the Bafumbira and the least 6% Banyakole

Figure 2: A pie chart showing occupation of the mothers n=82



Majority of mothers 33% were peasant and 6%were others

Figure 3: A pie chart showing education background of the mothers



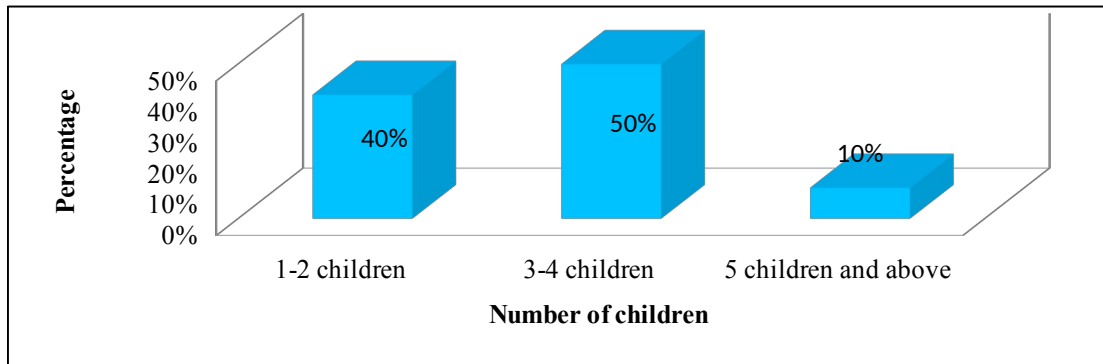
Majority of mothers 47.6% had attained primary education, and only (18.3%) had attained tertiary education.

Table 2: Shows marital status of the mothers n=82

Marital status	Frequency (n)	Percentage (%)
Married	65	79.2%
Single	2	2.5%
Widow	9	11%
Divorced	6	7.3%
Total	82	100%

Majority of mothers 79.2% of the study population were married and the least 2.5% were single

Figure 3: A graph showing number of children the mothers were having n=82



The majority of mothers 50% had 3-4 children and least 10% had 5 children and above.

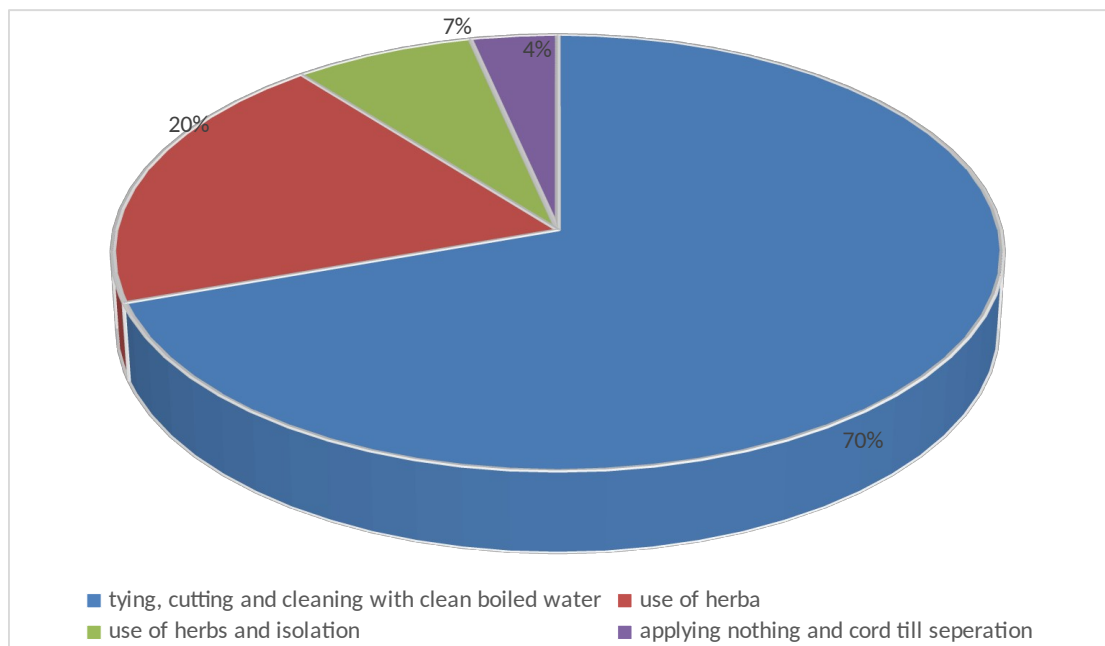
Table 3: Shows distribution of mothers according to their religion n=82

Religion	<i>Frequency (n)</i>	<i>Percentage (%)</i>
Protestant	29	35.3%
Catholic	40	49%
Muslims	6	7.3%
Seventh Adventist (SDA)	4	4.8%
Others	3	3.6%
Total	82	100%

The catholic formed a large percentage 49%, while the others religion 3.6% formed the least percentage.

4.2 Knowledge on umbilical cord care among mothers

Figure 4: A pie chart showing knowledge of mothers about newborn cord care
n=82



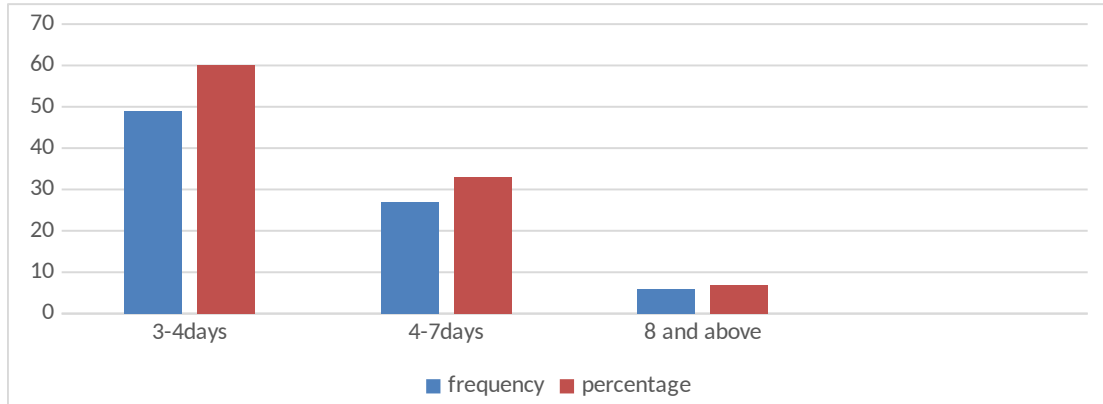
Majority of mothers 69.7% knew cord care as tying, cutting and cleaning with clean boiled water, while 3.5% knew as nothing applied on cord till separation.

Table 4: Shows knowledge about materials used in tying the baby's cord by the participants n=82

Variables	Frequency (n)	Percentage / (%)
threads	27	32.9%
Cord ligatures	45	54.9%
Other (piece of cloth)	10	12.2%
Total	82	100%

Majority of the mothers 54.9% knew use of threads for tying baby's cord and 12.2% others knew use of piece of cloths.

Figure 5: A bar graph showing knowledge on duration the cord should take to detach n=82



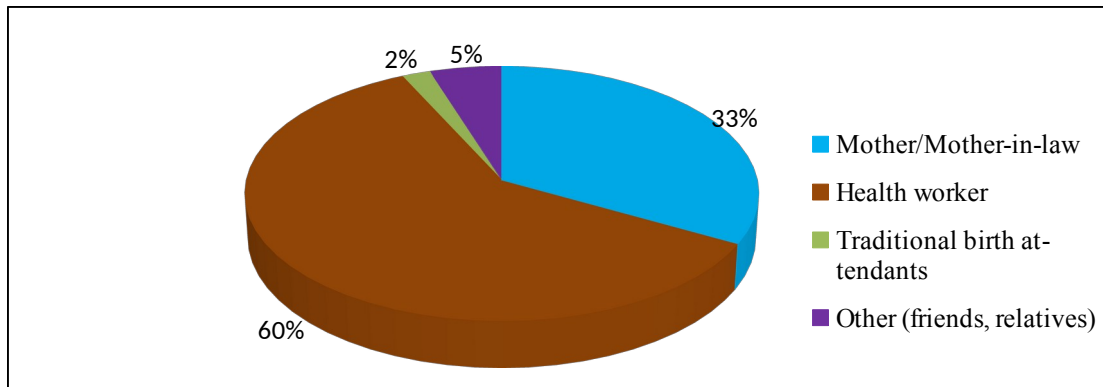
Most of mothers 60% knew cord separation takes 3-4days and 7% knew 8days and above

Table 5: Shows mothers responses on the advantage of cleaning the cord n=82

Variable	Frequency (n)	Percentage / (%)
Fast cord separation	45	55
Prevent infection	22	27
All of the above	15	18
Total	82	100

Majority of mothers (55%) reported to fast cord separation and the least (18%) said to prevent infections and fast cord separation.

Figure 6: A pie chart showing source of information about newborn cord cares n=82



A large percentage of mothers 60% got information from health workers and a few 2% got from others (friends, relatives).

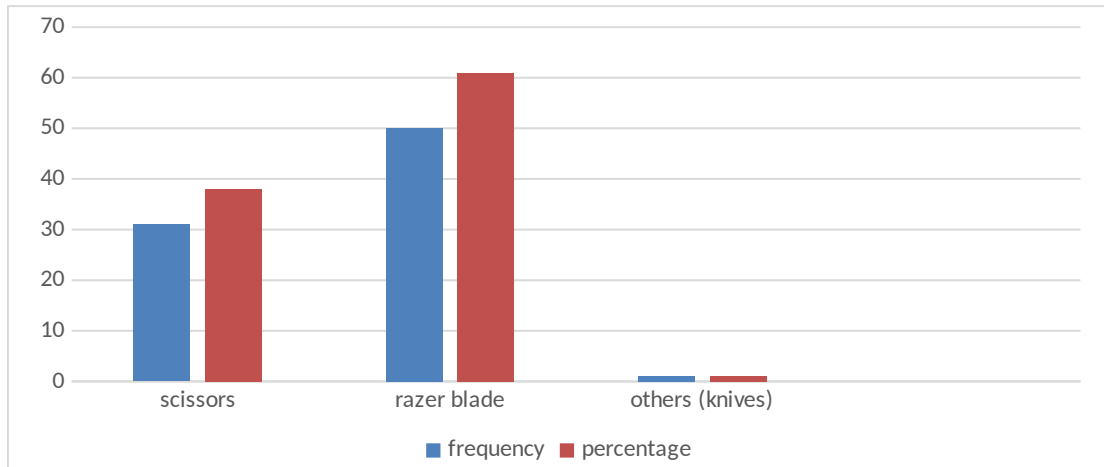
4.3 Practices on umbilical cord care among mothers

Table 6: Shows the place where mothers delivered their last babies from n=82

Place of delivery	Frequency (n)	Percentage / (%)
health facility	17	21
Home	42	51
Traditional birth attendant (TBA)	23	28
Total	82	100

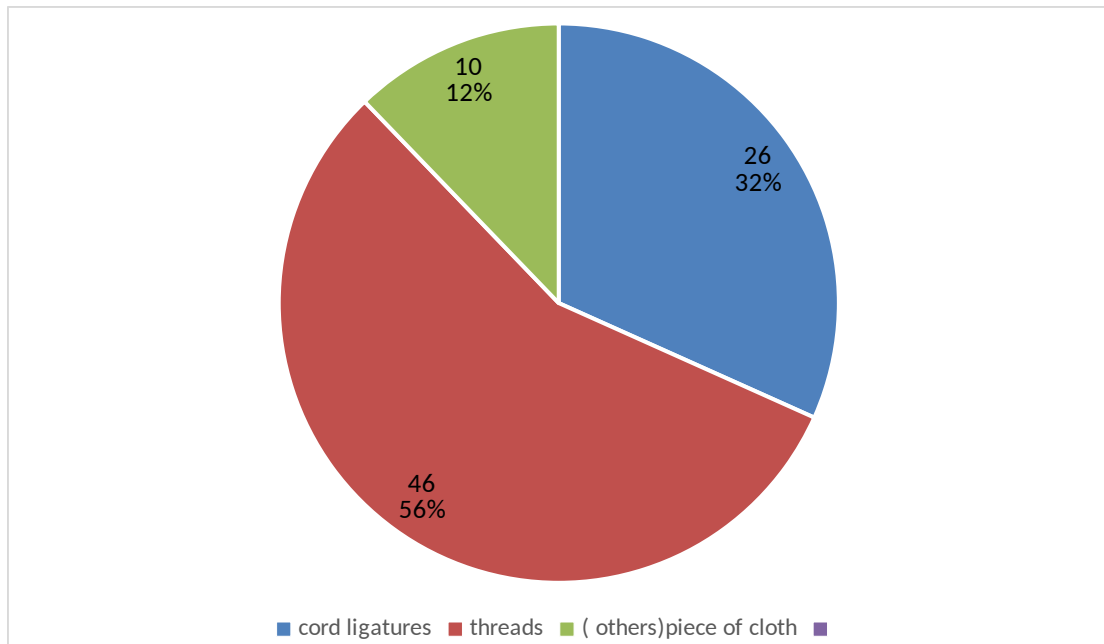
Most of the mothers 51% delivered from home and less mothers 21% delivered from healthy facility.

Figure 7: A bar graph showing materials which was used to cut the baby's cord
n=82



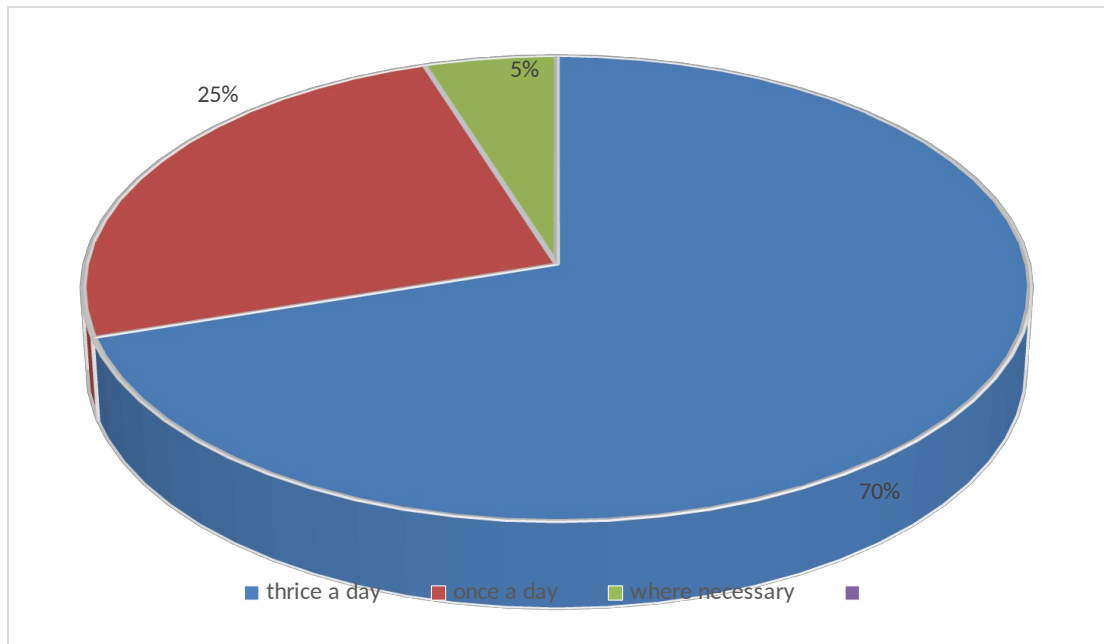
Most of the mothers 61% reported use razer blade and the least of mothers 1% used knives.

Figure 8: A pie chart showing the material which was used to tie the baby's cord
n=82



Majority of mothers 56% reported threads were used to tie the baby's cord and the least 12% piece of cloth

Figure 9: A pie chart showing how often the baby's cord was cleaned n=82



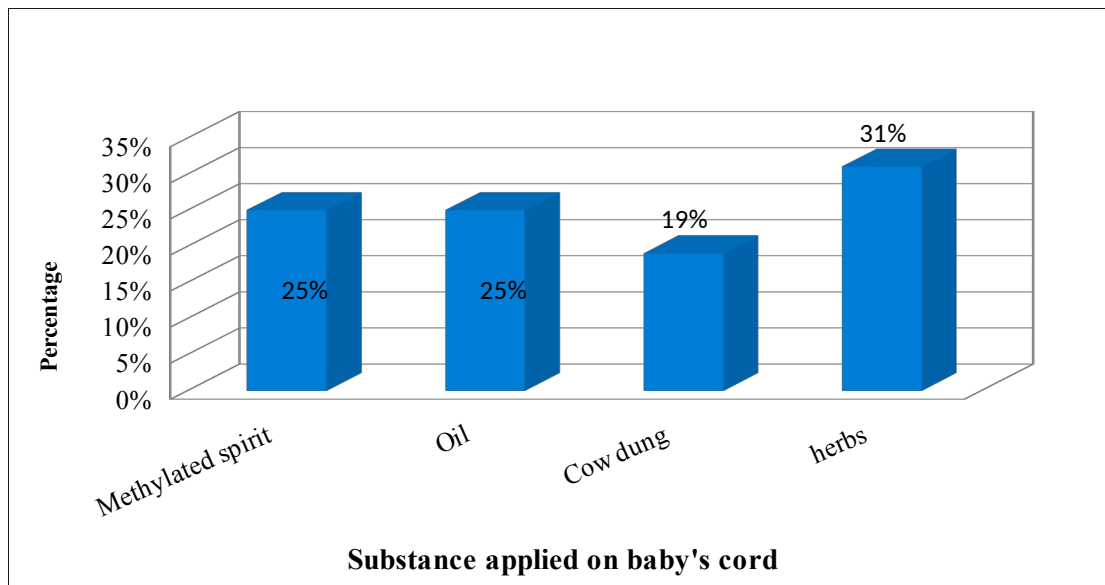
Majority of mothers 70% cleaned baby's cord thrice a day, while 5% cleaned where necessary.

Table 7: Shows whether mother applied any substance on the cord n=82

Response	Frequency (n)	Percentage
Ye	66	80%
No	16	20%
Total	82	100%

A large number of mothers 80% applied substances on the cord while 20% of mother did not apply any substances on the baby's cord

Figure 10: A graph showing what the mother applied on the baby's cord stump n=66



Majority 31% applied herbs on the umbilical cord and only 19% applied cow dung on the baby's cord.

CHAPTER FIVE: 5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter discusses the findings conclusion discussion and recommendations about knowledge and practices on umbilical cord care among mothers attending young

child clinic in Mutolere Hospital in relation to research objectives and answered research questions. The results are discussed in line with the research findings as presented in chapter four and in comparison with other scholars' findings from introduction and literature review.

5.1. Discussion

5.1.1 Demographic data

Majority of the mothers, 40.2% were in the age group of 25-34 years. This could be due to the fact that at this age most women have finished schooling, married and producing children. The least percentage age group 29.3% were aged 35 to 49 years possibly because some may have achieved their family size and their children have completed their immunization and no longer coming to the hospital.

The most tribe were Bafumbira and contributed a big number (46%) possibly because the hospital is in their locality hence a big number is expected to attend from there and the least being the Banyankole 6% could be due to the fact that the hospital is far away from them. Majority 33% were peasants. This is somehow worrisome due to the fact that peasants carry out farming on small scale for their consumption and little for selling hence pre-disposing them to home delivery and cord infections due to lack of money. This is in agreement with WHO 2013, who cited that, some harmful cord practices occur with mothers who deliver from home and they apply harmful substances such as cow dung to the cord stump predisposing to infections. Furthermore majority 47.6% of mothers had attained primary level of education could be due to the government introducing universal primary education and this was

anticipated to help them understand umbilical cord care, however the least 6.1% never went to school. Majority 79.2% were married, this was anticipated to influence clean cord care positively since the respondents have partners to support them access health care services including hospital delivery, although the rest 7.3% divorced, 11% widowed and 2.5% single.

Majority of the mothers 50% had 3-4 children. This could have influenced clean cord care positively due to mothers gaining experience on subsequent pregnancies through nursing and caring for their babies' cords. This is in line with Senarath's study (2010) who cited that women who are pregnant for the first time lack experience regarding health care compared with those women in their subsequent pregnancies. The study also found out that majority 49% were Catholics, and 3.6% other religions. This could be due to the fact that the hospital is a catholic founded and catholics are more drawn to the hospital than other religion however religious beliefs are not yet proven to have impact on cord care.

5.2.2 Knowledge on umbilical cord care among mothers.

Most of the mothers 69.7% knew cord care as tying, cutting and cleaning with clean boiled water which was good and probably these mothers could have received enough information from health care providers based from the findings that most of the mothers had got information from health workers. Which is in line with Osuchukwu

(2014), who found out that majority of respondents 44.7% from his study had good knowledge of standard umbilical cord management. They had the knowledge of tying the cord stump, cutting it with a clean object and cleaning with methylated spirit only with no application of any other material.

On knowledge about materials used in tying the cord, majority of mothers 54.9% knew use of cord ligature for tying baby's cord. Mothers could have got information from health workers during antenatal or delivery which is beneficial in cord care practice.

The least 12.2% knew use of piece of cloth for tying the baby's cord and this could be due to home deliveries or traditional birth attendants.

Mothers' knowledge on duration the cord should take to detach, majority of the mothers 60% reported that cord should take 3-4 days this implies that mothers lack knowledge on the time stipulated for the cord to separate leading to most of the mothers applying other substances on the cord to make it fall fast, heal fast and relieve pain, hence exposing baby's cord to related cord infections and only 33% reported 4-7days which is the time range for cord separation. Which is in line with (Osuchukwu's study (2014) done in Nigeria showed that 82.7% mothers had poor knowledge of the stipulated range of time for cord separation which is between 5-15days and 17.3% of the respondents had good knowledge.

When respondents were asked the advantage of carrying out cord care, majority 55% reported enhances fast cord separation, 27% reported enhances preventing infection and the least 18% said that for fast cord separation and preventing infection. Since only 45% knew the advantage of infection prevention, it could be a source of problem to poor cord care making it worse with the above where the majority thought that the cord should detach in 3-4days.

Majority of the mothers 60% got information from the healths workers about cord care which is quite good source of information and the researcher anticipated good cord care practice resulting to no infection hence live babies. This was in disagreement with Osuchukwu's study (2014), the study results showed that 34% their information were got from their mother/mother-in-law, 29.4% from church members and 9.5% from traditional birth attendants and only 27.1% got their information from health works and it was regarded as good source.

5.2.3 Practices on umbilical cord care among mother.

Most of the mothers 51% delivered from home, 28% from traditional birth attendants and a few of them 21% delivered from healthy facility. Babies delivered at homes stand more chances to poor cord practices due to their mothers applying harmful substances to the baby's cord resulting into cord sepsis hence neonatal death, this could be because they don't receive correct information on how to care for the babies cord. This is in agreement with WHO (2013) who

cited that Some harmful practices occur with mothers who deliver at home, they apply harmful substances such as cow dung to the cord stump predisposing to infections. Principles of clean cord stump care stipulate keeping the cord dry and clean and nothing is applied on it, neither at home or in the health facility as suggested by World Health Organization on essential neonatal care.

Most of the mothers 61% reported use of razor blade, 48% reported use of scissors and least of the mothers 1% reported knives. It was anticipated that the majority who used razor blades are the ones who delivered from home and those who used scissors could be the ones who delivered from the hospital and usually materials used at home are regarded as dirty and those in hospital as clean. In agreement with a study conducted on Newborn care practices among postnatal mothers in Garissa County, Kenya revealed that respondents in health facility, 93% used a pair of scissors to cut the cord while majority of those who delivered at home used a blade 87% and a few 5% used a knife. During delivery at health facilities all the materials used to cut cord were reported as clean in all cases, however, for home deliveries 12% used dirty material to cut the cord (Annastacia, 2015).

Majority of mothers 56% used thread to tie the baby's cord, 32% used cord ligatures and 12% used piece of cloth. However this is could be due to the fact that most of the mothers deliver from home and may not have cord ligatures to tie the cord and use threadss hence exposing babies to infections and a few who deliver from hospitals could be the ones who used cord ligatures.

Although Majority of the mothers above did not know the right material used to tie the cord, at least 70% of them reported cleaning baby's cord three times a day, 25% once a day and the least 5% where necessary. This implies that mothers had good practice on cord care.

Most of the mothers 80% applied substances on the cord while 20% of them did not apply any substances on the baby's cord. This could be due to the fact that mothers apply substances to aid the falling off of the cord very fast within 3-4days of application as it was stated in their knowledge above and this is also due to cultural beliefs where mothers don't join other family members before the cord falls off. This is in agreement with Basil et al. (2009), their study revealed that cow dung was applied to umbilical cord because of its high moisture absorption rate. It dries the cord rapidly, which is a potential benefits in many traditional cultures as the mother and baby cannot join the rest of the house hold until the cord falls offs

Furthermore most of the mothers 31% applied herbs on the umbilical cord, 25% applied oil and a few 19% applied cow dung on the baby's cord. These substances are not clean and may transmit infection to the baby's cord, hsoever this is believed to be more common in African countries where substances are applied to relieve mother's anxiety of delayed cord separation which ends up in poor cord care resulting into infections. This is in line with Basil et al (2009) and Bemor&Uta (2011) who cited that the knowledge of mothers on herbal preparation are much preferred in African countries for instance they know that it make the cord falls within 3-4 days of application, the wound heals faster and quicker and relieve of pain therefore, where

there is delayed cord separation usually increase parents' anxiety, thus all measures are taken to hasten cord separation.

5.2.2 Conclusion

Basing on the study findings, it can be concluded that most mothers lacked adequate knowledge on the days which the cord takes to fall, and only few knew the advantage of cord care.

Practices for most mothers on cord care were mostly poor due to mothers delivering from home and traditional birth attendants. Applying substances on the baby's cord like herbs, oil and cow dung. Majority used to cut baby's cord with razor blade and majority used thread to tie the baby's cord which are not usually sterile materials making babies exposed to infections resulting in neonatal death.

5.3 Recommendations

Basing on the study findings the researcher recommends the following

To health professionals;

Health education sessions on good cord care practices among mothers in the community and encourage mothers to deliver from hospitals such that the right information from health workers about good cord care is delivered and practiced..

Demystifying false beliefs and myth like magical effects of herbs applied on babies cord to aid quick falling off of the cord should be done through community education such that desperate mothers who do such irrational practices may know the alternative ways that are healthy for their babies

Dangerous practices like application of non-prescribed medications like herbs, oil, cow dung and local substances should be strongly discouraged among all mothers in the community through community based health education talks as well as post natal education

5.4 Implications to nursing

To the nursing practice

Emphasis should be put on cord observation and investigations for any neonate admitted from home /rural setting with signs of infections since the umbilical cord is the major put of entry of infection during neonate's early life with chances being increased with harmful practices of most rural mothers

To the nursing education

Domiciliary services should be emphasized in training institutions to ensure that risk mothers who are unable to deliver from health facility due to same reasons are deliverer from this domiciliary centers under safer and quality care of new born which includes cord care is perfectly

To nursing research

Should endeavor to carry out more comprehensive on factors leading to persistent use of herbs and local substances by mothers doing post natal cord care so that more problem addressing interventions can be developed in order to effectively eliminate a practice from the community

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APPENDICES

Appendix I: Consent Form

INTRODUCTION

I'm **Kyomugisha Rebecca**, a student of Kampala International University-Western Campus from the School of Nursing Sciences registered for a Diploma in Nursing Sciences who is carrying out a research study as part of the requirement for a Diploma qualification. My general objective is to determine knowledge and practices on umbilical cord care among Mothers attending Young Child Clinic in Mutolere Hospital, Kisoro District.

The following are considerations guideline for your participation

Read the explanation very well and please feel free to ask any questions that will allow you understand the nature of the study.

Your participation in this study is voluntary. You may withdraw from the study at any time and there are no punishments for your decision to withdraw.

Any information you provide including details on your demographic information will be treated as confidential. The study protocol has already been reviewed by an ethics committee School of Nursing of Kampala International University-Western Campus. I will be available to answer any questions that will help you to understand this study.

Signature/Thumb prints of participant..... Date.....

Signature of witness/Researcher..... Date.....

Appendix II: Questionnaire

Dear Respondents;

This questionnaire is purely designed to determine knowledge and practices on umbilical cord care among Mothers attending Young Child Clinic in Mutolere Hospital, Kisoro District for academic purpose and all the information collected will strictly be kept confidential. The researcher will appreciate clear answers.

SECTION A: DEMOGRAPHIC INFORMATION OF RESPONDENT (Tick or write correctly in the box or space provided).

1. Age range (in year);

15-24 ☐

25-34 ☐

35-49 ☐

2. Tribe;

Munyankole ☐

Mukiga ☐

Mufumbira ☐

Others specify.....

3. Your occupation

Peasant (farmer) ☐

Businesswoman ☐

Housewife ☐

Civil servant ☐

Other specify

4. Educational background

None ☐

Primary ☐

Secondary ☐

Tertiary institution ☐

5 Marital status

Married ☐

Single ☐

Divorced ☐

Widowed ☐

6. Number of children

1-2

3-4

5 and above

7. Religion;

Protestant

Catholic

Moslems

Seventh day adventist(SDA)

Other

specify.....

SECTION B: KNOWLEDGE ON UMBILICAL CORD CARE AMONG MOTHERS (Tick or write correctly in the box or space provided

8. What do you understand by newborn/baby cord care?

Tying, cutting and cleaning with boiled clean water.

Use of herbs and isolation of baby

Use of herbs

Nothing on the cord till separation

9. What material do you know it is use in tying the baby's cord?

Threads

Cord ligatures

Other specify

10. How long does it take for cord to detach?

3-4 days

4-7 days

8 days and above

11. What is the advantage of clean cord care?

To fast cord separation ☐

To prevent infection ☐

Others specify.....

12. Where did you get the information about newborn/baby cord care?

Mother/mother-in-law ☐

Health worker ☐

Traditional Birth Attendants ☐

Other specify

SECTION C: PRACTICES ON UMBILICAL CORD CARE AMONG MOTHERS

13. Where did you delivered this baby from?

Health facility ☐

Home ☐ Traditional birth attendance ☐

14. What did they use for cutting baby's cord?

Scissors ☐ Razor blade ☐

Other specify

15. What did they use to tie the cord of your baby?

Cord ligature ☐ threads ☐

Others specify.....

16. sHow often did you clean the cord?

Once a day

Thrice a day

Where necessary

17. Did you apply any substance on the cord stump?

Yes

No

18. If Yes to number 19, what did you apply on the cord stump?

Methylated spirit

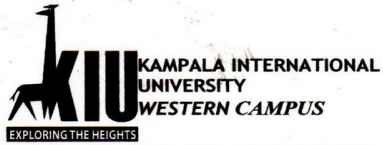
Oil

Cow dung

Herbs

THANK FOR YOUR PARTICIPATION

Appendix III: Letter of Authorization



School of Nursing Sciences,
P.O.BOX 71 Bushenyi, Ishaka
Tel: +256 (0) 701 975572
E-mail: akabanyoro@gmail.com
Website: <http://www.kiu.ac.ug>

Office of the Dean - School of Nursing Sciences

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: KYOMUGISHA REBECCA - DNS/OOOI/141/DU

The above mentioned is a student of Kampala International University – School of Nursing Sciences undertaking Diploma in Nursing Science and she is in her final academic year.

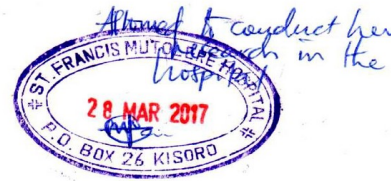
She is recommended to carry out his data collection as a partial fulfillment for the award of the Diploma in Nursing Science.

Her topic is **KNOWLEDGE AND PRACTICES ON UMBILICAL CORD CARE AMONG MOTHERS ATTENDING YOUNG CHILD CLINIC IN MUTOLERE HOSPITAL, KISORO DISTRICT:**

Any assistance rendered to him will be highly appreciated.

Thank you in advance for the positive response.


Nabafusa Sarah
RESEARCH COORDINATOR



"Exploring the Heights"

A map of South Sudan showing its administrative regions. The map is color-coded by region: Blue (Kordofan), Green (Nile), Yellow (Sudd), Orange (Nuba), and Red (Bahr el Jebel). A key in the top left corner identifies the Kisoro District with a red dot. The map includes labels for neighboring countries: Sudan to the north, Ethiopia to the east, Kenya to the south, and the Democratic Republic of Congo to the west. Major cities like Khartoum, Addis Ababa, Nairobi, and Juba are marked. The Kisoro District is located in the northern part of South Sudan, within the Nile region.

Appendix V: Map of Kisoro District showing location of Mutolere Hospital

