FACTORS INFLUENCING EXCLUSIVE BREAST FEEDING PRACTICES AMONG NURSES IN MULAGO NATIONAL REFERRAL HOSPITAL KAMPALA DISTRICT

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NOVEMBER 2015

DECLARATION

| I Haspher Nalubega Katabira do declare that no portion of the work referred to in this | | | | | | |
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APPROVAL

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DEDICATION

This dissertation is dedicated to parents my late father Mr. Mukasa Samuel and my mother Mrs. Mukasa Miriam. To my husband my Katabira Samuel and to my children Kyambadde Alex, Lugoda Ronald, Zziwa Stephen and Nanyonjo Caroline for their financial and emotional support rendered throughout this course.

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OPERATIONAL TERMS

Baby-Friendly Hospital: This refers to a health facility/hospital where optimal level of care for infant feeding and mother/baby bonding is given.

Exclusive Breast Feeding: This means giving a baby only breast milk, and no other liquids or solids, not even water unless medically indicated for the first 6 months.

Infant - A baby under one year of age or from birth to 12 months of age.

Knowledge – This refers to information held by nurses as a result of experience or learning about exclusive breast feeding.

Nurses: These are female health practioners who use exclusive breast feeding option for the baby.

Practices: Usually, is the act of rehearing a behavior over and over, or engaging in an activity again and again, for the purpose of improving or mastering or it means an action/behaviour by a nurse in relation to exclusive breast feeding.

Initiate. This means starting a baby on breast feeding within the first hour after delivery.

Uganda Lactation Management Education Team: This is a health professional group training mothers on how to breast feed.

LIST OF ABBREVIATIONS/ACRONYMS

AAP - American Academy of Pediatrics

BFHI - Baby-Friendly Hospital Initiative

CDC - Center for Diseases Control

CI - Confidence Intervals

EBF - Exclusive Breastfeeding

FGDs - Focused Group Discussions

HIV - Human Immunodeficiency Virus

IBFAN - International Baby Food Action Network

KI - Key Informant

MOH - Ministry of Health

ORs - Odds Ratios

PMTCT - Prevention of Mother To Child Transmission

SPSS Statistical Package for Social Scientists

SSA - Sub Saharan Africa

SVD - Spontaneous Vaginal Delivery

UNICEF - United Nations Children's Fund

USPHS United States Public Health Services

WHO - World Health Organization

X² Chi-Square

ABSTRACT

Background: Breastfeeding is an important public health strategy for improving child and maternal morbidity and mortality, and helping to control health care costs.

General Objective: The aim of study was to determine the factors influencing exclusive breast feeding practices among the nurses in Mulago National Referral Hospital.

Methodology: A descriptive cross-sectional study was adopted; using quantitative and qualitative data collection methods to obtain data from 138 nurses and 4 key informants using a semi structured questionnaires, FGD-guide and interview guide. Data was analysed using the Statistical Package for Social Scientists (SPSS) Software Version 18.0 and thematic content analysis for quantitative and qualitative data respectively.

Results: Marital status ($X^2 = 2.85$, OR, 1.06, p-value 0.009) and income ($X^2 = 0.56$, OR1.74, p-value, 0.007) were socio-demographic factors associated with exclusive breast feeding among nurses, institutional factors were; maternity leave ($X^2 = 0.21$, OR, 1.52, p-value 0.001), availability of breast feeding rooms ($X^2 = 1.09$, OR, 1.95, p-value 0.02), work schedule ($X^2 = 0.59$, OR, 2.76, p-value 0.006) and salary ($X^2 = 0.45$, OR, 2.54, p-value 0.003) and medical factors that were; Breast problem ($X^2 = 0.80$, OR, 1.50, p-value 0.004) and mode of delivery $X^2 = 1.95$, OR, 1.10, p-value 0.001). Therefore, marital status and income influenced exclusive breast feeding among nurses, maternity leave, availability of breast feeding rooms, work schedule and salary were institutional factors influencing exclusive breast feeding and medical factors were breast problems and mode of delivery.

Recommendations: Policy makers in the Ministry of Health-Uganda with partners should develop a policy targeting nurses and other working professionals to enhance exclusive breast feeding at the workplace.

CHAPTER ONE

1.0 Introduction

This study was set to examine factors influencing exclusive breast feeding practices among nurses in Mulago National Referral Hospital, Uganda. Factors influencing exclusive breast feeding are considered as the independent variables and exclusive breast feeding as the dependent variable. This chapter therefore, presents the background to the study, statement of the problem, general objectives, specific objectives, research questions, significance of the study and the conceptual framework.

1.1 Background to the Study

Breastfeeding is an important public health strategy for improving child and maternal morbidity and mortality, and helping to control health care costs (USPHS, 2011). Exclusive breastfeeding reduces the risk of death by 20% and illnesses such as sudden infant death syndrome, otitis media and respiratory tract infections by 50%, 40% and 72% respectively (Chudasama *et al.*, 2009; Iddrisu, 2013; Dufficy, 2013).

Exclusive breastfeeding (EBF) is the fundamental component of the child-survival strategy (AAP, 2015), reducing infant mortality by about 13% in developing countries (WHO, 2000; Jones *et al.*, 2003). Exclusive Breastfeeding provides all the energy and nutrients that the infant needs for healthy growth, brain development, improved cognitive performance (UNICEF, 2015). Lowering the risk of mortality and morbidity of both mother and child (Ingunn *et al.*, 2006; Coutsoudis *et al*, 1999). To maximize the benefits of Exclusive Breastfeeding, World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommends exclusive breastfeeding by all mothers for the first six months of the infant's life (UNICEF, 2015; WHO, 2014).

Since nurses are the biggest promoters of exclusive breastfeeding, it is postulated that they are aware of these facts in order to practice what is ideal for their children since they are 2.3 times more likely promote a practice which they support and believe in (Feldman *et al.*, 2008; Sadoh *et al.*, 2011).

The rates of exclusive breast feeding among the professional women nurses remain well below the healthy people 2020 goals (CDC, 2010). Only 35.9%, 11%, 5%, of nurses are exclusively breastfeed in Malaysia Nigeria and Ethiopia respectively (Dachew, & Bifftu, 2014; Sadoh *et al.*, 2011; Sinniah *et al.*, 1990). In Uganda, only 9% of the nurses at Mulago National Referral Hospital exclusively breastfeed (Okello, 2015).

Globally, 35% of infants are exclusively breastfed (Saka, 2012), with only 39% in developing countries (Labook *et al.*, 2006). Only 35% and 47% in Africa and Sub Saharan Africa (SSA) respectively (Cai, Wardlaw & Brown, 2012). In Kenya, by age 3 months, 90% of infants are already receiving supplemental feedings which was associated with malnutrition (Shrimpton *et al.*, 2001).

Of the 6.9 million under five children who were reported dead globally in 2011, an estimated 1 million lives could have been saved by simple practices such as exclusive breastfeeding (WHO, 2012) and an additional 600,000 from lack of continuation of breastfeeding with proper complementary feeding (WHO/UNICEF, 2003), reducing death from 22% to 13% among children under 5 years of age and improves maternal health (Laar and Govender, 2011).

It is important to note that exclusive breast feeding in developing countries where families cannot afford alternative or supplementary nutrition for their children thus saving household resources (Tylleskar *et al.*, 2011). Exclusive breastfeeding also improves maternal health by reducing risk to diseases such as type 2 diabetes, breast and ovarian cancer (Danso, 2014; Lopez *et al.*, 2012). Minimizes HIV 1 transmissions especially in developing countries where access to antiviral drugs for HIV infected women is still difficult (Coutsoudis *et al.*, 1999).

In line with the WHO recommendations and guidelines, the Government of Uganda, through the Ministry of Health (MOH) launched policies promoting exclusive breastfeeding such as the Baby-friendly Hospital Initiative, currently adopted by 226 health units. In 2006, Mulago National Referral Hospital adopted exclusive breastfeeding trainings, policies and initiatives such as Baby-friendly Hospital Initiative, Uganda Lactation Management Education Team with counsellors, breast feeding rooms and day care centres.

Breastfeeding remains a culturally accepted practice in Uganda with up to 99% of women initiating breastfeeding however, exclusive breastfeeding rates remain low in the country with about 62% of all children below 6 months of age exclusively breastfed (Wamani *et al.*, 2004).

Despite the efforts of Uganda's MOH and the Mulago National Referral Hospital Management in promoting exclusive breastfeeding among nurses, the number of nurses who are granted maternity leave return immediately on duty after three months but they don't come with their babies on duty (Mulago Human Resource Report, 2014).

It is postulated that nurses are more likely to promote and support a practice they believe in and practice (Feldman *et al.*, 2008). Few studies have been done to determine the factors influencing exclusive breastfeeding practices among nurses. This study therefore, determined factors that influence exclusive breastfeeding practices among nurses in Mulago National Referral Hospital, Uganda.

1.2 Statement of the Problem

In an effort to promote exclusive breast feeding among nurses in Mulago National Referral Hospital, the hospital management adopted the World Health Organization's recommendations regarding infant feeding options. Exclusive breastfeeding training and counseling; policies and initiatives such as Baby-friendly Hospital initiatives were also adopted with the view that nurses practice exclusive breast feeding for a period of six months (Mulago Hospital Annual Report, 2014).

However, most of the nurses in Mulago National Referral Hospital do not utilize such services and exclusive breast feeding is low at 9.0 % (Okello, 2015; Mulago National Referral Hospital Annual Report, 2014). No documentation has been done about factors influencing exclusive breast feeding among nurses in Mulago National Referral Hospital. If this situation remains unattended to, lack of exclusive breast feeding practices among nurses can lead their babies to be susceptible to otitis media and pneumonia; stunted growth/retardation, increased morbidity and mortality. During breast feeding nurses are prone to breast engorgement, cracked nipples, mastitis and psychological stress. Therefore, the researcher sought to identify factors influencing exclusive breast feeding practices among the nurses in Mulago National Referral Hospital.

1.3 Objectives of the Study

1.3.1 General Objective

The aim of study was to determine the factors influencing exclusive breast feeding practices among the nurses in Mulago National Referral Hospital.

1.3.2 Specific Objectives of the Study

- i. To identify the socio-demographic factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital.
- To assess the institutional factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital.
- iii. To identify medical factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital.

1.4 Research Questions

The study focused on the following questions:

- i. What are the socio-demographic factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital?
- ii. What are the institutional factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital?
- iii. What are the medical factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital?

1.5 Significance of the Study

To the nurses, the study results help them to know factors influencing exclusive breast feeding based on the workplace and home setting. This can help them plan well on how to balance job and household roles in order to practice exclusive breast.

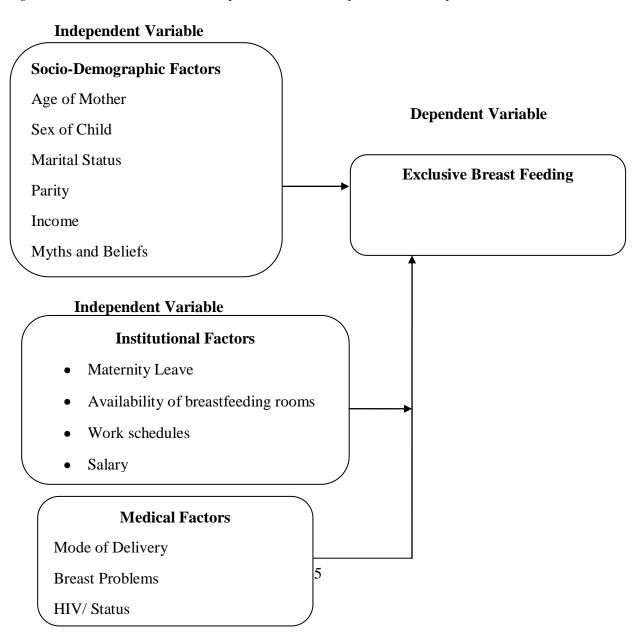
This research is relevant to Mulago National Referral Hospital (Top Management), since it highlights exclusive breast feeding information among nurses. This can help management to plan, strengthen and implement more effective policies and interventions that can promote exclusive breastfeeding among nurses.

Academicians, scholars and practitioners interested in carrying out research in this area, can use the results as a basis of foundation: thus providing an avenue for more research studies in higher learning institutions of Uganda.

To the Ministry of Health-Uganda (Reproductive Health Department), the findings can also be shared with other health facilities and stakeholders providing exclusive breastfeeding services such as International Baby Food Action Network (IBFAN). This can improve exclusive breast feeding among working mothers/professional including nurses.

1.6 Conceptual Framework

Figure 1.1; Reveals the relationship between the independent and dependent variables.



The figure above presents socio-demographic factors (Age of mother, sex of child, marital status, parity, income and; myths and beliefs), Institutional Factors (Maternity leave, availability of breastfeeding rooms, work schedules and salary) and medical factors (Mode of delivery, breast problems and HIV status) as the independent variables. On the other hand, exclusive breast feeding is considered as the dependent variable. However, it is hypothesized that each of these factors may have an effect towards the dependent variable.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter provides useful insight on socio-demographic (age, sex of child, marital status

parity, income and beliefs), medical (Breast problems, HIV status mode of delivery and

HIV/status) and institutional (Maternity leave, availability of breastfeeding rooms, work

schedules, salary,) factors that may influence exclusive breastfeeding among nurses.

2.1 Socio-demographic factors influencing exclusive breastfeeding among nurses

Globally, several social factors influence exclusive breast feeding among nurses but these

depend on the circumstances under which nurses operate (Kamanga, 2003). However, from this

literature the author did not give the circumstances (socio-demographic factors) that nurses need

to operate under in order to enhance exclusive breast feeding for their babies. This study offers

information related to socio-demographic factors in relation to exclusive breast feeding among

nurses in Mulago Hospital.

2.1.1 Mother's Age

According to Dachew and Bifftu (2014) in their study on breastfeeding practice and associated

factors among female nurses and midwives at North Gondar Zone, Northwest Ethiopia, it was

noted that mother's age influenced exclusive breast feeding among female nurses. However,

from this study by Dachew and Bifftu (2014), the age categories for nurses were not given as

well as their likelihood to continue practicing exclusive breast feeding for their infants.

In another study conducted by Tewodros et al., (2005) titled "Determinants of exclusive

breastfeeding practices in Ethiopia; Addis Ababa", results showed that mother's (nurses) age is

associated with exclusive breastfeeding in Ethiopia, South Africa and Australia with older

mothers' (nurses) breastfeeding for longer periods. Specifically, mothers aged 30 and above were

more likely to breastfeed for longer periods (Iftekhar, 2014).

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It was also found that nurses and midwives in Ethiopia showed similar findings where health workers aged between 36-45 years were 2.8 times more likely to provide exclusive breastfeeding as compared to those aged 15-25 years (Dachew & Bifftu, 2014). However, from this study, the author did not give reasons for the low practice of exclusive breast feeding among nurses who were aged below 25 years. Yet, this would give reasons justifying nurses' behaviours.

In Australia, Ethiopia and Nigeria it was found that younger mothers (nurses) rely on family and friends for feeding practices and child rearing advice and thus less likely to exclusively breastfeed for longer periods (Tewodros *et al.*, 2005; Adejuyigbe *et al.*, 2008). However, from this literature the author does not give the source of advice for nurses.

2.1.2 Sex of Child

According to Dachew and Bifftu, (2014) in their study about exclusive breast feeding among nurses, it was found that the sex of child was not associated with exclusive breastfeeding among the nurses in India, Malaysia, Puert Rico, Nigeria and Ethiopia. However, from the literature provided by the authors, sex of a child is not given in relation to exclusive breast feeding among nurses. The results would have shown the difference between male and female infant in relation to exclusive breast feeding.

2.1.3 Marital Status

According to Kamanga (2003) in Lusaka Zambia, their study about nurses' knowledge and attitude towards exclusive breast feeding in Kabompo District, results showed that nurses who were unmarried lacked a practical part of upbringing children and were less likely to practice exclusive breast feeding. However, from this study it is not clear about other factors that could have influenced nurses to behave that way. This study offers information about exclusive breast feeding in relation to marital status among nurses in Mulago Hospital and shows the likelihood of practicing exclusive breast feeding among nurses basing on marital status.

In a study conducted by Tewodros *et al.*, (2005), which was titled "Determinants of exclusive breastfeeding practices among nurses in Ethiopia; Addis Ababa" results showed that exclusive

breastfeeding was less common among married nurses due to the fact that most of these nurses were teenagers under the care of their families who encouraged them to breastfeed (Tewodros *et al.*, 2005). However, from the findings above reasons behind teenage mothers' (nurses) low adoption of exclusive breast feeding are not given.

2.1.4 Parity

According to Dachew and Bifftu (2014) in their study about breastfeeding practice and associated factors among female nurses and midwives at North Gondar Zone, it was found that parity was one of the factors associated with exclusive breast feeding where nurses who had a high level of parity were less likely to use exclusive breast feeding as compared to their counterparts. However, the study results did not categorize nurses according to their parity levels to offer such a finding in relation to exclusive breast feeding.

In another study conducted by Kamanga, (2003) in Zambia, results showed that nurses who had delivered 2 times were more likely to ignore exclusive breast feeding. However, the author did not give reasons that nurses had regarding exclusive breast feeding basing on their rate of parity.

According to Ochola, (2008) found that in Brazil nurses with more than one child were more likely to exclusively breastfeed than those who had one child. However, this finding could be influenced by factors like age and lifestyle among nurses.

In Ethiopia, a study by Dachew and Bifftu, (2014) about nurses and midwives showed that multiparous mothers were 2 times more likely to practice exclusive breastfeeding than primiparous mothers. However, reasons like experience in practicing exclusive breast feeding or lack of knowledge about baby positioning for breast feeding as compared to their counterparts were not given.

A study conducted by Saaka in Tanzania entitled "Factors influencing exclusive breastfeeding among HIV positive mothers (nurses) at Ilala Municipality Dar Es Salaam" showed no association between parity and exclusive breastfeeding (Saaka, 2012). However, Kyobutungi, (2008) in her study entitled "Factors that influence the practice of exclusive breastfeeding among

mothers in Bubaare, Mbarara District" noted that scientific evidence shows a relationship between number of children and exclusive breastfeeding among nurses where the more mothers give birth the higher are chances to breast feed the baby. However, from this literature there no statistical evidence to back up such information.

2.1.5 Income

Kamanga (2003) in his study entitled "Nurses' knowledge and attitude towards exclusive breast feeding in Kabompo District; Harare, University of Zambia", it was noted that nurses who were economically well-off, were able to afford other infant feeding options other than exclusive breast feeding. This was due to the fact that they could buy milk formulas and feeding bottles for their infants. However, from the results the author did not give health effects that were faced by nurses who adopted other infant feeding option for their infants. Yet, it is known this comes with negative health consequences like diarrhea.

2.1.6 Myths and Beliefs of Nurses

Myths and beliefs of nurses can affect the initiation, continuation and duration of exclusive breastfeeding (Raghavan *et al.*, 2014). In a study by Raghavan *et al.*, (2014) in India entitled "First hour initiation of breastfeeding and exclusive breastfeeding at six weeks: prevalence and predictors in a tertiary care setting", results showed that nurses believed that breast milk alone is not enough thus introduced complementary feeds before the recommended six months period.

In another study Eren et al (2000) about knowledge and attitudes of pediatric office nursing staff about breastfeeding, results showed that nurses had less positive beliefs regarding exclusive breast feeding as compared to other medical professionals. However, the author did not give reasons for the less positive beliefs and such belies were not given.

Kamanga, (2003) also noted that traditional beliefs influenced nurses behaviour on exclusive breast feeding and this does not relate to the level of education among nurses but they accepted pressure from relatives and friends. Based on this literature, it is true that cultural beliefs can be held regardless of education attainment. However, the author did not highlight some of the

beliefs held by nurses about exclusive breast feeding and the effect to infants in terms of nutrients.

Leavitt et al (2009) in their study "Knowledge about breast feeding among a group of primary care nurses, physicians and residents in Puerto Rico", found that nurses had received training on exclusive breastfeeding benefits; however, it was surprising that they believed in myths and beliefs of exclusive breastfeeding. In addition, a study in Nigeria by Hamudat and Ibisumbo entitled "Factors Affecting Breastfeeding Practices in Odeda Local Government Area of Ogun State, Nigeria" showed that (56%) of the nurses who breastfeed their babies immediately after birth, (39 %), (4%) and (0.5%) fed their babies with water, infant formula and local herbs respectively due to cultural beliefs (Hamudat and Ibisumbo, 2014).

However, from the literature by Leavitt et al (2008) the level/duration of training among nurses was not given. Hamudat and Ibisumbo to did not give names of herbs used by nurses despite their professionalism in the health sector.

In a study by Oluwatosin, (2007) conducted in South-West Nigeria about Nurses' knowledge of and attitude to exclusive breastfeeding, results showed that myths and beliefs reduced the level of knowledge about exclusive breast feeding among nurses. However, the mean scores for nurses from the two hospitals involved in the study were significantly different. From this study, reasons/factors for the statistical differences were not given by the authors yet, these would indicate which categories of nurses were more influenced and less likely to practice exclusive breast feeding for their infant basing on myths and beliefs.

Kamanga, (2003) in his study, found that 37.0 percent of nurses observed cultural and traditional beliefs regarding exclusive breast feeding. However, such nurses feared to breast feed their babies in public for they believed that people could carry some charms that would kill their infants. However, the results given by the author did not show any statistical figures in terms influence/relationship between cultural beliefs and exclusive breast practice.

Further, McLaughlin, (2010) in his study about knowledge and attitude of pediatric nurses related to breastfeeding, found that nurses had exceptional knowledge and attitude due to myths and beliefs held towards exclusive breast feeding. However, the authors did not give the general

knowledge about exclusive breast feeding practices to show that nurses differ based on their myths and beliefs.

2.2 Institutional Factors Influencing Exclusive Breastfeeding among Nurses

The Government of Uganda through the Ministry of Health launched policies such as code of marketing of breast milk substitutes (1997), Baby Friendly Hospital Initiatives (2004), Uganda Policy Guidelines on Infant and Young Child Feeding (2009) (Mulago Hospital Annual Report, 2014). These policies have been implemented nationwide and have contributed to the improvement of exclusive breastfeeding practices countrywide from 60 percent to 80 percent (Ministry of Health-Uganda, 2010). Although the practice is common in Uganda, however, sustaining the duration of exclusive breastfeeding for up to 6 months as recommended by World Health Organization (WHO, 2011) is a problem among nurses.

Secondly, organisations have different workplace policies of which these may or not promote exclusive breast feeding among employees. Based on this literature, the author did not show the level of policy implementation among nurses and the factors responsible for problems in relation to exclusive breast feeding yet, these could have an influence to the level of their adoption for exclusive breast feeding.

2.2.1 Maternity Leave

In Zambia, a study conducted by Kamanga, (2003) revealed that the country had a national policy on exclusive breastfeeding but most of the health workers, nurses inclusive did not follow this policy and this was affecting exclusive breast feeding practices in many health facilities where nurses served. Furthermore, results showed that despite the existence of an exclusive breast feeding policy in health facilities, many nurses had no access to it. However, the reasons for no access to this policy among nurses were not reported.

According to Dachew and Bifftu (2014) in their study, it was found that maternity leave influenced practice of exclusive breast feeding among nurses. Results showed that nurses who were given 3 months leave were likely to practice exclusive breast feeding as compared to others given few months for the maternity level. From this literature, there is a gap for information in

relation to whether more maternity time period (months) can influence nurses of Mulago Hospital to practice exclusive breast feeding.

In Uganda, the Employment Act 2006, 56 (1) stipulates that a female employee is entitled to a leave of 60 working days with full wage payment. However, despite the provision by this Act, it is not clear whether these days are enough/adequate for nurses in their effort to practice exclusive breast feeding.

2.2.2 Availability of Breast Feeding Rooms/ Facilities

According to Dachew and Bifftu, (2014) and Khassawneh *et al.*, (2006) in their studies, work related problems; for example, lack of child care facilities at the workplace and lack of places to provide privacy for breast expression were among the most common reasons mentioned for failure to exclusive breastfeeding by nurses. From the literature, the authors generalized findings without considerations of geographical and management capabilities to provide for such facilities to nurses. However, such factors are tested to ascertain whether they influence nurses' practice to exclusive breast feeding in Mulago Hospital and if nurses are offered with such facilities given other scheduled duties related to exclusive breast feeding.

2.2.3 Work Schedules for Nurses

According to Dachew and Bifftu, (2014) in their study conducted in Ethiopia, results showed that only (35.9%) of nurses practiced exclusively breastfeeding for six months which was higher than the (11.1%) health workers of Nigeria, and (5.0%) among Malaysian nurses. However, the author did not give factors responsible for the differences among nurses in their respective countries in relation to exclusive breast feeding.

Further, Dachew and Bifftu, (2014) and Sadoh *et al.*, (2011) in their studies found that nurses who resumed work when their babies were older than 3 months were more likely to provide exclusive breastfeeding compared to mothers who resumed work when their babies were below 3 months. However, from the results by these authors, it was not clear what reasons were responsible for the differences among nurses in relation to exclusive breast feeding practice.

Probably, such reasons could be number of days given for maternity leave and the health status of the mothers among others.

In a study by Kamanga (2003) findings showed that nurses who were working opted for milk formulas feeding option for their infants because they had a busy schedule. Results also revealed that these nurses had spent 3-4 months exclusively breast feeding but later as work schedules tightened, they resorted to bottle feeding. However, such findings lacked a statistical back up in terms of percentages and likelihood that if a nurse is given a tight work schedules she is unable to practice exclusive breast feeding. Secondly, work activities/jobs that made nurses to opt for other feeding options other than exclusive breast feeding were not given.

2.2.4 Salary

Kamanga, (2003) in his study, noted that 47.8 percent of nurses, whose salary and conditions of work were fair, were more likely to practice exclusive breast feeding. This was attributed to the fact that they could get ample time for their babies. He further noted that poor salaries among nurses may affect their nutritional status which may lead to low levels of milk production in breasts and thus, stopping them from exclusive breast feeding. However, results do not give the salary range which would motivate a nurse to practice exclusive breast feeding or be able to have good meals for the production of breast milk, despite differences in salary scales among countries.

2.3 Medical Factors Influencing Exclusive Breastfeeding among Nurses

Studies in Uganda and Namibia reported that place of delivery as a predictor of exclusive breastfeeding (Matovu *et al.*, 2008; Amadhila, 2005). Nurses who gave birth at a health facility initiated breast feeding early and practiced longer exclusive breastfeeding in Guatemala, Bangladesh, Malawi (Iftekhar, 2014; Dearden, 2002; Kyobutungi, 2008).

2.3.1 Mode of Delivery

In a study conducted by Dachew and Bifftu (2014) in Gondar Zone, Northwest Ethiopia about breastfeeding practice and associated factors among female nurses and midwives, findings indicated that nurses who had given birth through spontaneous vaginal delivery were twice more likely to practice exclusive breast feeding than their counterparts. However, the author did not

give reasons that influenced these nurses to practice exclusive breast feeding for infants. The likelihood of practicing exclusive breast feeding due to mode of delivery was not given.

2.3.2 Breast Problems

In a study by Hoddinott, (2000) entitled "A qualitative study of women's view about how health professionals communicate about infant feeding", results showed that nurses reported breastfeeding as being 'painful', 'restrictive', 'tiring', 'inconvenient', or adversely affecting the physical body appearance. Dennis, (2002) in his study entitled Breastfeeding initiation and duration: A 1990-2000 literature review. Journal of Obstetric, Gynecologic, and Neonatal Nursing", noted that nurses who had no breast-related complications were more likely to initiate exclusive breastfeeding and continue for long. However, the author did not give health complications that led to pain and tiredness.

Saka, (2012) argued that some nurses do not practice exclusive breastfeeding due to breast problems such as mastitis, cracked and sore nipples, and abscess. In Nigeria, the study entitled "Factors Affecting Breastfeeding Practices in Odeda Local Government Area of Ogun State, Nigeria", results showed that (11.0%) of the respondents (nurses) experienced sore nipples when breast feeding and (34%) experienced breast pain while breast feeding their babies and thus introduced complementary foods (Hamudat & Ibisumbo, 2014). The reasons about these findings were not clearly given by the authors.

2.3.3 HIV/Status

Antiretroviral drugs reduce the risk of transmission of HIV to babies and mothers living with HIV can now exclusively breastfeed their babies from birth to six months according to the latest PMTCT guidelines (World Health Organization, 2003). The guidelines provide innovative practices of infant care and feeding that would reduce infections, these practices include exclusive breast feeding, heat-treated breast milk and exclusive replacement feeding, in addition to adherence to the use of appropriate antiretroviral drugs (World Health Organization, 2003).

The possibility of mother to child transmission of HIV through exclusive breast feeding has focused attention on how best to support optimal infant feeding practices, especially in low-

resource and high HIV prevalence settings, which characterize most of the sub-Saharan Africa (WHO, 2011).

According to Kafulafula et al, (2014) in their study about maternal and health care workers' perceptions of the effects of exclusive breastfeeding by HIV positive mothers on maternal and infant health in Blantyre, Malawi, results showed that one female nurse out of the five that were involved in this study believed that exclusive breast feeding could prevent transmission of HIV to a baby. However, the authors did not give other factors that could have influenced a nurse. For example; counseling and training because these may influence one in terms of practicing exclusive breast feeding.

Coovadia et al (2007) in their study entitled "Mother-to-child transmission of HIV-1 infection during exclusive breastfeeding in the first 6 months of life", they noted that exclusive breast feeding carries a 4 to 10 fold decrease risk of HIV/AIDS transmission from the mother to the baby for the first six month as compared to other feeding option. However, results from the study conducted by Vaahtera et al (2001) entitled "Breastfeeding and complementary feeding practices in Malawi" results showed that exclusive breast feeding rate at three months among mothers was very low at 2.0 percent and this affected the growth of the babies as they were faced with infections and diseases. However, from the literature by Coovadia et al (2007) and Vaahtera et al (2001), factors that can promote exclusive breast feeding among HIV Positive mothers (nurses) were not given.

Moland et al (2010) in their study "Breastfeeding and HIV: experiences from a decade of prevention of postnatal HIV transmission in sub-Saharan Africa", it was noted that in a local PMTCT program in sub Saharan Africa, exclusive breast feeding was made the major feeding option for babies whose mothers were HIV positive. They noted that this was intended to help babies get a good health as compared to using other feeding options. However, the authors did not give factors that can influence exclusive breast feeding practice among mothers including nurses yet, many societies in Sub Saharan Africa experience challenges of poverty and increased HIV prevalence in communities.

Kafulafula et al, (2013) in their study about exclusive breastfeeding prenatal intentions among HIV-positive mothers in Blantyre, results noted that exclusive breast feeding is vital for a baby's survival and it can prevent mother- to- child transmission of HIV. They further noted that babies below the age of six months were breastfed for an average of 3.7 months and this was below the World Health Organisation and Ministry of Health-Malawi that mothers including nurses exclusively breast feed for six months. However, the authors did not give reasons for low exclusive breast feeding among mothers in their study.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

The chapter presents the study design, sources of data, study population, data collection, sample

size and plan for data analysis among others that was followed in this study with regard to

factors influencing exclusive breast feeding practices among the nurses in Mulago National

Referral Hospital.

3.1 Study Design

A descriptive cross-sectional study was used; using quantitative data collection methods through

the use of semi structured questionnaires and interview guide to obtain qualitative in-depth

information. The design was chosen because it does not need follow up; it is less costly and

quicker in conducting data collection. The design also helped to obtain adequate data in a short

period of time.

3.2 Study Area

This study was conducted in Mulago National Referral Hospital. This hospital is located on

Mulago hill in the northern part of the capital city (Kampala), Kampala District, Kawempe

Division and west of Makerere University. This location lies approximately 5 kilometres, by

road, northeast of Kampala's central business district. This hospital offers services in Health

care, research and training of Health professionals.

It has a capacity of 1790 beds admitting 3000 patients. This facility was purposively selected

because it is the largest hospital in Uganda which was the first to launched exclusive

breastfeeding initiatives in 2006 and it provides training and counselling in breastfeeding for

mothers including nurses.

3.3 Sources of Data

Primary and secondary sources of data were utilized in this study.

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3.3.1 Primary Data

Primary data was obtained from nurses from lower and upper Mulago National Referral Hospital and the key informants (Administrators) including the 2 Area Managers-Upper and lower Mulago National Referral Complex, Hospital Human Resources Manager and the Assistant Commissioner Nursing from Mulago National Referral Hospital.

3.3.2 Secondary Data

Secondary data was obtained from Mulago National Referral Hospital, International Health Sciences University library and internet sources.

3.4 Study Population

Female nurses working in both upper and lower Mulago National Referral Hospital complex were included in the study; however, key informants were involved as secondary respondents for the study. As they were considered to be knowledgeable about nurse behaviours, exclusive breast feeding programs, policies and work schedules among others that can relate to exclusive breast feeding among nurses.

3.4.1 Inclusion

All female nurses between 20–45 years who have children aged below six months were included in the study. In-addition, inclusion was based on informed consent of the nurses who have been working at the hospital as permanent employees and only individuals who provided consent were included in the research.

3.4.2 Exclusion

Nurses with children below 6 months who might be sick, absent from work on the day of data collection and those who refused to consent to participate in the study were excluded. Secondly, nurses with children aged 6 months but with other reasons of not participating in the study were excluded.

3.5 Sample Size Calculation

The desired sample was obtained using the formula by Leslie Kish (1965)

$$\frac{n = z^2 p (1-q)}{\infty^2}$$

Where: N = General Population

n= Sample from the population

 z^2 = Standard normal valence

p = 0.10% estimated proportion of the target population (Nurses) estimated to have a particular characteristic being measured.

 ∞^2 = Error margin (0.05 or 5%)

Thus, n =
$$\frac{(1.96)^2 \times 0.10 \times (1-0.10)}{0.05^2}$$

$$0.05 \times 0.05$$

$$n = 3.8416 \times 0.9 \times 0.1$$

$$n = 0.345744$$

$$0.0025$$

n = 138.2976

n =138 Respondents

3.6 Sampling Procedures

The study was based on simple random technique used to select nurses. Based on this method, all names for nurses meeting the inclusion criteria from different departments were written down on pieces of papers, folded and put together in a transparent container. One paper was picked at ago

until the required number was obtained. These were later notified about the study then given the questionaire for filling.

On the other hand, the study key informants were selected using purposive sampling method in order to obtain different and representative information for the study. This technique was chosen because these categories of respondent are responsible for administrative policies, programs related to exclusive breast feeding among nurses. So, they were considered knowledgeable about such issues.

3.7 Study Variables

3.7.1 Dependent Variable

"Exclusive breast feeding" was considered as the dependent variable

3.7.2 Independent Variable

- Socio-Demographic Factors (Age of mother, sex of child, marital status, parity, income, and myths and beliefs).
- Institutional Factors (Maternity leave, breastfeeding rooms, work schedules and salary).
- Medical Factors (Mode of delivery, breast problems and HIV status)

3.8 Data Collection Techniques

Questionnaire, interview, documentary review and focus group discussion review were the data collection techniques.

3.9 Data Collection Tools

3.9.1 Questionnaire-guide

A semi structured self-administered questionnaire-guide was used to collect data from 118 nurses. This was structured with sections where section one focused on socio-demographic characteristics of respondents, section two contained items related to socio-economic factors, section three focused on institutional factors and four on medical factors.

3.9.2 Interview-guide

A structured interview-guide was used to obtain qualitative data from four key informants. This was structured based on the study objectives. Interviews were conducted face to face from respondent places of work/offices and they lasted for 30-45 minutes. These facilitated in-depth information from the respondents through probing by the researcher.

3.9.3 Focus Group Discussion-guide

Nurses were also involved in two focus group discussions containing 10 participants from upper and lower Mulago Hospital Complex totalling to 20 participants using a focus group discussion-guide. This method was intended to capture more information (qualitative) regarding the study and the duration of the discussion ranged between 30-45 minutes.

3.10 Plan for Data Analysis

3.10.1 Quantitative Data

Quantitative data was coded to ensure that all answers obtained from all the participants were classified into many categories for the next step of data analysis. Analysis was done by use of the Statistical Package for Social Scientists (SPSS) Software Version 18.0. However, preliminary analysis was done for exploration purposes and to create a basis for the univariate and bivariate analyses.

Nurses' socio-demographic characteristics were summarized using descriptive statistics; frequencies and percentages generated. Inferential statistics was adopted where Chi-square tests to estimate odds ratios (ORs) and 95% confidence intervals (CI). Univariate analysis was done using conditional logistic regression. All p-values less than (0.05) level of significance were considered statistically significant. Confounding and interaction between variables were investigated by stratification. Risk factor analysis was done using the multivariate analysis guided by the hierarchy approach while controlling for confounding using the conditional logistic regression test to estimate the pooled ORs and 95% confidence interval.

3.10.2 Qualitative Data

This type of data was transcribed and presented using indirect and direct speech formats according to each objective. Thematic content analysis was applied to analyse this type of data.

3.11 Quality Control Issues

For purposes of ensuring data quality the following precautions were taken:

• Internal validity and accuracy:

- o Data was cross-checked for every individual data entered in the computer.
- o The research assistants were trained on data collection of the exposure variables.
- The research instruments were also presented to the experts in the School of nursing for their input and rate the items for the study objective.

Amin (2005) content validity index formula was used to test the validity.

The CVI was measured using the formula a formular; CVI = k

n

Where k = Total number of items in the questionnaire declared valid, and n = Total number of items in the questionnaire.

Therefore, $CVI = \underline{44} = 0.978$

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Therefore, the CVI obtained was 0.978 a figure above 0.7 based on Amin (2005).

• Reliability and Precision:

- o A semi-structured questionnaire was used.
- The questionnaires contained sufficient questions measuring the independent variables.
- The questionnaire was pre-tested at Jinja Regional Hospital before commencement of the study.
- Pretested questionaire was entered into the Statistical Package for Social
 Scientists (SPSS) Software version 18.0 for analysis where the Cronbach

reliability coefficient for each objective's set of items. The results after pre-testing were; 0.85 for socio-demographic factor, 0.73 for institutional factor and 0.81 for medical factor items. All Cronbach reliability coefficients were above 0.7 a recommended figure by Amin (2005), which implies that items were reliable.

• Completeness:

- The questionnaires were cross-checked to ensure completeness and consistency before the principal investigator and the research assistant left the nurses.
- Daily independent review of the data was done and in case of any missing data the participants were contacted to complete the data.
- o Contacts of the participants were obtained and only used for the study purposes.

3.12 Plans for Dissemination

Results of this study will be disseminated to the Faculty of Nursing-International Health Sciences University. This is because the university library is a reference point for other researchers. To Mulago National Referral Hospital (Top Management), the study can help them in decision making and to the Ministry of Health-Uganda (Reproductive Health Department); it can help in coming up with policies for working professionals.

3.13 Ethical Issues

3.13.1 Institutional Approval

Approval was acquired from the International Health Sciences University Research Ethics Committee, and Mulago Research and Ethics committee for conducting data collection among different categories of respondents.

3.13.2 Informed Consent

All the potential participants were informed on:

- The purpose of the research, expected duration, procedures and any prospective benefits.
- Participants' rights to decline to participate and to withdraw from the research once it has started, as well as the anticipated consequences of doing so.
- Limits of confidentiality, such as data coding, disposal, sharing and archiving.

Written informed consent was documented by signature on the consent form for those
willing to participate in the study. Key informants were requested to consent for using
their job titles in this study.

3.13.3 Confidentiality and Privacy

Data including contacts of the participants was strictly confidential and private. The hard copy was stored in a locked cabinet and the electronic data was password protected. Access to the data was strictly done by the investigator and the statistician only. The participants were given identity numbers to avoid disclosure of their identity. Contacts of both the researcher and the participants were exchanged and used solely for purposes of research.

3.14 Limitations of the Study

Some nurses were biased. The responses could be a result of social desirability. This was overcome by explaining the purpose of the study clearly. In addition, the scarcity of published literature on exclusive breastfeeding among nurses limits the literature review and as such limited the discussion of the findings. This was overcome by using literature on exclusive breastfeeding and the few on health workers in general.

It was anticipated that the study would be affected by recall bias from nurses as to what a nurse could have fed the baby throughout infancy period. This limitation was however, overcome by involving nurses with infants not older than six months, and all nurses were able to recall well what the infant was fed from birth to time of data collection.

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents findings based on the study objectives. However; the first subsection presents background information of the respondents and exclusive breast feeding among nurses. Objective three section ends with recommendations for exclusive breast feeding among nurses.

4.1 Background Information of Respondents

The background information considered were age for mothers, sex of child, marital status, parity and income among others. Results are presented by table 4.1

Table 4.1: Background Information of Respondents

| Variable | Variable Categories | Frequency | Percent |
|---------------------------------|--|-----------|---------|
| Age of mothers | <25 years | 3 | 2.5 |
| | 25-30 years | 29 | 24.6 |
| | 31-36 years | 37 | 31.4 |
| | >36 years | 49 | 41.5 |
| | Total | 118 | 100.0 |
| Age of the baby | 3 Months | 36 | 30.5 |
| | >3 Months | 82 | 69.5 |
| | Total | 118 | 100.0 |
| Sex of child | Female | 64 | 54.2 |
| | Male | 54 | 45.8 |
| | Total | 118 | 100.0 |
| Marital status | Married | 99 | 83.9 |
| | Single | 14 | 11.9 |
| | Separated/Divorced | 5 | 4.2 |
| | Total | 118 | 100.0 |
| Parity | One | 24 | 20.3 |
| | >One | 94 | 79.7 |
| | Total | 118 | 100.0 |
| Income | <500,000 | 35 | 29.7 |
| | >500,000 | 83 | 70.3 |
| | Total | 118 | 100.0 |
| Possession of myths and beliefs | Yes | 30 | 25.4 |
| | No | 88 | 74.6 |
| | Total | 118 | 100.0 |
| Myths and briefs | First breast milk is not good for baby | 3 | 2.5 |
| | Given to baby for 6 months | 9 | 7.6 |
| | Exclusive breast feeding is nutritious | 7 | 5.9 |
| | Flabby breasts development | 1 | .8 |
| | Boosts baby brain development | 3 | 2.5 |
| | Baby does not get satisfied | 3 | 2.5 |
| | Regulates baby's body temperature | 1 | .8 |
| | Expectant women do not breast feed | 3 | 2.5 |
| | Total | 30 | 25.4 |
| Attendance of exclusive breast | Yes | 52 | 44.1 |
| feeding training | No | 66 | 55.9 |
| | Total | 118 | 100.0 |
| Time spent in training | < One week | 25 | 21.2 |
| | >One week | 27 | 22.9 |
| | Total | 52 | 44.1 |
| | • | | |

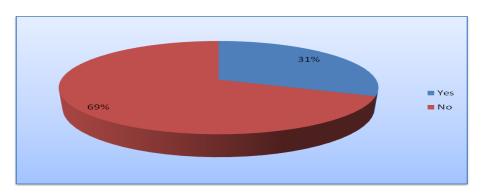
Results from table 4.1, show that most of the mothers (nurses) (41.5%) were aged above 36 years, (69.5%) of babies were aged above 3 months and (54.2%) were females. Regarding marital status, majority of the nurses (83.9%) were married, (79.7%) had more than one delivery. Results also showed that majority on the nurses (70.3%) earned above500, 000 as income and (25.4%) had myths and beliefs regarding exclusive breast feeding such as; first breast milk being not good for baby and flabby breasts development among others.

Nurses were asked whether they had been trained in exclusive breast feeding, (44.1%) indicated that they had been trained and (22.9%) had spent above one week in training.

4.1.1 Exclusive Breast Feeding among Nurses

The dependent variable of this study being exclusive breast feeding, nurses were asked whether they were exclusively breast feeding their babies. Results are presented by figure 4.1

Figure 4.1: Exclusive Breast Feeding among Nurses



Source: Primary Data (2015)

Results showed that only (31.0%) of nurses were practicing exclusive breast feeding.

Table 4.2: Reasons for Non Exclusive Breast Feeding

| Variable | Responses | Frequency | Percent |
|----------------------|---|-----------|---------|
| Non exclusive breast | Tight working schedule | 39 | 33.1 |
| feeding | Leave the baby at home | 15 | 12.7 |
| | Less leave/Maternity days | 12 | 10.2 |
| | Inability to balance work-family roles | 3 | 2.5 |
| | Practicing artificial feeding | 6 | 5.1 |
| | Absence of adequate breast feeding facilities | 3 | 2.5 |
| | Low milk production | 3 | 2.5 |
| | Total | 81 | 68.6 |

Respondents (nurses) had several reasons for not exclusively breast feeding their babies, (33.1%) attributed this to tight working schedule at their workplace, (12.7%) indicated that they were leaving their babies at home, and (10.2%) had few leave/maternity days among other reasons.

4.2 Socio-Demographic Factors Influencing Exclusive Breastfeeding among Nurses in Mulago National Referral Hospital

The first study objective was to identify the socio-demographic factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital. Univariate and bivariate results are presented below.

Table 4.3: Univariate Analysis for Socio-Demographic Factors

| Variables | Responses | Frequency | Percent |
|--------------------------------|---|-----------|---------|
| Age of mother (Nurse) | Yes | 5 | 4.2 |
| | No | 113 | 95.8 |
| | Total | 118 | 100.0 |
| Influence of age | Young nurses are less experienced | 5 | 4.2 |
| | Total | 5 | 4.2 |
| Marital status | Yes | 88 | 74.6 |
| | No | 30 | 25.4 |
| | Total | 118 | 100.0 |
| Influence of marital status | Husband support reduces stress | 20 | 16.9 |
| | Psychological well-being | 14 | 11.9 |
| | Pressure from husband for conjugal rights | 2 | 1.7 |
| | Less time for single to breast feed ever busy | 14 | 11.9 |
| | Increased house work | 38 | 32.2 |
| | Total | 88 | 74.6 |
| Parity | Yes | 85 | 72.0 |
| | No | 33 | 28.0 |
| | Total | 118 | 100.0 |
| Influence of parity | Gives experience | 37 | 31.4 |
| | Motivates me to breast feeding | 30 | 25.4 |
| | Influences level of exclusive breastfeeding knowledge | 18 | 15.3 |
| | Total | 85 | 72.0 |
| Income | Yes | 90 | 76.3 |
| | No | 28 | 23.7 |
| | Total | 118 | 100.0 |
| Influence of income | Inability to afford good medical care | 12 | 10.2 |
| | Attendance to part-time jobs | 9 | 7.6 |
| | Inability to afford good feeding | 69 | 58.5 |
| | Total | 90 | 76.3 |
| Influence of myths and beliefs | Yes | 20 | 16.9 |
| - | No | 98 | 83.1 |
| | Total | 118 | 100.0 |

Table 4.3 shows that majority of the respondents (95.8%) indicated that they were not influenced by their age to exclusively breast feed, (4.2%) of nurses who indicated that they were influenced by age, mentioned that young nurses (mothers) are less experienced in exclusive breast feed.

Results also showed that (74.6) respondents believed that marital status influenced exclusive breast feeding where most of them (32.2%) mentioned that it increases housework thus, inhibiting exclusive breast feeding.

Regarding parity, majority of the nurses (72.0%) indicated that it influenced exclusive breast feeding, in terms of more breast feeding experience as indicated by (31.4%). Results also indicated that (76.3%) of the respondents believed income influenced their exclusive breast feeding where (58.5%) mentioned inability to afford good feeding and (83.1%) indicated that myths and beliefs did not influence their exclusive breast feeding.

Table 4.4: Bivariate Analysis for Socio-Demographic Factors

| Variables Socio- Demographic | Description | Exclusive Breast Feeding | | OR | \mathbf{X}^2 | p-value |
|---------------------------------|--------------------|---------------------------------|----------|------|----------------|---------|
| Factors | | Yes (%) | No (%) | | | |
| Age of mother | <25 years | 1(33.3) | 2(66.7) | 1.01 | 0.65 | 0.92 |
| | 25-30 years | 11(37.9) | 18(62.9) | 0.32 | | |
| | 31-36 years | 8(21.6) | 29(78.4) | 0.45 | | |
| | >36 years | 17(34.7) | 32(65.3) | 0.32 | | |
| Sex of child | Female | 18(28.1) | 46(71.9) | 0.06 | 1.08 | |
| | Male | 19 (35.2) | 35(64.8) | 0.22 | | |
| Marital status | Married | 35(35.4) | 64(64.6) | 1.06 | 2.85 | *0.009 |
| | Single | 2(14.3) | 12(85.7) | 0.83 | | |
| | Separated/Divorced | 0(0.0) | 5(100.0) | | | |
| Parity | One | 7(29.2) | 17(70.8) | 0.52 | 0.21 | 0.45 |
| | >One | 30(31.9) | 64(68.1) | 0.93 | | |
| Income | Shs. < 500,000 | 17(48.6) | 63(75.9) | 1.74 | 0.56 | *0.007 |
| | Shs. >500,000 | 20 (24.1) | 18(51.4) | 0.48 | | |
| Myths and beliefs | Yes | 11(36.7) | 19(63.3) | 0.42 | 0.34 | 0.09 |
| | No | 26(29.5) | 62(70.5) | 0.14 | | |

^{*}Statistically significant p-value < 0.05

Results show that at bivariate analysis, marital status ($X^2 = 2.85$, OR, 1.06, p-value 0.009) and income ($X^2 = 0.56$, OR1.74, p-value, 0.007) were socio-demographic factors associated with exclusive breast feeding among nurses.

Qualitative information from the focus group discussions and interviews with key informants indicated that several socio-demographic factors influence nurses' exclusive breast feeding.

Age of Nurses

From a focus group discussion held at lower Mulago Hospital, one respondent noted that age was one of these factors where by young mothers (nurses) do not want to exclusively breast feed their babies for fear that their breasts will become flabby. She therefore noted;

"With reference to socio-demographic factors, young nurses do not want to breast feed because of cosmetic reasons (Breasts becoming flabby)" (Participant from lower Mulago Hospital).

Marital Status

In relation to marital status, one participant from lower Mulago Hospital noted that exclusive breast feeding among nurses has been affected by marital status. She noted that nurses who were married especially in polygamous marriage were more likely to receive no financial and psychological support from the husband which affected their life in terms of feeding and mental health. She noted that;

"Some nurses who are married at times do not get support from husbands and the situation turns worse if the husband is polygamous, husbands tend not to support their wives financially to enable them continue with exclusive breast feeding-men say we are working" (Participant from lower Mulago Complex).

However, from upper Mulago Hospital, one respondent focused on single or divorced nurses (Marital status) and said that such nurses did not fully practice exclusive breast feeding because

they spend more of their time working to earn a living for they have no any other financial support compared to the married.

"Single and divorced nurses do not practice exclusive breast feeding because they spend more time looking for money for survival".

Further, one participant form upper Mulago Hospital complex noted that some married nurses face challenges to exclusive breast feeding when their husbands either demand for conjugal rights or breast feed on the babies' breast milk. It was also noted that married nurses had more house-work/activities as compared to the unmarried which affected them in terms of time allocation with work duties. This made them unable to exclusively breast feed.

Married nurses have more house work/activities compared to the unmarried and given our busy work schedule; these prevent us from exclusive breast feeding" (Respondent from Upper Mulago Hospital).

Income for Nurses

From upper Mulago Hospital, one respondent noted that poor/low exclusive breast feeding among nurses was due to inadequate income received which does not support good feeding after delivery and within the six stipulated months for exclusive breast feeding. It was revealed that poor feeding of nurses led to low breast milk production thus hindering exclusive breast feeding for the infants as one nurse noted;

"The income received is very low and it comes late, so nurses cannot exclusively breast feeding and this makes breast milk production to be low due to poor feeding" (Participants upper Mulago Hospital).

Career Development

It was also revealed that career development affects nurses' practice for exclusive breast feeding whereby it was noted by one respondent from lower Mulago Hospital that some nurses failed to exclusively breast feeding because they are attending to classes for their career development.

Age, Peer Social Groups and Parity

From the interviews held with key informants, it was revealed that age, peer social groups and parity were factors that influenced exclusive breast feeding among nurses. For example, the Area Manager-Lower Mulago Hospital Complex noted that young nurses felt uncomfortable to breast feed their babies for over six months as stipulated and they resort to artificial feeding. She noted that;

"Young nurses may not feel comfortable to exclusively breast feed their babies for the stipulated 6 months, they tend to cover only the firsts 3 months and resort to artificial feeding. This was attributed to peer influence".

From the Area Manager-Upper Mulago she noted that parity has an influence to exclusive breast feeding whereby she noted that nurses with more deliveries were experienced and had knowledge which prompted them to exclusively breast feed their babies as compared to their counterparts.

"Nurses with more parity order are likely to practice exclusive breast feeding as compare to those with one and this is related to knowledge and experience" (Area Manager-Upper Mulago).

The Hospital Human Resources Manager noted that some nurses failed to exclusively breast feed because of peer pressure from their friends. He noted that at times their colleagues advised them to leave babies with housemaids to be able to meet work demands. This affected exclusive breast feeding as stipulated for the 6 months among mothers (nurses).

4.3 Institutional Factors Influencing Exclusive Breastfeeding among Nurses in Mulago National Referral Hospital

The second objective of this study was to assess the institutional factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital. Univariate Analysis results are presented below.

Tyes No

Figure 4.2: Presence of Policy for Exclusive Breastfeeding

Source: Primary Data (2015)

Majority of the respondents (93.2%) indicated that Mulago National Referral Hospital had no policy for exclusive breast feeding for nurses.

Table 4.5: Univariate Analysis for Institutional Factors

| Variable | Variable Responses | Frequency | Percent |
|---|--|-----------|---------|
| Access to exclusive breast feeding policy | Yes | 6 | 5.1 |
| | No | 112 | 94.9 |
| | Total | 118 | 100.0 |
| Getting maternal leave | Yes | 117 | 99.2 |
| _ | No | 1 | 0.8 |
| | Total | 118 | 100.0 |
| Influence of maternal leave duration in | Yes | 22 | 18.8 |
| terms of time | No | 95 | 81.2 |
| | Total | 117 | 100.0 |
| Accumulation of off-duties | Yes | 32 | 27.1 |
| | No | 86 | 72.9 |
| | Total | 118 | 100.0 |
| Adequacy of leave time | Yes | 6 | 5.1 |
| - • | No | 112 | 94.9 |
| | Total | 118 | 100.0 |
| Availability of breast feeding rooms | Yes | 8 | 6.8 |
| | No | 110 | 93.2 |
| | Total | 118 | 100.0 |
| Motivation for exclusive breast feeding | Yes | 13 | 11.0 |
| Ç | No | 105 | 89.0 |
| | Total | 118 | 100.0 |
| Reasons for lack of motivation | Presence of inadequate breast feeding rooms | 4 | 3.4 |
| | No accumulated off duties | 6 | 5.1 |
| | Few maternity days | 9 | 7.6 |
| | No day-care services | 7 | 5.9 |
| | Inability to feed well | 16 | 13.6 |
| | Tight work schedule given | 38 | 32.2 |
| | Poor work conditions | 7 | 5.9 |
| | Faced with breast problems | 18 | 15.3 |
| | Total | 105 | 89.0 |
| Work-schedule | Yes | 15 | 12.7 |
| | No | 103 | 87.3 |
| | Total | 118 | 100.0 |
| Influence of work schedule | Long working hours | 73 | 61.9 |
| | Poor working conditions | 11 | 9.3 |
| | Fulfillment of work shift-rotations | 19 | 16.1 |
| | Total | 103 | 87.3 |
| Support from salary | Yes | 17 | 14.4 |
| 11 | No | 101 | 85.6 |
| | Total | 118 | 100.0 |
| Influence of salary | Salary does not match with expenses | 23 | 19.5 |
| | Inability to afford balanced diet/good feeding | 78 | 66.1 |
| | Total | 101 | 85.6 |

Source: Primary Data (2015)

From this table, (5.1%) of nurses indicated that they had access to exclusive breast feeding policy, (99.2%) were getting maternal leave as stipulated for public service employees, however,

(81.2%) of the nurses indicated that maternity leave was not giving them adequate time for exclusive breast. Results also showed that (72.9%) of nurses were not accumulating off-duties and public holidays for exclusive breast feeding, (94.9%) indicated that leave time was not adequate for exclusive breast feeding and (93.2%) had no breast feeding rooms at their departments.

Results also showed that (89.0%) of the respondents were not motivated to practice exclusive breast feeding and this was attributed to factors such as tight work schedule given, as indicated by (32.2%), breast problems (15.3%) and inability to feed well (13.6%) among others.

Regarding work schedule and exclusive breast feeding among nurses, (87.3%) indicated that they were not permitted to exclusively breast feeding their babies and this was attributed to long working hours (61.9%), fulfillment of work shift-rotations (16.1%) and poor working conditions (9.3%). Majority of the respondents (85.6%) indicated that their salary did not support exclusive breast feeding and this was attributed to inability to afford balanced diet or good feeding as indicated by (66.1%) and it was inadequate yet they had more expenses.

Table 4.6: Bivariate Analysis for Institutional Factors

| Variables Institutional Factors | Description | Exclusive Breast Feeding | | OR | X^2 | p-value |
|------------------------------------|-------------|--------------------------|----------|------|-------|-------------|
| | | Yes (%) | No (%) | 0.64 | | |
| Maternal leave | Yes | 5 (22.7) | 17(77.3) | 1.52 | 0.21 | 0.21 *0.001 |
| | No | 32(34.4) | 61(65.6) | 0.83 | | |
| Availability of | Yes | 2(25.0) | 6(75.0) | 1.95 | 1.09 | *0.02 |
| breastfeeding rooms | No | 35(36.5) | 61(63.5) | 0.07 | | |
| Work schedule | Yes | 11(73.3) | 4(26.7) | 1.96 | 0.39 | |
| | No | 26(25.2) | 77(74.8) | 2.76 | | *0.006 |
| Salary | Yes | 7(41.2) | 10(58.8) | 1.28 | 0.45 | |
| - | No | 30(29.7) | 71(70.3) | 2.54 | | *0.003 |

^{*}Statistically significant p-value < 0.05

Results from this table show that at bivariate analysis, institutional factors associated with exclusive breast feeding were; maternity leave ($X^2 = 0.21$, OR, 1.52, p-value 0.001), availability of breast feeding rooms ($X^2 = 1.09$, OR, 1.95, p-value 0.02), work schedule ($X^2 = 0.59$, OR, 2.76, p-value 0.006) and salary ($X^2 = 0.45$, OR, 2.54, p-value 0.003).

Information obtained from the focus group discussions regarding institutional factors, it was revealed that most of the nurses were not happy with Mulago National Referral Hospital's work related policies for scheduling of work, provision of breast feeding rooms and absence of breast feeding policy for nurses. Most of the participants agreed that they attained maternity leave as stipulated but it was not adequate to facilitate exclusive breast feeding.

Maternity Leave Policy

One participant from lower Mulago Hospital noted that despite strict observation of maternity leave policy by management; such days are still few to practice exclusive breast feeding.

"Maternity leave stipulated by government is 60 days which is short for exclusive breast feeding for nurses, such days need to be increased".

It was also revealed that the nature of work-schedules hindered their exclusive breast feeding practices and management had done less to change the conditions. One participant from upper Mulago revealed that nurses who were breast feeding worked all their shifts. No option duties for this category of nurses.

"Our nature of work here hinders exclusive breast feeding, we work for day, evening and night shifts yet we have babies to breast feed. Such shifts take long hours keeping us away from our babies".

The indiscriminative allocation of breast feeding nurses on the work schedule was also reported as a source of work related stress to nurses which results into low breast milk production and later affecting exclusive breast feeding. One participant from lower Mulago Hospital noted;

"Hospital management is not considerate to breast feeding nurses, they make us cover all duties as allocated in shifts which makes us stressed leading to low breast milk production. This negatively affects our exclusive breast feeding".

Inadequate Breast Feeding Rooms

This was highlighted by participants as a limiting factor for exclusive breast feeding. One respondent noted that breast feeding nurses had no designated places for breast feeding which limits their efforts to have their babies brought at work for breast feeding.

"Here we lack adequate breast feeding room and this affects out effort for exclusive breast feeding" (Participant from upper Mulago Hospital Complex).

Few Accommodation Facilities and Day-Care Centers

Participants also revealed that the available day-care centre was expensive for breast feeding nurses and they cannot afford its daily expenditure which makes some of them to leave their babies at home. In addition, it was revealed that not all nurses were given accommodation facilities at the hospital and this also affected the amount of quality time they were supposed to spend with their babies while exclusively breast feeding them. One participant from upper Mulago Hospital complex revealed;

"Accommodation facilities are inadequate. For example, I stay in Gayaza so I can't travel back to see my baby. So, such a long distance stops me from exercising exclusive breast feeding after maternity leave days" (Participant from lower Mulago Hospital).

Salary and Exclusive Breast Feeding

Regarding salary, it was noted that nurses faced challenges to get paid because in most cases salaries were delayed, which made it difficult to afford good feeding and health care before and after delivery. It was reported that the salary was inadequate given the high inflation in Uganda and this made some nurses get attempted to look for other sources of income to supplement on their salary. The nature of salary structure therefore, was highlighted as a hindrance to exclusive

breast feeding among nurses in Mulago National Referral Hospital as one of the participants from Upper Mulago Hospital complex noted;

"The salary we get as nurses is little and delayed to be paid. This makes us unable to afford basic necessities before and after giving birth and this in turn hindering exclusive breast feeding".

Understaffing for Nurses at Mulago National Referral Hospital

Further respondent revealed that Mulago National Referral Hospital management is under staffed with nurses yet there was too much work which made breast feeding nurses to be over worked or allocated to the three working shifts (Day, evening and night). One participant from lower Mulago Hospital noted;

"There is a shortage of nurses in the hospital compared to the work available; this makes us to be overworked, without breaks to attend to our babies. So, we end up not exclusively breast feeding our babies".

Absence of a Policy for Exclusive Breast Feeding for Nurses

The absence of a policy for exclusive breast feeding among nurses was also expressed as a hindering factor that needs to be addressed by management of Mulago National Referral Hospital. It was revealed by one participant from Upper Mulago that management of the hospital does not take exclusive breast feeding a priority for nurses. It was noted that no policy is in place for working nurses (Mothers), management followed the general breast feeding policy which is not in favour of nurses. For this case, one respondent noted;

"Management of this hospital does not take exclusive breast feeding among nurses as a priority, there is no policy guiding us and this affects our exclusive breast feeding".

From the interview with the key informant, the area manager- upper Mulago noted that absence of breast feeding rooms on their wards affected their exclusive breast feeding practices. She noted that nurses are forced to leave their babies home so that they can even concentrate on their work.

"Due to limited breast feeding rooms, nurses have no such facilities at their respective wards, they leave their babies at home and this makes them unable to exclusively breast feed" (Area Manager-Upper Mulago).

The Assistant Commissioner Nursing attributed low exclusive breast feeding among nurses to limited maternity leave days offered to nurses. She noted that 60 days are not enough for exclusive breast feeding among nurses. She further noted that the hospital was under staffed to allow breast feeding nurses be granted more days off work.

Unfavorable Working Shifts

From the Hospital Human Resources Manager, it was noted that the unfavorable working shifts made breast feeding nurses to fail on practicing exclusive breast feeding. He noted that designated works schedules did not favour such nurses and this gave them no breaks to take care of their babies for those who carried them at work or stayed within the hospital complex.

"Here we have tight working schedules and there are no breaks that would give nurses chance to breast feed their babies leading to low exclusive breast feeding" (Hospital Human Resources Manager).

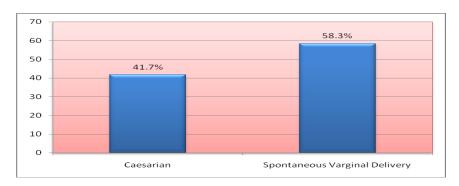
For the issue of salary in relation to exclusive breast feeding, the Assistant Commissioner Nursing noted that breast feeding mother were affected in a way that they could not afford basic necessities given the high prices for goods and services in the country. She further noted that this had greatly affected nurses' feeding and care for the babies leading to low exclusive breast feeding. She further noted that absence of the an exclusive breast feeding policy for working nurses in Uganda, makes the effort to promote exclusive breast feeding among professionals (nurses) hard and this could affect their exclusive breast feeding.

"In Uganda there is no separate policy for working professionals including nurses regarding exclusive breast feeding. Making exclusive breast feeding implementation hard-We always refer to the general exclusive breast feeding policy".

4.4 Medical Factors Influencing Exclusive Breastfeeding among Nurses in Mulago National Referral Hospital

The third objective was to identify medical factors influencing exclusive breastfeeding among nurses in Mulago National Referral Hospital. Univariate and bivariate results are presented below.

Figure 4.3: Mode of Delivery



Source: Primary Data (2015)

Majority of the nurses (58.3%) had had spontaneous vaginal delivery and (41.7%) caesarian.

Table 4.7: Univariate Analysis for Medical Factors

| Variable | Responses | Frequency | Percent |
|---|--------------------|-----------|---------|
| Influence of mode of delivery | Yes | 72 | 61.0 |
| | No | 46 | 39.0 |
| | Total | 118 | 100.0 |
| Experience of breast problem | Yes | 30 | 25.4 |
| | No | 88 | 74.6 |
| | Total | 118 | 100.0 |
| Experience of breast problems | Breast sores | 5 | 4.2 |
| | Cracked nipples | 7 | 5.9 |
| | Breast Engorgement | 11 | 9.3 |
| | Mastitis | 2 | 1.7 |
| | Low breast milk | 5 | 4.2 |
| | production | | |
| | Total | 30 | 25.4 |
| Breast problem effect on exclusive breast feeding | Yes | 30 | 25.4 |
| HIV/status testing | Yes | 116 | 98.3 |
| - | No | 2 | 1.7 |
| | Total | 118 | 100.0 |
| HIV/Status | Positive | 2 | 1.7 |
| | Negative | 114 | 96.6 |
| | Total | 116 | 98.3 |
| Influence of HIV/ Status | Yes | 46 | 39.0 |
| | No | 72 | 61.0 |
| | Total | 118 | 100.0 |

Results from this table, show that (61.0%) of the respondents indicated that mode of delivery influenced their ability to practice exclusive breast feeding, (25.4%) were experiencing breast problems which included; breast engorgement (9.3%), cracked nipples (5.9%) and breast sores (4.2%) among others. Results further showed that all nurses who had breast problems were affected in exclusively breast feeding their babies.

Regarding HIV/Status testing, majority of nurses (98.3%) had tested, (96.6%) were negative and majority indicated that they were not influenced by HIV/Status to exclusively breast feed their babies.

Table 4.8: Influence of Mode of Delivery

| Responses | Frequency | Percent |
|--|-----------|---------|
| Absence of pain/Quick recovery | 8 | 6.8 |
| Stimulates love for a baby | 5 | 4.2 |
| Enhances immediate exclusive breast feeding | 5 | 4.2 |
| Allows more day off work | 2 | 1.7 |
| Increases mother's appetite for food/feeding | 10 | 8.5 |
| Release of prolacitin hormone | 6 | 5.1 |
| Caesarean delays breast milk production | 4 | 3.4 |
| Caesarean reduces appetite for food | 5 | 4.2 |
| Leads to pain | 6 | 5.1 |
| Poor involution of the uterus | 5 | 4.2 |
| Reduces health complications | 7 | 5.9 |
| Enhances baby care | 9 | 7.6 |
| Total | 72 | 61.0 |

Source: Primary Data (2015)

Table 8 shows that most of the nurses (8.5%) indicated that mode of delivery increases appetite for food, (7.6%) indicated that mode of delivery enhances baby care, (6.8%) mentioned that spontaneous Vaginal delivery enhances quick recovery from pain and (5.1%) mentioned release of prolacitin hormone among other effects.

Table 4.9: Bivariate Analysis for Medical Factors

| Variables Medical Factors | Description | Exclusive Breast Feeding | | OR | X^2 | p-value |
|---------------------------|------------------------------------|-----------------------------|-----------|------|-------|---------|
| | | Yes (%) | No (%) | - | | |
| Breast Problems | Yes | 8(26.7) | 22(73.3) | 1.50 | 0.80 | *0.004 |
| | No | 29(33.3) | 58(66.7) | 0.00 | | |
| Mode of Delivery | Spontaneous Vaginal Delivery | 46(63.9) | 26(36.1) | 1.10 | 1.95 | *0.001 |
| | Caesarian | 11(23.9) | 35(76.1) | 0.21 | | |
| HIV/Status | Yes | 14(30.4) | 32 (69.6) | 1.06 | 1.90 | 0.15 |
| | No | 23(31.9) | 49 (68.1) | 0.01 | | |

Source: Primary Data (2015)

Results from Table 4.9 show that medical factors that were statistically significant and associated with exclusive breast feeding were; breast problems ($X^2 = 0.80$, OR, 1.50, p-value 0.004) and mode of delivery $X^2 = 1.95$, OR, 1.10, p-value 0.001).

Breast Problems

In relation to this objective, the qualitative information gathered from focus group discussions, showed that, nurses were experiencing medical related issues that were affecting their ability to practice exclusive breast feeding. For example, breast related problems of; nipples, breast engorgement and sores had an effect towards their exclusive breast feeding. One participant from Lower Mulago Hospital Complex noted that she had cracked nipples and this affected her exclusive breast feeding. She noted;

"In my third month of breast feeding I developed cracked nipples and whenever I would breast feed, I felt a lot of pain". I then resorted to artificial feeding for the baby".

^{*}Statistically significant p-value < 0.05

Mode of Delivery

It was noted by one respondent that the mode of delivery influenced her exclusive breast feeding practice as she noted that with caesarean section she experienced a lot of pain and the incision took long to heal coupled with delayed breast milk production.

"For me, I delivered by caesarean section I experience, a lot pain, I felt not motivated to carry out exclusive breast feeding, not until healing" (Participant from upper Mulago Hospital Complex).

HIV/status

Regarding HIV/status, it was noted that nurses were not facing any challenges to breast feed their babies. This was because the option B+ policy stipulates that all mothers should practice exclusive breast feeding regardless of the HIV/status and efforts have been done to ensure that this is implemented. One participant noted,

"HIV/status has no influence to exclusive breast feeding since it can't stop a nurse to breast feed the baby".

Abnormal Conditions of the Baby and Nurses' ill health

It was also revealed that abnormal conditions of the baby after birth affected nurses in their effort for exclusive breast feeding. A respondent revealed that she delivered a pre-mature and she could not breast feed her due to the baby's inability to suckle. Yet, her breast milk production was high and later she developed breast engorgement.

"My baby was borne a pre-mature, she could not breast feed and later on I developed breast engorgement because she took long in the incubator and unable to suckle all the breast milk".

The Hospital Human Resources Manager revealed that certain health situations may not permit exclusive breast feeding among nurses. It was noted that some nurses become ill after delivery especially those who deliver by caesarian and this makes them unable to have exclusive breast feeding. The only option for them is to resort to artificial feeding. For this scenario she noted that;

"Very ill nurses after delivery cannot practice exclusive breast feeding and they may resort to artificial/ mixed feeding for some time until they recover".

In relation to the baby's health, the Assistant Commissioner Nursing noted that very ill babies may refuse to breast feed or could be having poor sucking reflexes and this can also lead to breast problems to the mother (nurse).

4.4.1 Recommendations for Exclusive Breast Feeding Among Nurses

As a way of suggesting means through which exclusive breast feeding among nurses can be improved, nurses gave different responses and results are presented by the table below.

Table 4.10: Recommendations for Exclusive Breast Feeding Among Nurses

| Responses | Frequency | Percent |
|--|-----------|---------|
| Provision of more breast feeding rooms at workplace | 18 | 15.3 |
| Increase of husband support | 6 | 5.1 |
| Promoting good feeding (Balanced Diet) among nurses | 2 | 1.7 |
| Giving more time to baby care | 3 | 2.5 |
| Provision of appropriate work schedules | 14 | 11.9 |
| Salary increment | 13 | 11.0 |
| Giving housing facilities | 2 | 1.7 |
| Employing more nurses | 6 | 5.1 |
| Giving special allowances to breast feeding mothers | 7 | 5.9 |
| Increasing maternity days | 21 | 18.6 |
| Formulation of an exclusive breast feeding policy for | 23 | 19.5 |
| working mothers/nurses | | |
| Provision of continues exclusive breast feeding training | 3 | 2.5 |
| to nurses | | |
| Total | 118 | 100.0 |

Source: Primary Data (2015)

Most of the nurses (19.5%) suggested that there should be an exclusive breast feeding policy in place for nurses, (18.6%) suggested increase of maternity days, (15.3%) wanted provision of more breast feeding facilities at workplace and (11.9%) mentioned provision of appropriate work schedules among others.

From the key informants, the main recommendation given was formulation of a policy for exclusive breast feeding targeting nurses or working professional in general since it would spell out issues related to work schedules, maternity leave, and shifts to cater for exclusive breast feeding.

5.0 Introduction

This chapter presents the discussion of the findings that have been reported in chapter four. The

discussion was based on the methodological process and study objectives as indicated below.

5.1 Socio-Demographic Factors Influencing Exclusive Breastfeeding among Nurses in

Mulago National Referral Hospital

Quantitative study findings indicated that marital status ($X^2 = 2.85$, OR, 1.06, p-value 0.009) was

one of the statistically significant variables/factors influencing exclusive breast feeding among

nurses. This implied that married breast feeding nurses were 1.06 times likely not to exclusively

breast feed their babies as compared to the unmarried. This could be attributed to the fact that in

marriage they were experiencing more challenges limiting exclusive breast feeding for example,

house related duties as indicated by qualitative data/information. Such marital obligations would

interplay with tight work schedules and made them unable to spare good time for baby

care/breast feeding.

This finding was in line with the literature by Kamanga (2003) who found that in Lusaka,

Zambia, nurses who were unmarried lacked a practical part of upbringing children and they were

less likely to exclusively breast feeding. In this study, the unmarried nurses were found not

exclusively breast feeding their babies and this was attributed to the fact that they spent more

time looking for financial support since they had no spouses to assist them. However, the

married stood higher chances of not exclusively breast feed their babies.

In addition the finding of this study in relation to marital status and exclusive breast feeding

agreed with the literature by Tewodros et al (2005) who found that in Ethiopia, exclusive

breastfeeding was less common among married nurses due to the fact that most of these nurses

were teenagers under the care of their families who encouraged them to breastfeed. Most of the

respondents in this study were in the youthful age and married implying that they lived with their

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spouses not parents but it seems they had less financial, moral and psychological support from husbands leading to low exclusive breast feeding.

Findings further indicated that income ($X^2 = 0.56$, OR1.74, p-value, 0.007) was a statistical socio-demographic factor associated with exclusive breast feeding among nurses. Thus, this implied that nurses whose income was less than 500,000/= were 1.7 times more likely not to practice exclusive breast feeding. Such a finding could be attributed to inability to access good health care and feeding within the 6 months after delivery. So, the income level that did not match with daily expenditures in terms of feeding, health, transport and others inhibits exclusive breast feeding among nurses.

This finding was in disagreement with literature by Kamanga (2003) who found that in Harare, nurses who were economically well-off were able to afford other infant feeding options other than exclusive breast feeding. This was due to the fact that they could buy milk formulas and feeding bottles for their infants. In this study nurses who earned less could not exclusively breast feed because they had no access to good feeding to boost breast milk production.

The difference in terms of income for nurses in this study and that of Kamanga could be attributed to differences in salary structures, life style and cost of living among the two countries. The incomes for nurses in Uganda would have been enough, to motivate nurses to feed well to be able to exclusively breast feed but the prices for goods and services are high which could have not been the case for the nurses in Harare.

Qualitative data indicated parity as one of the factors that influenced exclusive breast feeding among nurses. However, findings were not statistically significant. This was supported by one key informant who noted that parity increases breast feeding knowledge and experience among nurses. Such a finding could be attributed to the fact that the more a nurse gives birth, the higher are the chances that she will learn baby positioning when breast feeding, get motivated to breast feed and spare more time for baby care and good health progress of the first siblings can also motivate nurses to practice exclusive breast feeding.

This finding was to a small extent in agreement with the literature by Dachew and Bifftu (2014) who found that parity was one of the factors associated with exclusive breast feeding where nurses who had a high level of parity were less likely to use exclusive breast feeding as compared to their counterparts. The findings of this study were that more deliveries for nurse increased knowledge and experience in exclusive breast feeding. However, some nurses who had one parity order could prefer exclusive breast feeding to have a healthy baby (first born). The fact that nurses in Dachew and Bifftu's study with high level of parity were less likely to exclusively breast feed can be associated with less motivation.

The information obtained in this study relating to myths and beliefs indicated that nurses held some myths and beliefs which included; first breast milk being not good for baby and flabby breasts development due to breast feeding. This finding could be attributed to cultural settings and life style of nurses and therefore, one should note that as much as this study did not focus on nurses' education, it did not stop them having false beliefs over exclusive breast feeding. This finding was however, not statistically significant. Therefore, such a finding is to a small extent in agreement with the literature by Eren et al (2000) who found that nurses had less positive beliefs regarding exclusive breast feeding as compared to other medical professionals. In addition, Kamanga, (2003) noted that traditional beliefs influenced nurses behaviour on exclusive breast feeding and this did not relate to the level of education among nurses but they accepted pressure from relatives and friends.

5.2 Institutional Factors Influencing Exclusive Breastfeeding among Nurses in Mulago National Referral Hospital

Results at bivariate analysis revealed that maternity leave ($X^2 = 0.21$, OR, 1.52, p-value 0.001) influenced nurses' exclusive breast feeding whereby those who perceived maternal leave as inadequate for exclusive breast feeding, were 1.5 times more likely not to exclusively breast feed their babies. This finding also implied that maternal leave days were insufficient for them to have full recovery from delivery experience and continue with exclusive breast feeding.

This finding was in agreement with the literature by WHO (2011) where it was indicated that sustainability of duration for exclusive breastfeeding up to 6 months is a problem among nurses. This was attributed to the fact that nurses are granted few maternal days (60 days) yet exclusive breast feeding must be practiced for 6 months. Therefore, such a time period was not adequate and when nurses got back to the workplaces, they had no facilities to enable them continue with exclusive breast feeding.

In addition, findings of this study are in agreement with literature by Dachew and Bifftu (2014) who found that maternity leave influenced exclusive breast feeding among nurses. In that nurses who were given 3 months leave were likely to exclusively breast feeding as compared to others given few months for the maternity level. In relation to the findings of this study, more leave days would give a nurse a piece of mind/psychological satisfaction due to rest from the daily work schedules and work related stress leading to more health care for herself and the baby.

Results also show that availability of breast feeding rooms ($X^2 = 1.09$, OR, 1.95, p-value 0.02) was statistically significant with exclusive breast feeding among nurses. This implied that nurses who indicated that Mulago National Referral Hospital has few breast feeding rooms were 1.9 times more likely not to exclusively breast feed their babies. This quantitative result is related to qualitative information where it was mentioned that the only day-care center available was expensive for nurses as they are required to pay for it on the daily basis whenever they seek for its services.

This finding was in agreement with the literature by Dachew and Bifftu, (2014) and Khassawneh et al., (2006) who in their studies, noted that work related problems; for example, lack of child care facilities at the workplace and lack of places to provide privacy for breast expression were among the most common reasons mentioned for failure to exclusive breastfeeding by nurses. Therefore, absence of such facilities also signifies that more nurses will leave their babies at home after expiry of the maternity leave in order to avoid such costs related to day-care services. Results also showed that work-schedule ($X^2 = 0.59$, OR, 2.76, p-value 0.006) influenced exclusive breast feeding among nurses whereby, nurses who perceived their work schedule as

tight against exclusive breast feeding were 2.7 times more likely not to exclusively breast feed their babies. This could be attributed to the fact that nurses had no breaks to attend to their babies either at the day-care center from home for those who stayed within the hospital complex. Secondly, the tight work schedule implied that management was not considerate to breast feeding nurses as it was mentioned in the focus group discussions.

This finding was in line with Dachew and Bifftu, (2014) and Sadoh et al., (2011) who found that nurses who resumed work when their babies were older than 3 months were more likely to provide exclusive breastfeeding compared to mothers who resumed work when their babies were below 3 months. Therefore, in relation to the findings of this study and the literature, it can be noted that tight work-schedules inhibited exclusive breast feeding. Most of the babies in this study were above 3 months old meaning that they were not exclusively breast fed due to tight work-schedules given to their mothers (nurses).

Lastly, salary was a statistically significant factor ($X^2 = 0.45$, OR, 2.54, p-value 0.003) whereby nurses who perceived their salary as inadequate were 2.5 times more likely not to exclusively breast feed. The qualitative data also reflected that nurses' salaries were delayed and if paid, less money was received on their bank accounts. Yet, some had other financial obligations like bank loans, school fees for their children and tuition for themselves.

This finding was in agreement with the literature by Kamanga, (2003) who noted in his study that 47.8 percent of nurses, whose salary and conditions of work were fair, were more likely to have exclusive breast feeding adopted. As he said, poor salaries among nurses may affect their nutritional status which may lead to low levels of milk production and thus, stopping them from exclusive breast feeding. Therefore, as the author noted, it can be argued that inadequacy and poor salary payment made breast feeding nurses unable to take care of themselves in terms of feeding and health care leading to poor health after delivery and low breast milk production.

Respondents (nurses) and key informants noted that nurses have no policy in place that supports exclusive breast feeding. Therefore, the absence of a target policy meant that less effort was

given by those in management (Mulago National Referral Hospital) to promote exclusive breast feeding and this was reflected by the absence of adequate breast feeding rooms and proper workshifts allocation while at work for the breast feeding nurses.

This finding was in agreement with literature by Mulago Hospital Annual Report, (2014) where it was indicated that the Government of Uganda through the Ministry of Health launched policies such as code of marketing of breast milk substitutes (1997), Baby Friendly Hospital Initiatives (2004), Uganda Policy Guidelines on Infant and Young Child Feeding (2009). However, the launch of such policies did not move with a national policy formulation for exclusive breast feeding among working professional including nurses. If such a policy was in place, duties, functions and responsibilities for employers and employees (nurses) would be stipulated to enhance exclusive breast feeding in Mulago National Referral Hospital.

5.3 Medical Factors Influencing Exclusive Breastfeeding among Nurses in Mulago National Referral Hospital

In relation to this objective, study findings showed that breast problems ($X^2 = 0.80$, OR, 1.50, p-value 0.004) was a statistical factor influencing exclusive breast feeding. This finding implied that nurses who developed cracked nipples, sores and breast engorgement among other health complication/diseases were 1.5 times more likely not to exclusively breast feed as compared to those without any. The qualitative information supported this finding where one nurse mentioned that when she delivered by caesarean the baby was a pre-mature and could not suckle the breasts later on it led to breast engorgement.

The information obtained was in agreement with the literature by Saka, (2012) who argued that some nurses do not exclusively breastfeed due to breast problems such as mastitis, cracked and sore nipples and abscess. In this study such breast problems were present among some nurses and they could not exclusively breast feed. This finding could be attributed to several factors including breast feeding knowledge (Baby positioning), experience and health status of the baby at birth. However, the inability to access good medical care due to poverty may not be ignored to facilitate development of breast problems among nurses.

Findings under this objective revealed that mode of delivery $X^2 = 1.95$, OR, 1.10, p-value 0.001) was a statistical factor influencing exclusive breast feeding. This implied that nurses who gave birth by Spontaneous Vaginal Delivery (SVD) were 1.1 times more likely to exclusively breast feed as compared to their counterparts. This finding was also supported by qualitative literature where the key informant (Hospital Human Resources Manager) who referred to caesarean mode of delivery and noted that led to health complication to the nurses and babies leading to no exclusive breast feeding for some time until both of them recover/healed. The significant relationship could also be attributed to the psychological effect that nurses with health complications or sick/pre-mature babies receive which leads to low breast milk production and inability to exclusively breast feed.

This finding was in agreement with the literature by Dachew and Bifftu (2014) found that nurses who had given birth through spontaneous vaginal delivery were two times more likely exclusively breast feed than their counterparts. In line with the quantitative and qualitative findings of this study, Spontaneous Vaginal Delivery (SVD) has less health complication to the mother and the baby and this greatly can promote breast milk production and feeding by the newborn as compared to caesarean mode of delivery. If a mother (nurses) and the baby get a poor state of health exclusive breast feeding is inevitable after delivery and up to 6 months of a child's growth.

The quantitative data revealed that HIV/status was not a statistical factor influencing exclusive breast feeding. However, qualitative data revealed that nurses regardless of HIV/status could move on with exclusive until the baby is 6 months old. This implied that with the current medication, an HIV/Positive nurse has chances to have a healthy baby despite exclusive breast feeding.

This finding was in disagreement with literature by Kafulafula et al, (2014) who found and noted that one female nurse believed that exclusive breast feeding could prevent transmission of HIV to a baby and this influenced her towards infant feeding options. The differences between the

findings by Kafulafula et al and those of this study could be attributed to the effort related to prevention of mother to child transmission (PMTCT) by governments in Uganda and Malawi.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions and recommendation based on the study objectives.

6.1 Conclusions

With reference to the findings and the discussion made in the previous chapters (4 and 5), it can

be concluded that marital status and income were socio-demographic factors influencing

exclusive breast feeding among nurses. Married nurses were less likely to exclusively breast feed

and this was attributed to increased housework/duties, tight work-schedules and low income

level made nurses unable to meet good feeding, health, transport and day-care costs given the

ever increasing prices.

Institutional factors influencing exclusive breast feeding were; maternity leave where nurses who

perceived leave days inadequate for 6 months' exclusive breast feeding were less likely to

exclusively breast feed. Availability of breast feeding rooms, work schedule and salary also

influenced exclusive breast feeding. Nurses who had no access to breast feeding rooms, with

tight work-schedules and inadequate salary were more likely not to exclusively breast feed.

For medical factors, experience of breast problems and mode of delivery influenced nurse's

exclusive breast feeding whereby; those who developed breast sores, cracked nipples and breast

engorgement among other problems were unable and less likely to continue with exclusive breast

feed.

6.2 Recommendations

Policy makers in the Ministry of Health-Uganda (Reproductive Health Department) with

partners should develop a policy targeting nurses and other working professionals to enhance

exclusive breast feeding at the workplace. This will make working condition/environment

conducive for 6 month's breast feeding of infants in Uganda.

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Husbands should encourage their spouses (nurses) to practice exclusive breast feeding at home and even at the workplace. This can be done by provision of financial, moral and psychological support to breast feeding working nurses up to a period of six months and beyond.

Mulago National Referral Hospital- (Top Management) should set up financial packages; establish breast feeding rooms and day care centers for working breast feeding nurses. This will promote exclusive breast feeding at this facility.

More exclusive breast feeding training should be planed for and implemented for nurses and other working staff in Mulago National Referral Hospital (Human Resource Department). This should involve their spouses as a way of promoting exclusive breast feeding at home and the workplace.

The Human Resource manager should work with the Assistant Commissioner Nursing to come up with a policy which can exempt breast feeding nurses from tight work schedule/shifts after the expiry of maternity leave. This can be better implemented by employing more nurses.

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APPENDIX I: CONSENT FORM

INTERNATIONAL HEALTH SCIENCES UNIVERSITY FACTORS INFLUENCING EXCLUSIVE BREAST FEEDING PRACTICES AMONG NURSES IN MULAGO NATIONAL REFERRAL HOSPITAL KAMPALA DISTRICT

| ID No: | |
|--------|-------------------------------|
| | Consent Form for Participants |

Principal Investigator

Nalubega Haspher Katabira (Registration Number: 2012-BNS-TU-012)

+256784980946

If you have any question concerning your rights, contact

Dr. Fredrick Nelson Nakwagala

Chairperson for Mulago Research and Ethics Committee

Dear Respondents

You are being asked to take part in a research study. Before agreeing to be in the study, you should understand what is written and told to you about the study. Get answers to your questions. "This is the informed consent process".

Introduction: The purpose of the study is to examine factors influencing exclusive breast feeding practices among nurses in Mulago National Referral Hospital Kampala District. You have been identified to be in the study because of you were chosen by simple random sampling method.

Study Procedure: All participants in this study are requested to complete a self administered questionaire provided and it may take 7-8 minutes of your time.

Risk: There will be not physical risk or harm during and after participating in this study.

Benefits: There will be no befits given to you for participating in this study However, respondents will benefit by getting information related to exclusive breast feeding practices.

Compensation: No financial incentives or rewards will be given to you for being part of the study.

Costs: There will be no costs for participating in this study.

Participation: Participation is entirely voluntary and if you do take part, you can withdraw at any time. Your participation will not affect your work with Mulago National Referral Hospital. If you do not wish to be part of the study your decision will be respected. No pressure will be applied to make the respondent participate in the study.

Confidentiality: Confidentiality and their rights will be observed during and after the study. Therefore, data including contacts of the participants will strictly be confidential and private. The hard copy will be stored in a locked cabinet and the electronic data will be password protected. Access to the data will be strictly done by the investigator and the statistician only. The participants will be given identity numbers to avoid disclosure of their identity.

PARTICIPANT STATEMENT OF CONSENT

I have read and understood/ been explained the information for respondents, regarding the above named research study, I have been made aware of the procedure involved, understand, freely chosen to participate and I can withdraw from the study at any time.

| Name of Participant | Signature | Date |
|-------------------------------------|-------------|------|
| | | |
| | | |
| Name of the Person obtaining Consen | t Signature | Date |

APPENDIX II: QUESTIONNAIRE

FACTORS INFLUENCING EXCLUSIVE BREAST FEEDING PRACTICES AMONG NURSES IN MULAGO HOSPITAL, UGANDA

SECTION A: INTRODUCTION

Dear respondent, my name is Haspher Nalubega Katabira a student of International Health Sciences University, pursuing Bachelor's Degree in Nursing. This questionnaire seeks to get your response on exclusive breast feeding practices among nurses in Mulago Hospital, Uganda. You are hereby requested to respond to the following questions as honestly as possible. The information you provide will be handled with utmost confidentiality. Cycle a figure that suites your preference. Thank you.

| SECTION IV: Bac | ckground Information of the Respondents | |
|------------------------|--|------|
| 1. How old are you | ?years | |
| 2. Sex of child | | |
| 1. Female | 2. Male | |
| 3. What is your man | rital status? | |
| 1. Married 2.S | Single 3.Divorced/Separated | |
| 4. Birth order of ch | ild (Parity) | |
| 5. What is the age of | of the baby in months | |
| 6. How much do yo | ou earn per month?Shs. | |
| 7. Do you know/ha | ve any myths or belief regarding exclusive breast feeding? 1. Yes 2 | 2.No |
| 7.1. If yes, state the | myths or belief | |
| 8. Have you ever be | een trained by your employers about exclusive breast feeding? 1. Yes | 2.No |
| 8.1 If yes, for how | long was the training? | |
| SECTION C: SO | CIO-DEMOGRAPHIC FACTORS | |
| 9. Do you exclusive | ely breast feeding your baby? | |
| 1. Yes | 2.No | |
| 9.1 If no, why | | |
| 10. Does your age a | affect you in practicing exclusive breast feeding? | |
| 1. Yes | 2.No | |
| 10.1 If yes, explain | | |
| 11. Do you think m | narital status influences you practice of exclusive breast feeding? | |
| 1. Yes | 2.No | |
| 11.1 If yes, explain | | |
| 12. Does your parit | y influence your breast feeding practice? | |
| 1. Yes | 2.No | |
| 12.1If yes, explain. | | |
| 13. Does your incom | me affect your practice of exclusive breast feeding? | |
| 1. Yes | 2.No | |
| 13.1 If yes, explain | | |
| 14. Do myths or be | lief influence your practice of exclusive breast feeding? | |

| 1. Yes | 2.No |
|--------------------------|--|
| SECTION D: INSTI | TUTIONAL FACTORS |
| 15. Do you have a pol | icy that supports exclusive breastfeeding at this hospital? |
| 1. Yes | 2.No |
| 15.1 If yes, do you ha | ve access to it? |
| 1. Yes | 2.No |
| 16. Do you get matern | nal leave as stipulated for workers in public institutions? |
| 1. Yes | 2.No |
| 16.1 If yes, does it giv | re you enough time to practice exclusive breast feeding? |
| 1. Yes | 2.No |
| 17. Do you accumul | ate off-duties and public holidays in order to practice exclusive breast |
| feeding? | |
| 1. Yes | 2.No |
| 18 Do you think the le | eave time given to you allows to practice exclusive breast feeding? |
| 1. Yes | 2.No |
| 19. Do you have breas | st feeding rooms at your department of work? |
| 1. Yes | 2.No if no skip to 19 |
| 20. Are you motivated | to practice exclusive breast feeding? |
| 1. Yes | 2.No |
| 20.1 If no, explain | |
| 21. Does you work-sc | hedule permit you to practice exclusive breast feeding? |
| 1. Yes | 2.No |
| 21.1 If no, explain | |
| 22. Do you think the s | salary you get supports you practice for exclusive breast feeding? |
| 1. Yes | 2.No |
| 22.1 If no, explain | |
| SECTION E: MEDI | CAL FACTORS |
| 23. What was your mo | ode of delivery? |
| 1. Spontaneous Vagin | al Delivery 2. Caesarean |
| 24. Do you think your | mode of delivery influences your practice of exclusive breast feeding? |

| 1. Yes | 2.No |
|-------------------|---|
| 24.1If yes, expla | nin |
| 25 Have you exp | perienced any breast problem which hinders you from practicing exclusive breast |
| feeding? | |
| 1. Yes | 2.No |
| 25.1 If yes, expl | ain the problem |
| 26. Does your p | roblem affect exclusive breast feeding? |
| 1. Yes | 2.No |
| 27. Have you te | sted for HIV status? |
| 1. Yes | 2.No |
| 27.1If yes, what | is your HIV/status? |
| 1. Positive | 2.Negative |
| 28. Does your H | IIV status influence your practice of exclusive breast feeding? |
| 1. Yes | 2.No |
| 29. What recom | mendations do you make in order to improve exclusive breast feeding practice |
| among nurses? | |
| (1) | |
| (2) | |

Thank you for your contributions

FACTORS INFLUENCING EXCLUSIVE BREAST FEEDING PRACTICES AMONG NURSES IN MULAGO HOSPITAL, UGANDA

Section A: Introduction

Dear respondent, my name is Haspher Nalubega Katabira a student of International Health Sciences University, pursuing Bachelor's Degree in Nursing. This interview seeks to get your response on exclusive breast feeding practices among nurses in Mulago hospital, Uganda. You are hereby requested to respond to the following questions as honestly as possible. The information you provide will be handled with utmost confidentiality. Thank you.

Ouestions

- 1. As an administrative staff, what do you think are the socio-demographic factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 2. What are the institutional factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 3. What are the medical factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 4. Do you have breast feeding policies in place for nurses in Mulago Hospital? If yes, what do they stipulate?
- 5. What challenges do you have in terms of implementation of exclusive breast feeding programs among nurses?
- 6. What suggestions do you make on improving the practice exclusive of breastfeeding among nurses?

End of interview thank you for your contributions

FACTORS INFLUENCING EXCLUSIVE BREAST FEEDING PRACTICES AMONG NURSES IN MULAGO HOSPITAL, UGANDA

Section A: Introduction

Dear respondents, my name is Haspher Nalubega Katabira a student of International Health Sciences University, pursuing Bachelor's Degree in Nursing. This discussion seeks to get your response on exclusive breast feeding practices among nurses in Mulago hospital, Uganda. You are hereby requested to respond to the following questions as honestly as possible. The information you provide will be handled with utmost confidentiality. Thank you.

- 1. What do you think are the socio-demographic factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 2. What are the institutional factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 3. What are the medical factors influencing exclusive breastfeeding practices among nurses in Mulago Hospital?
- 4. Do you have breast feeding policies in place for nurses in Mulago Hospital? If yes, what do they stipulate?
- 5. Do you have any facilities in terms of rooms, day-care centers for your baby and practice of exclusive breast feeding? If yes explain.
- 6. Do you have suggestions on what Mulago Hospital Management can do to encourage nurses practice exclusive breastfeeding?

Thank you for your cooperation

APPENDIX III: PHOTOGRAPHS

Respondents engaged in FGD from Lower Mulago National Referral Hospital Complex



Researcher

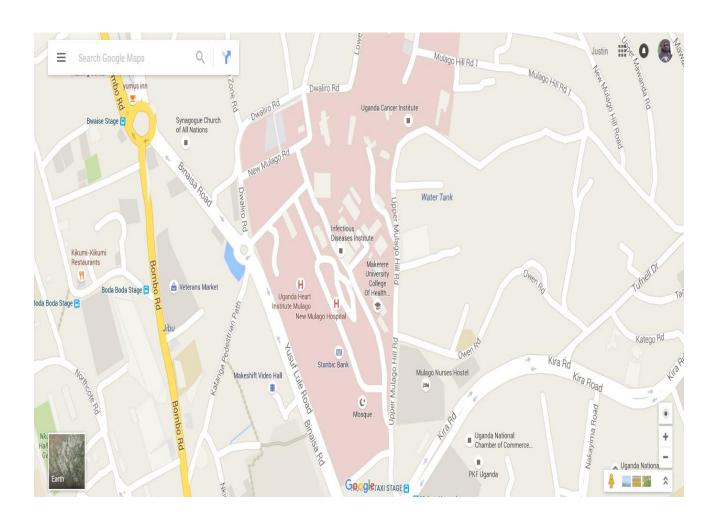
Researcher with nurses from Lower Mulago National Referral Hospital



Researcher

 $Researcher\ with\ nurses\ from\ upper\ Mulago\ National\ Referral\ Hospital$

APPENDIX IV: MAP SHOWING THE STUDY AREA



Mulago New Mulago Hospital Mulago National Referal Hospital

APPENDIX V: INTRODUCTORY LETTER



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 3rd September 2015

| EXECUTIVE DIRECTOR | |
|--------------------|--|
| MULAGO HOSPITAL | |
| P. O. BOX 7051 | |
| KAMPALA | |

Dear Sir/Madam.

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you **Nalubega Haspher Katabira** Registration No. **2012-BNS-TU-012** who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

Her topic of research is: Factors influencing exclusive breast feeding practices among nurses in Mulago National Referral Hospital – Kampala District

This therefore is to kindly request you to render the student assistance as may be necessary for her research.

I, and indeed the entire University are grateful in advance for all assistance that will be accorded to our student.

Sincerely Yours,

Mrs. Wafula Elizabeth
Dean

The International Health Sciences University P.O. Box 7782 Kampala – Uganda (+256) 0312 307400 email: <u>ewafula@ihsu.ac.ug</u> web: <u>www.ihsu.ac.ug</u>

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APPENDIX VI: CORRESPONDENCE

TELEPHONE: +256-41554008/1 FAX: +256-414-5325591 E-mail: admin@mulago.or.ug Website: www.mulago.or.ug





MULAGO NATIONAL REFERRAL HOSPITAL P.O. Box 7051 KAMPALA, UGANDA

18th Sept, 2015.

Ms. Nalubega Haspher Principal Investigator School of Nursing International Health Sciences

Dear Nalubega,

Re: Approval of Protocol MREC: 866: "Factors influencing exclusive breast feeding practices among Nurses in Mulago National Referral Hospital."

The Mulago Hospital Research and Ethics Committee reviewed your proposal referenced above and hereby grant approval for the conduct of this study for a period of (1) year from 18th Sept, 2015 to 17th Sept, 2016.

This approval covers the protocol and the accompanying documents listed below;

- Consent form
- Questionnaire

This approval is subjected to the following conditions:

- 1. That the study site may be monitored by the Mulago research and ethics committee at any time.
- That you will be abide by the regulations governing research in the country as set by the Ugandan National Council for Science and Technology including abiding to all reporting requirements for serious adverse events, unanticipated events and protocol violations.
- That no changes to the protocol and study documents will be implemented until they are reviewed and approved by the Mulago Research and Ethics Committee.
- 4. That you provide annual progressive reports and request for renewal of approval at least 60 days before expiry of the current approval.
- That you provide an end of study report upon completion of the study including a summary of the results and any publications.
- 6. That you will include Mulago hospital in your acknowledgements in all your publications.

I wish you the best in this Endeavour.

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DR.NAKWAGALA FREDERICK NELSON

CHAIRMAN- MULAGO RESEARCH & ETHICS COMMITTEE

APPROVAL DATE EXPIRY DATE
1.8 SEP 2015 17 SEP 2016

APPROVED

IULAGO RESEARCH ETHICS COMMITTEE

Vision: "To be the leading centre of Health Care Services"