



# **HEALTH CARE AND SUPPORT SYSTEMS FOR WOMEN AND NEWBORNS AROUND DELIVERY IN BUIKWE DISTRICT UGANDA**

A QUALITATIVE STUDY

This thesis is presented for the degree of Master of Philosophy in Global Health, Centre for International Health, Department of Global Public Health and Primary Care, University of Bergen

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## Abstract

**Background:** Globally, 7000 newborns die every day. The neonatal period is when children have the highest risk of dying, with the first 24 hours as the most critical. Sub-Saharan Africa is the region with the highest neonatal mortality rate, with 27 deaths per 1000 live births. Safe pregnancies and deliveries, early initiation of breastfeeding and good health care and support systems are important interventions to prevent neonatal mortality. **Objective:** To understand health care and support systems for women and newborns around delivery in Buikwe district, central rural Uganda. **Methods:** A qualitative study using purposeful sampling including in-depth interviews with key-informants and mothers, focus-group discussions with mothers and participant observations in hospital and local health clinic. Malterud's systematic text condensation analysis was used for interpreting the data. **Results:** Antenatal care was highly valued amongst the participants. Various determinants influenced the choice of delivery place, with the economical aspect as the most protruding. High-quality health care was documented, although with low use of partograms. Newborn procedures such as oronasopharyngeal suction, timing for cord clamping and kangaroo care was found different to a large extent from what is recommended by the Uganda Clinical Guidelines. Timing for initiation of breastfeeding was found satisfying. Mixed feelings about initiation of breastfeeding were displayed amongst the mothers and extensive use of pre-lacteals was detected, although colostrum was regarded as good for the baby. High potential for improved family support and postnatal care was discovered. Reliance on health workers and traditional birth attendants was cherished. **Conclusion:** High-quality health care was found amongst professional health workers and traditional birth attendants. Discrepancies were detected when linking the Uganda Clinical Guidelines and performed clinical procedures on issues such as oronasopharyngeal suction, timing of cord clamping and kangaroo care. Continued focus on negative effects of pre-lacteals is necessary. Support and care from family members have high potential for improvement, together with better quality care and higher frequencies in postnatal follow-up consultations from health workers. Further focus on women's empowerment and gender structures in a Ugandan setting is recommended.

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## Abbreviations

DCC - Delayed cord clamping

EBF - Exclusive breastfeeding

ECC – Early cord clamping

FBD - Facility based delivery

HIV - Human immunodeficiency virus

IRB - Institutional Review Board

MCH – Maternal and Child Health program

NGO - Nongovernmental organization

PNFP - Private-not-for-profit

REC - Regional ethical committee

SDG - Sustainable Development Goal

SRHR - Sexual and Reproductive Health and Rights

STA - Systematic text analysis

TBA - Traditional birth attendant

UDHS - Uganda district and health survey

UN – United Nations

UNICEF - United Nations International Children's Emergency Fund

VHT – Village health team worker



## Definitions

**Apgar scores:** A screening tool to evaluate a newborn's condition at birth, using scores from 0-2 after examination of heart rate, respiratory effort, muscle tone, reflex, irritability and colour, with a maximum score of 10 (1).

**Birth complications:** Defined in this proposal as complications that occur during and/or after delivery in either the mother or baby or both, often caused by obstructed labour.

**Obstructed labour:** Defined as problems with delivering the baby due to mismatch between the baby and the pelvis of the mother, which hinders the baby to pass through. Also, the baby presenting with shoulder or bow will cause obstruction. Obstructed labour generally gives cause for delivery by caesarean section or by forceps, vacuum extraction or symphysiotomy (2, 3).

**Oronasopharyngeal suction:** A method used to clear secretions from the oropharynx and nasopharynx through the application of negative pressure via a suction catheter or bulb syringe (4).

**Partogram:** A valuable appropriate technology used for improved monitoring of labour progress, maternal and foetal wellbeing (5).

**Symphysiotomy:** Defined as cutting the symphysis of the woman to allow the two halves of her pelvis to separate 2 to 2.5 cm and can be done to avoid Caesarean section (6).

## Introduction

### Background

Globally, 7000 newborns die every day. The under-5-mortality rate has declined from 93 deaths per 1000 live births in 1990 to 39 per 1000 in 2017 (58 percent). Neonatal deaths are also decreasing in numbers, although at a slower rate, reduced by 51 percent from 1990 to 2017, thus accounting for a higher proportion of under-5 deaths. Sub-Saharan Africa is the region with the highest neonatal mortality rate, with 27 deaths per 1000 live births, compared to 18 per 1000 globally. These findings give reason for increased attention to the neonatal period which includes newborns from birth and up to 28 days, where the most vulnerable time is the first 24 hours after birth (7, 8).

Adhering to these numbers, United Nation's (UN) sustainable development goal number 3.2 states: *"By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births"* (9). There is a worry that 50 countries or more will miss this target if the trends continue. Most of these countries are in sub-Saharan Africa with an average under-5-mortality rate of 76 per 1000 live births (7).

Uganda, being a country with high neonatal mortality, is struggling with reducing its neonatal mortality rate of 20/1000 live births in 2017 (7), affected by the country's slower economic growth in recent years (10). Demographically, the neonatal mortality rate is also found to be higher in rural areas than the nation's average (11). Safe pregnancies and deliveries, early initiation of breastfeeding and good quality postnatal health care and support systems are important interventions to prevent neonatal mortality. WHO has developed a guide for *Pregnancy, childbirth, postpartum and newborn care* that gives step-by-step instructions and guidelines for caring for the newborn and its mother (12). One of the most effective ways to reduce neonatal mortality is to secure high coverage of early initiation of breastfeeding (13), including special awareness towards mothers with complicated births.

Globally, breastfeeding is generally accepted as the first and best food for newborns, but there are great variations between regions and countries (14, 15). An evaluation done by the *Global Breastfeeding Scorecard* (16) shows that exclusive breastfeeding (EBF) for the first six months has a rate of above 60% in only 23 countries.

Breastfeeding is common in Uganda, with a 98% coverage, but the practice of exclusive breastfeeding is on average only 43% between 0-5 months (17).

Safe newborn and nutrition practices with adherence to WHO guidelines on *Early essential newborn care* and *Breastfeeding in facilities* give health workers detailed scientific based step-by-step directions and recommendations for optimal care giving for mothers and newborns (18, 19). One of the recommendations for immediate support to initiate and establish breastfeeding states that:

*“Mothers should be prepared for discharge by ensuring that they can feed and care for their infants and have access to continuing breastfeeding support. The breastfeeding support in the succeeding days and weeks after discharge will be crucial in identifying and addressing early breastfeeding challenges that occur”* (19).

## **Antenatal care**

Antenatal care is important to ensure good health for pregnant women and their unborn babies. During antenatal classes women receive information about nutrition in pregnancy and are checked for conditions or diseases which may be harmful. In addition, antenatal care helps the mother to prepare for both delivery and the post-partum period by gaining information and advice about newborn care and breastfeeding (13). WHO/UNICEF Uganda recommends eight antenatal visits during pregnancy, whereas the Uganda clinical guidelines aims for at least 4 visits (20, 21). Studies from sub-Saharan Africa have shown clear association with attending antenatal care and reduction in neonatal mortality (22, 23). A study by Arunda et.al (2017) showed that around 38 percent of neonatal deaths in Kenya were caused by negligence of pregnancy check-ups (23). Studies from Uganda concerning availability and quality of antenatal care provision in rural settings show alarming results in lack of qualified staff and inadequate check-ups and providing of necessary information (24, 25). Incentives

for male involvement in antenatal care are implemented in the Uganda Clinical Guidelines by recommendations of bringing the partner or a family member to at least one antenatal visit (21).

## **Labour and birth**

For most women, giving birth is a special, but natural event without complications. Having a good childbirth experience is beneficial to the future health of both the mother and her baby. As shown in a recent study conducted in Rwanda and Uganda, independent factors like having confidence in staff, receiving enough information during childbirth, being treated with respect, getting support from staff, and having the baby skin-to-skin after birth were contributing to positive childbirth experiences for the women (26, 27).

Enough and knowledgeable staff, together with necessary equipment are the key factors of safe deliveries and reduction in the number of Caesarean sections (28). There are well-developed research-based guidelines and instructions to follow at every stage of birth. The four stages of birth are clearly described in the Uganda Clinical Guidelines and involves hourly monitoring of mother's vital measurements as well as the use of partograms and curves for easy recognition of early complications (5, 21). The partogram allows the midwives or clinicians to easily plot findings from their examination assessments directly, and is an important tool for the management of labour (5).

Nevertheless, childbirth can be a risky affair for both mother and child. Approximately 15% of women encounter birth complications that can turn into life-threatening situations for the mother or baby or both (29). For the mother, such conditions may consist of obstructed labour, eclampsia, puerperal sepsis, and obstetric haemorrhage. Vulnerable conditions for the newborn might be prematurity, low birth weight, birth asphyxia, birth trauma, neonatal infections, and other neonatal conditions (2, 3, 30). A large share of stillbirths are also caused by birth complications (8). Studies about breastfeeding practices and methods of delivery show lower prevalence of breastfeeding among mothers with birth complications or caesarean section (30-33). The Uganda Clinical Guidelines have detailed instructions on how to care for mothers

and their newborns both for normal deliveries as well as for complicated births (21). The guidelines give specific measures to be taken for the mother in cases of obstructed labour included ruptured uterus, retained placenta, postpartum haemorrhage and puerperal fever/sepsis (appendix 1).

## Home versus facility delivery

Giving birth in one's own home is still preferred by many, especially in rural areas. Recent qualitative studies from African countries show that a combination of culture, tradition and convenience are reasons for continuation of this trend (34, 35). In Uganda, home birth is still very common, and according to the Uganda Demographic and Health Survey, 31 % of women in rural areas still deliver at home (17). Studies from Uganda show that most of the facility-based-deliveries (FBD) occur in urban areas. Barriers to FBD are distance, cost and reputation of the facilities (30, 31, 36-38). Previous studies from Uganda and other African countries have found that women who deliver at birth clinics or hospitals are more likely to initiate breastfeeding early, compared to those who give birth at home (36, 39).

## Kangaroo care

It has been established that the best way to enable the newborn to suckle is to put it on the mother's abdomen or arms immediately after birth. Skin-to-skin care for the newborn, also called kangaroo care, is recommended in UNICEF's program for *Early Childhood Development* and *Baby Friendly Initiative* (40, 41). It is defined as "*the practice where a baby is dried and laid directly on their mother's bare chest after birth, both of them covered in a warm blanket and left for at least an hour or until after the first feed*" (41). The method can also be used for comforting of the baby or for boosting the milk supply. Kangaroo care has proved especially beneficial for premature babies, including better experiences for their mothers (42, 43).

In a book from the World Bank on Reproductive, Maternal, Newborn, and Child Health, referring to a Cochrane review, kangaroo care reduced neonatal mortality by 40 percent (44). Kangaroo care is also implemented in Uganda's Clinical Guidelines (21).

Nevertheless, studies show low compliance of practicing kangaroo care, especially for

home births (45). In connection with birth complications and emergency caesarean sections, kangaroo care will be compromised if the mother is anesthetized or in pain after surgery. Lack of mother-infant contact and delayed lactation have been suggested as reasons for further discontinuation of breastfeeding (33). Thus, there is a need to understand how early initiation of breastfeeding can be facilitated given various maternal challenges and care conditions.

## **Early infant feeding practices**

A study from 2014 on “Early infant feeding practices in three African countries”, related to the PROMISE-EBF trial promoting exclusive breastfeeding by peer counsellors from 2008, shows that in Uganda only 41% of the mothers in the control arm of the study initiated breastfeeding within the first hour, 10% of the mothers discarded the colostrum, and 44% had a habit of giving pre-lacteal feedings (39). Studies from Ghana by Edmond and colleagues (2006, 2007) show evidence that delayed initiation of breastfeeding increases the risk of neonatal deaths in general, in addition to those caused by infection (13, 14), although a cross-sectional study from 2008 on “Breastfeeding and the risk of rotavirus diarrhoea in hospitalized infants in Uganda” found no association between breastfeeding and a lower risk of rotavirus diarrhoea (46). The study does not seek to differentiate on the level of breastfeeding, time of initiation or use of colostrum which can be seen as limitations of the study.

Reasons for delayed initiation of breastfeeding are many and varied, but most common are insufficient antenatal education, positive HIV status and birth complications leading to caesarean section (47).

## **Initiation of breastfeeding - Timing**

Early initiation of breastfeeding is defined as initiation within the first hour after birth and has been documented to reduce the risk of neonatal deaths. It is therefore one of the most important focus areas for lowering the death rates (48). WHO/UNICEF have developed guidelines for breastfeeding that include initiation of breastfeeding within the first hour of life, exclusive breastfeeding and breastfeeding on demand. These recommendations are also implemented in the Uganda Clinical Guidelines (21). Studies

conducted in Uganda show that only 40-56% of the women initiate breastfeeding within the first hour after birth (7, 36, 39). Women who experience birth complications are not likely to be able to initiate breastfeeding within the first hour after delivery and special medical care is necessary both for the mother and the newborn. In these cases, breastfeeding in general may prove more difficult based on both medical and non-medical reasons (47). The UCG also have guidelines for early initiation of breastfeeding in situations where the baby is separated from the mother, in addition to general breastfeeding guidelines (21).

The 2% of women who never initiate breastfeeding by choice or other various reasons are not included in this research, and is beyond the scope of this study (17).

## Colostrum

Colostrum, being the first fluid that comes from the breast postpartum, gives the newborn a high boost of immunological components, such as IgA, lactoferrin and leukocytes, in addition to developmental factors such as epidermal growth factor (49, 50).

In many cultures and societies, colostrum has been considered as bad milk, something to discard and not fed to the infant. Perceptions of colostrum as not useful for the infant may cause delayed initiation of breastfeeding and introduction of pre-lacteals.

Qualitative studies done in Guinea-Bissau and in Ethiopia give examples of cultural and traditional beliefs that cause women to discard colostrum. Among the different tribes in Guinea-Bissau and Ethiopia the perceptions of colostrum ranged from non-important, to something that was potentially harmful and a cause of disease and even death (47, 51-53).

Edmond (14) describes rapid decline of protein and immunoglobulin concentrations in colostrum to be halved within the second day after birth, which gives further incentives to promote early initiation of breastfeeding and use of colostrum. In cases where birth complications occur, the mother may not be able to breastfeed until the second day after birth due to different circumstances affecting herself and/or the newborn, resulting in loss of benefits from colostrum. Reasons for delayed initiation after caesarean

sections have been found to be fatigue, anaesthesia, dizziness, pain, lack of milk and need to rest (33, 47).

## Pre-lacteals

Pre-lacteal feeding has been defined by Engebretsen and others as any non-breast milk feeds given within the first three days after birth (39). Pre-lacteals are sometimes used while waiting for the mature breastmilk to appear, or because the newborn is unable to start suckling, thus preventing the newborn from an optimal start in life. Substances used for pre-lacteals include sugar water, diluted cow's milk, glucose, salt solution, tea, ghee, mushroom soup or herbs (39, 45).

Introduction of pre-lacteals occurs both in FBD and in-home delivery. Two studies, one concerning "Use of antenatal services and delivery care in Entebbe" and one about "Recognition and home care of low birth weight neonates", describe uses of pre-lacteal fluids given to newborns in Uganda. The studies found that early breastfeeding and thermal protection of the newborn were insufficient in many health facilities because of unskilled birth attendants. Mothers who delivered at home had less knowledge about feeding of low birth weight babies than mothers who delivered in health facilities. For instance, it was common to think that the milk went bad once outside the breast, and that the newborns had need of other foods than breastmilk (31, 45).

In section 16.4.8 in the Uganda Clinical Guidelines it is recommended that "*Do not give artificial feeds, sugar water or local feeds before baby has attempted to initiate natural breastfeeding*" (21). This is not in alignment with WHO's guidelines and should be looked further into (18, 54). In cases of newborns with low birthweight the UCG could benefit from more extensive and detailed guidelines given in the *Guidelines on Optimal feeding of low birthweight infants in low-and middle-income countries* from WHO (54).

## Gender roles

Recognition on male involvement interventions for maternal and neonatal health has gained increased attention since the introduction of WHO's *Maternal and Child Health care program* (MCH) in the mid 1990's. Updated recommendations from 2015 suggest



to target men in supporting women's care-seeking and decision making for their own and children's health in a way that doesn't undermine women's authority (55).

Studies from Nigeria and Uganda show that obstacles to male involvement in maternity care and delivery are both cultural and religious, and many women tend to share the same views as men when it comes to what is appropriate or expected (56, 57). Thus, in situations where the women feel male presence uncomfortable or unwanted, male interventions should not be pursued (55).

A recent study from Tanzania shows that men are more likely to be involved in postnatal care than in antenatal and natal care and that having a high number of children and living in rural areas were associated with higher male involvement (58). The Government of Uganda launched a national strategy for *Sexual and Reproductive Health and Rights* (SRHR) in November 2014, which involves a strategy of prioritizing couples at birth facilities (59)

## Postnatal care

The most vulnerable period for a newborn and its' mother is in the first month after birth, where the first 24 hours are the most critical. Attention and care for the mother and newborn are often neglected after delivery, especially in low-and middle-income countries (60). The term *postnatal* is defined by WHO as "*the time after birth and up to six weeks (42 days)*" (61).

Postnatal encounters between health workers and mothers should include promotion and support in early and exclusive breastfeeding, hygiene and care for the newborn, and counselling about conditions requiring referrals (60).

The updated WHO guidelines from 2013 introduced the following postnatal care highlights:

- Provide postnatal care in first 24 hours for every birth
- Delay facility discharge for at least 24 hours.
- Visit women and babies with home births within the first 24 hours.
- Provide every mother and baby a total of four postnatal visits on:

First day (24 hours), Day 3 (48–72 hours), Between days 7–14 and at Six weeks.

- Offer home visits by midwives, other skilled providers or well-trained and supervised community health workers (CHWs).
- Use chlorhexidine after home deliveries in high newborn mortality settings.
- Re-emphasize and support elements of quality postnatal care for mother and newborn, including identification of issues and referrals (61).

## The Uganda Clinical Guidelines (UCG)

The Uganda Clinical Guidelines from 2016 are a continuation and improvement of the National Standard Treatment Guidelines from 1993 (21, 62).

According to a WHO resource page,

*“The purpose of national standard treatment guidelines is to provide evidence-based, practical, and implementable guidance to prescribers to provide the most cost-effective and affordable treatment of priority health conditions in a country”* (62).

The guidelines are nationally recognized guidelines and have evolved from other international guidelines and WHO recommendations (62).

The guidelines have detailed step-by-step descriptions of recommended health care and medical advice in all stages of ante-, peri-, and postnatal care, both for mothers and babies. Obstetric complications and breastfeeding issues are covered thoroughly, in addition to advice on counselling topics and male involvement in maternal care (21).

There are discrepancies between the Uganda Clinical Guidelines and the updated WHO recommendations on various topics related to maternal health and breastfeeding issues. Some examples are the before-mentioned variation in recommendation on number of antenatal visits, and medical advice for mastitis (20, 21).

## Justification for the study

United Nation's Sustainable Development Goal nr. 3.2 aims to reduce the global neonatal mortality rate to at least as low as 12 per 1000 live births by 2030 (63). The neonatal mortality rate in rural Uganda is still high at 20 per 1000 live births (7). Safe pregnancies and early initiation of breastfeeding are the most important factors for improvement of neonatal outcomes (48). It's been established that both the mode of, and location for delivery has impact on early initiation of breastfeeding (36, 37).

The Uganda Clinical Guidelines have detailed descriptions on how to care for mothers and their newborns during delivery and post-partum, both in cases of normal as well as complicated births (21). In cases of birth complications, the mothers and their newborns are especially vulnerable and high-quality postnatal care is essential (21, 47, 64). Having someone to trust and rely on during the time of childbirth and in the following post-partum period is essential for establishing good breastfeeding environments and routines (65-67). Literature reviews show that most of the studies investigating breastfeeding are excluding women who don't have normal vaginal deliveries (7, 36, 39). It is therefore important to look at *all* women when investigating initiation of breastfeeding. In order to improve conditions for all mothers it is necessary to understand how the health system works in rural Uganda and how the mothers experience health care and support provided to them during pregnancy, delivery and after birth, both in cases of normal deliveries and when birth complications occur. Compliance with the clinical guidelines are essential for further improvements on these topics.

The purpose of this study was to get a better understanding of health care and support systems for women and newborns around delivery in rural Uganda, irrespective of delivery place and type. The study aimed at identifying facilitators and bottlenecks for compliance with the Uganda Clinical Guidelines on pregnancy- and delivery issues, newborn procedures and early infant feeding care and practices. Information was sought from the provider as well as the user perspectives to expand on the knowledge bases on safe maternity care and early infant feeding as the reference points, both from normal deliveries and in cases of birth complications.

## Study objectives

Main objective:

To understand health care and support systems for women and newborns around delivery in Buikwe district, central rural Uganda

Specific objectives:

1. To explore practices and knowledge among health workers related to the Uganda Clinical Guidelines connected to pregnancy, delivery and postpartum period.
2. To seek views and knowledge about colostrum, pre-lacteals and initiation of breastfeeding from health workers and mothers with young babies.
3. To explore mothers' perceptions on health care and support systems connected to pregnancy, birth and the postpartum period.

## Methodology

### Study site

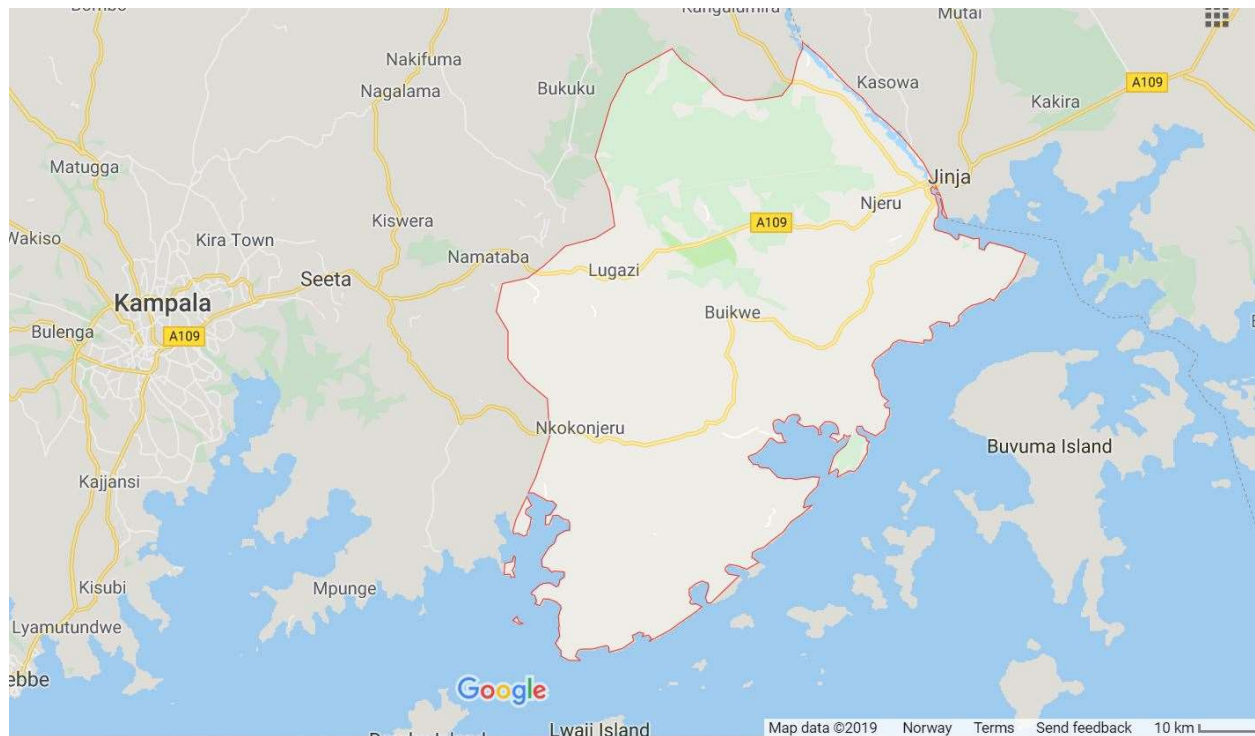
The study took place in the urban centre of Nyenga and six of its surrounding sub-villages. The villages included in this study were Kabizzi, Kamuli, Mawangala B, Banga 2, Komunina and Wantumbi.

Nyenga is a town under Buikwe District Administration in Central Uganda, close to Jinja, the second largest city in Uganda (map 1). According to the National Population and Housing Census of 2014, Nyenga has a population 50 000. Of this population 70 percent is dependent on subsistence farming (68). Buikwe is part of the South-Central region of Uganda where the percentage of deliveries by a skilled provider was 82 in 2016. This is higher than other regions, but still much below the frequency in Kampala, the capital, that has a corresponding number of 96 percent (17).

Within Nyenga is the location of Saint Francis Hospital Nyenga, a health care facility affiliated with the Roman Catholic Church. Also located in Nyenga is Saint Francis School of Nursing and Midwifery. The private-non-for-profit (PNFP) organization Nyenga Foundation in Kabizzi includes one of several health centres for the public in the area (69, 70).

The setting for the study was chosen because of the sociographic environment, the rather low percentage of facility-based delivery, and the researcher's familiarity with the area. As described above, Nyenga and vicinity has both a hospital and several health centres, which gave the possibility of comparing different visiting sites for maternal and newborn care. Also, the socio-economic status of the population in the area is similar, with subsistent farmers as the majority group.

Map 1: Buikwe district, Uganda.



## Description of field workers

Two research assistants with bachelor's degrees in social sciences were recruited for logistic organization, moderator roles in focus group discussions, recruitment of key-informants and translation of recordings in local languages. They were both orally fluent in Luganda and English, and one was also fluent in Lusoga and experienced in reading and writing of the local languages. Both field workers had previous experience from research. One assistant was familiar with the area of Nyenga and the localization of surrounding villages, and a scooter was used as transport. The researcher personally introduced the assistants to the topic of the study and instructed them how to do introductions and probing questioning during interviews and focus group discussions.

## Study population

In-depth interviews were sought with mothers and other key-informants such as students in nursing and midwifery, midwives, traditional birth attendants (TBAs), village

health team workers (VHTs) and local chairmen (a local chairman is the administrative leader of a village). Selection of participants was done through purposeful recruitment from St. Francis Hospital, Kabizzi Health Centre and six villages within Buikwe district.

The researcher went personally for pre-visitations with the leaders of the hospital and health clinic, where approvals for observations and interviews with staff were obtained. The researcher was appointed a senior midwife as a supervisor at the hospital and recruited health workers and mothers for interviews within these grounds.

Selection of villages was conducted at a village committee meeting in Nyenga town, where most leaders of the sub-villages were gathered for a monthly congregation. The researcher and one assistant approached the Local Chairmen after the meeting and asked for permission to visit them in their respective villages to provide information about the research and ask for permission to conduct interviews and focus group discussions within their village. Out of the ten predefined villages, six villages were recruited through this procedure.

Following the initial information meeting in each village, new appointments were made to conduct focus group discussions and interviews within the villages and the local chairmen were helpful in inviting mothers with newborn babies together with traditional birth attendants and village health team workers. In some of the villages only focus group discussions with mothers were conducted, whereas in other villages single participant interviews, group interviews and focus group discussions took place. Feasibility and time constraints were determining this.

## **Study design**

A qualitative approach with data collection through triangulation from participant observations, interviews with key-informants and focus group discussions were used. A qualitative approach was chosen in attempting to get a personalized and reasoned understanding of the situations around early infant feeding.

The researcher took the role as a participating observer by being present and at times involved in daily activities at the maternity ward and health centre. Notes were taken

continuously from observations and dialogue with health-workers and patients on topics related to delivery, breastfeeding and care for newborns. Several times the researcher was also asked to aid the health-workers with deliveries or care for newborns. In such circumstances, notes were taken subsequently. The observation notes relied on a pre-defined observation guide with key-issues to observe.

Semi-structured interviews with key-informants were done face-to face using a pre-defined interview guide with possibility for probing questions. Being open and flexible for changes in the interview process is important when pursuing qualitative data. Alteration of questions and sequence were implemented when needed. Notes were taken during most of the interviews in addition to recordings.

Focus group discussions were used to get a more nuanced and complex understanding from the mothers on the various topics related to early infant feeding. The moderators often initiated the group sessions by asking the participants opening questions one-by-one but withdrew involvement gradually as the group discussion evolved. Focus group discussions were used as a complementary addition to individual interviews which allowed the participants to speak more freely and elaborate on each other's knowledge and experiences.

Using various qualitative methods was helpful in exploring in-depth the topic of early infant feeding in addition to views and knowledge about maternal health care and support systems. Triangulation of methods complemented each other and created a better platform for validity and generalizability. Drawing from Cresswell's description of a social constructivist worldview that seeks to understand the subjective view of the participants in a complex and contextual manner, a variation of methods seemed appropriate for this research (71).





*Picture 1: A mother delivered safely after prolonged labour. Picture 2: Conducting focus group discussion in a village*  
(Photo: Irene Namata) ( Photo: Robert Mangeni)

## Participants

The total number of participants was 57. The key-informants amounted to 15, and 42 mothers attended focus-group discussions. The number of participants could have been higher considering that the researcher did not feel that topical saturation was reached, but due to time restrictions and scope of the study as a master's thesis, the number of participants were deemed suffice.

## Sampling procedure

The researcher initiated the study by participant observation in the maternity ward at the hospital for about two weeks, before continuing with individual interviews with mothers and staff at the hospital. Key-informants were chosen purposefully because of their involvement and every-day encounter with deliveries and breastfeeding issues. Health workers were approached for scheduling of interviews while the researcher was present for observations in the hospital and some were approached for informal dialogue. There were four or five students on each shift that rotated between the wards, and the ones

approached for interviews had not been previously present in the ward with the researcher.

Mothers were purposefully selected on the inclusion criteria that they had given birth within the past month and were approached by the researcher after having gained some information about mode of delivery and general health condition from the staff. This to ensure selection of mothers both with normal births as well as those who had undergone surgery or complications.

Interviews with mothers and key-informants in the villages and subsequent focus-group discussions followed in the weeks after. When arriving at the pre-appointed village, mothers and key-informants who were available that day had been gathered by the local chairmen, and individual interviews and/or focus group discussions were conducted.

In between the visitations to the villages, the researcher was present for participant observation in the maternity room at the health centre. Recruitment of staff and mothers was also executed here.

## **Study period**

The time period of data collection was from 15<sup>th</sup> of January to the 25<sup>th</sup> of February 2019.

## **Data collection**

Participant observations in the hospital and health clinic included attendance at normal deliveries as well as with complications and caesarean surgery. Daily rounds with the doctor on duty proved especially informative as well as observations of interactions between staff and mothers on the ward. The observations involved active participation at times and unstructured interviews and conversations were actively used, and notes were taken manually by the researcher.

Qualitative semi-structured interviews with key-informants in English were conducted face-to-face by the researcher. This included interviews with students, midwives and a few of the mothers. For most of the interviews one of the research assistants was

present for note taking. The observations and interviews with key-informants were helpful in getting a thorough understanding of general breastfeeding routines in various health facilities, and routines related to birth complications and support mechanisms in early nutrition given under various health conditions in mother and child.

For key-informants and mothers who were uncomfortable or unfamiliar with the English language, the interviews were conducted in Luganda by one of the two research assistants. For most interviews the main researcher was present for observations and note taking. Interviews with mothers were helpful in getting a user's perspective on the health care and support mechanisms in delivery and early breastfeeding. Interviews with key-informants were sought conducted in a quiet area without intrusions, and most were done outdoors.

All six focus group discussions were conducted by one of the research assistants in Luganda. The mothers were gathered in circled groups on an outdoor location chosen by the local chairman in the village. The mothers discussed topics of delivery, breastfeeding, postnatal care and support, but also other connected topics that arose during the discussions. Assigned numbers of 1,2,3...etc. were given the participants to distinguish between the responses. Where two groups or interviews were conducted by the assistants simultaneously, the researcher went to and from between them, in order to answer questions and comments.

Adhering to the suggestions by Bernard (72), both interviews with key-informants and focus group discussions were based upon a semi-structured pre-formulated interview guide with probing questions. When needed, the interview guides were amended to reach the targeted topics. Duration of the individual interview ranged from 10 to 30 minutes and focus group discussions from 40-60 minutes. Follow-up interviews and focus group discussions were not conducted due to time limitations.

## **Data management and analysis**

Prior to the data collection, the researcher visited the village of Kabizzi, Buikwe district, and pre-tested the interview questions with local people in the area. Both health workers and lay people were asked to read through and give critical feedback to the pre-defined

questions, to avoid misinterpretations and confusions about the targeted topic of early infant feeding. The information consent forms for focus group discussions and key-informants were translated into Luganda by a master student in Nutrition from Makerere University and proof read and amended by a freelance researcher affiliated by Makerere, currently pursuing a master's degree in Health Services Management from Uganda Martyrs University. The same procedure was followed for the translation of the letter of intent, except for the proof reading that was done by a male midwife with education on Diploma level.

The interview questions were directly translated by the interviewer during the course of the interviews or focus group discussions, and probing questions asked by the researcher were orally directly translated by the research assistants. The assistants were also free to ask probing questions should they feel the need for further clarifications or explanations from the participants. All interviews were recorded on one or two devices, except one, because of device unavailability at that particular time. Interviews conducted by the researcher in English were transcribed word for word into Microsoft Word documents within 2-4 days. One interview was written based on notes only. Interviews and focus group discussions conducted in the local language of Luganda were transcribed first in Luganda, then into English by the same research assistant. Proof readings, consisting of listening to the recordings in Luganda while reading the Luganda and English transcriptions, were done by another assistant fluent in both English and Luganda. No discrepancies were found in the translations.

Note-taking from observations were re-written into Word documents and notes from interviews and focus-groups were checked against the transcriptions, but no additional information was found or added.

The analysis was performed using the inductive method developed by Malterud called Systematic Text Condensation (STC), modified from Giorgi's psychological phenomenological analysis (73). The NVIVO 12 pro software program was used for the analysis.

Adhering to the method of Systematic Text Condensation, the transcribed interviews and observation notes were read thoroughly to get a good overview, before uploaded to the NVIVO 12 program where the text was sorted into code-groups to fit emerging themes that revealed themselves to the researcher during the initial reading. Meaningful units were extracted from the text to be placed in the most fitted code-group and further decontextualization of the meaningful units were grouped into sub-codes to create a systematic overview and useful descriptions of the various aspects included in the situation around health care and support systems around delivery

. During this process the researcher found that several alterations of the sub-groups were necessary to find the most accurate description. Following the coding, the selected text under each sub-code was written into condensates in a 1<sup>st</sup> person's perspective, before it was re-written into a more objective text from a narrator's perspective. Finally, the compressed narrative was analysed and put into results of meaningful information.

## **Reflexivity and role of researcher**

Doing qualitative research involves using one self as a tool in the data collection process, whether it is through participant observation or conducting interviews and focus group discussions. As described by Mays and Pope, the researcher must be aware of the possible effect one might have in modifying the behaviour or answers of the participants (74).

In this qualitative study the main researcher was a 41-year-old female nurse (and mother) from Norway who has previously visited Uganda on two occasions. The research was part of the fulfilment of a master's degree in Global health at the Centre for International Health, University of Bergen. The researcher stayed within the location of Nyenga Foundation while conducting the research. Although briefly familiar with the health centre in Kabizzi from previous visits, the researcher has not been involved in patient contact and this was therefore not considered to influence the study. The staff at the health centre was also not the same as when she visited.

Local research assistants were asked to aid the researcher with interviews in Luganda and with translations from Luganda to English. The assistants were both native

Ugandans from areas close to Buikwe district and familiar with local customs and culture. One of the assistants had worked with Nyenga Foundation for 8 years, but he was not recognized by the mothers who were drafted for focus group discussions. The other assistant was not affiliated with any of the health facilities or villages visited.

The researcher's supervisor, a well-established medical doctor and professor within the Centre of International Health, UIB, Norway, has a 15-year long history of research and publications within the field of nutrition and breastfeeding, primarily from field-work in Uganda.

Being aware of bias introduced by the ethnicity, background and white skin colour of the researcher, the interviewing process was evaluated continuously throughout the data collection period, but no reason was found, nor was it requested that the researcher stayed absent during the interviews. Quite contrary, the background of the researcher proved useful in being a "naïve" outsider who was rather ignorant of the local customs and traditions, which occasionally seemed to lead to more informative and elaborate answers. Also, being an experienced female nurse was helpful in the sense of a shared identity and common grounds with the key-informants as basis for the interviews. During focus group discussions with mothers, the researcher introduced herself as a student, health worker and experienced mother, which seemed to lower the gap between the researcher and the mothers and make them more outspoken and bolder in their responses.

For the observation part of the study to be successful, it was important to establish good rapport and make people comfortable with the presence of the researcher. The time-frame recommended to establish such rapport varies among authors and depends on the background and purpose of the research (72, 74). The researcher's previous familiarity with one of the health facilities in this study contributed to smoother immersion, although the time-period should optimally have been longer.

## Ethical considerations

The research was approved by the Regional Committee for Medical and Health Research Ethics, Norway (2018/602/REC West), Makerere University Higher Degrees Research and Ethics Committee, Uganda (HDREC/2018/6). Signed consent for internship/research was obtained from St. Francis hospital Nyenga and Kabizzi Health Centre. The study was also registered with Uganda National Council for Science and Technology (HS302ES).

To ensure privacy and confidentiality, no names or other measures of identification were used in the research, but consent for reference to occupational status was asked from the key-informants.

Each participant in the focus group discussions was given a number for recognition and was asked not to share private information gained during the sessions outside the group. Before the interviews and focus group discussions participants were offered snacks and refreshments. They were also reimbursed for transportation costs up to 15 000 UGS (equals to 4 USD). No extra money was given for participation, but the mothers attending focus group discussions received a piece of locally made baby clothing after the session.

Collected data material was stored in a locked room during the data-collection period and will be stored in a locked cabinet for at least 5 years. Electronic data is stored behind two levels of password protection and external hard drives are stored in a locked cabinet.

The presented topic was not considered very sensitive, but mothers with breastfeeding problems were anticipated to face emotions of incapability and a sense of not being able to care for the newborn properly. Therefore, all questions and approaches were sought conducted in a humble and cautious manner.

Participation in the study was fully voluntary and the subjects were given the possibility to withdraw consent at any given time and without reason, and demand that any

personal input be deleted. Pictures taken during the study was approved by the participants and photographers for use in this thesis only.

All participants were given an information sheet about the study in either English or Luganda when asked for participation, and if agreeing asked to sign or fingerprint a consent form.

None of the mothers appeared to experience any discomfort or psychological trauma during or in connection with the interviews, but several cases of malnutrition were discovered by the researcher, and the mothers and their children were admitted to the hospital for treatment, and medical follow-up was ensured.

Upon completion of the study, all involved participants who provided an e-mail address will be sent the completed master's thesis and all participants will be invited to a social gathering for feedback information and recognition of their efforts. This information was given to all mothers and key-informants after the interviews and focus group discussions, and the local chairman in each village will be asked to gather the participants to this event in November of 2019. This is in accordance with the declaration of Helsinki from 2000 where it is stated that:

*“At the conclusion of the study, every patient entered into the study should be assured of access to the best proven prophylactic, diagnostic and therapeutic methods identified by the study” (75).*

## **Discussion of methods**

Presenting the results from perspectives of various groups of interviewees based on their experiences, professional knowledge and personal views, gives a nuanced picture of the situation around maternal and newborn health care and support systems in Buikwe district. Using different qualitative approaches as individual interviews combined with focus group discussions and observations, gives the study more depth and validity combined with a deeper understanding of mothers' conditions and perceptions on health care and support systems connected with delivery and breastfeeding issues (76).



Having conducted the interviews and focus group discussions in the social context of the participants helped reduce the level of distinction between the interviewer and the interviewees. Also, using local language and moderators helped reducing the bias of being a foreign white researcher. As suggested by Kitzinger (1995), creating an amicable atmosphere with food and drinks contributed to that participants were more likely to speak freely and let go of social inhibitions that may have been more protruding in a more formal setting (77). Preferably, the study would have benefitted from a longer observation period, and follow-up focus group discussions.

## Results

### Participants demographics

The study included a total of 57 participants including interviews and focus group discussions, 15 participating in interviews and 42 participating in focus group discussions. The interviewees comprised four mothers, three traditional birth attendants, three village health team workers, three students, one midwife and one local chairman.

Most interviews were done one-to-one, except for two interviews where one was a pair interview including one traditional birth attendant and one with village health team worker, and the other was a group interview including two traditional birth attendants, two village health team workers and one local chairman. They were asked questions individually, and answered in turn, in addition to elaborating on each other's answers. Six focus group discussions were held in five different villages. In one of the focus group discussions there were also present three traditional birth attendants and two village health team workers. They were not interviewed individually due to time restrictions for the researcher but asked to share experiences during the discussion with the mothers.

Except for the students and midwife, all participants were subsistence farmers, but some had small additional businesses. One of the traditional birth attendants was also a local chairwoman. The level of education ranged from none, among many of the mothers, to Diploma level for the midwife, and Certificate level for the students. The

mothers were in the age group from 16 to around 45. The ages of the students were from 19 to 21, and the midwife between 25 and 35. The local chairmen, the village health team workers and the traditional birth attendants were between 50 and 78 years.

Table 1: Background information of participants

Data source	Subjects	Number	Data collection	Gender	Age	Education	Profession
Interviews	Mothers	4	Individual	Female	15 to 45	Primary to secondary	3 subsistence farmers 1 kindergarten teacher
	Traditional Birth Attendants	3	Pair and group	Female	50 to 80	None to primary	5 subsistence farmers 1 local chairman
	Village Health Team workers	3	Pair and group	Male and female	50 to 80	Primary	Village Health Team workers and subsistence farmers
	Local Chairman	1	Group	male	50 to 80	Unknown	Local Chairman, subsistence farmer and small business
	Students	3	Individual	male and female	19 to 21	Certificate level	Students
	Midwife	1	Individual	Female	25 to 35	Diploma level	Midwife
Focus group discussions	Mothers	4	Group	Female	15 to 25		Subsistence farmers and small in-home businesses
	Mothers	19	Group (2 groups)	Female	15 to 45	Primary to secondary	Subsistence farmers
	Mothers	4	Group	Female	15 to 25	Primary	Subsistence farmers
	Mothers	6	Group	Female	15 to 45	None to secondary	Subsistence farmers and village representative

	Mothers, VHTs, TBAs,	9 (4 mothers, 2 VHTs, 3 TBAs)	Group	Male and female	15 to 80	None to secondary	Subsistence farmers and small businesses
Observations	Health workers, students, mothers	14 beds in the maternity ward, 3 beds in the health centre	Unstructured interviews, conversations, observations, rounds with medical doctors and staff in the maternity ward	Male and female	15 to 80	Primary to PhD	Subsistence farmers, assistants, students, nurses, midwives, obstetricians, surgeons.

The final code groups after the analysis according to Malterud's Systematic Text Condensation (73), were *pregnancy and birth, knowledge about breastfeeding and health care and support*. Each code-group further consisted of three to four sub-groups, which were made into condensates before spelled out in results. The following thematic presentation is organized from the perspectives of the various views of mothers, health workers, village health team workers and traditional birth attendants. Additional results gained from participant observations by the researcher will be added where it is thought beneficial for clarification or additional information. The Uganda Clinical Guidelines were used as background for the inquiries and were used as a leading thread throughout the research process (appendix 1).

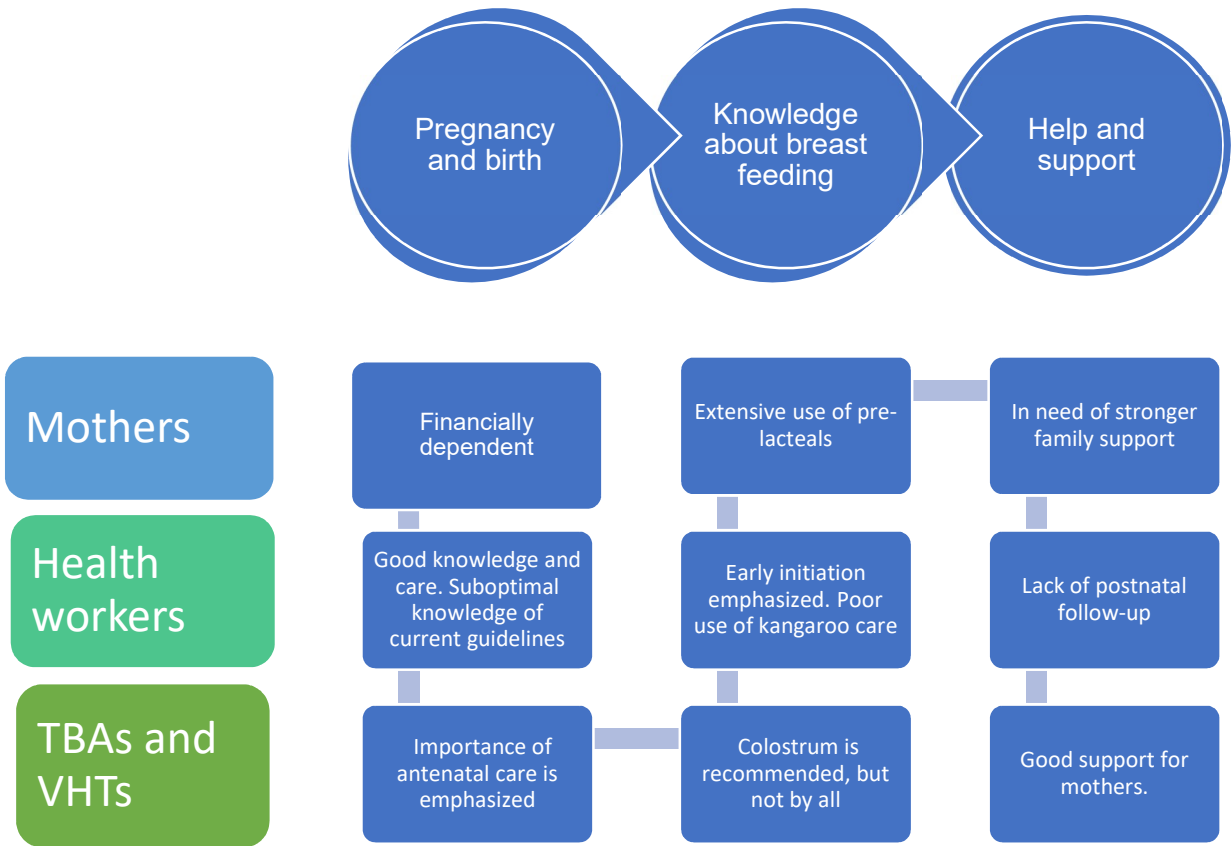


Figure 1: Overview of results

## Pregnancy and birth

### Importance of antenatal care

Questions around antenatal care were not initiated by the researcher, but the topic was given much attention both from mothers and traditional birth attendants. The professional health workers did not mention the topic during interviews, thus they are not represented in this section. Matters concerning breastfeeding and post-partum care are recommended topics during antenatal classes, and among the mothers, knowledge of the importance of antenatal care was widespread, although many admitted non-attendance at antenatal classes. Also, the traditional birth attendants gave high

attention to the benefits from antenatal care, and their reflections on this issue are addressed below.

### **Mothers' perspective**

Generally, most of the mothers expressed being given little information about breastfeeding before they had given birth. This was partly due to the setup of the teaching and partly due to their own attendance. An extraction from a focus group discussion exemplifies this:

*“Moderator: Lets go back, for those who were producing the first time, when you were going to breastfeed, had you got any information about breastfeeding?”*

*Mother 1: I just breastfed on my own but I had got some information about it before.*

*Moderator: Were you advised immediately after birth or before giving birth?*

*Group: After giving birth”.*

(Mothers 25-35 years, village 4)

Contradictory, in another village, a mother who had attended antenatal classes was very content and praised the health workers:

*“I would like to thank our health workers because they teach us all when we go for antenatal check-ups”.* (Mother 15-25 years, village 7)

From observations, antenatal classes were offered in both the health centre and the hospital one set day each week. Antenatal classes were free of charge, but any vaccines or medicine required were charged.

Some mothers confirmed being told about the importance of breastfeeding during antenatal lessons, but it appeared to be randomly taught, or as one mother commented:

*“I would reach at antenatal care service when they had already given [the lecture]. I was latecomer”.* (Mother 15-25 years, village 5)

Mothers who never attended antenatal lessons at all, were deemed unwise by those who did:

*“I hear that when you do not go to the hospital for antenatal check-ups you might end up giving birth to babies where they tend to have complications”.* (Mother 15-25 years, village 3)

In one village, some of the mothers who had not attended antenatal classes blamed it on transport costs or road conditions but confirmed that; *“Now that the roads are well constructed, we are going to start coming to (Village 2) for health services”.* (Mother 25-35, years, village 4)

### **Traditional birth attendants’ perspective**

Antenatal care was an important issue for the traditional birth attendants interviewed and they stressed the significance of attending antenatal classes and seemed to highly acknowledge the public health system. However, they also had understanding of reasons why it was not always possible to attend antenatal classes, particularly related to financial constraints, and how it was sometimes beyond the women’s control.

*“These young ones who are becoming mothers at the first time should be guided on how to improve on the hygiene and many other issues because we keep on receiving young mothers who are totally green about some issues”.* (Traditional birth attendant 50-80 years, village 2)

*“What makes ladies not to go for antenatal care is that when a woman asks money for transport from the husband, the husband might not provide transport to the pregnant mother which will make her lose moral of going to the hospital because of her husband’s poverty”.* (Traditional birth attendant 50-80 years, village 2)

The role and support of traditional birth attendants differed from village to village. Some were available only in cases of childbirths, whereas others took a much more active position, as the following paragraph in the words of a traditional birth attendant explains:

*“My journey of being a TBA, when a mother comes to me for check-up I first question to ask her that; have you ever gone to the hospital for check-up or antenatal? ...when she says no, I advise her to first go to the hospital for check-up to know how the baby’s condition is. (...) When the results are saying that she has some sicknesses like malaria or syphilis, I advise her to go to the hospital again for medication, because those diseases can weaken pregnant mothers and are also dangerous to them, and sometimes it can lead to miscarriage, just because a mother might have not gone for medication for such diseases because of their negligence. When she completes the treatment, I continue to check her up, and when she reaches a time for delivering and I discover that I will not manage her, then I refer her to the hospital”. (Traditional birth attendant 50-80 years, village 7)*

### **Determinants influencing choice of delivery place**

Whether to give birth in a hospital, health centre or at home is a decision every woman or couple must consider. There are both positive and negative sides on every level of health care provision, and the study sought to find answers to underlying factors that may lead to decisions about delivery place.

#### **Mothers’ perspective**

All mothers were asked where they had given birth and the reason why they had chosen that place. Although there seemed to be a pattern of preferred or convenient place of delivery based on expectations and “popularity” within each village, there was considerable variety in the answers from the mothers, both among mothers from the same village as well as between the different villages. Often, in one village, many mothers were inclined to choose home birth with assistance of a traditional birth attendant, whereas in another village many would lean towards facility-based delivery.

Reasons conveyed by some mothers for choosing to give birth at a facility, were security and skilled personnel if you should fail to deliver normally, as commented by one young mother:

*“There they can operate you, which is not the same case with the TBAs and other hospitals”.* (Mother 15-25 years, village 3)

Others were attributing their choice of delivery place to the health workers who they described as *“so kind and loving that it might force me to go back when I conceive again”* (Mother 15-25 years, village 2), or expressed from the opposite perspective:

*“The health workers were not rude at me, that’s the reason why I should come back here”.* (Mother 25-35 years, village 1)

The cost of service also influenced the choice made by the mothers, and they sought facilities where charges were low, and the staff had an understanding of people’s struggles and incomes.

Additionally, transportation problems and lack of other services connected to the nearby facility, were reasons for choosing facilities further away, as narrated by one of the mothers:

*“The reason why I don’t come to (Village 2) hospital to deliver from there is that the road to the hospital isn’t good and security-wise the route is not safe. Supposing you get the labour pain at night, you cannot manage to travel to come to that hospital, but it’s a nice hospital, even if there is no canteen around that you can buy anything to eat when you are a patient there... but the hospital is good, but that’s why we go to other hospitals”.* (Mother 25-35 years, village 4)

Some of the mothers were not in the position to choose delivery place on their own as one of the mothers explained:

*“My husband decided for me, because it’s where I attended antenatal, so I had to go there, to the same hospital”.* (Mother 15-25 years, village 5)

Many mothers who reported having given birth at home, with or without the help of a traditional birth attendant, listed the most frequent reasons for home births as unexpected time of birth, it happened too quickly, or it happened during night time when both the risk of travelling and transportation costs were higher. Others had a good



relationship or familiar connection with the local traditional birth attendant and chose to give birth with her because of trust and loyalty.

### **Documentation and privacy in delivery practices**

When exploring practices and knowledge related to delivery among health workers, the key-informants were asked to describe the course of a normal birth and possible complications. For mothers, they occasionally had no option but to deliver their babies on their own, and their experiences are also reflected below.

#### **Mothers' perspective**

Several of the mothers told stories of the struggles of delivering their babies on their own, without any help from experienced birth attendants. Reasons for this could be rapid births, being alone, lack of money, or the absence of a skilled birth attendant nearby, as the following text from one mother shows:

*"I produced outside the house, so they took the baby inside. When I was done with giving birth, I knelt down for the remaining of the placenta to come out...I just delivered on my own, we don't have any traditional birth attendant around". (Mother 15-25 years, village 4)*

#### **Health workers' perspective**

The request of describing a normal birth seemed to really engage the health workers and they described in intricate detail about the procedures and the four steps of giving birth. The answers were in general coherence with one another, although some more detailed than others.

Briefly retold, from the health workers' perspective, the first stage of birth starts with contractions and ends when the cervix is fully dilated, and the baby has descended to the pelvis. Immediately when the head of the baby is seen, the mother is going into the second stage of labour, delivering the baby. The third stage of labour deals with delivering of the placenta. When delivering the placenta, it is important that all the contents of the uterus are expelled. Contraction of the uterus can be aided by the

medicine called oxytocin, which helps the placenta to be expelled. The fourth stage of labour is monitoring of the mother while still in the labour ward, for about one hour after delivery. The mother and the baby generally stay in the clinic or hospital for 24 hours after birth.

In coherence with observations by the researcher, the narrated descriptions from students and professional health workers on procedures and actions during the four stages of delivery seemed well rooted and referable to every day encounters with deliveries.

Observations in the hospital and health centre found common use of freehand journal writing as documentation of delivery. Although charts and partograms were available, they were rarely or randomly used which could sometimes cause difficulties or delays when searching for specific vital data or monitoring of a patient's delivery progression. The hospital and health centre administration were aware of the challenges connected with inadequate documentation and the researcher was introduced to several ongoing projects for implementation of quality measurements for improvements of patient security and journal keeping.

Further, observations in the hospital revealed that the privacy of the mother can sometimes be compromised for the need of teaching students affiliated with the hospital, and several mothers requested for less attendants during delivery. On one occasion the researcher was asked to leave the delivery room because the birthing mother believed the white nurse was causing her contractions to stop.

#### **Village health team workers' perspective:**

Occasionally, also village health team workers aided mothers in delivering their babies. They saw it as part of their duty, as described by one:

*"A woman when she produces, and you check her that she is OK, you get a flask of warm water and mix it with tea leaves because it helps her to produce well. When a mother is in labour pain and when there is no one to help her, I do give a hand to her to help her deliver well, I work as a village health team worker, and when there is a mother*

*in labour and there is no one to help, I can help her to produce the baby*". (Village health team worker 50-80 years, village 2)

### **Traditional birth attendants' perspective**

The process of helping a mother to give birth was explained as follows by two traditional birth attendants:

*"A normal delivery is when a mother comes when she's very clean, some ladies they do not go in the hospital and they come to us, the TBAs to help them and I just pray to God to help me*". (Traditional birth attendant 50-80 years, village 2)

*"When the baby is coming from the mother's womb and I the TBA have to put my hands so that the baby can fall in my hands not to leave the baby to fall down*". (Traditional birth attendant 50-80 years, village 7)

When looking at the financial aspect of giving birth, the traditional birth attendants found it somewhat amusing that a mother who gives birth immediately upon arrival to the hospital has to pay the same fee as another one who spent several days in the hospital before delivering. A good day for a traditional birth attendant was when a baby was delivered without complications and the mother *"...gives the TBA something to thank her, like money..."*. (Traditional birth attendant 50-80 years, village 7)

### **Time aspects on newborn procedures**

All respondents were asked to describe what happens to the baby after birth, and these procedures were also closely observed by the researcher when present during and after deliveries. The following section will display results related to these issues, including issues related to body warmth, hygiene, cord clamping, resuscitation and necessary injections and medicines.

### **Mothers' perspective**

The mothers' responses during the focus group discussions were mostly related to hygiene and warmth, as the following quotes from a focus group discussion display:

*“after birth they cut the cord, they covered the baby and placed the baby on the bed”.*  
(Mother 15-25, village 3)

*“The baby needs to be kept in a clean place and in clean clothes”.* (Mother 15-25 years, village 3)

The knowledge of kangaroo care was present, although the reason behind was not always clear. The following quote from a laughing mother shows this:

*“They did it, but I don’t know the reason why they did it, but maybe so the baby can understand you. I do not know why they do it, because the TBA’s and health workers do not tell”.* (Mother 15-25 years, village 5)

Another mother was told the reason by the health workers, as explained in her own words as follows:

*“They tell you that after giving birth you have to place your baby on the chest so that the baby can get that warmth from the mother’s chest as the warmth the baby was getting while still in the mother’s womb, that it also helps to maintain mothers love with the baby”.* (Mother 15-25 years, village 3)

### **Health workers’ perspective**

Optimally, clamping of the umbilical cord was done using forceps, but from observations done by the researcher, the cut-off ends of surgical gloves were frequently used for cord clamping in cases where the forceps had not been sterilized or were unavailable.

The clamping and cutting of the baby’s umbilical cord was normally performed on the mother’s abdomen immediately after birth. Further shortening of the cord was then done in the warmer, or sometimes also on the abdomen of the mother:

The following quote exemplifies some of the responses from the health workers on immediate procedures to the baby following delivery:

*“The baby is placed on the stomach of the mother, then you get two forceps, then you use them to attach to the umbilical cord, then you cut. You tell the mother to first look at*

*the baby, then the baby is taken...it is put in the warmer...".* (Nursing student 19-21 years)

*"After delivering the baby, you work on the baby and cut the cord. You go and treat the baby you give the baby vitamin, then shorten the cord".* (Midwife student 19-21 years)

From observations, the routine suction of the nose and mouth could be performed various places. Sometimes it happened on the abdomen or chest of the mother, whereas other times it could be performed on a separate bed or in the infant warmer.

*"After clamping, if the child is OK, you resuscitate, you first suck out the secretion from the nose and the mouth to open the air to breath, you have to resuscitate with the barb syringe, and you remove the mucus here in the mouth. If you don't, that's when you find some babies having fever, then flu at an early age".* (Midwife 25-35 years)

The "warmer", which was frequently referred to by the health workers in the hospital, is an electrically heated machine where the newborn was placed after birth while the health workers were helping to clean the mother and where procedures on the baby were performed:

*"When you take the baby to the infant warmer you give vitamin k to stop internal bleeding and Tetracycline in the eye to prevent eye infection".* (Midwife student, 19-21 years)

Placing the newborn baby on the mother's abdomen or in her arms immediately after birth is often referred to as kangaroo care, skin-to-skin contact or *kulubutu*, as they say in Luganda. Some students also suggested that the baby could be placed on the father's chest should the mother be unavailable or deceased. One of the midwife students referred to kangaroo care for premature babies especially:

*"When a premature is born, it means that this baby is not yet up to term, and he or she expects to get the warmth that he or she got in the uterus, so the mother carries the baby between her breasts, and keeps the baby there, and maybe when she wants to go for change, or take a shower, she gives it to the father, to carry it on the breast...on the chest, to provide the natural warmth to the baby".* (Midwife student, 19-21 years)

From observations done by the researcher in the hospital, the newborn was routinely put on the mother's abdomen immediately after being born. Although, sometimes there were only a few minutes of contact before the baby was moved to the infant warmer for further procedures, where afterwards it was wrapped in several layers of blankets before returned to the mother. In the health centre, where there was no warmer, the baby was more likely to be placed in the arms of the mother during the cleaning process or given to a family member or attendant for safekeeping.

### **Traditional birth attendants' perspective**

Traditional birth attendants naturally did not have the equipment and resources available at the health facilities, but several of them had attended training with medical doctors and had been taught what steps and measurements to take after attending to a delivery. The procedure of cord-clamping varied from village to village as described by two different attendants below:

*"I shorten the cord before the remaining of the placenta comes out because that's how the doctors told us".* (Traditional birth attendant 50-80 years, village 3)

*"I help the mother to remove the remains of a placenta from the mother's womb then after removing it I cut it off".* (Traditional birth attendant 50-80 years, village 7)

Others were performing the procedures so that *"...blood do not to drop on the baby, because that's when babies get infections and diseases, you have to cut the cord immediately after you tie the cord not to bleed".* (Traditional birth attendant 50-80 years, village 7)

As a variation to the oronasopharyngeal suction mentioned by the health workers, another method used was described as follows:

*"If the baby has been born, immediately you clean the baby very well with a clean cloth because they provided us with them, so I use those clean clothes to clean the baby in the ears and mouth for the baby to breath well".* (Traditional birth attendant 50-80 years, village 3)

Although the scientific reason for kangaroo care may be unknown, the practice was still performed out of need and other reasons. When someone gives birth from home with the help of traditional birth attendants, the options of putting the baby somewhere other than on the mother's body is limited. Even so, the practices varied, as revealed from one group interview with two birth attendants:

*"We place the baby on the mother's breast because we have no any other option about that... when the baby sucks the breast it helps the placenta to come out quickly".*

(Traditional birth attendant 50-80 years, village 2)

*"...after that you clean up the baby and place the baby somewhere and then clean up the mother".* (Traditional birth attendant 50-80 years, village 2)

Some of the traditional birth attendants took it upon themselves to take the measurements of the baby to the hospital for confirmation, since they were unable to read the measurements themselves. Others explained that, *"For us, the TBAs, we do not have weighing scales to take the baby's weight, but we recommend the mothers to take them to the hospital for measurements and vaccination".* (Traditional birth attendant 50-80 years, village 2)

On the issue of cleaning or bathing the baby there were various views, one of them mentioned below:

*"Sometimes over-bathing the baby can lead to low weight, so I advise the mother to bath the baby twice a day like in the morning and evening to avoid the baby to lose weight in the body. I advise the mother to take the baby to the hospital for check-ups. Some go to the hospital while others they refuse because they see that the baby is physically fine, but that annoys me".* (Traditional birth attendant 50-80 years, village 3)

### **Complicated births – every minute counts**

Difficult circumstances around delivery requires different actions and procedures than those described for a normal delivery. Feelings of losing control of the situation, accompanied by fear and anxiety for the outcome of the mother or baby were reported

by the participants. Below follow views on how situations were handled from the different informants' perspectives.

### **Mothers' perspective**

Some mothers had experienced complications that lead to emergency Caesarean section surgeries, and this could be a challenge. They lost control of the situation and the initiation of breastfeeding was delayed, as one mother was saying:

*"They operated me, so I don't know if the baby was taken to another room or not. I found that when I was having the baby, after coming to the ward... I entered the theatre at around 4:00 pm as me, and I gained consciousness at around 1:00 am in the morning".* (Mother 35-45 years, village 1)

Other mothers were retelling stories about how they felt coldness and dizziness after they had given birth, and some had experienced their newborns getting infections in their umbilicus or elsewhere.

Sometimes it was the baby who faced complications, and the following is an extract from an interview with a mother of three who delivered in a hospital:

*"Mother: They take him in the special care unit for very small children.*

*Researcher: But you went, you were together with him?*

*Mother: No, I didn't, I mean I remained in the ward for the mothers. This one they took him in the room. Special care room, for these children, and they worked on him for three days before I saw him, yeah.*

*Researcher: You didn't see him for three days?*

*Mother: Yeah, for three days, after there, they give me to breastfeed, to start breastfeeding him".* (Mother 25-35 years, village 2)

Some mothers sympathized with the health workers in hospitals, whom they said were sometimes blamed for complications and deaths connected to giving birth, although



they believed it was caused by negligence or little knowledge among the mothers themselves or the traditional birth attendants:

*“There are some TBAs, who are not qualified. Sometimes they try to help some women to deliver but when they fail that’s when they refer them to the hospitals like that one of (village 2). Then the woman might reach there and she dies then they blame the nurses, yet it was the TBAs mistake of making the woman to get tired by pushing”.*

(Mother 35-45 years, village 4).

### **Health workers’ perspective**

Being at a health centre with marginal resources and equipment when complications occurred, was described as a huge challenge for the health workers, and they often found themselves alone on duty. One midwife who was interviewed had a traumatic experience freshly in mind:

*“I was alone, and the baby was at the outlet, I was seeing the head actually. I tried several bodaboda (scooter) names, but their phones were off...before reaching (village 1) we got in an accident around the house near N. Then we reached the road, it was raining, totally raining, and the petrol got finished. And she was fitting (having seizures) with heavy rain. We stayed in (village 1) up to morning. They had to give magnesium, but it took long for her to give birth. She delivered when she was still fitting. They did episiotomy when she was still fitting”.* (Midwife 21-30 years)

She continued by explaining the most common complications:

*“Most normal complications I think is having the tight muscles, and then prominent bones, and then last time we had the cervical dystocia, but mostly tight muscles and prominent bones. We have osteospine, she might be wide inside, but as the baby...the outlet, these bones. Then another thing is eclampsia and placenta previa, but there are those who deliver normally, but you have to deliver from a hospital...”.* (Midwife 21-30 years)

The health workers agreed that if the mother had been in labour for a long time and seemed fatigued, they would give the medicine Dextrose intravenously, and in cases of over-bleeding, saline solution.

The local tradition in certain tribes with circumcising women's genitalia was also mentioned by the midwife as a possible complication when giving birth, although she had not experienced this herself.

Other times, the health worker could face trouble with keeping the mothers for observation post-partum, when the mothers discharged themselves against medical advice, often because they had to go back home and tend to elder children left alone in the village.

From observations, the researcher witnessed several births where complications occurred, and some of the most memorable situations were watching the midwives put their whole forearm into the uterus for collecting of retained placenta particles with no analgesics provided for the mothers.

### **Traditional birth attendants' perspective**

The traditional birth attendants interviewed were aware of the risks connected with childbirth, and when asked about how they dealt with complications, most of them said that they refer the mothers to the hospital. One traditional birth attendant said she used her herbal medicine to help with complications and one respondent talked about high-risk selection screening of the birthing mother based on the numbers of deliveries she had undergone previously:

*“A mother producing for the eight time, I do not help her in delivering from my place, I just take them to the hospital. But the ones producing for the fourth time, I help them...”*  
(Traditional birth attendant 50-80 years, village 7)

Reasons for occurrence of complications on the other hand, were understood variously. If the contractions stopped, or the baby took too long to come out, it could be blamed on the mother herself, for being hungry or too lazy. Also, general malnutrition and food

shortage in the homes of the mothers were given as reasons for difficult deliveries. Key-informants were asked to describe what made a good day or a bad day for them:

*“When I help like 3-4 mothers to give birth and they deliver normally it is a good day, but how I can describe a bad day is when I admit a mother in labour and I fail to help her to deliver. Instead I refer her to the main hospital, that makes my day bad, and I ask myself what a curse is that?”.* (Traditional birth attendant 50-80 years, village 2)

The complications that were most frequently spoken of, were similar to those mentioned by the medically trained health workers (page 44). It could be retained placenta particles, breech birth, tight pelvic bones or excessive bleeding.

## **Knowledge about breastfeeding**

### **Mixed feelings about initiation of breastfeeding**

Practices and knowledge among mothers and health workers on early infant feeding involve views and knowledge about initiation of breastfeeding. How to understand and solve feelings and challenges connected to it from various perspectives is displayed in the following section. The mothers reported expectations and worry about the first sensation of putting the baby on the breast. Some had experiences of pain and discomfort and others worried about the milk not coming into the breast or breastfeeding in public. The health workers and traditional birth attendants displayed knowledge of the importance of nutrition and continuous stimulation of the breast.

### **Mothers' perspective**

The mothers recruited for interviews or focus group discussions were asked to describe the feeling of putting the baby to the breast the very first time and many vivid and descriptive scenarios were shared amongst the mothers.

One mother said that she was feeling very happy and eager to know whether the baby she had been carrying in her stomach and had given birth to could actually suck the breast. Others said that:

*“Putting the baby on the breast with the first born it was so painful, whenever the baby would suck the breast I just had to remove it from the baby’s mouth”. (Mother 15-25 years, village 5).*

*“You even fear to breastfeed the baby, being in front of people”. (Mother 15-25 years, village 5)*

Some mothers narrated how it took them from a few hours up to 7 days before the milk started coming into the breasts. Other mothers explained their struggles like this:

*“When I delivered I didn’t have enough milk in the breast, so it took me two weeks without breastfeeding”. (Mother 15-25 years, village 5)*

*“I got a problem after giving birth, my baby refused to breast feed and I went to the hospital, but the baby continued to refuse breast feeding”.*

(Mother 15-25 years, village 3)

Contrary to what the health workers explained about how frequent intervals for breastfeeding sessions stimulated milk production, some mothers believed that the more the baby sucks the breast the more the breast would reduce its size, although some of the mothers who had given birth within facilities were taught the opposite; to let the baby keep sucking on the breast for the milk to accumulate.

### **Health workers’ perspective**

Without exception, all the health workers interviewed were familiar with the practice of putting the baby to the breast as soon as possible after birth. Some of them even used the word *immediately* (...after birth). Others explained that they gave the baby to the mother to breastfeed after the baby had been in the infant warmer, where it was placed for previously described newborn procedures (p. 44). Placing the baby on the breast doesn’t necessarily mean that the baby starts to suckle right away, or that there is any milk to draw from the breast. Nevertheless, the health workers were clear on how to advice the mothers in such instances:

*“If there is no milk they should not deny the breast from the baby, it’s the baby who stimulates that milk to start flowing. So, we keep on encouraging them to put them on the breast though it is not there, or it is little”.* (Midwife student 19-21 years)

### **Traditional birth attendants’ perspective**

In addition to stimuli of the breasts, focus on nutrition was of high concern among the traditional birth attendants and were explained by several as a reason for delayed or little breastmilk production, as retold in one traditional birth attendant’s own words:

*“When a mother drinks a lot of porridge, water and juice, the breast milk starts to form, and also placing the baby on the mother’s breast to suck, increases in forming of breast milk and also squeeze the nipple to produce milk”.* (Traditional birth attendant, village 7)

Some birth attendants would even use some harsh methods when trying to persuade the mother to initiate breastfeeding, as explained by one traditional birth attendant:

*“There are some mothers when you tell her to breastfeed the baby, she can hesitate that she feels nipple pain, me I even slap some of them for hesitating”.* (Traditional birth attendant 50-80 years, village 3)

Others used more careful approaches and talked about how they tried to show the mothers how to carry their babies in the right positions to make the breastfeeding easier.

### **Colostrum is good for the baby**

Following the trace of early initiation, views and knowledge on colostrum were sought from all interviewed subjects. The results reflected below show mostly positive associations to colostrum, with only two referrals to it not being useful or not satisfying enough for the baby.

### **Mothers’ perspective**

The mothers seemed to have a good grasp of the usefulness and importance of colostrum, irrespective of place of delivery, conveyed in the words of a mother as follows:

*“Doctors say that I have to breast milk that first milk to the newborn because it contains nutritious foods to the baby. It helps in the development of the baby, it makes the baby to be bright in class and it is nutritious to their bodies. It helps to fight diseases in babies like measles, pneumonia, it fights diarrhoea in the babies”.* (Mother 25-35 years, village 4)

However, there were some mothers who doubted the use and had been told stories related to superstition about this milk, as one mother was saying in a focus group discussion:

*“From the first milk the baby can’t get satisfied. Traditionally people believe that if breast milk fall on the ground it will be bad luck for the baby, maybe even death. Some pour it away because they think it’s not good”.* (Mother 25-35 years, village 6)

### **Health workers’ perspective**

There was no doubt or discrepancies among the health workers as to whether colostrum was useful to the infant. They had been taught in School and by doctors about the consistency and usefulness of this first milk, and how it is important for the baby to suckle those first watery yellowish drops.

### **Traditional birth attendants’ perspective**

The traditional birth attendants were more divergent in their responses about colostrum, and one traditional birth attendant explained that:

*“It’s quite full of thick milk in form of puss, I do not advise mothers to feed that milk to their babies because it is not good for the babies”.* (Traditional birth attendant 50-80 years, village 3)

Yet another said that; *“it is so useful to the baby because it helps the baby to build the body and the brightness of the baby”.* (Traditional birth attendant 50-80 years, village 2)

### **Extensive use of pre-lacteals**

Being unable to feed a crying baby can be excruciating for a mother, whether it is the firstborn or any of the consecutive children, and the uses of pre-lacteals can be

tempting, regardless of knowledge and recommendations. Results on this topic showed that although the mothers knew about the recommendations of not giving pre-lacteals, most of them admitted to feeding the baby diluted cow's milk or sugar water while waiting for the first milk to appear in the breast. Recommendations from the traditional birth attendants were also in line with the views of the mothers whereas the health workers advised against it.

### **Mothers' perspective**

Many of the mothers reported being told by health workers to avoid giving pre-lacteals to their babies, but when reality hit, and days went by without any milk appearing in the breast, they found themselves looking for other options. A mother with a pre-term baby explained it like this:

*"My second-born was born before time, one month. I asked the nurses but got no help. But they told me to squeeze the breast and feed it with a spoon, but there came no milk completely. They told me to give water with sugar and salt, but I didn't do that. Only cowmilk with water and sugar".* (Mother 25-35 years, village 2)

One mother said that *"for me, after giving birth, I lacked breast milk, so I mixed glucose in warm water and gave to the baby. Two tea spoons of glucose I mixed it in 2 spoons of boiled warm water".* (Mother 15-25 years, village 4)

Another mother said she gave *"African tea, just milk with black tea".* (Mother 25-35, village 5)

If it's the health-workers recommendation to stop breastfeeding, the mothers agreed that something must be given to the baby, like glucose mixed with warm water, and sometimes tea, but with little or even no sugar in it. Although, they also confirmed being told about side effect of doing so, where enlargement of the baby's stomach was mentioned as one of them.

## **Health workers' perspective**

On the issue of pre-lacteals, the health workers recognized that it was not recommended or beneficial for the baby to receive any substance before the breastmilk had come into the breast. Nevertheless, they confirmed knowledge about the custom of doing so, but were advocating against it to the mothers that came to the facilities, as one of the students replied:

*“Yes, the mother is not supposed to give food, but others give them cow milk but it`s also not good for them because it sometimes causes constipation in the babies when not diluted so it`s not recommended to be used”.* (Midwife student 19-21 years)

In cases where the mother died or were otherwise unfit to breastfeed, the use of diluted cowmilk or similar would be fed to the baby, using a spoon or cup. When probing further about it, some informants admitted having heard about the practice of using a wet nurse, but it was not common practice. The use of formula was familiar, but not common practice.

## **Traditional birth attendants' perspective**

The recommendations on pre-lacteals from the traditional birth attendants were similar to what was narrated by the mothers.

One traditional birth attendant interviewed explained that *“I feed the baby with warm water using a teaspoon to feed the baby because that is what also doctors recommend to us, we the TBA`s”.* (Traditional birth attendant 50-80 years, village 3).

When asked about what advice to give to a mother who lacks breastmilk when discharged from her workplace, she said the following:

*“I advise them to continue giving them warm water and also cow milk, but it should be diluted. If the mother stays nearby, I try to monitor her condition with the baby and taste on the water given to the baby to find out whether that water contains sugar, because it is not recommended to give newborn babies sugar”.* (Traditional birth attendant 50-80 years, village 3)



## Help and support

### High potential for improved family support

Reliance on and support from family members in times of need and during vulnerable circumstances can contribute to better coping. A few mothers had positive experiences of help and reliance on family members, but many women showed resentment and anger towards negligent husbands and fathers on economic issues, as well as unmet expectations of help and support.

### Mothers' perspective

In addition to the mothers who confirmed having gotten information from antenatal classes and those who reported not attending any classes, a few of the mothers also relied on family members for guidance and information. As one young mother explained:

*"I just learnt how to breast feed just from my elder sister because she has raised all her children when I am the one taking care of her, so I got to learn it".* (Mother 15-25 years, village 1)

One mother of four, gave credits to her own mother for teaching her about newborns:

*"My mother is the one who advised me, she taught me how to handle the baby, how to cover the baby and not to let the newborn feel the coldness".* (Mother 15-25 years, village 4)

A returning topic in several of the villages where focus group discussions were conducted, was the issue of irresponsible men and husbands, more specifically speaking; the lack of support from significant partners. The fact that the interview guide did not mention the role of the fathers, gave the returning focus on them more attention and weight. Economical despair was a prominent factor, which is reflected in the statement from a mother as follows:

*"Sometime a woman can request some money for transport from the husband and he tends to refuse to give out the money to the wife hence ending up not going for*

*antenatal care. That's why the husbands send their wives to go to these TBAs because for them they will not pay them money". (Mother 35-45 years, village 4)*

When a woman goes to the hospital to give birth, it is revealed by one of the moderators during a focus group discussion that women who are escorted by their husbands gets tended to before women who come alone. This practice is further confirmed by the mothers in the group and expressions of anger and desolation were observed and recorded. An extraction from a focus group discussion displays this:

*Moderator: You mean you do not go with your husbands when time has reached for you to give birth?*

*Group: "No, they don't escort us".*

*Mother 3: "A very big number of women from this village give birth from their homes just because they lack money and even the husbands do not fulfil their responsibilities, which sometimes leads to both infant and maternal mortality". (Mother 35-45 years, village 4)*

On the issue of nutrition and breastfeeding, a question could lead to unpredicted answers, where underlying feelings of neglect and betrayal become transparent and surfaced. The dialog below gives an example of this:

*Moderator:" By the way, you have not told me the type of food you usually eat after giving birth?"*

*Mother 3: "Me, sometimes after giving birth I feel like eating posho, but my husband tends to run away from his responsibilities and goes and marries other women, me I even fetch water for myself". (Mother, 25-35 years, village 4)*

*Moderator: "On the first day you fetch water? By that time can the back be already stable in position for you to even fetch water?"*

*Mother 3: "It might not be stable at the moment, but usually I have nothing to do because I have to fetch water because I need it at the moment".*

*Moderator: "So how long does the man take to return home after you have given birth?"*

*Mother 3: "Too long, sometimes he comes back when this baby is grown up or if not when the baby walks for herself that's when he comes back".*

(Focus group discussion, village 4)

Contradictory to the expressions of despair from the mothers above, the researcher also witnessed many caring and supportive partners and husbands while present for observations at the hospital and health centre. Fathers accompanying their wives could be seen anxiously waiting for hours on end outside the maternity ward, awaiting the birth of their baby son or daughter. One husband spent a whole night travelling to see his newborn daughter at the health centre after receiving news of her birth.

In conclusion of every interview and focus group discussion, the respondents were given the opportunity to ask questions to the researcher. Often, there were questions regarding the researcher's personal life and comparisons between Uganda and her home country. However, a recurrent topic was questions regarding sexual activity after birth, where the discordance between the various needs of men and women were again proclaimed. The dialogue from a focus group discussion is shown below:

*"Moderator: "Ask my colleague Marte about some other issues because she is a professional nurse".*

*Mother 6: "How long should a woman wait after birth to have sexual intercourse with the husband?"*

*Researcher: "They should wait six weeks without having sex with their partners".*

*Moderator: "She has said that you should stay for six weeks without having sexual intercourse".*

*Mother 6: "Some men do not accept to starve for all those weeks because they are impatient, even a week after birth they can start demanding for sex from the wife".*

Moderator: *“My colleague has said that you should not accept having sex before six weeks elapsing because during that time you are bleeding when you have sex, in due course, you might get infections like STDs”.* (Focus group discussion, village 4)

Similarly, questions were asked about family planning, but as the following quote shows, it could prove a risky affair for the women:

*“If a woman goes for family planning on her own and the man gets to know it, it will just become a fight or even he can kill the wife. That’s why we want you and your management to organize and talk to them one day”.* (Mother 35-45 years, village 4)

From observations in the hospital the researcher witnessed a young mother who had requested for tubal ligation after having had four Caesarean sections. The procedure had been recommended and approved by the doctors for the health of the mother and her husband had signed the consent papers. On the day of the procedure the husband withdrew his approval and the mother was not allowed to go through with the surgery.

### **Reliance on others**

Sometimes help and support for the mothers were provided through professionals, or relations and acquaintances other than one’s family. Examples of this were the fellowship with other mothers, neighbours with children or health workers and traditional birth attendants. The next and final section displays the results on this topic.

### **Mothers’ perspective**

Although, as shown above, many mothers could not count on their husbands for support after giving birth, others had good experiences with talking to fellow mothers in the community, sharing ideas and discussing information and advices from the health centres where they went for antenatal care, since they often went to different health centres.

Some mothers sought professional help when they experienced trouble, as one mother in a focus group discussion replied:

*“When I started breastfeeding, I got wounds in my breasts. Then I started feeling some small stones then when I went to the hospital they had to first squeeze the breast for those small stones to move out then I started breast feeding”. (Mother 25-35, village 4)*

Most of the women lived with their families-in-law and confirmed that they sometimes discussed issues about birth and breastfeeding with their in-laws, but that it was rather rare. Others confided in neighbours who had children if they had any questions or problems with breastfeeding.

### **Health workers’ perspective**

Often the midwives were alone on duty, and due to hectic work environments and sometimes attending to several mothers in labour at the same time, the information and support for breastfeeding were often neglected. When asked if they provided breastfeeding support to mothers, the reply was as follows:

*“Yeah, but rarely, because most of the times I deliver them at night, then in the morning when you’re alone, you’re moving up and down, you’re this side and the other side, so I get less time (snapping fingers). And that one (time) I cannot deceive”. (Midwife 25-35 years)*

Nevertheless, some mothers came back for help and support after birth, as the following quote exemplifies:

*“She had a breast, sort of enlargement, and it was also inflamed, so I gave her the advice and I gave her antibiotics. I gave her even these manual methods, warm water, and you keep on breastfeeding. You have to keep on breastfeeding”. (Midwife 25-35 years)*

### **Village health team workers’ perspective**

Being a village health team worker means that one is in connection with the local health facilities and is the first line communicator in the village on topics concerning health, birth and family planning. Several of the village health team workers interviewed confirmed giving aid to pregnant mothers by encouraging and mobilizing them to go to

health facilities for antenatal care and delivery. They also gave a hand when mothers faced complications when giving birth from a traditional birth attendant, as commented by one village health team worker:

*“When we hear that the mother has failed to deliver well, we as the VHTs have to get any means of taking that mother who is in labour to the hospital for help”.* (Village health team worker 50-80 years, village 7)

### **Traditional birth attendants’ perspective**

One traditional birth attendant commented on how she helped the mother to *“carry the baby in order to support the baby to breastfeed, because we cannot leave them to breastfeed on their own because they tend to be young”*. (Traditional birth attendant 50-80 years, village 7)

Similarly, from one other traditional birth attendant:

*“I tell the mother whenever they are going to breastfeed their babies, they should wipe their breasts to avoid microorganisms from being taken up by babies and I ensure that they breastfeed in time. I help the mother by telling her to put the breast in the mouth and tell her lift up the breast for the baby”*. (Traditional birth attendant 50-80 years, village 2)

Involving fathers and husbands in maternity care was also deemed beneficial by traditional birth attendants:

*That’s why I like it when a woman comes to deliver with her husband, because when the situation worsens, I just advise the husband to take her to the hospital.*

(Traditional birth attendant 50-80 years, village 7)

### **Postnatal care**

Pre-scheduled or planned postnatal follow-up before vaccination at 6 weeks was not common or recognized among the health workers. When inquiring from the health workers about supporting mothers with breastfeeding issues, the general answer was

that they told the mothers to return to the facility if they should face any challenges, but they also confirmed that this seldom occurred:

*“Here we don’t know whether their villages have health workers there, we don’t know, but we tell her (the mother) when she gets any complaint to come back here”.* (Midwife student 19-22 years)

The midwife interviewed had good experience with first-time mothers and said that; *“you see with these ones it is the first time to give birth, so it’s a bit hard for them, and they have to struggle”.* (Midwife 25-35 years)

### **Traditional birth attendants’ perspective**

Newborn vaccinations against Polio and BCG are normally given at the hospital and health centre before discharge. For women giving birth at home, the traditional birth attendant can offer advice, but it is the mothers’ responsibility to provide the baby with vaccinations:

*“If God helps and that mother delivers well, then I encourage her to go to the hospital the following day for immunization and to get some vaccination from the hospital”.*  
(Traditional birth attendant 50-80 years, village 7)

The above statements conclude the presentation of results attained during the time of data collection for the study.



*Picture 3: TBA with her certificate*  
(Photo: Marte Bodil R. Lamp)



*Picture 4: Student with baby after a caesarean section*  
(Photo: Marte Bodil R. Lamp)

## Discussion of results

Antenatal care visits were not a well-established practice for all mothers in Buikwe district. Mothers frequently reported transport cost and service fees being the biggest obstacles to antenatal care and facility-based delivery, where reliance on their husbands seemed to be the underlying factor. Thus, the women did not benefit optimally from teaching and counselling given at the clinics. The study showed that many mothers do not have safe environments around the time of childbirth, which can lead to negative birthing experiences (65).

The study found evidence of professional high-quality health care both in the hospital and health centre, although with potential for improved documentation of labour progress, timing of cord clamping and privacy issues. Traditional birth attendants and village health team workers displayed great knowledge and commitment in caring for the mothers. Knowledge about the different aspects related to breastfeeding were found to be generally in line with WHO recommendations (19).



Nevertheless, many mothers in this study had little or no help and support from family members during the time of delivery and the following postnatal period, when a woman is most vulnerable, both physically, and emotionally (65, 78). When looking at the Uganda Clinical Guidelines as a baseline and general guide for the health care and support to be given to women during pregnancy, birth and breastfeeding period, there were various facilitators and barriers found for compliance with these guidelines.

The following section will go deeper into the issues mentioned above, and the results will be discussed in the same sequence as previously displayed. First, focusing on objective one and two on pregnancy, delivery, post-partum and infant feeding aspects. Second, the third objective on health care and support systems will be discussed also in light of gender and socio-cultural aspects.

## **Pregnancy and birth**

### **Importance of antenatal care**

Antenatal classes seemed to be the most common arena for mothers to get information and knowledge about delivery and breastfeeding. The Uganda Clinical Guidelines recommend at least four antenatal visits for a normal pregnancy, more frequent if there is suspicion or confirmation of twins or other signs of high-risk pregnancies (21).

However, many women did not attend antenatal classes, and transportation cost was reported as the biggest obstacle for not attending.

Further, not being present in the time-frame when information was provided, may be a reason why many mothers had not received information about breastfeeding before giving birth. If a mother was earlier or later than the main group, the information given would be less or none. Challenges with pre-set appointments are many, due to distance to the health centre or hospital, combined with transport cost and -availability.

Alternatively, providing antenatal care on one-to-one basis would require higher number of qualified staff and a reorganizing of the services offered at the health centre and hospital. A Swedish study looking at mothers' satisfaction comparing group antenatal care versus individual antenatal care found slightly less deficiencies in group-based information provision. The findings revealed higher satisfaction when there was

opportunities for contact with other mothers of same gestational age (79). Women's empowerment has also been found to be a contributing factor for higher participation in antenatal care in an Ethiopian setting (80).

Several of the traditional birth attendants expressed concern about receiving women for delivery who had little or none previous knowledge about giving birth or newborn care. They stressed the importance of antenatal care for the mothers, both for gaining information about their own health as well as for their babies' welfare.

Interventions promoting male involvement in antenatal care are present both in the Uganda Clinical Guidelines and the recommendations from UNICEF Uganda (21, 59). However, a male involvement analysis on antenatal care from various African countries shows both negative and positive associations on women's empowerment for men's involvement in maternal health care seeking. For example, in Malawi men were less likely to accompany empowered women to maternity clinics, whereas in Uganda and Burkina Faso, women's empowerment was positively associated to male involvement in antenatal care (81).

In this study, as commented by one of the moderators during a focus group discussion; coming to a facility together with one's husband elicited quicker and better care from the health workers. The mothers agreed with the moderator's statement and similar practice has been found by Kululanga (2011) in Malawian settings (82). The mentioned practice of favouring couples is in alignment with the recommendations for higher male involvement, initiated by UNICEF Uganda in 2016 (59). The practice could be considered a dichotomous factor. On one hand the incentive is a motivator run by the facility for higher male involvement in care-taking for their women and children. On the other hand, from the perspective of the women who have struggled to reach a facility on their own, possibly from self-earned money, it could be thought to diminishing to their self-esteem and autonomy and give cause for augmented social divergence (82). The strategy has shown unexpected effects of women randomly choosing a man on their way to the clinic, in order to be recognized and served by the health workers at the facilities (59, 83).

Both mothers and traditional birth attendants referred to poverty as a significant factor as to why some women were not able to go for antenatal care. The same factor can possibly also explain low male involvement in maternity care, since the transport cost would double if two people were to travel instead of one in addition to income lost with that time expenditure. Previous studies from Uganda have also confirmed that the spouse often remains at home looking after the household and other children, which allows the woman to go for antenatal care (56).

### **Determinants influencing decision about delivery place**

Availability of income and money greatly determined whether a woman could give birth at a facility or at home, with or without the help of a skilled birth attendant. Thus, women who had reliable husbands or own income had more options in choosing their preferred place of delivery. A public hospital which is located in the nearby city of Jinja gives delivery services free of charge, but the transport cost of getting there from the villages included in this study is considered high, hence women go to nearby facilities. A study from Ethiopia showed that facilities who offered delivery services free of charge, had overall lower standard on service and health care, and higher percentage mortality rates than those who charged fees (84). Similarly, a recent qualitative study was done on “Health workers’ responses and institutional adaptations to absenteeism in rural Uganda” by Tweheyo et al. (2019) (85). The study showed lower quality care in public health facilities compared to private-not-for-profit (PNFP) health care. In the public health facilities, the problem-solving mechanisms for workforce absenteeism were poorly conducted and resulted in unqualified patient care from task delegation of clinical care to unsupervised nurses caused by absent professional health managers. The resentment towards absent co-workers were also projected on patients in form of moodiness and offences (85).

A safe birthing environment includes experienced birth attendants and good care for the mother and her newborn, both for normal deliveries as well as when complications occur. Having someone to rely on during this time period is important for the mother’s restitution and for giving the newborn a favourable start in life (65, 66). The study showed that women tended to choose a delivery place where they previously had felt

safe and where the health workers were amicable. Research on care for women during childbirth show that globally many women face both physical and verbal abuse connected to childbirth in health facilities. The need for privacy and a limited number of staff and attendants present during birth are also contributing factors for a good birth experience (65-67, 86-89). The mothers' focus on choosing facilities where they felt treated with kindness and respect indicates that also women in Buikwe district have experiences of the opposite. Especially in teaching hospitals, the number of onlookers and attendants can be many, and referring to own observations, the mothers can sometimes feel uncomfortable and request for less people in the delivery room (page 41).

### **Documentation and privacy in delivery practices**

Both midwives and students seemed to have a good grip and understanding of the anatomical and physiological correlations connected to delivery, and their narrations of the four stages of birth were in coherence with recent textbooks on the subject (90). The observed notion of minimal documentation on charts and partograms could be attributed to time restrictions and confidence in own clinical observations. However, assessment of labour progress is important, and especially so if labour is prolonged or if complications occur. Monitoring of labour using partograms gives a better indication of labour progress, and together with knowledgeable and observant midwives it may prevent unnecessary emergency Caesarean sections (5, 91). A Ugandan study on the use of partograms found poor use and lack of training among the staff on how to use them (5). When rotating of shifts in the maternity ward it would be helpful and time saving if the documentation of labour progress is easily accessible.

### **Time aspects on newborn procedures**

None of the health workers had heard about the Uganda Clinical Guidelines when asked about it, but during observations, the researcher found the printed guidelines present in both the health centre and hospital. Nevertheless, responses and actions from the health workers were mostly found to be in accordance with the guidelines (21). An exception was the procedure of routine suction of nose and mouth of the newborn immediately after birth using a bulb-syringe, also referred to as

*oronasopharyngeal* suction. The Uganda Clinical Guidelines states this as “*Harmful and ineffective resuscitation practices*” (UCG 16.5.1) (21). When probed about it, the health workers explained that it was a necessary measure, so the baby would be able to breath. Also, the nursing- and midwife-students interviewed referred to this practice as routine, and the reason behind could be questioned to lay in the curriculum of the schools, or just a continuous practice from earlier recommendations. The practice of routine suction of newborns have been found to cause side effects like bradycardia and apnoea, although not with the use of a bulb syringe (92).

Naturally, home birth will deviate a great deal from the Uganda Clinical Guidelines when it comes to medical procedures as giving K-vitamin and Oxytocin etc. On the issue of newborn care, traditional birth attendants explained how they wiped the baby’s nose and mouth with a clean cloth after birth. According to recent studies from the U.S. and Austria, wiping is superior to suction, unless the baby has difficulty breathing. The Austrian study further shows negative findings on correlation between suction and cerebral and peripheral tissue oxygenation, which has previously been an assumed side-effect (93-95).

The knowledge among the health workers about kangaroo care were in coherence with WHO recommendations (18). The study found that Kangaroo care was implemented on a regular basis, although the definition of kangaroo care may be understood differently than the scientifically understood definition, by some health workers. Placing the baby skin-to-skin on the mother’s abdomen after birth was common practice, although the time period for the skin-to-skin connection could be only a few minutes, whereas the UNICEF definition recommends one hour, or until after the first breastfeed (41). The routine of placing the baby in a warmer for the following newborn procedures, seemed to prevent further skin-to skin contact. When the baby was later returned to the mother, it had been wrapped in several layers of blankets. One explanation for this practice may be due to the marginal bedding on the delivery beds. The mother is required to bring a plastic sheet to cover the delivery bench, which creates blood and other substances to stick to the body of the mother and require thorough cleaning before she can be moved to another bed. The use of one-time absorption sheets for delivery surfaces would seem

more beneficial and shorten the time span of separation between mother and child, but this may be an economical issue.

Clamping and cutting of the umbilical cord in the hospital and health centre was performed immediately after birth and normally before the presentation of the placenta. One of the traditional birth attendants mentioned that she waited for the placenta to come out and thereafter she cut the cord. The practice of the traditional birth attendant is in coherence with the latest research about the timing aspect of cord-clamping, and updated WHO guidelines from 2014 (96). Delayed cord clamping (DCC) refers to clamping later than 60 seconds after birth or when cord pulsation has ceased, contrary to early cord clamping (ECC) which take place within one minute after birth (96, 97). However, some use a timespan later than 30 seconds when describing delayed cord clamping (98). Benefits for the newborn have been found when cord clamping is delayed, both for pre-term babies as well as for those born at term. Qian et. Al. (2019) found benefits involving higher Hemoglobin levels and reduced anemia. Also, higher levels of iron supplies have been found in infants up to 6 months (98). Another study from 2019 found higher levels of Oxygen in babies with delayed cord clamping than in those who had early cord clamping, in addition to slower heart beat and higher Apgar scores (97). Studies have not found an elevated risk of postpartum haemorrhage of the mothers, and the benefits to the baby is equally high or higher when delivered by Caesarean section (96-99). The Uganda Clinical Guidelines are up-to-date according to WHO's recommendations (12) on clamping and cutting of the cord 1-3 minutes after birth (UCG 16.4.8.2).

### **Complicated births – every minute counts**

On the issue of complications connected to delivery, the results show great knowledge and competence among the professional health workers as well as among the traditional birth attendants. Although marginally equipped with lifesaving resources in the health centre, and especially for the traditional birth attendants, their perception on timing for referral to higher level health care, seemed well rooted. The mothers mostly showed trust and confidence in both health workers and traditional birth attendants, although there were traces of distrust towards the latter amongst mothers in one village

(page 48). The underlying issue for the distrust was not looked further into and could be on a personal level.

Being aware and knowledgeable about risk-factors and when to seek further professional help should be valued and credited to traditional birth attendants. Their role as first-line health workers should not be overlooked or neglected, as confirmed by a recent study from South-Sudan (100). If the mother is lacking money to go to the hospital when complications occur, the traditional birth attendant has little option but to try her best to help her.

Separation between the mother and the newborn when complications occur, whether during or after delivery, is sometimes inevitable. Ideally the separation period should be as short as possible (18). One mother reported being away from the baby for three days when the baby became ill post-partum, where the baby was placed in the children's ward in a hospital and the mother stayed put in the maternity ward. There may be unknown medical reasons for the separation in this individual case, but further inquiries should be taken to ensure this is not standard procedure. Separation between the mother and the newborn may create insecurity and unnecessary worrying for the mother and delay the bonding and breastfeeding initiation. Studies have also revealed separation as a cause for stressors in the newborn which could lead to neurodevelopmental problems (33, 101, 102).

## **Knowledge about breastfeeding**

### **Mixed feelings about initiating of breastfeeding**

Overall knowledge about the usefulness of breastfeeding was found among all the participants in the study, and the option of not breastfeeding seemed none-existent, or even unheard of. Time of initiation was found in accordance with the Uganda Clinical guidelines in most of the observed cases and no adverse knowledge or recommendation were detected on this subject. Mothers who had faced complications during or after birth, were naturally more likely to initiate breastfeeding later than the recommendations.

The observed notion that the gap between professional health workers and patients seemed quite big, was reached based on the researcher's unique opportunity of observing the patients from an outsider (etic) perspective. Being casually dressed and asking direct questions seemed to create an atmosphere where the patients were forthcoming in expressing needs and worries which they viewed too insignificant to bother the professional health workers with. Such informal interacting with patients gave reason for suspecting that the need for information and support after birth is unmet to some extent. Whether this observation is accurate from the participants' perspective is unclear in this study, as no inquiries were done on this issue.

Because of respect and sometimes fear of bothering the health workers, mothers may be cautious and reluctant in asking for help and advice unless asked directly. The lack of privacy in the maternity ward may also be a contributing factor. Many studies have been done with reflections upon these issues, and the initial complex concept of patient-centred care developed for medical doctors emerging in the 1970's (87), have evolved into a similar concept of person-centred maternity care. A recent study from Kenya (2019) exploring this concept found high discordance in the patient-provider perspectives, where the health workers blamed the mothers for not expressing their needs, although recognizing that it was the health workers obligation to establish rapport and create a forthcoming atmosphere. The mothers in the study often felt objectivized when the health workers did not know their names or appeared too busy to provide help and information (67). Similar findings were found in Malawian and Ugandan settings, focusing more on women's autonomy and health workers (dis)respectful behaviour towards patients. Women in the studies often found themselves to be patronized and ignored if inquiring about medical procedures or confessing to the use of traditional herbal medicine (27, 103).

Individual sessions with each mother after birth would seem beneficial in creating a forthcoming atmosphere where the mother could express questions related to her birthing experience and any concern she might have regarding breastfeeding. This would help both mothers and health workers in reaching a common goal of best possible care for the newborn and the mother herself. Mothers' anticipation of little



breastmilk, in addition to pain and discomfort when initiating breastfeeding, show unmet needs of better counselling and education on the subject.

Breastfeeding in public is another inhibition of new mothers, especially if it is the first-born. There could be various reasons for this, as thoroughly reflected upon in a recent article about breastfeeding in public by Woollard (2019) (104). Having to be concerned about what others might think while struggling to feed the baby might bring additional unnecessary emotional and practical issues. The notion of being looked upon as frivolous and showing immoral behaviour when feeding one's baby has become increasingly stigmatizing and drive mothers to breastfeed in private, which strengthen the view of breastfeeding as an unnatural behaviour (104). Feeling some discomfort when breastfeeding in public might be solely a self-perceived notion, however, recent research show that geographical areas together with religious, cultural and social norms are highly influential on a women's perceived acceptance of breastfeeding in public (105).

Health workers were unsure and hesitant to answer when asked about how a baby would be fed if the mother was unable to breastfeed. The use of formula and wet nurses were not common in the study area. The described solution of feeding the baby diluted cow's milk from a cup was mentioned several times both during formal and informal interviews. In areas with scarce resources this may be the only feasible option available or heard of, but other options would be beneficial to consider. An example could be squeezing or pumping out milk from one's own or another woman's breast, and feed directly to the baby using a spoon, as was also mentioned by one of the mothers.

### **Colostrum is good for the baby**

The use and benefits to the baby from colostrum were commonly known amongst most participants. Only one of the elder traditional birth attendants referred to it being useless, although the mothers interviewed in the same village did not have the same view and no mother reported throwing away colostrum. Nevertheless, several referrals to superstition connected with colostrum was reported, such as bad luck or death if the milk fell to the ground, but it didn't keep the mothers from feeding it to the newborns.

The differential views could be contributed to generation gaps and better information access and literacy levels among the younger participants. Even though the findings of negative associations regarding colostrum were rare, it shows the need for continued focus and information about the importance of these first nutritious drops of milk (49).

### **Extensive use of pre-lacteals**

The use of pre-lacteals like sugar-water, diluted cow's milk or African tea were common practices while waiting for the milk to appear in the breast. Both mothers and health workers confirmed that this was not recommended, but the practice prevailed nevertheless. The mothers worried that the baby was hungry when the milk didn't appear during the first 2-3 days, but evidence show that pre-lacteals and complimentary feeding interacts with initiation of breastfeeding and may delay the milk production because the baby is not stimulating the breast enough (106, 107). Information obtained in this study also presents the view that frequent suckling lead to milk reduction, quite contrary to physiological mechanisms (107). Complications with nutrition intake and impaired growth have also been associated in connection with pre-lacteal feedings (106). Further focus on and information to mothers about the adverse effects of pre-lacteals is therefore advisable.

### **Help and support**

#### **High potential for improved family support**

Reliance on one's spouse during the time of pregnancy and birth may be taken for granted by many women. As the study reveals, this is not the scenario faced by many new mothers in Buikwe district. Even on the first day after delivering their baby, mothers reported getting no time to rest or having the feeling of being cared for by their husbands. They must tend to daily chores of carrying water and cooking food for themselves, as well as for other children.

Even though the mentioned chores are traditionally seen as women's work, some mothers showed resentment towards their spouses for not assisting them after birth. Stories told with anger and bitterness reflected the hopelessness and feeling of despair many women found themselves to be in. During one of the focus group discussions the

mothers were begging the moderator and the researcher to come back to arranging meetings with the men in the village. Arrangements for such a meeting were planned together with the local chairman in the village, but to be successful, it requires the spoken-of men to be present.

Being alone and vulnerable after birth, with perhaps both physical and emotional challenges, give reason to suspect that the breastfeeding conditions for women in some villages are far less than optimal. Feeling of security and supportive surroundings are requirements for a good bonding and early breastfeeding experience, and the lack of such may lead to post-partum depression and trouble with, or discontinuation of, exclusive breastfeeding (33, 108).

### **Reliance on others**

The Uganda Clinical Guidelines advice that new mothers seek help and advice from the community and/or family members, especially if any post-partum danger signs appear (UGC 16.6.1.1) (21). As previously mentioned, many women live with their in-laws, and it would depend on the interpersonal relationship between them if the woman would feel comfortable asking someone for help and support. Some of the mothers mentioned sharing concerns and advice with neighbours and friends, but when it came to provision of physical help it often seemed to be one woman for herself. This can be seen as a contradiction to the general view of African cultures as collectivistic, where the extended family is relied on for extra support in times of need. Limited research is found on Ugandan culture with focus on gender roles and social structures, but a study on “Ugandan Cultural Values and Implications for Managerial Behaviour” (2013) displays Ugandan culture as “*masculine, collectivistic and high in uncertainty avoidance*” (109). Regardless of generalized cultural roles and traditions, every community and family are different, and observations and unstructured dialogues with health workers and mothers gave the researcher many examples of good caring fathers and family members, who supported their women and families both during times of delivery and in other areas of life.

Village health team workers, traditional birth attendants and professional health workers were displayed as significant sources of trust and support in all aspects surrounding maternity and newborn health. There seemed to be a low threshold for mothers in contacting the mentioned providers if the need for medical advice should arise, and the health workers themselves showed a genuine interest in providing the best possible care according to their knowledge and availabilities. The knowledge displayed by some of the health workers show evidence of high-quality updated care. With referral to the quoted statement from the midwife who gave health care to a mother with mastitis (page 60), shows that the advice given about continuation of breastfeeding is in accordance with the latest research and WHO guidelines, although in conflict with the Uganda clinical guidelines which recommend to “*stop breastfeeding on the affected breast but express milk and discard to avoid breast engorgement*” (UCG 16.6.3) (21). Continued research and revisions of the clinical guidelines will ensure improved high-quality care and knowledge.

### **What happened to postnatal care?**

Postnatal check-ups were rarely seen or executed among the participants in the study. The Uganda Clinical Guidelines advise all mothers to have a routine follow-up visit at 6 days and 6 weeks (UCG 16.6.1) (21). Neither the health workers nor the mothers seemed familiar with the recommendation of 6-day check-ups, which would give the mothers a good platform for expression of concerns around breastfeeding issues or other post-natal conditions. Some of the health workers interviewed recommended mothers to come back if they faced any trouble post-partum, but it was not routine. As a recommendation, the 6-day check-up could possibly be conducted as an outreach appointment to the home of the mother but would rely on staff and resources available. The routine check-up after 6 weeks was common in combination with the vaccination program.

As noted in the chapter on postnatal care (page 17), the guidelines for postnatal follow-ups were updated by the WHO in 2013 to include postnatal care on the first day, third day, between days 7–14 and six weeks (61). These recent recommendations are not yet included in the Uganda Clinical Guidelines, but higher frequency of postnatal contact

between mothers and health workers would be welcomed in the combat against infant and maternal mortality in Uganda.

## **Considerations of gender and sociocultural aspects**

The discussion above has revolved around pregnancy, delivery, postpartum and feeding aspects, involving immediate results on family and community support. In order to understand mothers' perceptions on health care and support systems connected to pregnancy, birth and the postpartum period it is necessary to reassess the possible implications of being a foreign researcher from another socio-ethnic background.

Naturally, it raises questions when hearing the mothers talking about the struggles they must face alone after birth, due to the absence of husbands and fathers, who may only appear after some years when the baby has grown. Is this a behaviour found generally accepted among men in Buikwe district? What are the fathers' experiences? How do they feel being away from their children?

There are many questions unanswered that is beyond the scope of this study, but findings from the presented study with reflections on gender and socio-economic issues mirror similar findings presented in a 2017 issue of *Health policy and planning* titled "Gender dynamics affecting maternal health and health care access and use in Uganda" (110).

Although the researcher holds an etic, meaning subjective, view of the situation witnessed in Uganda during the research period, the supportive statements from local women give extra strength to these observations. Valid examples of sexual subordination can be drawn from the women's expressed fear of using family planning without the husband's approval, or when the mothers talked about their husbands' refusal of sexual abstinence in the postnatal period. A woman's right to make decisions regarding her own body and health is also compromised if the husband is not in agreement with her, with referral to the husband's denial of his wife's tubal ligation as witnessed by the researcher in the hospital (page 59).

Historically, the philosophical view of the evolution of gender roles goes back to the early beginning of mankind, where men regarded themselves as superior to women based on biological differences. Ouedraogo et.al. (2011) goes in depth on this issue in the book “Global Exchanges and Gender Perspectives in Africa” (111). Great philosophers like Plato and Aquinas have contributed to undermining of the female potential by developing theories and hypothesizes that devalue women to be subjected to the power and decisions made by men, acquired on basis of their masculine nature (111, 112).

In Ugandan culture, many women are subjected to the wants and decisions of men, as described clearly in an article in *The Observer* by Kiiza and Akumu (113). Although the Uganda Children’s Act deems the parents equal (114), culturally the children are seen as the property of the father, and the mother of the child cannot deny the father sexual favours. If a man supports a woman financially while taking care of his child, it enables him to make decisions on her behalf and she is also expected to give him the right to her body. The man may also have a wife and family elsewhere, which leaves the women in a state of total dependency and helplessness (113).

In addition to the feeling of lack of support and care, women also face the problem of being economically dependent on their husbands. Economic empowerment of women is thus another approach to enabling mothers to higher level of security and self-sufficiency. In a study by Morgan et.al. (2017) looking at “Gender dynamics affecting maternal health and health care access and use in Uganda”, the study found evidence that men’s lack of financial support in maternal health often could be justified by the overall lack of financial resources in the home (89). Methods of empowering women through micro finance programs and local saving groups have shown positive effects on women’s household and economic decision making (115).

The nuances between equity and equality is frequently present in the context of gender roles, wherein Buikwe district, Uganda being no exception. Although the laws and regulations may be equally assigned for both men and women, there seems to be a need for augmented attention and implementation of expanding consciousness about women’s right to own decision making. Malawian and Ugandan studies show that

women's decision making and autonomy in maternity care are important factors for empowerment and self-esteem, but these values are often neglected by family members as well as health workers (89, 103, 116).

Looking at the situation from another angle, the men might not always have a choice of attending to their wives based on work conditions and availability. Many men travel long distances to find work and often stay away many months at the time to support their family, and should they desire to be around at the time of birth, the conditions may prove it impossible.

Men being unwelcomed in the delivery rooms also send signals of not being wanted or needed in situations around childbirth. Fathers' expressed feelings of being looked upon as ignorant or told to leave the delivery room, either by their own spouses or by health workers give incentives for further disinvolvement. Also, sometimes the men are being blamed for a woman's poor health or lack of delivery equipment when accompanying the women (89, 117).

In a study on "Postnatal care: a cross-cultural and historical perspective" (2010), referring to Van Gennep's theory of *Rites de passages* (1943), the change a woman goes through when giving birth to a baby and the following roles and responsibilities connected to being a mother, is regarded similar to a *transition rite* as birth, puberty, marriage and death (118). Historically, postnatal care seems to have been recognized and valued higher than today, and it is also implemented in religious contexts, both in the Bible and the Coran, where descriptions of bodily purification periods and extra care for the postpartum women is mentioned (118-120).

In high-income countries there has been a gradual reduction in postnatal-time spent in health facilities since the 1950's, and the postpartum period is generally spent at home with higher reliance on family and community members (118). The level of professional support in the postnatal period has thus been intermittent over the years, but the recent WHO guidelines are suggesting recognition of higher attention to this vulnerable time in a mother's and her baby's life (61).

Given time off work to tend to one's wife and child around the time of childbirth is constituted in the Employment Act of Uganda from 2006, which give fathers 4 days payed leave from work to spend with the family (121, 122). However, many men are not empowered with irregular work conditions to effectuate that. A father traveling for a whole night to see his new born daughter only to having to return to work three days later, shows strong evidence that a story often has two sides.

Awareness and implementation of expanded paternity leave for men seems like an appropriate suggestion for further male involvement and stronger gender equity, together with continued research on the topics of gender-roles, -expectations and -identity in an Ugandan setting.

## **Strengths and limitations of the study**

The presented study used the three methods recommended for qualitative studies which is observations, semi-structured individual interviews and focus group discussions. Combining the three methods gives the study higher validity in answering the specific objectives since the different methods yield information through various perspectives, where information collected by the researcher through observations enhance the information gained from individual interviews (71). Focus group discussions can take the research in unexpected directions and add valuable information though group dynamics not achievable through individual interviews (77). Also, involving different groups in the community like mothers, professional health workers, village health team workers and traditional birth attendants gives the study more depth and flexibility.

Reliability of the study was sought obtained by using local translators and trained interviewers of both sexes. The total number of participants were 57, which is considered a high number in qualitative research (71). The recorded interviews and focus group discussions were transcribed first to Luganda, then to English and proofread by a third local assistant while listening to the recordings. Notes from



observations were typed continuously. During the data collection process, the researcher's supervisor was informed of the progress and visited the research site. She was also involved in the data collection methods, storage and preliminary analysis. The data analysis were thoroughly documented on each level of the described methods of Malterud's systematic text condensation (73). Generalizability of the study can be drawn from similar findings on the various topics from other studies in proximate geographical areas.

Limitations of the study include possible bias of the main researcher being a white-coloured European. Educational gaps between the participants and the interviewers who all had bachelor's degrees in nursing or social science could also give cause for bias. There were few midwives included in the study because of the low number of midwives on the chosen study sites. Recordings from one focus group discussion was accidentally deleted before it was transcribed, and because of power failure one interview was only documented from notes.

## Conclusion

High-quality health care was found amongst professional health workers and traditional birth attendants when exploring skills and knowledge connected to pregnancy, delivery and early infant feeding. Antenatal care was highly valued, but attendance was not optimal. Several discrepancies were found between the Uganda Clinical Guidelines and performed newborn procedures. Examples are routine oronasopharyngeal suction of newborns and implementation of adequate kangaroo care. Low use of partograms and uncertainty around timing for cord clamping are also issues to be further explored. Additional bottlenecks to compliance with the guidelines were lack of appropriate bedding on delivery beds and little knowledge of the existence of the guidelines. Occasionally, the Uganda Clinical Guidelines were found to deviate from recent WHO recommendations, which may send contrasting signals to the health workers.

The traditional birth attendants in the study seemed to be operating in accordance with the guidelines in most cases, to the extent of their capabilities and medical equipment.

Views and knowledge about colostrum, pre-lacteals and initiation of breastfeeding were sought from health workers and mothers with young babies. Initiation of breastfeeding within an hour after birth was generally practiced, although it could go up to three days after complicated births. Mothers displayed worry when the milk didn't appear in the breast within the first 2-3 days, which gave incentives for use of pre-lacteals. The use of pre-lacteals was widespread amongst the mothers, although knowledge about the contrary was well known. The use of diluted cow's milk and sugar water was most common. Augmented attention and continued education on the negative effects on pre-lacteals are recommended. Colostrum was generally recognized for its' positive effects from immunological components and on developmental growth, however, a few cases connected to superstition and uselessness was detected which shows the need for continued focus on its importance. Also, fear of pain and breastfeeding in public were other concerns of the mothers.

Mothers' perceptions on health care and support systems connected to pregnancy, birth and the postpartum period revealed high trust in health workers, village health team workers and traditional birth attendants. In contrast, support from partners and immediate family was found unsatisfactory. Many mothers conveyed feelings of despair around the time of birth and during the postpartum period, where the men were often absent or unwilling to contribute with help and support.

Possible causes for the mother's perceived negligence from their partners derive from traditional expectations of gender roles in Ugandan culture. Women's empowerment and higher recognition of male involvement in maternity care are suggestions for improved support systems in early infant feeding for mothers in Buikwe district, Uganda.

Low appliance to the Uganda Clinical Guidelines on postnatal follow-up was found amongst the professional health workers, and the results show a need for higher awareness and implementation of recent WHO recommendations on postnatal care in the combat against infant mortality.

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## Appendices

### Appendix 1: UCG 16.4 Labour, delivery, and acute complications

#### 16.4.1 Normal Labour and Delivery

ICD10 CODE: O80

Labour is a physiological process by which the uterus expels the foetus and other products of conception. Labour can last from between 6 to 18 hours; being longer for first pregnancies.

#### 690 UGANDA CLINICAL GUIDELINES 2016

#### 16.4.1 Normal Labour and Delivery

#### OBSTETRIC CONDITIONS 16

Normal labour is characterized by:

- Onset of regular uterine contractions at term
- Progressive cervical dilatation
- Expulsion of the foetus

#### FIRST STAGE OF LABOUR

- From onset of labour to full dilation of the cervix
- The presenting part descends well into the midpelvis

#### What to do:

- Provide rapid counselling and testing for HIV if it was not done during prenatal period
- Make correct diagnosis of labour
- Open a partogram for the patient and monitor progress of labour
- Vaginal examinations every 2 to 4 hours. Expected rate of cervical dilatation is at least 1 cm/hour. Examine every hour once an 8 cm dilatation has been reached

- Observe change of shape of foetal head (moulding), foetal position, and caput. Descent is assessed by abdominal palpation noting how much of the head you can feel above the pelvis
- Check uterine contractions
- Hourly monitoring of mother's BP, temperature, pulse and respiration. Check ketones and proteins in urine, and Hb
- Check foetal heart rate (FHR) for 1 minute every 30 minutes. A normal FHR is 120 to 160 beats per minute; FHR >160 or <120 beats per minute indicates foetal Distress
- Observe state of membranes and colour of amniotic fluid if membranes are ruptured

## UGANDA CLINICAL GUIDELINES 2016 691

### 16.4.1 Normal Labour and Delivery

## 16 OBSTETRIC CONDITIONS

### **Hydration and nourishment**

- Ensure oral or IV fluid intake especially in prolonged labour, to avoid dehydration and ketosis
- Give normal saline and Dextrose solution as required

### **Analgesia**

- Provide appropriate analgesia if desired by the patient
- e.g. morphine 10 mg IM stat at 4-6 cm dilatation

## 2ND STAGE OF LABOUR

- From full dilatation to expulsion of the foetus
- Contractions become strong and frequent
- Patient bears down
- Perineum bulges and overlying skin becomes tense and shiny

## What to do

- Ensure full dilatation of the cervix by vaginal Examination
- Encourage the mother to bear down with contractions, and relax in between
- Protect the perineum from tearing by supporting with fingers at crowning
- Do an episiotomy under local anaesthesia if required
- Allow the baby's head to rest when it is born and loose cord from around the neck if present. If cord is too tight, clamp it with two artery forceps and cut it.
- Support the head during delivery. Anterior shoulder is delivered first followed by posterior.
- Place the baby on mother's abdomen or arms. Dry the baby, wipe eyes
- If baby not crying, assess breathing. Rub the back 2-3 times. If not breathing resuscitate (see section 16.5.1)

## 692 UGANDA CLINICAL GUIDELINES 2016

### 16.4.1 Normal Labour and Delivery

#### OBSTETRIC CONDITIONS 16

- After the baby is born, palpate mother's abdomen to exclude second baby
- Then give Oxytocin 10 IU IM to the mother
- Clamp the cord and cut it (1-3 minutes after birth)

#### 3RD STAGE OF LABOUR

- From delivery of the baby to delivery of the placenta

#### What to do: Child

- Evaluate baby's condition using APGAR (Appearance, Pulse, Grimace, Activity, Respiration) score, and record in the baby's chart. Resuscitate if necessary
- Give 1 mg IM stat of phytomenadione (Vitamin K) to Baby
- Clean the eyes with sterile warm water and apply tetracycline eye ointment to baby's eyes as prophylaxis against ophthalmia neonatorum

- Give identification tag to baby, wrap in warm towels and give to the mother to introduce breast feeding
- Weigh the baby and compare with chart
- Give a full physical examination to the baby
- Immunize the baby

### **What to do: Mother**

- Examine fundal height and palpate uterus lightly to determine whether it has contracted well and to exclude undiagnosed twins
- Ensure oxytocin 10 IU IM was given
- Await strong contraction (2-3 minutes) and deliver the placenta by controlled cord traction. Deliver the placenta and examine it for completeness and normalcy.

Weigh the placenta. If placenta is not delivered within 30 minutes, **see Retained Placenta section 16.4.5**

- Massage lower abdomen lightly to stimulate contraction and expel clots

## UGANDA CLINICAL GUIDELINES 2016 693

### 16.4.2 Induction of Labour

## 16 OBSTETRIC CONDITIONS

- Examine the perineum, vagina, and cervix for tears. Repair episiotomy and any tears immediately
- Observe for 1 to 2 hours. Monitor BP, temperature, and pulse rate hourly. Also do uterine palpation, vulva inspection and estimation of degree of blood loss
- Refer to postnatal ward

### 16.4.2 Induction of Labour

Induction of labour may be indicated for medical reasons, like, pre-eclampsia, diabetes, post-term pregnancy.

However, possible risks of induction are:

- Failed induction
- Hyperstimulation syndrome, requiring emergency caesarean section.

Induction is contraindicated in para 5 and above and in patients with a previous scar. In these cases there is indication for caesarean section.

## TREATMENT LOC

Cervix favourable in HIV and Hep B negative Mothers

- Artificially rupture the membranes (with amniotic hook or Kocher clamp) followed 2 hours later by
- Oxytocin IV 2.5 IU in 500 mL of Normal saline.

Start with 10 drops/minute

- Increase infusion rate by 10 drops every 30 minutes (max 60 minutes) until good contraction pattern is established (3-5 contractions in 10 minutes each lasting >40 secs), and maintain until delivery is complete

## 694 UGANDA CLINICAL GUIDELINES 2016

### 16.4.2 Induction of Labour

#### OBSTETRIC CONDITIONS 16

- If no good contraction pattern with 60 drops/ minute, increase oxytocin concentration to 5 IU in 500 mL of Dextrose or Normal saline at 30 drops/minute, increase by 10 drops every 30 minutes until maximum of 60 drops/minute

**ONLY IN PRIMIGRAVIDA:** if no good contraction pattern established, increase concentration of oxytocin to 10 IU in 500 mL and repeat as above (from 30 to 60 drops/minute)

- **DO NOT USE 10 IU in 500 mL in**

**MULTIGRAVIDA or WOMEN WITH**



## PREVIOUS CAESAREAN SECTION

- Refer other cases or primigravida not responding to the higher concentration for surgical management

## NEVER LEAVE THE WOMAN ALONE

If >4 contractions in 10 minutes, or contraction longer than 60 secs or foetal distress:

- Stop rate of infusion
- Give salbutamol 5 mg in RL or NS 500 mL IV infusion at 10 drops/minute
- Monitor foetal heart rate

### **Cervix not favourable:**

- Ripen cervix using either
- Misoprostol 25 micrograms inserted vaginally every 6 hours for 2 doses, if no response increase to 50 micrograms every 6 hours, max 200 micrograms in 24 hours – stop when in established labour
- Or misoprostol 20 micrograms orally (dissolve 1 200 microgram tablet in 200 mL of water and give 20 mL) every 2 hours until labour starts or max 24 hours

## UGANDA CLINICAL GUIDELINES 2016 695

### 16.4.3 Obstructed Labour

## 16 OBSTETRIC CONDITIONS

Foley catheter: insert Foley catheter through internal cervical os under sterile technique, inflate bulb with 50 mL of water, and tape catheter under light traction, leave it until contraction begins or up to 12 hours

- If cervical ripening, proceed to cesarean section
- If cervix ripens but labour does not start, start oxytocin induction

### **Caution**

- Do not start oxytocin within 8 hours of using Misoprostol

- Carefully control oxytocin infusion – do not give rapidly
  - Monitor uterine contractions and foetal heart rate closely
- If foetal distress, do emergency cesarean section

### 16.4.3 Obstructed Labour ICD10 CODE: O64-O66

Failure of labour to progress despite good uterine contractions.

#### **Causes**

- Cephalopelvic disproportion (CPD)
- Large baby
- Foetal abnormalities: hydrocephalus, conjoined twins
- Small or deformed pelvis
- Malpresentation: the presenting part of the foetus is not the head, e.g. breech presentation, shoulder presentation, face, etc
- Malposition: an abnormal position of the foetal head when this is the presenting part, e.g. occipito-posterior
- Any barrier that prevents the baby's descent down the birth canal

## 696 UGANDA CLINICAL GUIDELINES 2016

### 16.4.3 Obstructed Labour

#### OBSTETRIC CONDITIONS 16

#### **Clinical features**

- Contractions are strong but no evidence of descent of the presenting part
- Malposition or malpresentation may be felt on abdominal

#### **Examination**

- In a first delivery, the pains will just stop spontaneously
- Foetal distress with meconium stained liquor
- Fever and dehydration with maternal exhaustion

- In late stages, the regular colicky strong pains may stop when the uterus is ruptured, and be replaced by a dull continuous pain
- Signs of shock if the uterus has ruptured
- Physical examination reveals signs of shock, tender uterus, formation of a Bandl's ring, vulva may be oedematous, vagina is hot and dry, there's usually a large caput

## Management

### TREATMENT LOC

- Set up an IV normal saline line and rehydrate the patient to maintain plasma volume and treat dehydration and ketosis
- Start 5-day course of antibiotics: Amoxicillin 500 mg every 8 hours or erythromycin 500 mg every 6 hours
- Plus metronidazole 400 mg every 8 hours
- Refer urgently to HC4/Hospital for further management HC3, HC4

### Note

- Every woman with prolonged/obstructed labour should receive the management protocol for prevention of obstetric fistula (see section 16.6.4)

## UGANDA CLINICAL GUIDELINES 2016 697

### 16.4.4 Ruptured Uterus

## 16 OBSTETRIC CONDITIONS

### Prevention

- Careful monitoring of labour using a partogram for early recognition
- Active management of labour

### 16.4.4 Ruptured Uterus ICD10 CODE: O71.1

Partial or complete tearing of the uterus, common in:

- Multiparous women (i.e. have had >1 live babies)
- Women with previous caesarean section

### **Causes/predisposing factors**

- Assisted deliveries/obstetric procedures
- Neglected obstructed labour
- Tearing of a poorly-healed uterine scar during labour
- Short interpregnancy interval of less than 18 months after

### **Caesarean Section**

- Previous history of uterine surgery, e.g. myomectomy
- Damage to uterus due to a blow, e.g. kick or accident
- Use of oxytocic herbs

### **Clinical features**

- Cessation of regular uterine contractions (labour pains)
- Continuous abdominal pain
- Vaginal bleeding
- Anxiety, anaemia, and shock
- Abdomen is irregular in shape
- Foetal parts easily felt under the skin if the foetus is outside uterus and foetal heart is not heard

### **Differential diagnosis**

- Abruptio placentae
- Placenta praevia
- Other causes of acute abdomen in late pregnancy
- Ruptured spleen
- Bowel obstruction

### 16.4.5 Retained Placenta

## OBSTETRIC CONDITIONS 16

### Investigations

- ¾Blood: CBC, grouping and cross-matching

### Management

Mothers with a suspicion of ruptured uterus should be referred immediately to hospital for blood transfusion and surgical management.

### TREATMENT LOC

- Set up IV normal saline infusion
- Give IV ceftriaxone 2 g and IV metronidazole 500 mg stat then
- Refer to hospital immediately for surgical management (cesarean section ± hysterectomy) HC3

### Prevention

- Good ANC and education on early arrival to the facility for labour and delivery

- Skilled birth attendance at all deliveries
- Careful monitoring of labour using a partogram
- Minimise the use of oxytocin in multiparous women
- Do not attempt fundal pressure during labour

### **DO NOT use misoprostol for induction of labor**

### 16.4.5 Retained Placenta ICD10 CODE: O73

Failure of delivery of placenta within 30 minutes of delivery of the baby.

## **Causes**

- Poor management of 3rd stage of labour
- Failure of the uterus to contract
- Failure of the placenta to separate, e.g. if it is stuck in uterine muscle; placenta accrete
- Closing of the cervix before the placenta is expelled

UGANDA CLINICAL GUIDELINES 2016 699

### 16.4.5 Retained Placenta

## 16 OBSTETRIC CONDITIONS

### **Clinical features**

- The umbilical cord protrudes from the vagina
- Bleeding may be present (in partial separation)
- Uterus may be poorly contracted and high in the abdomen
- May be signs of infection, e.g. fever, unpleasant bloody discharge if the placenta is retained for long

### **Differential diagnosis**

- Retained second twin
- Ruptured uterus

### **Investigations**

$\frac{3}{4}$ Blood: Hb, grouping and cross-matching

### **Management**

TREATMENT LOC

**If woman is bleeding, manage as PPH (section**

**16.4.6)**

**If woman not bleeding:**

- Set up IV normal saline infusion
- Empty the bladder (voluntarily or catheterise)
- Encourage breastfeeding
- Repeat controlled cord contraction

**If placenta is not delivered in another 30 minutes:**

- Perform manual removal of placenta (use diazepam 10 mg IM/IV)
- Repeat Oxytocin 10 IU IM or slow IV injection after manual removal
- If no signs of infection and no obstructed labour

**Give ceftriaxone 2 g IV stat**

- If signs of infection, give antibiotics as in amnionitis
- If obstructed labour, give antibiotic prophylaxis as indicated in section 16.4.3 HC3

**700 UGANDA CLINICAL GUIDELINES 2016****16.4.6 Postpartum Haemorrhage (PPH)****OBSTETRIC CONDITIONS 16****If unable to remove placenta manually:**

- Give ceftriaxone 2 g IV stat
- Give oxytocin 20 IU in Normal saline 500 cc at 30 drops per minute during transfer
- Refer to HC4 or Hospital HC4

**16.4.6 Postpartum Haemorrhage (PPH)****ICD10 CODE: O72****Vaginal bleeding of more than 500 mL after vaginal delivery**

**or >1000 mL after caesarean section.**

- Primary PPH occurs in the first 24 hours after delivery
- Secondary PPH occurs between 24 hours and six weeks after delivery

PPH is an **EMERGENCY**. It can occur in any woman and needs prompt recognition and treatment.

### **Causes**

- Tone: failure of uterus to contract, precipitated labour
- Tissues: such as retained placenta (in part or whole) or membranes which may lead to atony as well as infection in the uterus
- Tears (e.g. damage to/rupture of the perineum, vagina, cervix or uterus)
- Thrombotic disorders which may be due to DIC following abruptio placenta or severe APH

### **High risk patients**

- History of previous PPH, multiple previous C/S, multiple pregnancy
- Placenta praevia, abruptio placenta
- Precipitated labour, prolonged labour, large baby
- Patients with hypertensive disorders

## UGANDA CLINICAL GUIDELINES 2016 701

### 16.4.6 Postpartum Haemorrhage (PPH)

## 16 OBSTETRIC CONDITIONS

### **Clinical features**

- Bleeding from the genital tract which may be a gush of blood or a small but persistent trickle of blood (>1 pad soaked in five minutes)
- The uterus may still be large, soft, and not contracted especially in primary PPH
- If uterus is well contracted, look for tears on the perineum, vagina, cervix, or uterus
- Signs of shock may be present: tachycardia, low BP, cold and clammy skin



- In secondary PPH, there may be signs of infection, e.g., fever, abdominal tenderness

## **Investigations**

<sup>3</sup>/<sub>4</sub>Hb and blood group should have been already done and recorded during ANC; if not, do them urgently

<sup>3</sup>/<sub>4</sub>Women at high risk of PPH should have blood crossmatched and at least 2 units booked

<sup>3</sup>/<sub>4</sub>If time allows (e.g. in secondary PPH), check blood for Hb, clotting

## **Management**

The principles of management include two major components:

1. Resuscitation and management of obstetric haemorrhage and possibly hypovolemic shock
2. Identification and management of underlying causes

## **TREATMENT LOC**

### **First aid**

- Check uterus to see if contracted
- Massage uterus (to expel clots)
- Give oxytocin 10 IU IM or IV slowly
- Empty the bladder
- Start IV fluids (normal saline), give according to patient BP

## **HC3**

## **702 UGANDA CLINICAL GUIDELINES 2016**

## 16.4.6 Postpartum Haemorrhage (PPH)

### OBSTETRIC CONDITIONS 16

- If oxytocin not available, give misoprostol 800 micrograms sublingually or rectally (only one dose)

#### HC3

Check if placenta has been expelled, and is complete

- If yes, expel any clots in the birth canal
- If not, perform manual removal or refer
- Prophylactic antibiotic: ampicillin 2 g IV stat plus metronidazole 500 mg IV
- If signs of infection, give antibiotics as in puerperal fever

#### HC4

##### **If uterus contracted and placenta expelled:**

- Check for local causes if bleeding continues
- Inspect carefully the lower genital tract for perineal lacerations, haematomas, vaginal and cervical tears

##### **If bleeding not responding:**

- Repeat oxytocin 10 IU IV/IM after 20 minutes
- Give misoprostol sublingual or rectally 800 micrograms (if not given before)
- Restore blood volume with IV fluids
- Refer for further management and blood transfusion if necessary
- Check for coagulation problems

##### **Caution**

- Even if bleeding persists, **never give repeat misoprostol**

##### **Prevention**

- Ensure active management of 3rd stage of labour for all women in labour, and delivery by skilled staff
- Give oxytocin 10 IU IM within 1 minute of delivery of the baby, after ruling out presence of another baby

## UGANDA CLINICAL GUIDELINES 2016 703

### 16.4.7 Puerperal Fever/Sepsis

## 16 OBSTETRIC CONDITIONS

- Clamping and cutting the cord after cessation of cord pulsations (approx. 1-3 minutes after delivery of the baby – whichever comes first)
- Controlled cord traction during a contraction with counter-traction to deliver the placenta
- Massage the uterus immediately after delivery of the placenta to ensure the uterus is contracted
- Identify mothers at risk and manage accordingly
- Give 5 days' prophylactic antibiotics in prolonged or obstructed labour, or in presence of other risk factors, e.g. rupture of membranes, birth before arrival at health facility, instrument delivery:

## Appendix 2: Informed consent forms

### **Health care and support systems in early infant feeding for mothers in Buikwe district, Uganda.**

#### **Information sheet – key-informant**

This is a study which aims to understand health care and support systems in early infant feeding for mothers, for higher survival of infants in rural Uganda. It is not provision of clinical care.

Please read the following paper carefully before you make a decision. If you choose to participate, you will be asked to sign the last page of this paper and a copy will be given to you. Should you change your mind about the participation you can withdraw your consent at any time for any reason. If you have any questions about this paper or the study, please ask the provider of the paper or the principal investigator directly.

Key-informants considered eligible for participation in the study include mothers and health workers such as nurses, doctors, midwives, traditional birth attendants, Community leaders, community health workers, teachers and assisting peers. Approximate number of participants is 50.

The presented study is part of a master's degree in Global Health at the University of Bergen, Norway.

Researcher: Marte Bodil R. Lamp, Centre for International Health, Department of Global Public Health and Primary Care (IGS), Faculty of Medicine, University of Bergen (Tel: +4797626945/0786153840, E-mail: [Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no)).

Supervisor: Professor Ingunn Marie Stadskleiv Engebretsen (IE), MD, PhD, Centre for International Health, Department of Global Public Health and Primary Care (IGS), Faculty of Medicine, University of Bergen (Contact: [Ingunn.Engebretsen@uib.no](mailto:Ingunn.Engebretsen@uib.no)).

#### **WHAT IS THE STUDY ABOUT?**

The number of neonatal deaths in Uganda is still very high. Early initiation of breastfeeding has been shown to reduce these numbers. This study seeks to explore health care and support systems in early infant feeding for mothers, including those with birth complications. The knowledge gained may contribute to improve infant health and prevention of deaths in rural Uganda. You will be given a short introduction of the topic by the interviewer and asked for permission to record the interview. Otherwise written notes will be taken. There will be a few opening questions before continuing questions about the topic. Estimated duration of the interview is about one hour.

The study will collect and record personal information about you such as age, gender and occupational status. Other information collected will be on the topic of health care and lay support, breastfeeding and birth complications.

### **POSSIBLE BENEFITS AND EXPECTED DISADVANTAGES OF TAKING PART**

There are no personal benefits for participation in this study. You will be compensated for possible transportation costs up to 15 000 UGX (4 USD) and provided snacks and drinks during the interview. There may be indirect benefits for your community based on the information provided in the interview.

There is minimal risk connected to participation in this research. If you experience any discomfort or psychological trauma during or in connection with the interviews, you will be given extra care and if necessary offered to talk with skilled personnel for psychological support covered by the researcher.

### **VOLUNTARY PARTICIPATION AND THE POSSIBILITY TO WITHDRAW CONSENT (OPT-OUT)**

Participation in the study is voluntary. If you wish to take part, you will need to sign the declaration of consent on the last page. You can, at any given time and without reason withdraw your consent. This will not have any consequences for you. If you decide to withdraw participation in the study, you can demand that your personal data be deleted.

If you at a later point, wish to withdraw consent or have questions regarding the study, you can contact:

Researcher: Marte Bodil Lamp Tel: +4797626945/0786153840, E-mail:

[Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no)

Questions concerning your rights as participant in the study can be directed to:

Dr. Suzanne Kiwanuka, [skiwanuka@musph.ac.ug](mailto:skiwanuka@musph.ac.ug), 256-772 886 377/ 256-393-291-397.

## **WHAT WILL HAPPEN TO YOUR INFORMATION?**

The information that is recorded about you will only be used as described in the purpose of the study. You have the right to access which information is recorded about you and the right to stipulate that any error in the information that is recorded is corrected.

All information will be processed and used without your name or personal identification number, or any other information that is directly identifiable to you.

The researcher has the responsibility for the daily operations/running of the study and that any information about you will be handled in a secure manner. Information about you will be anonymised or deleted a maximum of 5 years after the study has ended.

The study is expected to end before June 2019.

## **FEEDBACK**

Upon completion of the study, all involved participants who provide an e-mail address will be sent the completed master's thesis and all participants will be invited to a social gathering for information and recognition of their efforts.

## **APPROVAL**

The study is approved by the Regional Committee for Medical and Health Research Ethics (2018/602/REC West) and Makerere University Higher Degrees Research and Ethics Committee, Uganda (HDREC/2018/617).

**CONSENT FOR PARTICIPATING IN THE RESEARCH STUDY**

I am willing to participate in the research study:

-----  
City/Town and date

-----  
Participant's Signature/fingerprint

-----  
Participant's Name (in BLOCK  
LETTERS)

-----  
Place and date

Name of witness

Signature

I confirm that I have given information about the research study:

-----  
Place and date

-----  
Signature

.....

Role in the research study



**Endabiriray’obulamu n’okuwanirira ebyendisira mu baana abatanaweza mwaka eri ba maama abafuna ebizibu nga bazaala mu Buikwe distrikiti, Uganda.**

Information sheet – key informant, Luganda version

**Okuyita mu kwetaba mu musomo – olukukaana lw’omusomo.**

Ekilubirirwa ky’omusomo kwekutegera ne endabirila y’obulamu n’okuwanirira enkola y’ebyendisira mu baana abatanaweza mwaka singa babeera n’obuzibu mukuzaalibwa, okusobola okwongera ku mikisa gya’abaana abawere abakula mu bitundu bya Uganda ebye byaalo. Ekigendelelwa si kya bujajabi.

Osabidwa okusoma olupapula nobwegenderaza nga tonaba kusalawo. bwosalawo okwetaba mu musomo, oja kusabibwa olukusa okusa ekinkumu kulupapula olusembayo era osigazeko kukiwandoko kyekimu. Singa okyuusa mu’ndowoozayo mukwetaba mumusomo, ali wa ddembe okujayo olukusa ng’a towadde nsonga singa oba olina ebibuuzo kumusomo guno, biwereeze omwanjuzi w’omusomo abakulembede mu musomo guno.

Omusomo ogwanjudwa kitundu mu musomo ogw’adigiri ey’okubiri mu by’obulamu mu mawanga ely’o mu University ye Bergen e Norway.

Akulembede mu musomo: Marte B. Lamp,

(Tel: +4797626945/0786153840, E-mail: [Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no)).

Omulondoozi: Professor Ingunn Marie StadskleivEngebretsen (IE), MD, PhD, Esomeroly’ebyobulamu mu mawanga, Ekitongolekye Global Public Health and Primary Care (IGS), Faculty of Medicine, University ye Bergen ([Ingunn.Engebretsen@uib.no](mailto:Ingunn.Engebretsen@uib.no)).

**Biki ebiri mu musomo?**



Okumanya okufunidwa kujakwongera kuby'obulamu bya abaana abawere n'okuziyiza okufa mu baana bano mu byalo mu Uganda.

Omuwendo gw'abaana abafa ng'atebanasuka nnaku abirimu munaana (28) gukyali wagulunyo. Okutandika okuyonsa okw'amangu kulazze nti kikendeeza omuwendo guno. Omusomo guno gunonyereza kundabirira y'obulamu n'okuwanirira ebyendisira mu'baana abatanaweza mwaka eri ba maama abafuna obuzibu mukuzaala, ne'munzikiriza y'obuwangwa ne mukumanya omugaso gw'amabeere agasooka, ebyokunywa ebiwebwa abaana abawere nga tebanayonsebwa, n' okuyonsa okusokera ddala. Osabiddwa okwetaba mu lukungana lw'omusomo kubanga oli maama eyakazaala, ate endowooza yo, nobumanyirivu kumutwe gw'musomo ogw'okuyonsa kujja kusiimibwa. Omwanjuzi aja kukwanjulira omutwe gw'omusomo era osabibwe olukusa okukwata amalobozi kukatambi. Wajja kubeera yo ebibuuzo ebigulawo era ebibuuzo kumitwe emirara bigoberere. Olukugana lw'omusomo lusubirwa kumala sawa emu.

### **Emigaso n'emitawana ebisubirwa ngawetabye mu musomo guno.**

Tewaliyo migaso jj'amuntu kinoomu mu musomo guno. Ojja kuliyirirwa ensimbi zino wamaga omutyalo komu kitutundu (15 000 UGX or 4 USD) zonakozesa muntambula, okulya n'okunywa mulukungana lw'omusomo. Eyinza okubaayo emigaso egitalabikirawo mu kitundu kyo okusinzira kububaka obuweredwa mu ku kwebuzaako mu musomo.

Tewali buzibu bwekuusa ku kwetaba mu musomo guno.

### **Okwetaba mu'musomo guno okutali kwabuwaze n'obusobozi okuva mu musomo.**

Okwetaba mu musomo guno gwa kyeyagalire. Bw'oba oyagadde okwetaba mu musomo guno otekeddwa okussa omukono kukiwandiko ekikukiriza wamanga mu kiwandiiiko. Osobola okujayo okukiriza kwo nga wadde towaddeyo nsonga yonna. Kino tekijja kukuleteera mutawana gwonna.

Bw'osalawo okuva mukwetaba mu musomo guno, osobola okusaba ebikukwatako bisazibwemu. bwoba mumaso eyo, osiimye osigaze olukusa okwetaba mu musomo, oba ng'olina ebibuuzo ebikwata ku mosumo ,osobola okutukiirira omukulu:

Marte Bodil Lamp (Tel: +4797626945/0786153840,E-mail:[Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no))

### **Kiki ekinaberawo kububaka bwo?**

Obubaka obuterekedwa kubikukwatako bujja kukozezebwa nga bwogambidwa mu musomo guno. Olina olukusa okutereza ensobi yona mu bubaka obuterekedwa kubikukwatako era n'olukusa okutegeeza ensobi yona mu bubaka obuterekedwa.

Obubakabwo bujja kuteekatekebwa n'okukozezebwa nga tekuli linya lyo, oba enamba ey'endagamuntu, oba obubaka bwona obukumanyisa eri abalala.

Buli yetaba mu musomo guno agyakuwebwa enamba ekwawula kubala ate agya kusabibwa olukusa okwesigaliza obubaka obuweredwa mu lukungaana lw'omusomo.

Omukulu womusomo alina obuvunanyizibwa obwe'ebidukanya omusomo guno n'obubaka bwo buja kuterekebwa no'kukozezebwa nobuvunaninyizibwa.

Obubakabwo buja kusazibwamu mu myaka etano (5) oluvanyuma lw'omusomo ngaguwedde.

Omusomo gujja kugwa mu mwezi ogwo'mukaaga mu 2019.

### **Olukusa oluwereddwa omusomo okukolebwa.**

Omusomo guno guwereddwa olukusa mu kakiiko k'omukitundu akakola ku by'obulamu ne 'misomo egye'byempisa.

**Nzikiriza okwetaba mo kusoma kuno**

-----

Ekyalo

Enaku zo mwezi/emwaka

-----

Ekinkumu

-----

Erinya

-----

Ekyalo /Enaku zo mwezi

Omujulizi eya sako omukono

Ekinkumu

Nzikiriza nti mpadeyo ebyebuzibwako my musomo guno:

-----

Ekifo

Ekinkumu

Enaku zo mwezi/omwaku



## **Health care and support systems in early infant feeding for mothers in Buikwe district, Uganda.**

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Researcher: Marte Bodil Lamp Tel: +4797626945/0786153840, E-mail:

[Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no)

Questions concerning your rights as participant in the study can be directed to:

Dr. Suzanne Kiwanuka, [skiwanuka@musph.ac.ug](mailto:skiwanuka@musph.ac.ug), 256-772 886 377/ 256-393-291-397.

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**CONSENT FOR PARTICIPATING IN THE RESEARCH STUDY**

I am willing to participate in the research study:

-----  
City/Town and date

-----  
Participant's Signature/fingerprint

-----  
Participant's Name (in BLOCK LETTERS)

-----  
Place and date

Name of witness

Signature

I confirm that I have given information about the research study:

-----  
Place and date

-----  
Signature

.....

Role in the research study



**Endabiriray’obulamu n’okuwanirira ebyendisisa mu baana abatanaweza mwaka eri ba maama abafuna ebizibu nga bazaala mu Buikwe distrikiti, Uganda.**

Information sheet – key informant, Luganda version

**Okuyita mu kwetaba mu musomo – olukukaana lw’omusomo.**

Ekilubirirwa ky’omusomo kwekutegera ne endabirila y’obulamu n’okuwanirira enkola y’ebyendisisa mu baana abatanaweza mwaka singa babeera n’obuzibu mukuzaalibwa, okusobola okwongera ku mikisa gya’abaana abawere abakula mu bitundu bya Uganda ebye byaalo. Ekigendelelwa si kya bujajabi.

Osabidwa okusoma olupapula nobwegenderaza nga tonaba kusalawo. bwosalawo okwetaba mu musomo, oja kusabibwa olukusa okusa ekinkumu kulupapula olusembayo era osigazeko kukiwandoko kyekimu. Singa okyuusa mu’ndowoozayo mukwetaba mumusomo, ali wa ddembe okujayo olukusa ng’a towadde nsonga singa oba olina ebibuuzo kumusomo guno, biwereeze omwanjuzi w’omusomo abaakulembede mu musomo guno.

Omusomo ogwanjudwa kitundu mu musomo ogw’adigiri ey’okubiri mu by’obulamu mu mawanga ely’o mu University ye Bergen e Norway.

Akulembede mu musomo: Marte B. Lamp,

(Tel: +4797626945/0786153840, E-mail: [Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no)).

Omulondoozi: Professor Ingunn Marie StadskleivEngebretsen (IE), MD, PhD, Esomeroly’ebyobulamu mu mawanga, Ekitongolekye Global Public Health and Primary Care (IGS), Faculty of Medicine, University ye Bergen ([Ingunn.Engebretsen@uib.no](mailto:Ingunn.Engebretsen@uib.no)).

**Biki ebiri mu musomo?**



Okumanya okufunidwa kujakwongera kuby'obulamu bya abaana abawere n'okuziyiza okufa mu baana bano mu byalo mu Uganda.

Omuwendo gw'abaana abafa ng'atebanasuka nnaku abirimu munaana (28) gukyali wagulunyo. Okutandika okuyonsa okw'amangu kulazze nti kikendeeza omuwendo guno. Omusomo guno gunonyereza kundabirira y'obulamu n'okuwanirira ebyendisira mu'baana abatanaweza mwaka eri ba maama abafuna obuzibu mukuzaala, ne'munzikiriza y'obuwangwa ne mukumanya omugaso gw'amabeere agasooka, ebyokunywa ebiwebwa abaana abawere nga tebanayonsebwa, n' okuyonsa okusokera ddala. Osabiddwa okwetaba mu lukungana lw'omusomo kubanga oli maama eyakazaala, ate endowooza yo, nobumanyirivu kumutwe gw'musomo ogw'okuyonsa kujja kusiimibwa. Omwanjuzi aja kukwanjulira omutwe gw'omusomo era osabibwe olukusa okukwata amalobozi kukatambi. Wajja kubeera yo ebibuuzo ebigulawo era ebibuuzo kumitwe emirara bigoberere. Olukugana lw'omusomo lusubirwa kumala sawa emu.

### **Emigaso n'emitawana ebisubirwa ngawetabye mu musomo guno.**

Tewaliyo migaso jj'amuntu kinoomu mu musomo guno. Ojja kuliyirirwa ensimbi zino wamaga omutyalo komu kitutundu (15 000 UGX or 4 USD) zonakozesa muntambula, okulya n'okunywa mulukungana lw'omusomo. Eyinza okubaayo emigaso egitalabikirawo mu kitundu kyo okusinzira kububaka obuweredwa mu ku kwebuzaako mu musomo.

Tewali buzibu bwekuusa ku kwetaba mu musomo guno.

### **Okwetaba mu'musomo guno okutali kwabuwaze n'obusobozi okuva mu musomo.**

Okwetaba mu musomo guno gwa kyeyagalire. Bw'oba oyagadde okwetaba mu musomo guno otekeddwa okussa omukono kukiwandiko ekikukiriza wamanga mu kiwandiiiko. Osobola okujayo okukiriza kwo nga wadde towaddeyo nsonga yonna. Kino tekijja kukuleteera mutawana gwonna.

Bw'osalawo okuva mukwetaba mu musomo guno, osobola okusaba ebikukwatako bisazibwemu. bwoba mumaso eyo, osiimye osigaze olukusa okwetaba mu musomo, oba ng'olina ebibuuzo ebikwata ku mosumo ,osobola okutukiirira omukulu:

Marte Bodil Lamp (Tel: +4797626945/0786153840,E-mail:[Marte.Lamp@student.uib.no](mailto:Marte.Lamp@student.uib.no))

### **Kiki ekinaberawo kububaka bwo?**

Obubaka obuterekedwa kubikukwatako bujja kukozezebwa nga bwogambidwa mu musomo guno. Olina olukusa okutereza ensobi yona mu bubaka obuterekedwa kubikukwatako era n'olukusa okutegeeza ensobi yona mu bubaka obuterekedwa.

Obubakabwo bujja kuteekatekebwa n'okukozezebwa nga tekuli linya lyo, oba enamba ey'endagamuntu, oba obubaka bwona obukumanyisa eri abalala.

Buli yetaba mu musomo guno agyakuwebwa enamba ekwawula kubala ate agya kusabibwa olukusa okwesigaliza obubaka obuweredwa mu lukungaana lw'omusomo.

Omukulu womusomo alina obuvunanyizibwa obwe'ebidukanya omusomo guno n'obubaka bwo buja kuterekebwa no'kukozezebwa nobuvunaninyizibwa.

Obubakabwo buja kusazibwamu mu myaka etano (5) oluvanyuma lw'omusomo ngaguwedde.

Omusomo gujja kugwa mu mwezi ogwo'mukaaga mu 2019.

### **Olukusa oluwereddwa omusomo okukolebwa.**

Omusomo guno guwereddwa olukusa mu kakiiko k'omukitundu akakola ku by'obulamu ne 'misomo egye'byempisa.

**Nzikiriza okwetaba mo kusoma kuno**

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Ekyalo

Enaku zo mwezi/emwaka

-----

Ekinkumu

-----

Erinya

-----

Ekyalo /Enaku zo mwezi

Omujulizi eya sako omukono

Ekinkumu

Nzikiriza nti mpadeyo ebyebuzibwako my musomo guno:

-----

Ekifo

Ekinkumu

Enaku zo mwezi/omwaku

## Appendix 3: Interview guides

### Interview guide for focus groups and mothers

#### Introduction (by the moderator):

Breastfeeding is quite common in Uganda and has many benefits both for the mother and baby. New mothers are often met with many advices and recommendations from family, friends and health workers. You have been invited to take part in this study to reflect upon the topics of breastfeeding, colostrum and pre-lacteals and to share your positive and negative experiences in the past month since you had the baby.

(Do an introductory round of the participants where they can tell a little bit about themselves and be given a number for identification.)

#### Initiation of breastfeeding

1. Can you tell me about where you gave birth?
  - Did you have any options?
  - What made you choose this place?
  - Will you go to the same place next time?
2. What happened after birth?
  - Did you stay with your baby?
  - Was it taken to another room?
  - What does the baby need the first day?
3. What can you tell me about putting the baby to the breast the first time?
  - How soon after birth did you start breastfeeding the baby?
4. Did you get any information about breastfeeding?

From whom?

- When?
- What information were you given?

5. Have you heard of skin-to-skin contact or kangaroo care?

(if yes: can you tell me about it?)

6. Did you experience any problems when you started to breastfeed?

- (sore nipples, too much/too little milk, infection in the breast etc.)
- If yes, who did you ask for help?
- Did you get the help you needed from the place/person you asked?

### **Colostrum**

1. How will you describe the very first milk?

- Do you feed it to your baby?

2. Have you heard of any reason why this milk should not be given?

- If yes, what are the reasons?

3. Can you tell me any good things about this milk?

### **Pre-lacteals**

1. What happens if the milk does not come into the breast the first day?

- Do you give other foods to the baby?

2. What food is it common to give the baby other than breastmilk?

3. What are the recommendations from health workers/TBA on this issue?

4. Have you been given advice about pre-lacteals from other women in the family/village?

## **Interview guide for key-informants**

### **Introduction of the topic:**

Many studies have been done with focus on delivery and breastfeeding. Most of these studies tend to exclude women with birth complications, even though they are more vulnerable and more likely to have problems with initiation of breastfeeding. This study will explore health care and support systems provided to mothers after giving birth, including those with birth complications, and you have been targeted because of your position as a health worker/TBA/Community leader.

I will first ask you a few introductory questions before going on to the topic of birth complications and breastfeeding.

### **Icebreaker questions:**

- Can you tell me a bit about yourself?
- Can you tell me about your work?
- How long have you had this job?
- How will you describe a good day at work?

How will you describe a bad day?

### **Questions about delivery and birth:**

1. Can you take me through the process of a normal delivery at your (work)place?
2. What is the first thing that happens after the baby is born?
  - Where is the baby placed?
  - Who takes care of the baby?
3. What happens next?
  - Skin-to-skin?

- Cord clamping?
  - Weighing?
  - Breastfeeding?
  - Mother care (sewing, placenta?)
4. What would you say are the most common complications when giving birth?
  5. What happens to the baby after caesarean sections?
    - Where is the baby placed?
    - Who takes care of the baby?

**Questions about breastfeeding:**

6. When do you tell the mother to start breastfeeding?
  - Do you provide her help with breastfeeding?
  - How is the first milk?
  - What do you tell the mother about this milk?
7. How is the baby fed if the mother is unable to?
  - What advice are they given?
8. How do you care for preterm and low birth-weight babies (<2500 grams)?
9. Are you familiar with the Uganda Clinical Guidelines regarding care for newborns and breastfeeding?
10. Can you tell me about skin-to skin-contact (kangaroo care)?
11. When are mothers discharged from the hospital/clinic?
  - What happens after discharge from the hospital?

- Where can the women seek help after discharge from the hospital?

12. Is there anything you would like to add?



## Appendix 4: Observation guide

Observation guide (example)

Date

Time	
Place	
Participants	midwives
Topic	Initial breastfeeding
Intended outcome	Hands-on support for mothers with breastfeeding problems
Observed outcome	
Key issues to observe	Attitudes, engagement, time-distribution, resources, commitment, interaction, dialogue. Adherence to UCG
Questions to ask	Informal questions/dialogue about various observations
Answers	

## Appendix 5: Ethical approvals



REC West

Anna Stephanzen

55978496

23.04.2018

2018/602/REC West

Ingunn Marie Stadskleiv Engebretsen  
Senter for Internasjonal Helse

**2018/602 Helsehjelp og lekmannsstøtte til amming for kvinner med fødselskomplikasjoner i Buikwe distrikt, Uganda: en kvalitativ studie**

Institution responsible for the research: Universitetet i Bergen  
Project manager: Ingunn Marie Stadskleiv Engebretsen

Regional Committee for Medical and Health Research Ethics (REC Western Norway) reviewed the application in the meeting 12.04.2018, pursuant to The Health Research Act § 10

### Project description

*The research aims to gain knowledge about health care and lay support in early infant feeding for mothers who have had birth complications leading to delayed initiation of breastfeeding. Perceptions and knowledge on general breastfeeding practices among mothers will also be obtained. This will be a qualitative research study with use of in-depth interviews with health workers and traditional birth attendants. Focus groups with mothers and participant observation in birth clinics and hospital are other methods that will be used to get a comprehensive understanding of the topic. The research will provide new knowledge about the support mechanisms in early infant feeding for mothers with birth complication in rural Uganda (not revised).*

### Ethical review

#### Judicial disqualification (recusal)

Ketil Joachim Ødegaard abstained from participation in evaluation of this project application.

#### Responsible conduct

The study is based on qualitative interviews with health workers, focus group discussions with mothers, questionnaire and observation. The Research Ethics Committee (REC) has no objections to the research question and the recruitment but has some remarks to the project specified below.

#### Local authorities

The Research Ethics Committee (REC) cannot see that the assessment from the local authorities is attached to the project application. REC West presupposes that the Ethical Committee for Medical and Health Research in Uganda approves the project.

#### Information and consent

- Include the logo of institution responsible for the research
- Heading has to be the same as title of the project application
- Include information about the date for the end of the project

Besøksadresse:  
Armauer Hansens Hus (AHH),  
Tverføy Nord, 2 etasje, Rom  
281, Haukelandsveien 28

Telefon: 55975000  
E-post: post@helseforskning.etikkom.no  
Web: <http://helseforskning.etikkom.no/>

All post og e-post som inngår i  
saksbehandlingen, bes adressert til REK  
vest og ikke til enkelte personer

Kindly address all mail and e-mails to  
the Regional Ethics Committee, REK  
vest, not to individual staff

- Change the name of the faculty to Faculty of Medicine, University of Bergen
- Remove the appealing form 'invite you' and start with the goal of the study.

Conditions:

- Send the information sheet and feedback on the assessment from the local authorities to: [post@helseforskning.ettkom.no](mailto:post@helseforskning.ettkom.no)
- The approval from the local authorities is obtained

Decision

REC Western Norway approves the project in accordance with the submitted application as long as the aforementioned conditions are met.

Further Information

The approval is valid until 07.06.2019. A final report must be sent no later than 12.01.2019. The approval is based on the grounds that the project is implemented as described in the application and the protocol, as well as the guidelines stated in the Health Research Act. If amendments need to be made to the study, the project manager is required to submit these amendments for approval by REC via the amendment form.

The decision of the committee may be appealed to the National Committee for Research Ethics in Norway. The appeal should be sent to the Regional Committee for Research Ethics in Norway, West. The deadline for appeals is three weeks from the date on which you receive this letter.

With kind regards,

Marit Grønning  
dr.med.  
Avdelingsdirektor, professor

Anna Stephansen  
sekretariatsleder

Kopi til: bente.moen@uib.no

**MAKERERE**

P.O. Box 7072 Kampala Uganda  
Website: [www.musph.ac.ug](http://www.musph.ac.ug)



**UNIVERSITY**

Tel: 256 414 532207/543872/543437  
Fax: 256 414 531807

**COLLEGE OF HEALTH SCIENCES  
SCHOOL OF PUBLIC HEALTH  
HIGHER DEGREES, RESEARCH AND ETHICS COMMITTEE**

November 27<sup>th</sup>, 2018

Marte Bodil R. Lamp  
Master in Global Health Student/ Principal Investigator, Protocol (617)  
University of Bergen, Norway

**Expedited review,**

**Re: Approval of Proposal titled: Health care and support systems in early infant feeding for mothers in Buikwe district, Uganda**

This is to inform you that, the Higher Degrees, Research and Ethics Committee (HDREC) has granted approval to the above referenced study, the HDREC reviewed the proposal using the expedited review criteria and made some suggestions and comments which you have adequately incorporated:

Please note that your study protocol number with HDREC is **617**. Please be sure to reference this number in any correspondence with HDREC. Note that the initial approval date for your proposal by HDREC is **27<sup>th</sup>/11/2018**, and therefore approval expires at every annual anniversary of this approval date. The current approval is therefore valid until: **26<sup>th</sup>/11/2019**.

Continued approval is conditional upon your compliance with the following requirements:

- 1) No other consent form(s), questionnaire and/or advertisement documents should be used. The consent form(s) must be signed by each subject prior to initiation of any protocol procedures. In addition, each subject must be given a copy of the signed consent form.
- 2) All protocol amendments and changes to other approved documents must be submitted to HDREC and not be implemented until approved by HDREC except where necessary to eliminate apparent immediate hazards to the study subjects.
- 3) Significant changes to the study site and significant deviations from the research protocol and all unanticipated problems that may involve risks or affect the safety or welfare of subjects or others, or that may affect the integrity of the research must be promptly reported to HDREC.

1



- 4) All deaths, life threatening problems or serious or unexpected adverse events, *whether related to the study or not*, must be reported to HDREC in a timely manner as specified in the National Guidelines for Research Involving Humans as Research Participants.

Please complete and submit reports to HDREC as follows:

- a) For renewal of the study approval – complete and return the continuing Review Report – Renewal Request (Form 404A) at least 60 days prior to the expiration of the approval period. The study cannot continue until re-approved by HDREC.
- b) Completion, termination, or if not renewing the project – send a final report within 90 days upon completion of the study.

Finally, the legal requirement in Uganda is that all research activities must be registered with the National Council of Science and Technology. The forms for this registration can be obtained from their website [www.uncst.go.ug](http://www.uncst.go.ug). Please contact the Administrative Assistant of the Higher Degrees, Research and Ethics Committee at [wruslime@musph.ac.ug](mailto:wruslime@musph.ac.ug) or telephone number (256)-393 291 397 if you encounter any problems.

Yours sincerely



Dr. Suzanne Kiwanda  
Chairperson: Higher Degrees, Research and Ethics Committee

**Enclosures:**

- a) A stamped, approved study documents (informed consent documents);