

KNOWLEDGE AND PRACTICES OF CHILD BEARING AGE MOTHERS

BUSIGI VILLAGE ON UMBILICAL CORD CARE

A RESEARCH REPORT SUBMITTED TO

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ABSTRACT

Neonatal mortality rate in Uganda is 27/1000 live births compared to global neonatal mortality rate of 21/1000 live births. 38% of these deaths are related to poor cord care in home deliveries and poor postnatal cord care due to low turn up of mothers for utilization of postnatal care services.

The study aimed at assessing the knowledge and practices of child bearing mothers in Busigi village in Kisoro district on postnatal umbilical cord care.

A cross sectional descriptive study was used. 150 mothers were selected by convenient sampling technique. Data collected using a questionnaire was analyzed using Microsoft excel and word. 85% of mothers knew that cord care is necessary for all new born, though only 4% knew right when it is initiated. Only 8% of mothers knew cord care for infection prevention, while larger percentages knew cord care for faster separation. Mothers knew to monitor for bleeding, progress in drying and separation, but not for smelling and redness. While applying salty water, leaving cord alone, and applying herbs were misconceived.

4.6% of mothers applied normal saline/salty water, 98.5% applied medication on cord, leave the cord to fall alone, 89.2% monitor for drying and separation, while only 13.8% monitors redness and smelling among other practices. 69% of mothers delivered from home, and 98% depended on home based postnatal care services. The main source of knowledge on cord care among mothers being their relatives.

Knowledge on when cord care should be initiated and on importance of cord care is poor as the principle role of infection prevention is known by only few mothers 10.9%. Mothers' practices are also poor. They are characterized with behaviors like application of herbs and other substances on the cord among others.

Community education on when to initiate cord care in first hour of life is needed, emphasizing on ascetic techniques to prevent cord infections and related complications. Bad practices like herbs, failure to wash hands among others should be discouraged to effectively avoid challenges associated with them like cord sepsis and neonates' death.

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APPROVAL OF SUBMISSION

I certify that the work reported in this report, was carried out by the candidate under my supervision as research supervisor.

Sign.....Date.....

NABALIISA SARAH, SUPERVISOR

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DECLARATION

I **Niyonsenga meshack** declare to the best of my knowledge that this research report is my own original work and has never been presented to any institution or examination board for any award. If other people's literature has been used, it is clearly indicated in references.

Signature:.....Date:...../...../.....

DEDICATION

This research work is dedicated to my beloved parents, Mr. Mbonyebyombi Elisa and Mrs. Nyiramugisha Furidah Mbonyebyombi for their tireless efforts, hard work and encouragement throughout my studies; and to my brothers Niyonzasenga Enock, Byiringiro sadurack, and Iradukunda Hezekiah Abednego and my beloved sister Merab Iyonsaba.

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OPERATIONAL DEFINITIONS

Knowledge. This is the general context of what mothers know about care of neonate's umbilical cord.

Practice. This encompasses all applications and interventions employed by mothers to care for neonate's umbilical cord.

Umbilical cord. This is the stump that remains on baby after cutting the cord from mother to sustain independent circulatory and respiratory mechanisms.

Cord care. Act of cleaning and maintaining the umbilical cord clean and dry till it falls off by its self.

Omphalitis. Refers to local infections of neonatal umbilical cord.

Neonatal mortality rate. Is the total number of neonates dying before reaching 28 days of life per 1000 live birth in a given year?

Community delivery. Delivery conducted out of health facility in hands of traditional births attendants or mother's relatives.

Traditional practices. All traditional interventions in cord care that are used and deemed socially acceptable in local community setting.

LIST OF ACRONYMS

GHO: Global health observation.

SDG. Sustainable development goal.

WHO. World health organization.

UNICEF. United Nations Children's Fund

ENC. Essential newborn care.

PNC. Post natal care.

NMR. Neonatal mortality rate.

UBTH. University of Benin teaching hospital.

CHAPTER ONE

1.0 INTRODUCTION

This chapter deals with the background information of the study, problem statement, purpose of the study, study objectives, research questions, and study justification

Background information.

During pregnancy, the umbilical cord usually supplies oxygen and nutrients to the baby during intra uterine life; after birth, the umbilical cord is no longer needed hence clamped and snipped. To reduce the incidence of peri-umbilical infection (Omphalitis), the cord should be cleansed in delivery room with boiled warm water at body temperature or by use of normal saline in delivery room (Weathers 2007).

This leaves behind a short stump which typically falls off with in about two weeks after birth. In meantime, it requires to be cared for to facilitate its faster drying, keeping it free from omphalitis, and prevent other complications that may arise due to poor cord care(McInerny et al 2009). To keep the cord clean and dry, WHO recommends keeping application of antiseptic/normal saline solution at births and leaving the cord dry until it falls by itself or only application of antiseptic solution in area of high risk of infection (WHO 2015). This is maximally achievable in hospital delivery.

In Africa, at least 870000 newborn dies in the first week after birth annually. Yet this is where programs are at their lowest along the continuum of care. The first

day is the time of highest risk for the baby, the fact that 18million women in Africa do not give birth in hospital or health facility poses a challenge for planning and implementation of postnatal care (PNC) of newborns (Lui 2012).

Regardless of place of birth, mothers and neonates spend most of postnatal period at home. Postnatal care programs for new born are among the weakest of all reproductive and child health programs in the Sub-Saharan Region (WHO 2015).

A study carried out in Ghana and Zambia indicates that community delivery still stands to more than 50% under the care of TBAs and Mother's relatives. Hence meeting the standards on cord care using normal saline is highly doubtful. In Uganda, community delivery stand at 60% of all deliveries hence cord care among these neonates born by community deliveries is entirely home based cultural practices dependant (Eisha et al 2013).

While good cord care practices reduce incidences of neonatal morbidity and mortality from neonatal infections and tetanus, they vary from place to place some being harmful to the newborn (Ambe et al 2015) The world health organization recommends improving care practices at births in order to reduce infant mortality rate, these have been described as Essential new borne care (ENC). Of which clean cord care is among (WHO 2012). These simple practices are critical for all babies in order to save lives and this can essentially reduce leading newborn deaths in low income countries(LICs). Mothers need to know dangers associated with using harmful cord care practices on neonates. Hence there is a need for evidence based health education talks to mothers about harmful practices of postnatal cord care. Much as this requires going deep up to level of behavioral

changes, it has a potential in going a long way in reducing morbidity and mortality rate in the neonates.

1.2 Problem statement.

Globally, 4.5 million infants die during the first year of life. Unfortunately, approximately 60% deaths occur in their first months of life. (GHO 2015) of these, more than 30% of deaths cases are caused by infections where some originate from umbilical cord. With infant mortality rate of 41 deaths per 1000 live births worldwide, the risk of neonatal deaths remains high in sub Saharan Africa.

Global neonatal mortality rate currently is 21 deaths per 1000 live births (UNICEF 2015), where as in Uganda, is at 27 deaths per 1000 live births(MOH Uganda 2015).hence still high by 6 neonates' deaths per 1000 compared to global average.

This higher neonatal mortality rate in Uganda was attributed to cord related infections due to poor cord care practices in 38%, Birth asphyxia in 12%, fever and convulsions in 9%, congenital abnormality in 8%, prematurity and other causes 33%.

In Uganda, 60% of deliveries are still conducted as community deliveries in hands of TBAs and mother's relatives, although postnatal care is recommended in the policy, it does not exist in practice on the ground and immediate care for these neonates lies in hands of community (Eisha 2013)

There is apparently no data on cord care knowledge and practices in Kisoro and Busigi village in particular. Hence to meet the SDG of eliminating infant mortality

due to sepsis raises a need to study knowledge and practices among Ugandan rural communities including Busigi village.

1.3 Purpose of the study.

The overall objective of this research study was to assess knowledge and practices of child bearing age mothers on neonatal umbilical cord care.

1.4 Specific objectives

- i.** To assess the knowledge of child bearing age mothers in Busigi village on postnatal umbilical cord care.
- ii.** To assess practices of child bearing age mothers in Busigi village on postnatal umbilical cord care.
- iii.** To ascertain social-cultural factors influencing knowledge and practices of child bearing age mothers in Busigi village on postnatal umbilical cord care.

1.5 Research questions

- i what knowledge do childbearing age mothers have on neonate's postnatal cord care?
- ii which practices do childbearing age mothers in Busigi village employ during postnatal umbilical cord care?
- iii What social-cultural factors are influencing knowledge and practices of child bearing age mothers in Busigi village on postnatal umbilical cord care?

1.6 Justification of the Study

Neonatal deaths accounts for two thirds of all deaths during first year of life and 40% of all deaths under five years globally. (Carlo et al 2014). Deaths among neonates being 45.9% due to sepsis, and neonatal mortality rate for proven sepsis being 51% if early onset which mainly starts from umbilicus (Eman et al 2015). This is slowing down the achievement of SDG of improving new borne survival majorly in developing countries and low income countries in sub-Saharan Africa. This is thought to be because postnatal care attendance for new born is still low, and community delivery still at high up to 60% In Uganda. This implies that post natal care for newborn is on larger extent dependent on community; with practices like keeping mothers and neonate enclosure for first months of life being common in sub Saharan Africa. Hence care for cord being largely dependent on mothers who spend most of their time with newborns with common rural practices like application of breast milk, herbs ghee, palm oil, cow dung, ash among others, in Uganda most common cause of neonatal deaths was found to be sepsis related to above mentioned practices. (Patrick et al 2015) common traditional cord care practices may be among contributors to neonatal sepsis deaths.

A village centered intervention program supporting WHO good cord care practices in home post natal care could decrease neonatal mortality in rural Uganda including Busigi village. Such programs will need to be developed and implemented with the trust and support of village health teams and largely mothers.

CHAPTER TWO: LITERATURE REVIEW

2.0Introduction

The umbilical cord is a unique tissue consisting of two arteries and one vein covered by connective tissue called Wharton's jelly which is thin and mucoid in nature (London 2007). During pregnancy umbilical cord transports all materials for fetal growths, and removes waste products, brings nutrients, oxygen to the fetus and carries away carbon dioxide and metabolic wastes. After delivery of the neonate, the umbilical cord is clamped, cut under sterile technique to keep the umbilical vessels occluded. Once the umbilical cord is cut, the cord stump is deprived of oxygen, blood supply and it begins to dry turning black and stiff in appearance (Murray et al 2007). Drying and separation is facilitated by exposure to air (WHO 2010).

Knowledge and practices on cord care among rural communities vary in various communities, basing on social-demographic, social-cultural, social economic factors. In a move to reduce death during neonatal period which accounts for 40% of death before the age of 5 year (Black et al 2010), Most of these deaths could be prevented by community friendly and cost effective interventions during neonatal period like proper cord care, immediate breast feeding on colostrums, and keeping the baby's body warm among others (Dhingira et al 2013). Umbilical cord care practices varies often reflecting community and health workers knowledge and beliefs (Jamlick et al 2013).

2.1 Knowledge of child bearing age mothers on cord care.

In a study carried out in Pemba; Tanzania, traditional births attendants and health professionals understood the need for using sterilized equipment to reduce the risk of infections to babies during delivery. Despite this knowledge, hand washing before delivery and use of gloves was seldom reported. The importance of cord care was well recognized in the community, nearly all TBAs counseled mothers to protect the cord from the dust, flies and mosquitoes by covering it with cloth. (Gittelsohn et al 2014). A study in Pumwani area, Kenya. 12 in-depths interviews conducted in six focus group discussions, containing service providers, traditional birth attendants (TBAs), health extension workers (HEWs) and mothers having postnatal neonates, knowledge on neonatal cord care varied from service providers who showed deeper understanding on how and why care for the cord, followed by health extension workers, lastly traditional birth attendants and mothers (Habtum et al 2013). Child bearing age mothers also showed variation in knowledge. 91% and 28% knew of the need for hygiene while cutting and tying the cord respectively. Regarding postnatal cord care, 40% of mothers had knowledge on cord care, 51% of mothers knew cord care practices, and 54% practiced postnatal cord care for appropriate duration of time. 79% of mothers were afraid of handling unhealed umbilical cord. And after multivariate analysis, the knowledge distribution was significant with the following variables.

Good knowledge being associated with increased level of education, living in middle class area rather than rural and slums, increased maternal age, acquisition of knowledge from a health worker rather than other source, and living in stone/brick house rather than mud. Whereas poor knowledge was associated with

young poor mothers of low education, who had acquired their knowledge from other sources other than health worker. Knowledge of health workers was also 50% errored by international standards not in regard to a Kenyan nursing council. Hence a recommendation that knowledge and education on cord care be given at all levels of contact with mothers and all primary health workers (Kinanu et al 2016).

2.2 Practices of childbearing mothers on cord care.

The umbilical cord is exposed for the first few days after birth; WHO recommends keeping it clean and dry with application of antiseptic only in high risk of infection (WHO 2014).

Of numerous potential topical products like (ethanol, silver-sulfadiazine, triple dye, gentian violet, chlorhexi-dine, providine iodine) chlorhexidine is a broad spectrum antiseptic agent that has been used extensively in hospital and other clinical settings for many decades. Recent community level randomized controlled trials in Nepal, Pakistan and Bangladesh have shown that applying 4% chlorhexidine product on umbilical cord saves lives. But practice from large randomized controlled studies on use of chlorhexidine from sub-Saharan Africa is lacking (Mullany et al 2009). However, no significance of using antiseptic lotion on skin and omphalitis, but only there is a trend in reduction of bacterial colonization (Zupal et al 2006)

3million neonates die globally each year because of lack of appropriate neonatal care. The situation is worst in parts of sub-Saharan Africa like Ethiopia. Overall neonatal care is at 59.5%. Where only 17.5% of mothers received skilled care at

birth, and 95.0% received social support, and of these, 86.5% receive cord care support (Gurmesa et al 2013). The minimum neonatal care package by WHO include Safe cord care during postnatal (WHO 2008). Cord care immediate after birth includes application of methylated spirit immediately after delivery on cord and there after leave the cord dry and clean except only on medical advice to apply any topical medicine (WHO 2014).

However various practices on cord care have been recorded among African communities; most of them being irrational. They include use of hot compress, herbs, native chalk, salt, sand, saliva, palm oil, menthol-containing balm, petroleum jelly, and toothpaste alone or in combination. These are commonly practiced away from hospital (Olusanya et al 2010).

A study in Konduga local government area of Borno state indicated that of the various practices on cord care, application of hot firmament is most common with 31%, use of lag and lantern at 19.5%, Vaseline 9.5%, ash/charcoal 9.3%, palm oil 8.3%, use of powder 6.5%, and red sand 3.5%, use of spirit 2%, while in using recommended WHO normal saline after births only and leave the cord dry by itself 1.5%. (Yahiya 2008)

2.3 Social cultural factors influencing cord care.

Infant mortality continues to plague under developed regions, particularly rural regions of India. Due to lack of education and motivation in regard to utilization of antenatal and neonatal care services to prevent and treat consequences of unhygienic cord care. This has been evidenced by high incidences of neonatal tetanus as result of cultural practice that encourage use of cow dung to cut

umbilical stumps, or using ghee heated with cow dung to worm umbilical dressing (Anjali 2015).

Mother's culture affects cord care from hospital place of birth to home area. application of substances on neonate's umbilical cord is following strong cultural beliefs for effectiveness on faster cord healing, also hand washing before handling the neonate largely depends on cultural beliefs (Sylvia 2015). Grandmothers and TBAs have been trusted by almost all cultures; However, although they are communally trusted, their main worry in cord care is delayed healing and separation, bleeding and swelling. Yet none of them thinks about redness as sign of infection (MBC International health and human rights 2014).

Practices like washing the neonates with herbs are common at 65% and this depends on how these particular herbs are perceived in a certain culture (Violet 2015). As preparation for delivery in rural setting, most culture requires preparing ash and sugar, and an egg shaped poisonous fruit called "UMTUMA" Other cultures believes that a grass from a hut only ties the cord. Yet neither of these above things used is sterilized. Social cultural factors that influence compliance with new born referrals emerged along three sub-themes. Community understanding of newborn period and cultural expectations; the role of community health actors; and care taker knowledge, experience and decision making autonomy (Christine2015).

A study on factors that influence cord care practice among mothers in Benin City, older women, educated mothers and those who had male babies practiced beneficial cord care practices. Whereas harmful cord care practices being

registered common among mothers of low education status, and those who delivered outside hospital, Choice of cord care was influenced by disposition by nurses (51.3%) participant' mothers 32%, and mother in law 5.4 % and TBAs 11.7 % (Abhulimhen 2011).

In Uganda, 60% are community deliveries, and 2.5% of these receive good cord care. Whereas among remaining 40% hospital deliveries, 38% receive good cord care as they are still in health facility (Waiswa et al 2010).

A study carried out in Ghana, also indicated that maternal age and parity played a significant role to the cord care. Where mothers who are Para 4 and above had good practices on cord care, young mothers had bad cord care practices even fearing to handle the neonate's cord. (Mahama and Mariam 2014).and also good cord care practices on male neonates than their female counterparts; this was attributed to African native culture of male child preference among various couples (Lawrence et al 2015).

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter is dealing with study design, study area, study population, variables, sample size determination and sampling technique, data collection and technique, data processing and analysis, ethical considerations, dissemination of results and study limitations.

3.2 Study design

A cross-sectional descriptive study carried out on knowledge and practices of child bearing age mothers in Busigi village on postnatal umbilical cord care, with data collected between 21-26th July 2016 where house to house child bearing age mother survey on above topic was done using a questionnaire to get data from child bearing age mothers as direct source of information.

3.3 Study area

This study was done in Busigi village, located in Gitovu parish, Busanza sub-county, Kisoro district in Kigezi region, south-western Uganda.

Busigi village is densely populated and a fast growing village located 24kilometers from kisoro town on border to democratic republic of Congo. The most common economic activity done is subsistence farming. It is served by Nyamagana Health Centre IV which is approximately 10kilometres away from this village. Domiciliary services are not conducted in this village and postnatal follow-up to those who deliver in health centre after discharge is minimal. Thus cord care entirely depends on community practices.

3.4 Study population

The target population of the research study consisted of all child-bearing age mothers (15-49 years) in Busigi village, Kisoro district.

This is ideal population who have been nursing neonates' cords in rural setting or are still capable of getting pregnant, deliver and care for the umbilical cords of their neonates in life time hence in community setting, community practice on cord care largely depend on child bearing age mothers who spend all their time with neonates during neonate's early life.

3.4.0 Selection criteria

3.4.1 Sample size determination.

Fisher's formula for calculating the sample size was used. The formula which was developed in 1995.

According to Fisher's formula,

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

Where; **n**=desired sample size, **p**=proportion of population with desired characteristics, **q**=proportion of population without desired characteristics, **d**=level of precision, and **z**=standard deviation at confidence level of 95% which is 1.96.

Therefore for this study,

n= desired sample size of child bearing age women.

p=proportion of the population who are child bearing age mothers of age 15-49 estimated at 50%. (0.5)

$q=1-p$ (those without desired characteristics. that is; non mothers, and those outside the bracket of child bearing age) i.e. $1-0.5=0.5$

d =level of precision at 5%.

z =standard deviation at desired degree of accuracy at 95% (1.96)

From the formula above, $n=$ **$1.96^2(0.5 \times 0.5)$**

$$(0.05)^2$$

$n=384$ child bearing age mothers.

But however due to financial and time constraints, I used a sample of 150 child bearing age mothers who had nursed a baby within a period of one year.

3.4.2 Sampling procedure

Purposive sampling was used to select the child bearing age mothers in Busigi village. With objective of choosing only child bearing age mothers' as participants who possess the characteristics of the population of interest so that the study results can be generalized. Convenient sampling technique was used in this study where all child bearing age mothers who were accessible were interviewed as representatives of the target population.

3.4.3 Inclusion criteria

In order to assess knowledge and practices on cord care, the study only included childbearing age mothers from 15-49 years where cord care practices is expected to be reliable and valid.

3.4.4 Exclusion criteria.

Mothers of extreme ages from child bearing age, which is below 15 who have not yet reached level of nursing neonates' cord, and those above 49 years of age who are in menopause hence their practices not directly applicable since they are not expected to bear anymore. Those who lastly nursed a baby for a period longer than one year since the practices could have possibly changed by various reasons like community health education and new knowledge among the mothers, those who are not willing to voluntarily participate in the research study and those who are mentally insane were not involved in the research study

3.5.0 Definition of study variables

The independent variables considered were demographic and socio-cultural characteristics that can influence mothers' knowledge and practice on cord care. The dependent variables being levels of adherence to keeping cord clean and dry measured by application of normal saline on cord immediately after birth and there after leave the cord dry with no addition of other substances and solutions with an exception of prescribed medicine on advice of health worker.

3.5.1 Independent Variables

The research variables were selected on the basis of literature, as factors capable of affecting knowledge and cord care practice. Socio-economic and demographic factors (marital status, education, occupation, and maternal age) were considered as the most distal determinants, which can affect knowledge distribution and practices on cord care.

Obstetric and health care-related factors (parity, birth place) was considered intermediary factors that, in turn can influence cord care practices, the place of post natal care and source of knowledge on cord care being proximal determinants of the knowledge and practice patterns on cord care.

3.5.2 Dependent Variable

The dependent variable under study was the mothers' neonatal cord care situations, in line with World Health Organization recommendations of application of normal saline in hospital delivery or boiled salty warm water and leaves the cord dry and clean thereafter.

3.6 Research instruments.

A major research instrument in data collection included a questionnaire, pens and papers. Other instruments like a laptop were used in data analysis.

3.7.0 Data collection procedure.

A self-developed semi-structured questionnaire interpreted in Rufumbira the local language of the study population was used in this study because it could be administered to larger numbers of respondents concurrently, with uniform instructions and explanations. Some of the respondents were able to complete the questionnaire in a confidential setting, therefore diminishing possible bias connected to researcher presence, and devoid of instant time constraints, while others who were not able to read and write in it themselves gave data by researcher administered questionnaire to understand and give viable responses to questions in the questionnaire.

All the mothers selected to participate in the study were given a home visit by either the researcher or a research assistant. During the visit, signed or thumb print consent was sought from the mothers then a questionnaire administered to them.

3.7.1 Data management.

Data was managed to maintain maximum level of confidentiality of information collected from each individual participant. Un authorized personnel were not allowed to access the data except the researcher and the research assistant who was also first trained on data management skills to ensure avoiding any errors. Data was collected during day time to ensure safety during collection procedure.

3.7.2 Data processing and analysis

Data generated was analyzed using descriptive and inferential statistics. And then processed and analyzed using Microsoft excel program. The data was computed by means of the descriptive statistical methods and the results presented in tables, pie charts and bar graphs for easy interpretation and analysis.

3.8 Ethical considerations

Permission was obtained from the Kampala international university faculty of nursing, and also from LCI chairman to carry out the study. Then informed consent was obtained from the subjects who participated in the study.

All information obtained from participants was kept confidential and used for only research purpose and nothing else.

3.9 Study limitations

The research work was conducted at the same time while reading books in preparation for state final exam as well as community hospital practice in an area distant from the research study area. However, this was overcome by proper allocation and utilization of time that was available.

3.10 Dissemination of Results

The results from this study are not yet published, but are disseminated in hard copy paper print to Uganda Nurses and Midwives Examination Board as well as to KIU Nursing School and Kampala international university library; a copy can also be accessed from Niyonsenga Meshack the chief researcher on the above mentioned topic who also hope to produce a copy for Busigi village that will be submitted to LC I chairman to discuss findings and recommendations to entire child bearing age mothers population .

CHAPTER FOUR: RESULTS FROM THE ABOVE STUDY

4.0 Introduction.

In this chapter, the results of “**Knowledge and practices of child bearing age mothers in Busigi village on umbilical cord care**” are presented in form of tables, graphs and charts followed by a brief description. A total of 150 child bearing age mothers were interviewed in period from 21st-26th July 2016, a total of 130 mothers returned a fully answered questionnaire.

4.1 Description of the sample.

Demographic characteristics of the sample were used to describe the sample.

Table 1. Age of respondent mothers. n=130

Age of the child bearing age mothers.	Frequency in age bracket.	Cumulative frequency.	Percentage of child bearing age mothers
15-19	08	08	6.1%
20-24	28	36	21.5%
25-29	44	80	33.8%
30-34	28	108	21.5%
35-39	14	122	10.7%
40-44	06	128	4.6%
45-49	02	130	1.5%
TOTAL	130	130	100%

Age group of 25-29 formed the majority of respondents with 33.8% while 45-49 year age group formed the least percentage with 1.5%.

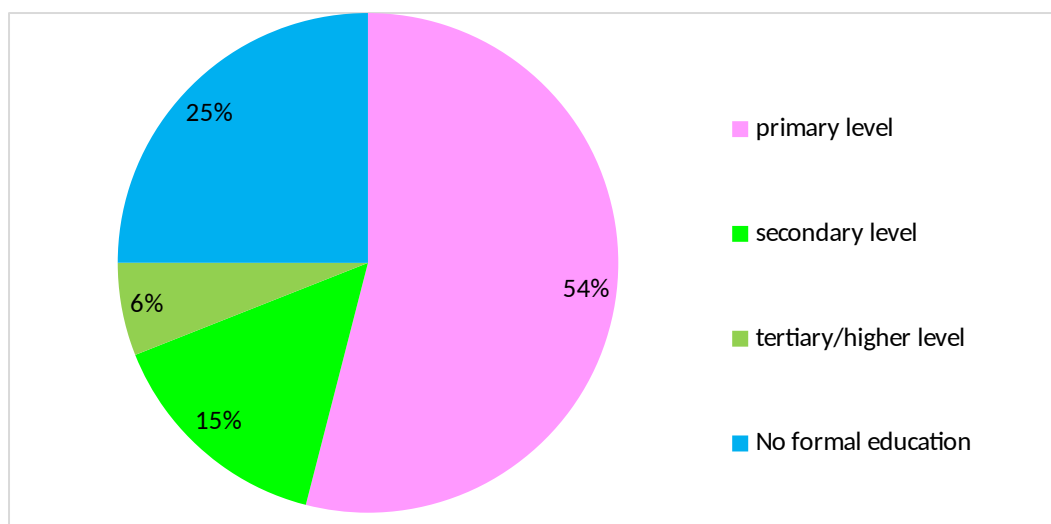
Table 2: parity of respondent mothers. n=130

Parity of respondents	Frequency for parity.	Cumulative frequency	Percentage parity.
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1	24	24	18.5%
2-3	36	60	27.7%
4-6	60	120	45.2%
7 and above.	10	130	7.8%
TOTAL	130	130	100%

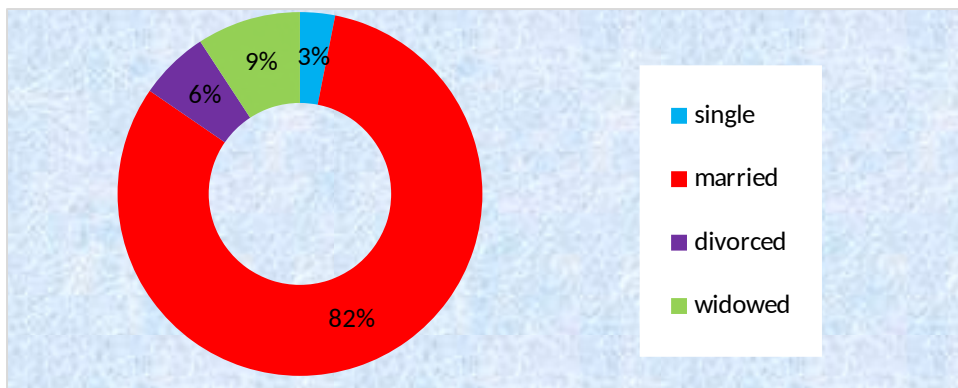
Mothers of 4-6 children composed largest percentage of respondents (45.2%),
Para 7 and above mothers were least in the study with 7.8%.

Figure 01: Level of education of mothers. n=130



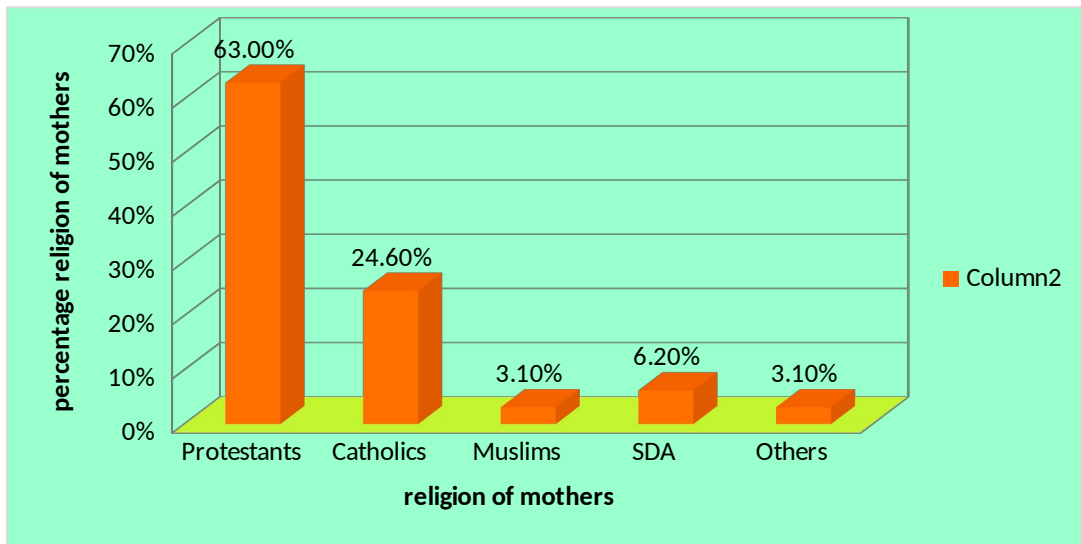
Majority of mothers(54%) had primary education, 25% of mothers had no formal education. While only 6% of mothers had higher/tertiary education.

Figure 02: Marital status of mothers in the study.n=130



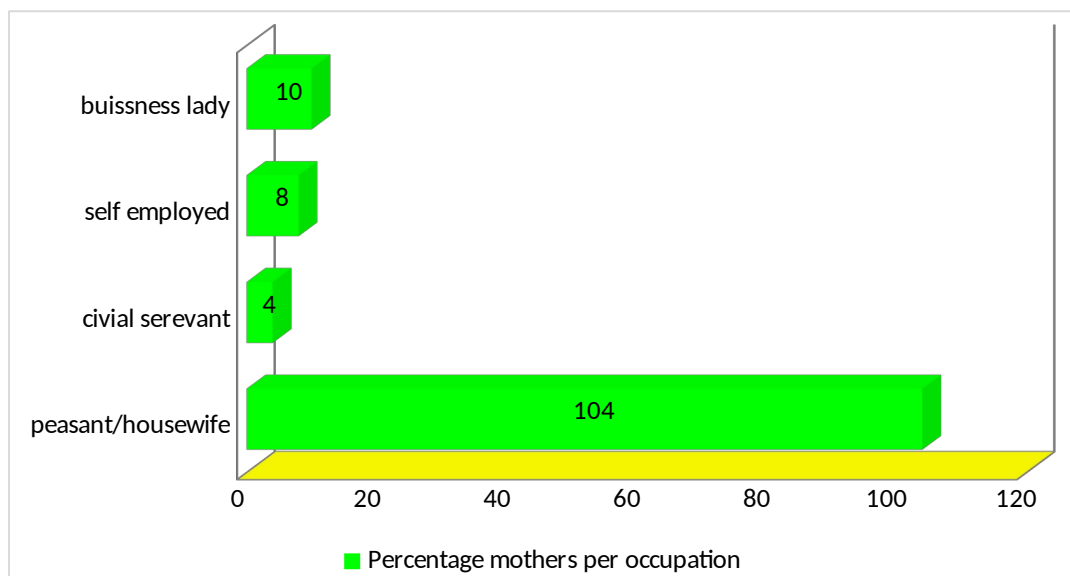
Majority of mothers, 81.5% of the study population were married.

Figure 03: Religion of mothers.n=130



The protestants formed larger percentage of 63%.while muslims and other religions formed least percentage of 3.10% both.

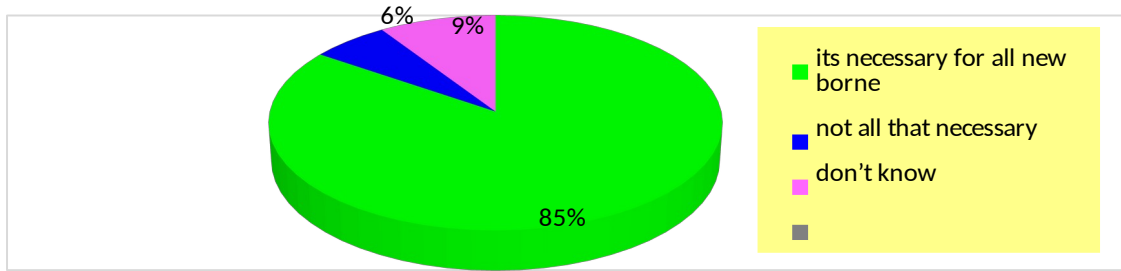
Figure 04: Occupation of child bearing age mothers in in research study.n=130



Large percentages of mothers (83%) were peasants. 3% civil servants

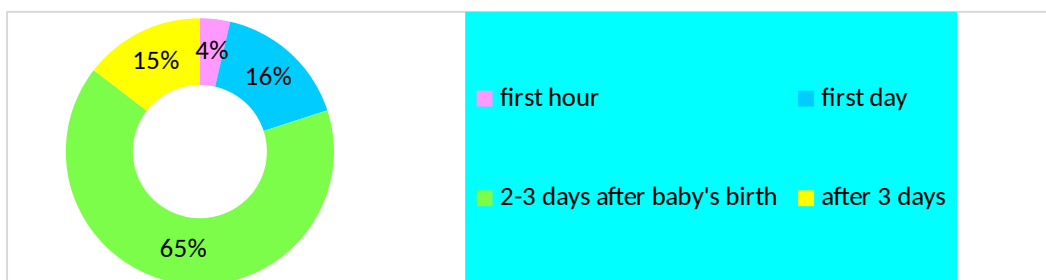
4.2 Knowledge of childbearing age mothers on postnatal umbilical cord care.

Figure 05: knowledge of child bearing age mothers on whether there was a necessity for cord care for all new born. n=130



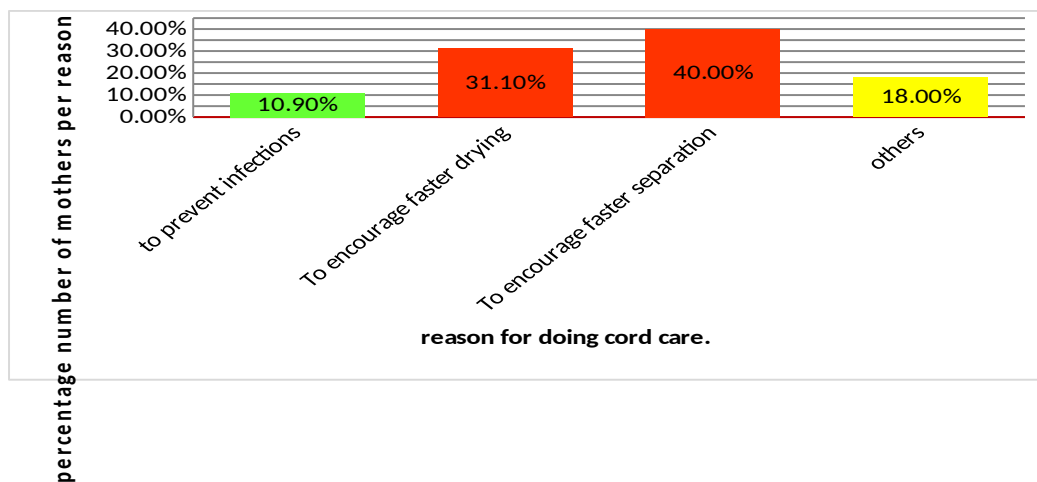
The majority of the child bearing age mothers (85%) knew that cord care is necessary for all new borne.

Figure 06: A doughnut chart showing knowledge of mothers on when cord care should be initiated. n=130



Large percentage of mothers (65%) knew that cord care should be initiated 2-3 days after the baby is born, and a few mothers (4%) consider cord care in first hour necessary.

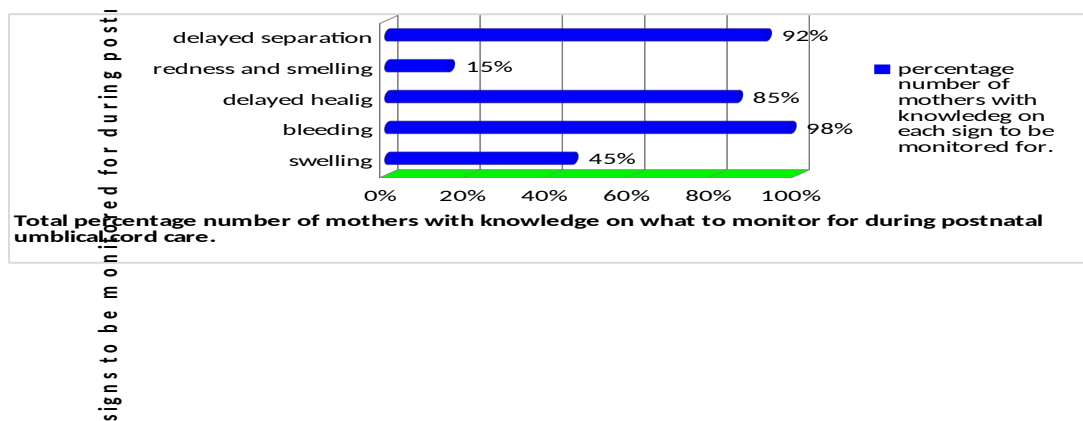
Figure 07: Knowledge of child bearing age mothers on reasons for carrying out umbilical cord care. n=130



Large percentages of the mothers; 40% and 31.1% knew cord care as important to facilitate faster separation and faster drying respectively, while only 10.9% knew doing cord care for prevention of infections.

Figure 08: Knowledge of mothers on what to monitor for during cord care.

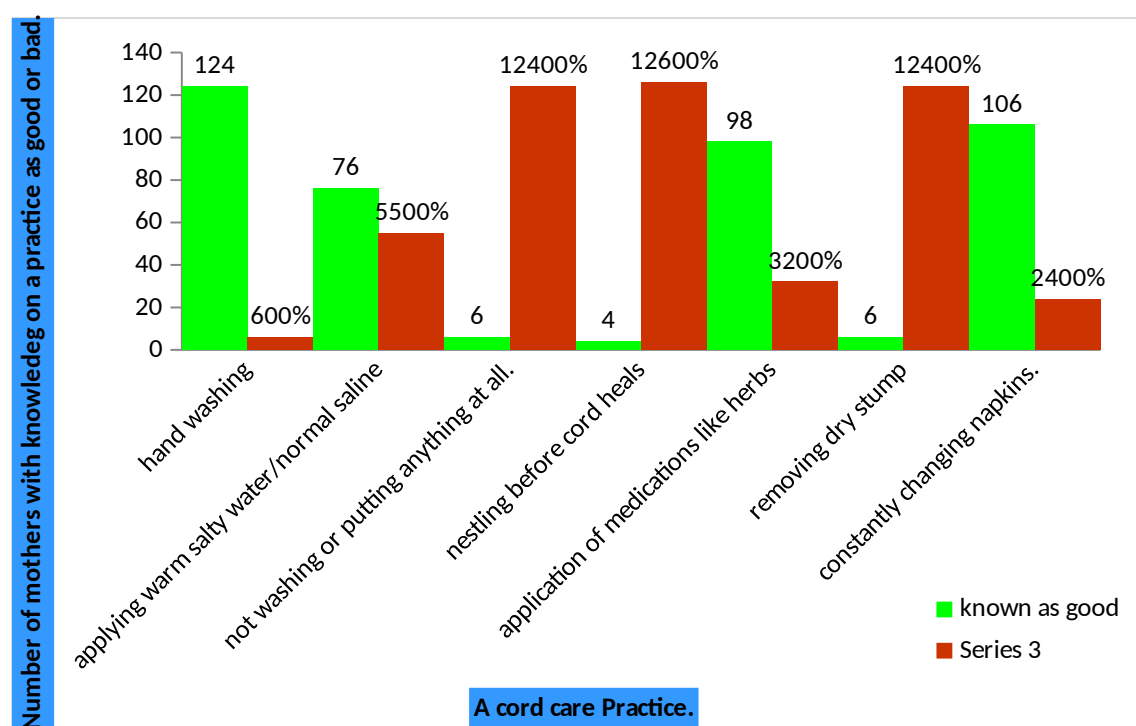
n=130



98% of mothers knew that bleeding on cord should be monitored for, also is with delayed separation and delayed healing with bigger percentages of 92% and 85%

respectively. Whereas a few of mothers (15%) knew that redness and smelling of umbilical cord should be monitored for during cord care.

Figure 09: A table showing consideration of mothers for umbilical cord care practices as either good or bad n=130



95.3% of mothers knew hand washing as good while 4.6% considered it bad, 58.4% knew applying warm salty water/normal saline as good, 41.5% knew it as bad, 9.2% of mothers knew that applying nothing at all is good, and 90.7% knew it as bad, 3.1% knew nestling before the cord fully heals as good, and 96.9% knew it as bad, 75.4% considered applying non prescribed medication including herbs as good, 24.6% knew it as bad, 4.6% mothers knew removing dry cord stump as good, 95.4% knew it as bad, 81.5% of mothers knew that constantly changing nappies is good, where as 18.5% of mothers considered it bad. Hand washing, applying medications on the cord, and changing nappies as good practices, while nestling the baby before the cord heals, separating the cord, applying nothing at all as bad practices.

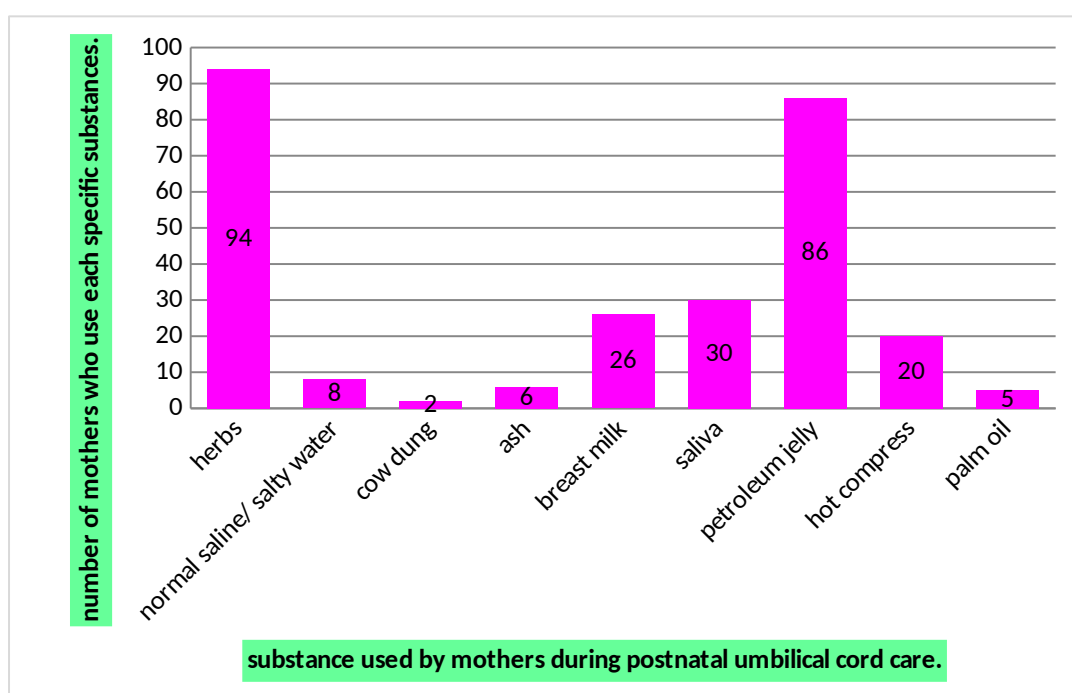
4.3 Practices of child bearing age mothers in Busigi village on postnatal umbilical cord care

Figure 10: Practices of mothers on cord during cord care.n=130

4.6% of mothers do wash hands before they touch baby's cord, 98.5% apply medication on cord (these include all forms of medication including herbs and local substances), 1.5% remove the dry cord, 98.5% of mothers leave the cord to fall by its self, 66.1% prevent nappies from touching the cord, 43% changes soiled nappies instantly, 13.8% monitors for redness and smelling, 89.2% monitors for swelling, drying, and bleeding. Large percentages 98.5%, 98.5%, 98.5% and 89.2% of mothers majorly, leave the cord to fall alone, apply medications on the cord, and protect cord from insects and do monitoring for drying and separation respectively. While a few monitors (13.8%) for smelling and redness

Figure11: substances and medications used by mothers on umbilical cord.

n=130



Herbs and petroleum jelly/Vaseline were most applied substances with 70.7% and 66.1% percentages respectively, while only 6.1% of mothers applied normal saline/warm boiled salty water,

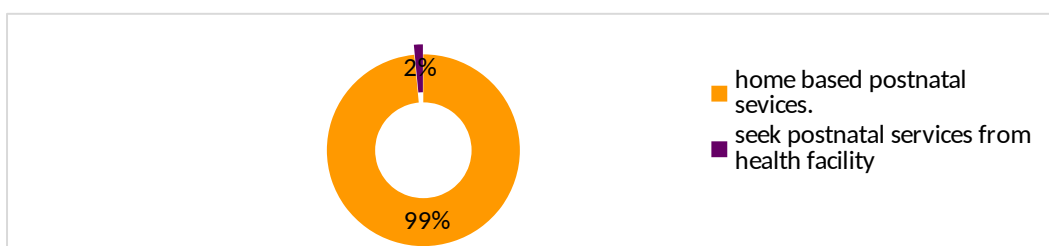
4.4 Factors influencing knowledge and practices of child bearing age mothers on cord care.

Figure 12: Place for delivery for mothers. n=130



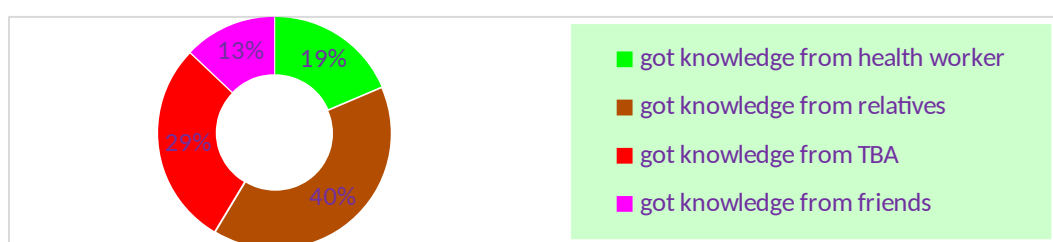
69% deliver from home, 31% deliver from health facility. Majority of mothers deliver from home.

Figure 13. Place of postnatal services



Majority of the mothers 98.5% depend on home based postnatal services while only 1.5% of mothers seek postnatal services from health facility with exception of when either mother or baby is sick.

Figure 14: Sources of knowledge on cord care among child bearing age mothers used in the sample.



Main source of knowledge on cord care is relatives and TBAs with 43% and 30.7% respectively. While only 12.3% got knowledge from health workers.

CHAPTER FIVE:

DISCUSSION OF STUDY RESULTS, CONCLUSION AND RECOMMENDATIONS.

5.0 Introduction

This chapter discusses the findings, gives conclusion and recommendations about knowledge and practices of child bearing age mothers aged 15-49 years in Busigi village on umbilical cord care in relation to research objectives and answering research questions. The results are discussed in line with the research findings as presented in chapter four and also in comparison with other scholars' findings from introduction and literature review. In this study, a total sample of 150 child bearing age mothers aged 15-49 from Busigi village who Had nursed a baby in period not longer than one year were considered a representative sample of study population by convenient sampling, 130 returned fully answered questionnaires .

5.1 DISCUSSION OF RESEARCH STUDY FINDINGS.

5.1.1The characteristics of study population.

The study revealed that 6.1% of study population was aged 15-19 years. This could be because, at age between 15-19 is a school going age, and also with the rule of Uganda that tends to prohibit sexual intercourse among pupils below 18 years considering them to be young, immature hence unable to make their own decisions in various matters including sexual activity and reproduction. Studies in other various places had attached good cord care with increase in mothers age. Hence these young mothers if they follow the odds, are likely to portray bad knowledge and practices on cord care leading to persistent cases of cord related

sepsis leading to neonatal deaths as a similar study in Pumwani Kenya by Kinanu et al earlier this year (2016) indicated that poor cord care knowledge and practices was associated with young maternal age.

Majority of mothers 33.8% were aged 25-29 years. This could be possibly because these are post schooling age in most of study settings under normal circumstances, hence are married and producing and doing cord care to the maximum given the fact that this is also average reproductive age between 15 and 49 reproductive age extremes. Hence could be the reason for dominance of this age group doing cord care.

The least percentage age group 1.5% were aged 45-49 years. Possibly because, most of mothers in this age group have attained menopause, and hence no longer producing and caring for the baby's cords. Others in this age group could have reached maximum number of children they wanted to produce and opted for family planning methods hence no longer producing or caring for babies' cords.

Other age groups were represented as follows, 21.5% of mothers aged 20-24, 21.5% were 30-34, 10.7% were 35-39, and 4.6% were 40-44 years,

On parity of respondents, they were categorized into those who are Para 1, 2-3, 4-6, and Para 7 and above. They were 18.5%, 27.7%, 45.2%, and 7.8% respectively.

Para 4-6 mothers composed the largest percentage of study population with 45.2% of the study population. This approximates to average reproduction and fertility rate of Uganda which is 6.2 children per woman.

While mothers who were Para 7 and above were only 7.8% of child bearing age mothers in the study population. This is possibly because, this being above average fertility rate of Ugandan women, most mothers reach menopause or voluntarily chose to stop producing before reaching this parity. However, it is expected that these mothers with high parity from Para 4-6, and those Para 7 and above would have better knowledge and do good practices on cord care, thereby ensuring cord cleanliness and safety hence reducing cord related infections that lead to sepsis and neonatal deaths as it has been shown by earlier studies elsewhere.

A study in Kenya by Habtum et al in (2013) indicated that mothers who were Para 4 and above carried out good cord care compared to their counterparts who were only Para 1 to 3.

The largest percentage of child bearing age mothers had primary level of education (57%) where, only 6% of all mothers had attained higher/college level of education. At least 75% of mothers had a formal education including primary, secondary, tertiary/college education.

However level of education among child bearing age mothers is still low since 25% of child bearing age mothers in the study population did not have any formal education, and 54% had attained only primary level.

Mothers are more likely to portray poor knowledge on cord care and so are expected practices. This can lead to cord related sepsis causing neonatal deaths as it was found out that good knowledge and practices are greatly associated with

increase in maternal age and level of formal education by (Kinanu et al 2016) in Pumwani Kenya.

Majority of study participants were married child bearing age mothers making 81.5% of the study population. This could be due to societal-cultural value of marriage and producing children in marriage institution. However, there is no great significance in knowledge and practices on cord care with marital status of the mother although mothers who are married may have stable families and have family and social support regarding cord care from spouses and relatives relatively to a study finding in Ethiopia by Gurmesa et al in (2013). Gurmesa with co-researchers found out that 86.8% of mothers that delivered received social support in form of cord care.

Protestants composed a large share of study participants with 63% representatives followed by Catholics with 24.6%, SDA Muslims and other religions with 6.1%, 3% and 3% respectively.

This could be a true representation of religion distribution among population of Busigi village hence all religions proportionately fairly well represented. it's not clear whether religious affiliation has impact on knowledge and practices of cord care, however if it has, protestant affiliation and beliefs could be contributing much on knowledge and practices on cord care in this particular study population.

The study population was mainly composed of peasant farmers 83%. This could be basically due to low levels of formal education as, as 54% of mothers in study population had only primary level of education, and 25% with no formal

education. This imply that a total of 79% of mothers' population had not had formal education beyond primary level to enable them compete for better occupations that may give maternity leave to do cord care to their babies.

Peasant work being tedious, requiring long hours of working, dirty setting of the nature of work, could contribute to poor cord care. In this setting, mothers can hardly have water for washing hands before caring for their babies cords from their gardens. Possibly they rarely rest from garden work to do cord care in calmer and cleaner setting, Hence they may end up touching the baby's cord with dirty hands thereby introducing bacteria onto the cord. This can lead to pemphigous and its related complications ranging from high cost of treatment to neonatal deaths secondary to cord related infections.

5.1.2 Knowledge of child bearing age mothers in Busigi village on postnatal umbilical cord care.

During assessment of child bearing age mothers' knowledge on postnatal umbilical cord care, various parameters were considered. These included, whether mothers knew that cord care is necessary for all new born babies, period when cord care should be initiated in post natal life, mothers knowledge on reasons for carrying out cord care on baby's umbilical cord during post natal life, mothers' knowledge on practices that are good on cord care or bad practices to be avoided during cord care and what a mother should monitor for during postnatal umbilical cord care.

On whether cord care is necessary for all newborn babies, 85% of mothers in the study population knew that cord care is paramount for all newborns. These are

likely to do cord care thereby ensuring a clean and safe cord thus reducing on cord injuries and cord related morbidities like cord related sepsis thereby improving neonates' survival and reducing neonatal mortality.

15% of child bearing age mothers in the study population did not know whether cord care is necessary for all newborns hence are not likely to do cord care for the newborn thereby contributing to cord related traumas and infections that can potentially lead to neonatal deaths.

On knowledge of when cord care is initiated, different timings were provided in the questionnaire and mothers were required to choose when they think that cord care is initiated. A large percentage (65%) of mothers in the study population knew that cord care is initiated in second to third day of baby's life. This imply that mothers do not know well when cord care is initiated hence their babies can easily be exposed to cord related infections with in the first day leading to neonatal sepsis and death. Similarly, Lui (2012) found out that care for the newborn in Sub-Saharan region is low, with postnatal newborn care being at minimum, and the first day being the most risky for the babies.

Only 4% of consider cord care important to be initiated in first hour of baby's life contrary to WHO 2014 recommendation that cord care be initiated in the first hour of every baby's birth. Hence this indicate that what mothers strongly consider as cord care is away from practices like immediate monitoring for bleeding from clamped cord, applying normal saline/warm salty water to prevent cord infections as WHO and MOH Uganda recommends.

Whatever timing mothers considered to be best for initiation of cord care is likely to be due to their reasons for carrying out cord care and they were required to give reasons for doing cord care to a new born.

Two major reasons known by mothers as to why they do cord care are; encouraging faster separation and encouraging faster drying with 33.1% and 40% respectively, while Only 10.90% knew cord care as important to ensure infection prevention, among other reasons given, hence lack of knowledge on infection prevention during cord care being highly risky to neonate cared for by these mothers. Because they are likely to do cord care, but their level of commitment to infection prevention and sterility of equipment and substrates used during cord care is likely to remain low hence cord related infections and neonates' death.

Mothers' knowledge also had mythical attachments of preventing protrusion of the cord and preventing post partum abdominal pain to the mother which they locally termed as "efumbi". They believed that this pain resolves if mothers carry out practices on neonate's cord. Hence these mothers most likely have to do something on the cord in effort to relieve this after birth pain if at all they experience it. This has no logical defense or any scientific connection of a newborn baby's cord stump and the involution of uterus hence its viability highly questionable.

Monitoring the cord is a major component of cord care during post natal life. Mothers are required to have a good knowledge on signs of progress in cord healing and danger signs on cord that require interventions. Out of 130 who returned a completely filled questionnaires,

98% knew that they should monitor for bleeding, and so is separation and healing with big percentages of 92% and 85% respectively. Hence physical dangers like bleeding and delayed healing and separation can be easily noticed by mothers and interventions carried out to address them early enough thereby preventing neonatal death due to them. Only 15% of mothers knew that they should monitor for redness and smelling. Implying that pathological cord related signs and symptoms of poor cord care like redness and smelling of cord related to cord infections originating from an unhealed umbilical cord stump are more likely to go unnoticed. This gives them a chance to progress to systemic infection and bactremia in neonate's life a level where they would be hard to treat and prognosis still remain poor than if addressed earlier at onset. The outcomes of such poor prognosis of late addressed neonatal sepsis as result of poor cord care being neonatal deaths. Or complications to survivors of neonatal sepsis that accompany the neonate through infancy to adulthood.

When asked to identify practices as good or bad for postnatal umbilical cord care, mothers' knowledge contradicted on various practices where some mothers knew some practices as good while others knew them as bad. But there was a general trend for every practice as known by mothers as either good or bad based on number of respondents who consider it as good or bad.

Hand washing before touching the baby was generally known as good by 95.4% of mothers. These are likely to wash hands before caring for baby's cord hence preventing cord related infections thereby reducing neonatal sepsis related to poor cord care and reducing sepsis related neonatal death.

58% of mothers consider applying boiled warm salty water as a good practice while 42% consider it a bad practice and are not likely to apply it. Normal saline/boiled warm salty water are locally affordable topical antiseptics that can reduce bacteria colonization on unhealed cord stump thereby reducing neonatal infections of cord origin. However, nearly a half 42% of mothers in study population know it as a bad hence worth to avoid as opposed to WHO 2014 recommendation of applying normal saline/boiled warm salty water on cord in first hour following baby's birth.

91% of mothers know not washing the cord and applying no substance or medication at all at the cord stump as a bad practice hence are likely to wash the cord, and apply substance on the cord during postnatal care. Washing the cord keeps it wet and hence giving more chances for bacteria colonization causing cord related infections and death. Except on immediate newborn care, Application of substances on the cord during postnatal life have not had any remarkable contribution on uninfected cord unless there is high risk of infections hence could be of no use apart from increasing chances of mothers touching the cord with dirty hands hence introducing infections on to the cord relatively to findings in Afghanistan by Zupal in 2006 that there was no significance of using antiseptic lotion on skin and omphalitis, but only there is a trend in reduction of bacterial colonization.

Hence here, mothers' knowledge is contrary to WHO 2014 recommendation of only applying an antiseptic in delivery room and thereafter leaving the cord alone clean to dry.

Whereas 9% of child bearing age mothers knew this as bad practice; hence majority of mothers are likely to apply something on baby's cord.

97% consider nestling the baby before the cord has fully healed a bad practice hence are likely not to do it and only 3 percent who do not object it as bad would do it and the danger would depend on the method they use since most methods expose the baby's cord to dangers ranging from infections to trauma while others may be safe.

75.4% knew applying non prescribed medications including herbs and local substances as good and hence they are likely to apply them on a baby's cord. However whether these substances applied are sterile is highly doubted, hence can contribute to sepsis and death secondary to cord related neonatal infections. It was found out that most of neonatal sepsis is related to mothers postnatal care practices by Patrick et al (2015). Only 24.6% of the child bearing age mothers in the study population considered non prescribed medications and herbs applied on baby's cord as bad an indicator that mothers are not near to leaving application of such substances and herbs onto the cord there by continuing to risk lives of vulnerable neonates to infections since they are entirely under the care of these mothers.

96% knew removing the dry cord stump as a bad practice and hence are likely to leave it fall by itself hence not exposing the cord to hands attempting to remove it and safety from bleeding by damages caused while trying to remove the dry cord.

81.5% of mothers knew changing napkins constantly as good practice and hence are likely to practice it leading to prevention of ascending infections from wet

soiled nappies to an unhealed cord stump that could lead to cord related infections and deaths. While 19.5% of mothers considered this a bad practice which may be due to mothers disregard of importance of napkins in early neonate's life. And if not then they are likely to keep these nappies which may be source of infections to the cord that can progress to systemic infections which could be more life threatening and more hard to treat.

5.1.3 Practices of child bearing age mothers on cord care.

Only 4.5% reported that they wash hands before touching the baby's cord. This is a dangerous practice as dirty hands on to the baby's cord can introduce infections like *clostridium tetenii* which may cause fetal diseases like tetanus that treating may be difficult and prognosis if not under proper care may not be good. Despite the fact that this they had reported as good practice, a small number manages to do it for its necessity and infections can easily be introduced on to the cord through mothers' dirty hands.

Failure to wash hands among mothers may be due to cultural regard of it as unnecessary. Similar to findings by Sylvia in (2015) in her study carried out in eastern Uganda, she found out that hand washing among mothers caring for neonates' cords largely depended on cultural beliefs.

4.5% of mothers do not wash the cord or apply anything at all which is good practice to some who deliver from a health unit and normal saline is applied from there in delivery room. This is as per WHO 2014 recommendation to apply normal saline/salty water on baby's cord as immediate cord care and leave the cord alone clean and dry thereafter unless there is high risk for infections.

But since most of mothers normally have home deliveries, their babies are also at a risk of cord infections originating from birth canal or unsterilized instruments used during snipping off the cord in home deliveries because it is highly doubted whether standards of applying normal saline/boiled warm salty water in home setting is always met.

98.5% apply medication of (any kind of medications) on umbilical cord similar to Olusanya et al (2010) finding of various practices on cord care in Borno state of Nigeria.

98.5% of mothers in the study population leave the cord to fall by its self hence minimizing risks of causing bleeding from cord stump and 1.5% of the mothers did separate the dry cord from umbilicus, though not a commonly practiced practice by the rest of the mothers, it's a bad practice because with it are associated with risks of traumatizing the umbilical cord leading to bleeding of the baby's cord. This may also prolong the length of healing of umbilicus since in case of any trauma may require time for healing of mother created trauma on baby's umbilical cord leading to more exposure to infections.

66% of mothers in the study population prevent napkins from touching baby's cord and 43% changes nappies of neonates instantly whenever they are soiled. Mothers who do not change napkins are most likely to have baby's cords infected by ascending infections from wet dirty and soiled napkins leading to cord related sepsis and neonatal death if not properly and timely addressed.

89.2% of mothers in the study population monitored baby's cord for swelling, progress in drying and cord separation, while only 14% of child bearing age

mothers that had nursed a baby in one year period monitored baby's cord for redness and smelling similar to MBC international health and human rights 2014 in Ethiopia that found out that home based postnatal cord care by TBAs majorly focuses on cord separation and less attention on redness and smelling as signs of infections.

Mothers basically are concerned with faster healing and separation, but the findings indicate that a few of them monitors the cord for sign of infection. This implies that in case of infections, they are likely to go long while unnoticed till they reach systemic circulation that baby will portray signs of septicemia which is more fatal to babies or if managed, cost of treatment is high and prognosis being poorer than if addressed earlier still locally on cord stump.

98% protects the cord from insects by covering the baby which is good in that it prevents introduction of germs by disease vectors like houseflies, however the sterility of clothes they use to cover is not clear.

On determining forms of medications and substances mothers use during cord care, 70.7% of mothers applied herbal medication, 6.1% of mothers applied normal saline/boiled warm salty water on baby's umbilical cord, 1.5% applied cow dung on umbilical cord, 4.6% applied ash, 20% of mothers applied saliva on umbilical cord, 66.1% of mothers applied petroleum jelly/Vaseline on umbilical cord, 15.3% applied hot compress, and 7.7% of mothers applied palm oil.

Like other sub Saharan communities, use of native methods in cord care is also strongly practiced in Busigi where use of herbs and petroleum jelly are leading practices that most mothers employ differently from findings from Konduga

Borno state in Nigeria by Kinanu where hot compress was the major predominant application on babies' cord stumps. While a few mothers (6.1%) adopt WHO and MOH recommendation of normal saline wash in first hour and thereafter leave the cord alone to dry until it falls by itself.

5.1.4 Social cultural factors influencing knowledge and practices of child bearing age mothers on postnatal umbilical cord care.

Factors influencing cord care were determined along demographic characteristics of child bearing age mothers, as well as their social cultural factors. These include place of delivery, place of post natal care and source of knowledge regarding post natal cord care.

31% delivered from health unit and 69% delivered from home, the percentage of mothers who deliver from home in Busigi village remains higher by 9% compared to national statistics and Weathers (2012) that ascertain only 60%. This could be due to slight long distance to a government health facility that serves this village with poor roads for quick transportation of mothers to deliver from health unit. These large numbers of mothers who deliver away from health unit are most likely to miss on health facility based postnatal care for the baby and also miss knowledge from health workers and practice home based interventions on postnatal cord care. 31% of mother who deliver from health facility are more likely to be educated on cord care by health workers and hence good knowledge and practices expected from them.

Mothers have no value of post natal care similar to 2015 WHO report findings on utilization of ANC services. 98.5% of mothers said that unless the baby is sick or

the mother, they normally have postnatal care from home implying that cord care practices are home based with their associated challenges of poor sterility of the home setting and lack of aseptic caution. In home based interventions except those who deliver from health unit and cord care can be initially started from there as one of newborn care interventions.

This implies that as essential newborn care package require cord care, it is done locally hence practices of home based post natal cord care depend on mothers knowledge and therefore mothers can practice good or bad practices on cord care depending on what their knowledge on such practices.

43% mothers in the study population got their knowledge on cord care from relatives, 30% from TBAs, 20% from health workers, and 13.8% of mothers who had got their knowledge about cord care from friends. The major source of knowledge on cord care being relatives. However, it is clear that these relatives give incorrect information to the mothers since they are not educated in field of newborn care and cord care in particular hence to some extent are the reasons for poor knowledge and practices portrayed by mothers.

5.2 CONCLUSION ON THE FINDINGS FROM THE STUDY

The study findings for the research study titled **“knowledge and practices of childbearing age mothers in Busigi village on postnatal umbilical cord care”** found out the following.

Most participants were aged 25-29 with 33.8%, and a larger percentage of mothers were Para 4-6. Of all mothers, 83.2% had not attained beyond primary level of education, and 81.5% of mothers were married. Level of formal education among mothers is still low as 72% of all formal education was primary.

Mothers knew that cord care for all new born babies is important; however mothers lacked knowledge on appropriate time when cord care should be initiated.

Mothers knew that cord care is done to facilitate faster drying and separation from the umbilicus; however, they lacked knowledge on role of cord care in preventing infections.

Hand washing, constantly changing babies' napkins, and applying medication (including of all kinds) were known as good practices. Leaving the cord alone to dry without applying anything, nestling the baby before the cord heals, removing the dry cord stump were generally known as bad practices by mothers.

95.4% of mothers at least apply a form of medication/ a substance on cord, 89.2% of mothers monitors the cord for healing, drying and almost all mothers (98.5%) covers the cord from insects like houseflies and prevention of nappies from touching the cord (66%).

While least practiced include hand washing (4.6%) hence cord related infections originating from dirty mothers' hands still far from being avoided.

14% monitor for redness and immediate change of nappies whenever they are soiled is practiced by 43%. 6.1% of mothers apply on cord normal saline/boiled warm salty water, while the rest of mothers also apply substances on cord like herbal medicines, petroleum jelly, hot compress, saliva, ash, and breast milk among others. These practices are not safe for the baby they are potential introducers of infections to an unhealed cord leading to cord related neonatal sepsis and its related outcomes like neonatal death.

Place of delivery did not play a significant role in source of knowledge and practices of the mothers, since only 12.3% mothers had their knowledge on cord care from health worker as opposed to 31% who had delivered from health unit implying that some mothers that delivered from health unit did not receive health education on cord care,

Poor attendance of postnatal services was also one of factors responsible for mother's reliability on irrational local interventions on cord care since only 1.5% attended postnatal care services of which one of these services include cord care for the new borne.

5.3 RECOMMENDATION FROM STUDY FINDINGS.

To Busigi village community.

To re-emphasize on girl child education that aims to have a health mother and a healthy baby through capacity building and knowledge equipping of all mothers so that they are knowledgeable on good practices for new born including those for cord care, and active participation in postnatal visit to ensure proper postnatal care services.

To health professionals.

Health education topics on good cord care practices and signs of good cord stump health and cord stump infections be included in peri-natal health education topics for mothers, and be taught to mothers who deliver from health facility on discharge. This has to ensure that emphasis is shifted from only caring on early cord separation to other important areas like ensuring prevention of cord related sepsis which is more threatening to the babys' lives.

Demystifying false beliefs and myths like magical effect of herbs applied on baby's cord to heal after pains should be done by community education on proper management of after pains and cord so that desperate mothers who do such irrational practices may know the alternative ways that are healthy for them and their babies.

Dangerous practices like application of non prescribed medications like herbs, hot compress, saliva, breast milk, petroleum jelly and other local substances should be strongly discouraged among all mothers through community based health education talks as well as postnatal education of the mothers attending postnatal

services in order to reduce or if possible eliminate their related dangers like cord related infections and sepsis and neonatal death.

Mothers should be encouraged to deliver from hospital and also utilize postnatal care services so that chances of having contact to right resourceful persons who can educate them on cord care are increased. This can ensure that mothers get good knowledge that can lead them with doing good practices on cord care.

5.4 IMPLICATION TO NURSING PRACTICE.

To the nursing practice. Emphasis should be put on proper history on cord care practices for all neonates admitted from home on type of cord care they have received because of likely hood of practices registered in this study causing/ or predisposing the neonates to infection through the cord. Cord observation and investigations should also be considered for any neonate Admitted from home/ rural setting with signs of infections since the umbilical cord is the major port of entry of infections during neonate's early life with chances being increased with ridiculous practices of most rural mothers.

To the nursing education. Domiciliary services should be emphasized in training institutions to ensure that non risky mothers who are unable to deliver from health facility due to some reasons are delivered from their homes under safer and quality care and immediate care of new borne which includes cord care is done perfectly and in a more healthy way by professional personnel and also have a chance to health educate these mothers on subsequent neonate's care including care for the cord.

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

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APPENDIX I: CONSENT FORM FOR CHILD BEARING AGE MOTHERS

I have been provided with information concerning this study titled **“Knowledge and practices of child bearing age mothers in Busigi village on neonatal**

umbilical cord care” to help me understand it. The implications, duration, purpose, voluntary nature and inconveniences or risks that may be reasonably expected have been explained to me.

I have been given the opportunity to ask questions concerning the study and these have been answered to my satisfaction. I have been informed that even if I do not participate in the study, there will be no penalty attached.

I have been made to understand that at any time if I feel uncomfortable with participating in the study, I can voluntarily retrieve my consent without any negative implication or punishment being imposed on me.

I confirm that I am happy and voluntarily taking part in the study.

Participant’s name.	Signature	Date
Researcher	Signature	Date

Appendix II: STUDY PARTICIPANTS QUESTIONNAIRE

Questionnaire No..... Date: ____/____/____

Dear respondent.

I am **Niyonsenga Meshack** from Kampala International University, school of nursing; doing a research titled **“Knowledge and practices of child bearing age**

mothers in Busigi village on postnatal umbilical cord care". You are kindly requested to answer the following questions and your answers will be treated with utmost confidentiality.

URUPAPURO RWA..... Imisi_ / _/ _ .

Njewe **Niyonsenga Meshack** kuva muri kaminuza mpuzamahanga yakampala, mwishuri ryabasaho. Ndimugukora ubushakashatsi ku “**ubwengye nibikorwa bijanye nokureberera umukundi wumwana nyuma yuko yabyawe mubagore bimyaka ibyara bo muri Busigi**”.urasabwa gusubiza ibibazo bikurikira, kandi ibyo uribusubize byose biribufatwe nkibanga.

A: SOCIO-DEMOGRAPHIC CHARACTERSITICS

1.a)Age of mother in year (ubukuru bwawe mumyaka).
.....

b) Number of children. (Ubyaye abana bangahe) 1 [] 2-3 [] 4-6 [] above 6 (barenze 6) []

2. Level of Education of the mother: (wagarukiyehe mumashuri wiga?)

Nonen(ntabwo nize) [] Primary (nize abanza)[] Secondary(ayisuumbuye) []
Higher/College(kaminuza) []

3. Marital status. Uko ubayeho mubyamago Single (ndibaana) [] Married (ndashatse) [] Divorced (narahukanye) [] Widowed (narapfakaye) []

4. Religion(idini yawe): Catholic(umunyagatorika) [] Protestant(umuporoso) []
Muslim (umusilamu)[] SDA(umudivantisite) [] others Specify(ayandi

uyasobanure)

.....

4.Occupation Specify (utunwe nuwuhe murimo?).....

.....

B: child bearing age mothers' knowledge on umbilical cord care (Indicate her response in the appropriate box/gorora aho bikwiye).

5. a) Umbilical cord care is a necessary for all new born. kureberera umukundi wumwana ningombwa. Yes (yego)[] No(oya) [] I don't know(simbizi) []

b) When is it important to initiate cord care in neonate's life? (nigyihekyi ugomba gutangira kwita kumukundi wumwana wavutse?) 1st hour (isaaha yambere)[] 1stday (umusi wambere)[] 2-3rd day,(umusi2-3)[] after three days (nyuma yimisi itatu) []

c) Why is it important to do cord care? (kuky kwita kumukundi wumwana ari ngombwa?)

to prevent infections(kuwurinda udukoko)[] to encourage faster drying(ngo wume) [] to encourage faster separation(ngo uragare vuba)[] others specify(ibindi bisobanure).....

d) which of the following is a sign of poor cord care and need serious intervention. (nibihe murubu bumenyetso bigaragaza ko umukundi wumwana ufite icyibazo?) (Tick multiple if fitting to your choice.(niba uzi ibirenze kurikyimwe uremerewe kubihitamo)

Swelling(kubyimba) [] bleeding(kuva amaraso) [] delayed falling(gutinda kurekana) [] delayed healing(kukyererwa gukyira) [] redness(gutukura) and smelling(impumuro yawo) [].

e) Indicate **good** or **bad** for cord care on below practices.(erekana ngo **nibyiza** cyangwa **bibi** gukora ibi bikurikira kumwana(**Attempt all/gyeragyeza byose**))

Hand washing before caring for cord (gukaraba intokyi utarita kumukundi wumwana) []

Applying boiled worm salty water (koza umukundi namazi arimo umunyu) []

Leaving the cord alone to dry(kuzibukya umukundi kuva umwana akyimara kuvuka ngo wiyumisha) []

Nestling baby before cord heals (guheka umwana umukundi utarakyira) []

Applying non prescribed medications (of all forms) including herbs and local substance(gusiga imiti uwariwo wose kumukundi)[]

Changing nappies constantly and instantly if soiled (guhindurira umwana nappi buriko asobye/yitumye) []

C: practices of mothers on neonatal umbilical cord care. Indicate your response in appropriate box. (gorora aho bikwiye)

7 a). Which of the following do you practice in cord care? (muribi nibihe ujya ukora ureberera umukundi?) (Tick multiple if applicable. **Wemerewe guhitamo ibirenga kiyimwe.**)

Washing hands before cord care (gukaraba intokyi [])

Does not wash cord or apply anything at all (ntabwo woza kyangwa ngo ugiye
ikyo ushira kumukundi)[]

Apply medication/substance (of any kind) on neonate's cord in early life (usigaho
imiti [uwuburyo ubwaribwo bwose] kumukundi wumwana) []

Monitors for; swelling, bleeding and progress in drying (ureba niba ubyimbye,
uva, nokuma) []

Monitors for redness and smelling (ureba ko utukura, utamiriiza nimpumuro) []

Separates the cord from umbilicus when it dry (iyo wumye uwukuraho) []

Leave the cord to fall by itself (urawureka ukikuraho) []

Prevents nappies from touching the cord (urinda umukundi gufatwaho nutunapi)[]
and changes them when soiled (uhindura nabi burigihe zigiyemo inkari) []

Cover the cord to keep away the insects like houseflies (utwikiira umukundi
wumwana) []

c) If you ever used medication on baby's cord, tick all that it was (niba warigeze
gusiga umuti kumukundi, wari mutikyi) (multiple responses/subiza byinshi uko
ubikoresha).

Herbs/ibishaka [] cow dung/amase [] lizard faeces/amabyi yigiserebaba [] ash/
ivu [] Breast milk/amasereka [] saliva/amacwensi [] hot compress/imborera []
native chalk/ingwa [] palm oil/amaweza [] methopius balm /Kyapambalasi" []

toothpaste/umuti wamenyo [] petroleum jelly/Vaseline /amavuta [].

OtherSpecify/niba haribindi,bivuge.....

D: social- cultural factors influencing cord care practices of childbearing mothers(gorora aho bikwiye).

8 a) where do you deliver from? (ubusanzwe ubyarirahe?) Health unit (mwivuriro)

[] Home (murugo) []

b) How do you get postnatal careservices? Nyuma yokubyara afashirizwa he?

I depend on Home based care (murugo) []

I seek postnatal services from health facility (mwivuriro) []

c) Who taught you cord care? (nide wakwigyishije ibijyanye nindeberera

yumukundi wumwana)Health worker (muganga) [] relatives (umuvandimwe) []

traditional birth attendant (umubyarisha womurugo) [] friends (mushuti wanje) []

END/birangiriye aha. Thank you.

APENDIX III. INTRODUCTORY LETTER TO STUDY AREA

AUTHORITIES.



KAMPALA INTERNATIONAL
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OFFICE OF THE DEAN SCHOOL OF NURSING SCIENCES

TO WHOM IT MAY CONCERN

Dear Sir /Madam

Re: NIYONSENGA MESHACK DNS/0004/133/DU

The above mentioned is a student of Kampala International University undertaking Diploma in Nursing Sciences Direct program and he is in his final academic year.

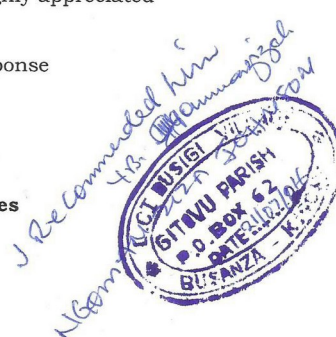
He is recommended to carry out data collection as a partial fulfillment for the award of the Diploma in Nursing.

His topic is; **KNOWLEDGE AND PRACTICES OF CHILD BEARING AGE MOTHERS IN BUSIGI VILLAGE ON UMBILICAL CORD CARE.**

Any assistance rendered to him will be highly appreciated

Thank you in advance for the positive response


Apondi Winfred
Administrator school of Nursing Sciences



"Exploring the Heights"

**APPENDIX IV: A MAP OF UGANDA SHOWING KISORO WHERE
BUSIGI VILLAGE THE STUDY AREA IS LOCATED.**

