EXPLORATION OF MOTHERS' PERCEPTIONS ABOUT BREASTFEEDING SUPPORT AT WORKPLACE EMPLOYMENT IN SELECTED DISTRICT HOSPITALS OF KIGALI.

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EXPLORATION OF MOTHERS' PERCEPTIONS ABOUT BREASTFEEDING SUPPORT AT WORKPLACE EMPLOYMENT IN SELECTED DISTRICT HOSPITALS OF KIGALI.

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A dissertation submitted in partial fulfilment of the requirements for the degree of MASTER OF PEDIATRIC TRACK.

In the College of Medicine and Health Sciences.

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July, 2017

DECLARATION

I declare that this dissertation contains my own work except where specifically acknowledged

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Signed……..

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DECLARATION AND AUTHORITY TO SUBMIT THE DISSERTATION

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a. Declaration by the Student

I do hereby declare that this ***dissertation*** submitted in partial fulfillment of the requirements for the degree of **MASTERS OF SCIENCE** in **NURSING**, at the University of Rwanda/College of Medicine and Health Sciences/ School of Nursing and Midwifery, is my original work and has not previously been submitted elsewhere. Also, I do declare that a complete list of references is provided indicating all the sources of information quoted or cited.

Date and Signature of the Student

……..

b. *Authority to Submit the dissertation*

Surname and First Name of the Supervisor
Mrs. UWAMAHORO Marie Claire PhD©
In my capacity as a Supervisor, I do hereby authorize the student to submit his/her **dissertation**.
Date and Signature of the Supervisor/Co-Supervisor

…….

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ABSTRACT

Background: breast feeding period is recommended and several studies mentioned the gaps in supporting breast feeding mothers in workplace. The absence of workplace support and lack of facilities influence mothers to cease early breast feeding as stated in some literatures.

Problem statement: The risk of morbidity and mortality related to infections are higher when the child does not breastfed well especially for the first 6 months (World Health Organization, 2016b). In Rwanda no study has been done to assess the institutional support for breastfeeding when mothers start work.

The aim of the study: Is to explore mother' perceptions about breast feeding support at workplace in selected district hospital of Kigali.

Research methodology: This is a quantitative, descriptive research using cross sectional design. The study area included three selected district hospitals of Kigali. Population was breastfeeding mothers. Convenience sampling method was used and the sample size was 127. Self-administered questionnaire was used, the analysis was done using descriptive statistics, means were compared using One-way ANOVA table to compare hospital support.

Results: The overwhelming results from this study showed that women exclusively breast feeding was only 15 (11.8%), unavailability of written policies at the rate of 109 (85.8%), lack of their managers to support them (66.1%), not to have frequent breaks 122 (96%), and lack of space and supply of equipment 127(100%) were reported by mothers in the study. The overall mean score for mothers' perceptions in workplace was 48.7717+8.90264 comparing to the maximum total score of 100.

Conclusion: The lack of organizational support, manager support, time and lack of the place were reported, further research in this domain, will be of interest.

KEY WORDS

Breastfeeding is the normal method of giving little infants nutrients they need to maintain their health as well as their normal growth and development (World Health Organization, 2016b).United Nation Children' Funds (72012) defines breast feeding as the child has received breast milk direct from the breast or expressed. In this study breast feeding means providing breast milk to the infant either by immediate breastfeeding or by breast milk expression during the time mothers are at work.

Breastfeeding in workplace: means going home or near to the nursery to breastfeed their child or the caretakers of the child bring him/her to the worksite to be fed, or expressing breast milk to feed the child using a bottle (ACAS, 2014, P.9). In this study breastfeeding in workplace means feeding breast milk to the child brought by relatives at worksite or expressing breast milk to be given to the child in the time the mother is working.

Workplace support: In this study, means the facilities offered to the breast feeding mothers to continue breast feeding or to express breast milk during work time. It included mothers' perceptions about organization support, manager support; time provided to the breastfeeding mother to enable her to breast feed or to express breast milk.

LIST OF SYMOLS AND ACRONYMS

CDC: Center for Disease Control

DHS: Rwanda demographic health survey

EBF: Exclusive breast feeding

BEBM: Expressed breast milk

IRB: Institute Review Board

N: Frequency

N/A: Not applicable

%: Percentage

SD: Standard deviation

UK: United Kingdom

UNICEF: United Nation Children' Fund

WABA: World Alliance for Breast feeding Action

WHO: World Health Organization

WBW: Women, Work and Breast feeding

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CHAPTER I: INTRODUCTION

I.1. Introduction

This chapter describes the background of the study, the problem statement, objectives of the study, research questions, significance of the study, definition of key concepts, and organization of the study.

I.2. Background

Breastfeeding is defined as the normal way of providing young infants with the nutrients that are needed for their health, growth and development (World Health Organization, 2016b). Breast feeding has more benefits for the child and the mother. For the child, breast milk has all the nutrients required in the first 6 months of living. It protects against diarrhea and frequent infant infections, like pneumonia (World Health Organization, 2016b). In addition, breast feeding has long-lasting advantages for the mother and the baby like lowering the danger of having overweight and obesity during childhood and adolescence. It increases brain capacity for intellectual development during childhood. It has also been revealed that it can elevate brain capacity during childhood (World Health Organization, 2016b).

It was evidenced in different literatures that non-breastfed babies may have consequences of not receiving breast milk comparing with breastfed baby. The previous studies showed that the children are at higher risk of developing ear infections: 23% more for the babies who did not receive any mother's milk and 50% if they did not receive mother's milk for at least 3 months. In addition, the baby may have more respiratory infections, more gastrointestinal infections with 64% of vomiting episodes, and 53% of hospital admissions for diarrhea. (Robyn Roche Paull, 2015, p.1; E Black Robert *et al.*, 2013; & UNICEF, 2015b)

Furthermore, increased risk of mortality due to different infections was 36% among babies who did not receive any mothers' milk and 50% among babies who did not receive at least 1 month or more of breastfeeding. Moreover, the risk of childhood cancers, especially leukemia, increased by 19%; NEC; asthma by 27% if not breastfeeding for at least 3 months; type 1 or type 2 diabetes by 19-27% if not breastfeeding for at least 3 months; increased allergies by 39%; and obesity were enumerated as negative consequences of not breast feeding (Robyn Roche Paull, 2015, p.1; American Academy of Pediatrics, 2012, p.825-831).

Previous research has documented that for a working mother to practice exclusive breastfeeding for the first 6 months, and extend to 2 years and beyond, a maternity leave of 6 months or more and appropriate support after maternity leave is essential. Adequate maternity leave and appropriate workplace facilities once the woman returns to work help the mother to be together with her baby which is the critical step to practice breastfeeding (World Alliance for Breast feeding Action, 2015, p.1-4).

Additionally mother support at work may determine the duration of breast feeding. According to Cai et al. (2012, p.4), the absence of mothers' support in the period of work can contribute to several mother' decision to discontinue lactation sooner than the minimum time recommended, then as a result, mothers provide formula-feeding to their babies when they are at work with increased risks of illnesses and death for infants compared with breastfeeding (UNICEF, 2015a). There was limited study that found high prevalence of breastfeeding.

The study done about prevalence of the use of breastfeeding policy globally, found that in the 182 nations that had data for 2012 on the existence of a national policy for breastfeeding breaks in the workplace, 45 countries (25%) had no policy in place. A policy guaranteeing paid breastfeeding breaks was in place in 130 countries (71%), and seven countries (4%) had policies guaranteeing unpaid breaks; only three countries (Bhutan, San Marino and Swaziland) provided for breastfeeding breaks for less than 6 months after an infant's birth; Also the study found that in 41 countries, the employed mothers were guaranteed a break most commonly until the infant was one year old (Atabay *et al.*, 2015, p.86-87).

According to breast feeding report card (CDC, 2014b, p.2), the study done in the United States showed the rising of breastfeeding rates, and percentage of the infants whom 49% were breastfeeding at 6 months and 27% at 12 months in 2011.

Additionally, data from the United Kingdom (UK) Infant Feeding Survey, showed the prevalence of exclusive breast feeding was increased for working mothers from 15.7 % in 2005 to 90% , 91% in 2010; the positive impact was due to effort of establishment of policies that improve the support at work and through information provided to the mothers to continue breast feeding (McAndrew et al., 2012, p. 30) .

Contrary, the result of low breastfeeding rate among working mothers, was evidenced in the study done in south of Brazil about prevalence of exclusive breastfeeding and its determiner in the first 3 months which showed that, breast feeding was decreasing from 97% at 3 months to 62% at 6 months (Mascarenhas et al., 2006, p.291-292).

In addition the study done in Africa Chitungwiza (Zimbabwe), confirmed that 60% of the participants stopped breastfeeding before 6 months and the reason was that they were

returning back to work. In this study only 19.8% of full time working mothers were still exclusively lactating at 6 months, and about 65.4% had already initiated complementary feeding before 6 months old (Tiriabaya-mudzengerere, 2013, p.8).

Workplace support means the facilities offered to the breast feeding mothers to continue breast feeding or to express breast milk during work time. To support mothers who are breastfeeding, support from the institution is needed; this includes all necessities needed for breastfeeding or expressing breast milk, including physical environment that would be used to breastfeed or to express breast milk; a flexible schedule; a friendly environment that will encourage the mothers to breastfeed; frequent breaks; and breastfeeding-friendly policies in worksite (CDC, 2014a, P. 9; World Alliance for Breast feeding Action, 2015, p.1-4).

There is limited literature regarding workplace breast feeding support. This may be part of the reason why there is a lack of breast-feeding support at the workplace in general. According to work done by Pey Jia Choo (2016,p.9), a qualitative research which explored the experiences of mothers who were breastfeeding for the first time and the difficulties that those mothers met during their lactation period in Singapore, showed that among four findings discovered in that study, challenges in supporting breastfeeding mothers in the early time following birth and low level of support for lactating in the workplace employment were mentioned.

The same author presented that mothers said that they were not supported by the government because their maternity leave was not provided as it was recommended, i.e., the maternity leave recommended for them was six months, and they were offered only four months. In addition, support facilities were delivered depending on their superiors' and their colleagues' negative attitudes, which influenced some mothers to stop breastfeeding early. Others started formula feeding their babies because they did not have another choice during work time (Pey Jia Choo, 2016, p.9).

A study done in Saudi Arabia highlighted that mothers' employment was negatively associated with breastfeeding, as infants of working mothers were weaned before 6 months of age. The reason was unavailability of breast feeding facilities in working environment, which was the main source of discouragement of mothers to breastfeed (Alzaheb, 2017, p.3). A study done in US found that almost two-thirds of enlisted military personnel and half of female officers reported cessation of breast feeding because of work-related problems, e.g., the absence of a place to pump (Uriell *et al.*, 2017, 293).

Another study about an exploration of Iranian mothers' experiences of breastfeeding after returning to work and their perceptions of their personal health showed that mothers were having severe physical and emotional stress as the consequences of lacking support from the work environment (Sousan Valizadeh et al., 2017, p.5).

A study done in Liverpool, revealed that when mothers were asked about the respect in their working environment (or the respect expected upon returning to their employment), mothers reported lower levels of respect (56.8%) and higher levels of disrespect about breastfeeding (12.8%) (Sophia Komninou, Victoria Fallon and Alison, 2016, p.5).

In Africa, a study done in Nigeria about breast feeding support identified that fewer than half of the mothers reported having frequent enough lactation breaks, while 58% of them reported insufficient time for breastfeeding or expressing breast milk at work, When the women were asked whether their organization had a written policy supporting breastfeeding mothers who express or breastfeed in the workplace, 34% reported "yes" while 66% reported "no." None of the respondents was provided with a room or breast pumps for expressing breast milk while at the workplace.

In Rwanda, there is no published research about breastfeeding support at the workplace, no data found about mothers' perceptions and practices regarding breast feeding in the workplace; and no government policy regarding support of lactation while the mother has returned to work at the health facility, besides except for one hour break per day for the first twelve months. In addition, mothers who work in the private and public sectors, are allowed 12 weeks of paid maternity leave.

In Rwanda, the prevalence of exclusive breastfeeding is 93.5% among children of 0-1 months, 89.5% in those from 2-3 months, and 89.5% in children from 4-5 months, 80.8%, and 23.2% in those from 6-8 months. The majority of mothers start mixing semi-solid foods at 6 months or between 6 and 12 months (DHS, 2015, P.23). However, the results of the last Demographic Health Survey did not stratify the breast feeding prevalence among professional employed and non-employed women.

I.3.Problem Statement

The current child nutrition policy of First 1000 Days recommends exclusive breastfeeding until 6 months and complementary feeding until 2 years (UNICEF, 2015b). Although, the Rwanda Demographic Health Survey 2014-2015 (DHS, 2015, p.20) showed a high prevalence of exclusive breastfeeding in general at 93.5% among children of 0-1 months,
89.5% in those from 2-3 months 80.8% among Rwandan infants aged 4-5 months, the prevalence of breastfeeding among infants of working mothers is unknown. There are no data on this subject, but the number is low according to the researcher' s anecdotal experience, and can be elaborated on the short maternity leave and insufficient lactation breaks once the mothers have returned to work.

Previous literature cited thus far, have shown strong negative association between lack of workplace support for breastfeeding and mothers' practices and perceptions about breast feeding frequency and duration. If the researcher's hypothesis is correct, that the mothers will have poor perceptions regarding breastfeeding after having resumed work due to lack of workplace support, then Rwandan children of working mothers are at greater risk for developing major diseases like diarrhea, respiratory tract infection, allergic diseases, diabetes, obesity, childhood cancers like leukemia and lymphoma, and inflammatory bowel disease, according to WHO (2016b); American Academy of Pediatrics (2012); UNICEF (2015). This can also result in high cost of health care and increased child mortality in Rwanda.

Apart from one hour offered to mother when they report back to work in Rwanda, other support from workplace to continue breastfeeding is not documented. Considering the high percentage of acute respiratory infection (54%), diarrhea (49%) and fever (44%) in under five children in Rwanda (DHS, 2015, p.20), it is worth mentioned to strengthen breastfeeding polices (UNICEF, 2015b). Therefore, this study aimed at exploring mothers perceptions about breastfeeding support at workplace.

I.4. Research objectives

I.4.1.Main objective

To explore mothers' perceptions about breastfeeding support at workplace in selected district hospitals of Kigali.

I.4.2. Specific objectives

1. To identify mothers' perceptions about organizational support offered to the employed breast feeding mothers in the selected district hospitals of Kigali.
2. To assess mothers' perceptions about managers' support towards breastfeeding at workplace in the selected district hospitals of Kigali.
3. To assess if the time to breast feed is provided to the employed mother at workplace in the selected district hospitals of Kigali.
4. To evaluate mothers' perceptions about physical environment that support breastfeeding at workplace in the selected district hospitals of Kigali.

I.5.Research questions

1. What are mothers' perceptions about organizational supports offered to the employed breastfeeding mothers in the selected district hospitals in Kigali?

2. What are mothers' perceptions about manager's supports towards breastfeeding at workplace in the selected district hospitals in Kigali?
3. Is the adequate time to breastfeed provided to the employed mother at workplace in the selected district hospitals in Kigali?
4. What are mothers' perceptions about physical environment that support breastfeeding at workplace in the selected district hospitals in Kigali?

I.6.Significance of the study

By exploring mother' perceptions regarding breastfeeding support at the workplace, the study will be the first to provide this important information to Rwandan health facilities, government agencies, and employers. It may lead to other researchers further investigating the actual prevalence of breastfeeding in this population which may shed further light on the topic, and can be used in advocating for better workplace support for breastfeeding mothers. Specifically it could answer the gaps related to workplace support that helped in promoting breast feeding in workplace. In addition this study could bring the improvement in facilitating mothers to breastfeed while working as it is the first research that is going to be done in Rwanda about support of breast feeding in workplace. This research was intended to explore mothers‟ perceptions about breastfeeding support at workplace employment in the selected district hospitals of Kigali.

In addition, this study could add more information to the existing literature on support' practice offered to the mother to continue breastfeeding in workplace and provide baseline data for large scale studies to be conducted in future in this domain. It could help in increasing the prevalence of breast feeding after having knowledge about gaps that would be identified and could contribute to decrease infant morbidity and mortality as well as to decrease cost effectiveness related to disease or mortality as the studies showed high risks of developing some disease when the child is not well breastfed (American academy of pediatrics, 2012, 825- 831).

Moreover, this study could contribute to the knowledge of the employees and employers regarding support which could help to revise and to improve their policies in relation to breastfeeding. It could impact the perceptions of people who feed their children other substitutes rather than breast milk while those substitutes contribute to high risk of developing obesity as it was evidenced (Li *et al.,* 2014, p.874).

Further the finding of the research could help in establishing policies related to breast feeding in Rwandan especially in the hospitals while mother is working depending on the gaps identified to promote health and development of the child. The study also could contribute to the knowledge of the employees and employers regarding support which could help to revise and to improve their policies in relation to breastfeeding. It could impact the perceptions of people who feed their children other substitutes rather than breast milk while those substitutes contribute to high risk of developing obesity as it was evidenced (Li *et al.*, 2014, p.874).

Furthermore this study could bring the improvement in facilitating mothers to breastfeed while working, as it was the first research done in Rwanda about support of breast feeding in workplace. It could be useful in conducting other researches to explore more about breastfeeding in workplace and it could contribute to education interest by providing the new knowledge about the study in our country. After completing my research project the findings will be shared within district hospitals and other institutions in regard to improve their abilities to facilitate the breast feeding mothers by renewing their policies and promote the practice of breast feeding, findings will also be shared within different policy makers to establish policies regarding breastfeeding. Finally it will help Ministry of labor to retain the employees through decrease of employees' absenteeism at work.

I.8. Organization of the study

Chapter I: Introduction of the study which included background of the study, problem statement, aim of the study, objectives (main and specific objectives) of the study, research questions, significance of the study and conclusion to chapter one.

Chapter II: Literature review which included introduction, theoretical literature, empirical literature, critical review and research gaps, conceptual framework and conclusion to chapter two.

Chapter III: Methodology which included: Introduction, research design, research approach, research setting, population, sampling which included sampling strategy, and sample size, data collection, data collection instruments, data collection procedure, data analysis, ethical considerations, data management, data dissemination and conclusion to chapter three.

Chapter IV: Results which included demographic characteristics, mothers' perceptions of organizational support, mothers' perceptions of manager support, and mothers' perceptions of the time provided to them to be able to breast feed, mothers' perceptions of physical environment and comparison of more &less support in different hospital.

Chapter V: Discussion which included introduction, discussion, challenge and limitations of the study, Chapter: conclusion and recommendations of the study which included conclusion and recommendation.

Conclusion

Breast feeding is essential because it has many benefits for the child and the mother in terms of health and development, financial benefits and parenteral bonding as stated above by different researchers. The high prevalence of breast feeding among employed mothers was observed in the developed countries where the facilities to support breast feeding practices for the lactating mothers were workable. Many gaps were observed in developing countries with low prevalence of breast feeding especially exclusive breast feeding practice where it should be promoted considering the impact of breast feeding on double burdens of disease observed in developing countries (UNICEF, 2015a). The support towards breastfeeding in worksite is essential in fighting against major diseases like respiratory infections, gastrointestinal infections, diarrhea and other diseases (World health organization, 2016b; American academy of pediatrics, 2012) which occur mainly in developing country like Rwanda where this study was conducted.

CHAP II: LITERATURE REVIEW

II.1. Introduction

This chapter talks about the definition and modalities about breast feeding, creating breast feeding space, mothers' perceptions of organizational support, manager support, time and physical environment.

II.2. Over view on breast feeding

World Health Organization (2016a) and UNICEF (2015b) define breastfeeding as the normal method of providing nutrients needed by young infants for their healthy, growth and development. These authors stated that when information given to the mothers incorrect and the support is offered from their family, the health care provider, coworkers and the society in general, all mothers can breastfeed.

Breastfeeding has many benefits including defense against diarrhea and common childhood illnesses like pneumonia was documented. Also decreasing the danger of overweight and obesity during childhood and adolescence was highlighted as well as its association with higher developmental capacity of the brain in children (Horta and Victora, 2013, P.1-69; Harder *et al.*, 2005, p.398; American Academy of Pediatrics, 2012, p. 831; World Health Organization, 2016b).

The benefits of breast feeding were also highlighted by Gupta Arun (2003, p.1-2) in his literature about empowering women to breastfeed and he stated the reasons why breast feeding is recommended for all babies. He stated that appropriate breastfeeding practice contributes to 90% of brain development. For this reason, he emphasized on the empowerment of women to exclusively breastfeed by promoting 6 weeks of paid maternity leave as well as policies that support women to breastfeed in the work environment and in public. He also argued that workplace policies should be supported in all employed mother from both official and unofficial organizations to keep on breastfeeding in the work environment.

In similar way, breast feeding should be recommended in all babies and all mothers should be motivated and supported to maintain lactation until 6 months of age and be continued together with complementary feeding till 2 years (World Health Organization, 2016a).

Furthermore a summary statement of systematic review of literature done by (Marinelli *et al.*, 2013, p.137) about support of breast feeding for mothers in work place employment together with academy of breastfeeding medicine which is devoted to protect, promote and to support breastfeeding, stated that the availability of support in work place settings has a significance influence on sustainability of breast feeding or lactation.

Expression of human milk

To facilitate the process of milk delivery, women should continue to express breast milk to give to their babies (A. Nikkhah, C. J. Furedi, A. D. Kennedy, G. H. Crow, 2008, p.4249; Hansen, 2015,p.132-140). Also the authors stated that if physical separation of the mother is unavoidable, then the mother should sustain her milk supply using breast expression either with hands, manual or electrical breast pump) at least every 3-4 hours during the work day. The authors argued that to empty regularly the breast during the day and night is essential for maintaining milk supply (Anne Eglash, Ibclc , Michele L. Malloy, 2015, p.859-867, Angeletti, MA, 2009).

In addition other literature said that the process varies from woman to woman but 30 minutes is suggested to express breast milk (Academy of Breastfeeding Medecine Protocol Committee, 2010, p.173-176; Eidelman, 2012, p.323-324). The breast feeding or breast milk expression breaks requires the flexibility for mothers to breast feed or to express breast milk during work time (Galtry and Annandale, 2003, p.6)**.**

The previous study showed the comparison between breastfeeding and expressed breast milk, which found that to bring the child to the workplace is healthier than providing expressed human milk through the bottle, which is less controllable and expose the infant to have risk of childhood obesity (Li *et al.*, 2014, p.874).

II.2. Creating the space for lactation

Creation of an environment that is used by breastfeeding mothers, it requires some facilities. A confidential room which is confidential and cleaned, environment that can be locked and facilitate mothers to breastfeed or to express breast milk, also a refrigerator that helps mothers to store expressed breast milk, cupboard with locker which will help in storing materials to use during breast milk expression, and chairs that helps mother to be comfortable during expression of breast milk. In addition to that a table to put on all materials to be used within breast milk expression is needed, a power sockets, which is be necessary for mothers who is need to use an electric breast pump as well as a sink to help mothers in hand washing before and after breast milk expression and helps also in the hygiene of equipment that will be used (Jamil Ahmed Soomro, Zeeshan Noor Shaik, 2016, p.1-9).

II.4. Mothers' perceptions of breast feeding support at workplace

II.4.1. Mothers' perception of organizational support

The authors highlighted the implications of hospitals in the implementation of policy particularly regarding breastfeeding support (C Probst Janice and Laditka Sarah B, JongDeuk Baek, Chinelo A. Ogbuanu, 2009, p1-22).

II.4.1.1. Maternity leave

According to Redmond, Valiulis and Drew (2006), after reviewing the literature, concluded that for the most favorable maternal and infant health, the mothers' leave should be four to six weeks, before giving birth and sixteen weeks after birth with modification to increase leave if the mother or her child is sick. He argued that after giving birth, a mother requires enough time to recover from the physiological changes of pregnancy and childbirth and to start breastfeeding as well as caring for her infant. Paid maternity leave allows her to take that time without experiencing economic loss.

The study done published the policies facilitation of maternity leave by encouraging employers to provide paid maternity leave and suggest to the employees to discuss formally with their human resource managers, so that they can support them (Pay and Allowance, 2016).

Then other study had listed the impact of length of maternity leave and whether it is paid not. About the length of maternity leave, the researchers stated that longer duration of maternity leaves were associated with a extended period of breast feeding which contribute to the long term heath of the mother and the child and the researchers argued that unpaid leave may not be sensitive opportunity for many mothers and their families at the end they concluded that employers should be motivated to provide some form of paid leave (Mirkovic, Kelsey R, 2014; Ogbuanu, Chinelo, 2011, p1-23).

The study done in Pakistan by Soomro (2015, p 41.) showed that 3months of paid maternity leave was provided to the mothers worked in government institutions at the rate of 99 %. In addition study done in Pakistan by (Jamil Ahmed Soomro, Zeeshan Noor Shaik, 2016, p 4) pointed out that all workplaces gave 3 months of paid maternity leave to the employed breastfeeding mother. Further the study done in Gatanga found that mothers were receiving their maternity leave (Gathangu Sabina, Wanjiku Mukui John Kariri, Joash Auka, 2015, p.269).

Further a qualitative study done in India by Omer-Salim *et al.* (2015,p. 473) demonstrated that maternity leave of six months was provided to the breastfeeding women which facilitated the process of combining breast feeding and work. Moreover the study done in Mainland China, highlighted that mothers were more in supportive environment for breastfeeding during the postpartum period because of government legislation, new mothers obtained 4 months of paid maternity leave and 2 hours of breaks during their work time to breastfeed their babies (Morgan B, 1996, p. 21).

In contrast the qualitative study done in Ireland identified inadequate maternity leave which pushed many mothers to use formula feedings lather than breastfeeding, most of the women took unpaid leave (if they could afford to) and come back later after maternity leave when their babies had 26 weeks (Desmond and Meaney, 2016, p.8). Also the study done in Hong Kong highlighted that breastfeeding after coming back to work was not practicable for the mothers, which influenced them to wean their babies before returning to the employment (Tarrant M, Dodgson JE, 2002, p. 189).

In the same way the quantitative cross sectional study done In Ghana showed that mothers who had short period of maternity leave were less likely to practice breastfeeding (Dun-Dery and Laar, 2016, p.1).

In Rwanda no study done about breast feeding support in workplace but new Rwanda law approved in March 2015 allows mothers to have 3 months of full paid maternity leave and one hour per day of break during workday to attend their babies (Law regulating Labour in Rwanda, 2017).

II.4.1.2. Getting information about breastfeeding

It was pointed out in the quantitative cross sectional study done in Pakistan by Soomro, (2015, p 41) that mothers were not given the information from their manager about breastfeeding where only 5% of mothers had access to information. Also a quantitative cross sectional study done in Australia highlighted the unavailability of information where only 5% of the 493 respondents had been given written or verbal information from their employer about the option to continue breastfeeding after returning to their work (Weber *et al.*,2011,p.4-6).

II.4.1.3. Breastfeeding policies

Lyell (2012, p.1-6) recommend that countries need to maintain policies that protect lactation and support mothers in their attempts to breastfeed their children for the first 6 months and workplace policies should support all employed mothers from both official and unofficial sectors to keep on breastfeeding in the work environment.

In addition the policy may need to be also modified to meet the particular situation of the worksite, but it would include suitable conditions for the three important components for lactation support: time, space and support (Lancet, 2013, p.1-13; Galtry, J and Annandale, 2003, 7-10). Further the evidence highlighted that supportive policies and programs at the workplace enable women to continue giving breast milk to her baby in important periods after coming back to the work (US Department of Health, 2011, p.50).

Further, another study done in New York illustrated that all hospitals submitted their policies for review which found wide-ranging about comprehensiveness of hospital policies; the author said that to have comprehensive written policies was not enough even though it was the first step but it should communicate to the staff, support its sustainability and translate into practice (Bethany A. Hawke, Barbara A. Dennison, 2013, p.4, 6).

The previous studies done highlighted the gaps about written policy. First, the study done about maternity leave length and workplace policies' impact on the sustainment of breastfeeding on global perspectives revealed that the policy was not consistent in its enforcement when worksite was establishing breast feeding policy (Lisa M. Steurer, 2017, p.6). Second, the study done in Liverpool by (Sophia Komninou, Victoria Fallon and Alison, 2016, p.5), illustrated breast feeding as a problem for mothers who returned to work even though there were protective policies in place.

Third, the study done by Abdulloeva Safina (2013, p.770) found that support policies in breast feeding workplace in some state were present others absent; where they were present, they focused on different support items, either time, space and others had no policies at all. The author concluded that generally there were no policies unless mothers increased their voices. Moreover the study done in Australia showed that though most centers practiced breastfeeding support, the study found that few child care centers had a written policy on breastfeeding, only 6 centers had a written breastfeeding policies which were in the form of general statements like food and nutrition policy documents (Sara Javanparast, Linda Sweet, 2012, p.1279).

II.4.1.4. Flexibility

The research stated that for an employee who wants to breastfeed may request any flexible work if she has any reason and the employments contract might be inappropriate if the employee wants to change her work contract temporary or permanently. However, short term change for any arrangement at work may disturb both employee and employer to achieve the goals of business and breastfeeding needs of the mother (ACAS, 2014).

Then other research showed that flexible work includes the choice of mothers to be full-time, party time to be set with her in charge considering both employee and work's needs (Galtry and Annandale, 2003, p.4-5).

Previous research done in Victoria, Australia evidenced that proximity, flexibility, and communication, were identified as the factors impacting on mothers and their choices to breastfeed or to stop breastfeeding on returning to work (Gilmour, Monk H, 2013, p.25). Studies conducted in hospitals were evaluating Baby friendly workplace initiatives among mothers delivered in hospital maternity, but for breast feeding support in workplace, most of the researches were conducted in other facilities rather than in hospital settings.

II.4.2. Mothers' perceptions of manager support

Employers should establish clear and easily recognized policies for employees who would help them to ask break time and private space to express breast milk. In addition employer would help them to take strategies that informing employees about their right to access these accommodations similar to other workplace wellness programs. Also those accommodations were encouraging physical activity, support for breastfeeding in the workplace and could improve employee health, reduce absenteeism, and generate savings for employers (Katherine Baicker, David Cutler, 2010, p.5; Polston Mills Susan, 2009, p.229-230).

II.4.2.1. Workplace atmosphere

Literature done evidenced that mothers who continue lactating after going back to the employment need the encouragement of their coworkers, managers, and others in the workplace, then employers can arrange to facilitate an atmosphere that supports employees who breastfeed and promote the environment that is easier to accomplish workplace support (CDC, 2012). The literature about work place atmosphere were lacking in most of the study done.

II.4.2.2. Supportive work place culture

It is a good practice for an employer to have a policy on breastfeeding which encourages the supportive culture and fits with the change of work conditions to facilitate the employees who return from maternity leave to working conditions (ACAS, 2014). According to Galtry and Annandale (2003), access to breast feeding resources consist of providing information about maternity leave and balancing breast feeding and work.

Again Ireland (2012) recommends that national breast feeding policies should ensure that mothers are supported to breast feed as long as they choose to do so and recommend that the breast feeding should continue for two years or beyond. What is more the author stated that mothers who have environment that support lactation will be dedicated by their employer which will reduce turnover and contribute to low cost for the employer (Gettas and Morales, 2013, p.198).

Moreover second data analysis study done from CIGNA Corporation cited that the majority of breastfeeding and working mothers who work in an environment supportive of breast feeding spend less than an hour per day expressing breast milk, a period of time that may be the customary allotted break time for many employed women. Furthermore, mothers may require discretion over the use of their time so that they can distribute breast milk expressions as needed during the course of the workday (Slusser *et al.*, 2004, p.168).

II.4.3. Mothers' perceptions of breastfeeding breaks

According to Chris Mulford (2015, p.1-4) breastfeeding break is defined as a time taken by a lactating mother during her work day for either to breastfeed her baby or to express breast milk to give to her child. The literature on breast feeding showed a variety of approaches. The milk expression can be done between 15-20 minutes when the mother is experienced. In additional to that the mother will need time to go to the appropriate environment which has all facilities that the mother would need to breast feed or express breast milk.

The same author argued that mother would take time to wash her hands, she would prepare the materials that would be used as well as preparation of milk to be stored and get back to her work location, so the break real time for breastfeeding is 30 minutes and showed that if the baby is available for breastfeeding, 30 minutes is a reasonable break time, but more flexibility might be needed.

Previous studies indicated that according to the effect that lactation may have on the lactating mother, infants and society as well as on the business, employers should take in consideration some short of break from work logically and purposely against the likely hood impact it might have on the business and they should be cautiously not to in opposition to lactating employees (ACAS, 2014). Also unavailability of break time for breast milk expression can also lead mother feeling inundated and stop breast feeding earlier than she wanted (Angeletti, 2009, p.3).

Then a qualitative study done in urban Pakistan identified that flexible work especially breastfeeding breaks in workplace environment were essential to employed mothers to maintain lactation during work time (Avika Dixit, MBBS, Lori Feldman-Winter, MD and Kinga A. Szucs, MD, 2015, p. 246).

Further the study that was comparing frequency and time of breast milk expression between two different groups for mothers who followed exclusive breastfeeding and mothers who ceased breastfeeding before 6 months proved that no difference between frequency or time that could be spent in breast milk expression between to those 2 groups (Wendelin M. Slusser, Linda Lange, Victoria Dickson, Catherine Hawkes, 2004, p.167).

Previous research done had identified that globally, there has been gradual progress in the provision of policies supporting breastfeeding breaks at work. It was evidenced that between 1995 and 2014, the percentage of countries that did not have lows about breastfeeding breaks declined 36.9% to 26.7%. However, the most recent data available identified that 51 countries have not yet legislated guarantees for mothers to take any form of breastfeeding breaks at work, and 4 countries had only unpaid breaks or breaks that did not last until 6 months of age (Atabay *et al.*, 2015, p.86-87). Additionally the study done demonstrated that for mothers who worked in government institutions, flexible breaks were provided to them (Soomro, 2015, p. 41).

Indeed the study by Kozhimannil *et al.*(2016, p.9) revealed that women with reasonable break time to pump were higher exclusively breastfeed and highly breastfed at all at 6 months comparing with mothers without access to either break time or lactation spaces at

work; this study found that only 59% of mother who returned to work reported having access to adequate break time to express milk, 45% had private space, and only 40% had access to both accommodations.

II.4.4.Mothers'perceptions of physical environment

The authors demonstrated that to create a space that facilitates the mother to breast feed there are some requirements that are needed: a small, clean space with room to sit down and a door, screen, or curtain for privacy, access to clean water, and a secure storage place for milk, such as a locker, or space for a container at her work station. They continued saying that the most essential characteristics of lactating space are cleanliness, accessibility and security. They argued that an employer needs to be aware that the environment is available when mother wants it and the space may be used for many mothers at the same time if all accept, which helps them to share their mutual support. According to the authors the level of cleaning should be the same as required for preparing or eating foods, therefore a restroom is inappropriate. Though a refrigerator is helpful, but, it is not critical for them. The employee or the manager can give a small cool box or thermos flask and milk can also be safely stored for 4 to 10 hours at room temperature (Chris Mulford, 2015; ACAS, 2014;Galtry and Annandale, 2003;South Dakota workplaces, 2002,p.2).

The author stated that the availability of rooms reserved to express breast milk at workplace might decrease the time that mothers could spend seeking for a private room to express breast milk and those rooms were well equipped (Slusser*et al.*, 2004, p.168). The study done in Milwaukee showed that 87.3% of respondents reported providing access to a multiuser space for lactation and 65.1% reported providing a designated lactation space. Also the study reported that greater managers provided high lactation support than medium employers, with a considerably large proportion of greater managers providing more designated lactation spaces, privacy screens, and breast pumps (Tyler Lennon, 2017, p.216).

Contrary the study that was evaluating the association between lactation space and exclusive breastfeeding, found that mothers who had access to breastfeeding place at work had more chance to practice highly exclusively breastfeeding compared to mothers without access (Lauren M. Dinour and JacalynM.Szaro, 2017,p.133). In addition the study done in Ireland highlighted that mothers lacked facilities and support in their workplace to continue breastfeeding (Desmond and Meaney, 2016, p.8). Further lack of supportive work environments, lactation facilities and the period of paid maternity leave have all been listed as obstacles to breastfeeding in the worksite (Ogbuanu *et al.*, 2011, p.124).

In addition the study by Soomro et al. (2016, p 5) revealed that mother reported to have a missing physical or non-physical breastfeeding facility in workplace. Further the study done in Australia revealed that amongst all mothers surveyed, awareness of a breastfeeding room was low (14%) and only two health facilities had a designated room available at the time. They also indicated that where they breastfed, most women reported it to be clean (87%), within a five minute walk of their work station (90%) and providing access to a power point (83%) and cleaning facilities (79%). However, two thirds stated that the room was not always available when needed and only 57 percent reported it to be private, a comfortable chair was reported to be available in just over half of rooms (Weber *et al.*, 2011, p.4-6)

II.5. Critical review and research gap identification

Data from different researchers showed that a few number of countries their rate about breast feeding had rising especially in developed countries and many of researchers showed gaps mainly in developing countries (Imdad, Yakoob and Bhutta, 2011, p.1).

Contrary other studies showed gaps in their findings. The study about work related determinants of breastfeeding discontinuation among employed mothers in Malaysia showed that among mothers who worked in the private sector, 57% had discontinued breastfeeding while mothers who worked in the government sector, 40% had discontinued breastfeeding. The factors contributed to that discontinuation were related to lack of facilities, where mothers who worked in workplaces where they did not provide refrigerators were more likely to discontinue breastfeeding, lack of flexible time to express breast milk was also associated with breastfeeding discontinuation and lack of policies supported breastfeeding, with short maternity leave reported to be the factor of breastfeeding discontinuation (Amin *et al.*, 2011, p 4)

In addition, the study which was assessing if the breastfeeding support in workplace facilitated the employee together with the employer in IZA, showed lower number of working women who was having access to facilities to express milk and the researcher concluded that it was due to the fact that, those types of facilities were unusual and needed to bring the infant to employment which was possibly not a possible approach (Bono et al., 2012, p.10).

According to Chris Mulford (2015, p.1-4) in their literature review mentioned that factors that were contributed to low exclusive breastfeeding, included hospital and health-care practices and policies that were not supportive of breastfeeding; inadequate maternity leave and other workplace policies that support a woman’s ability to breastfeed when she returned to work.

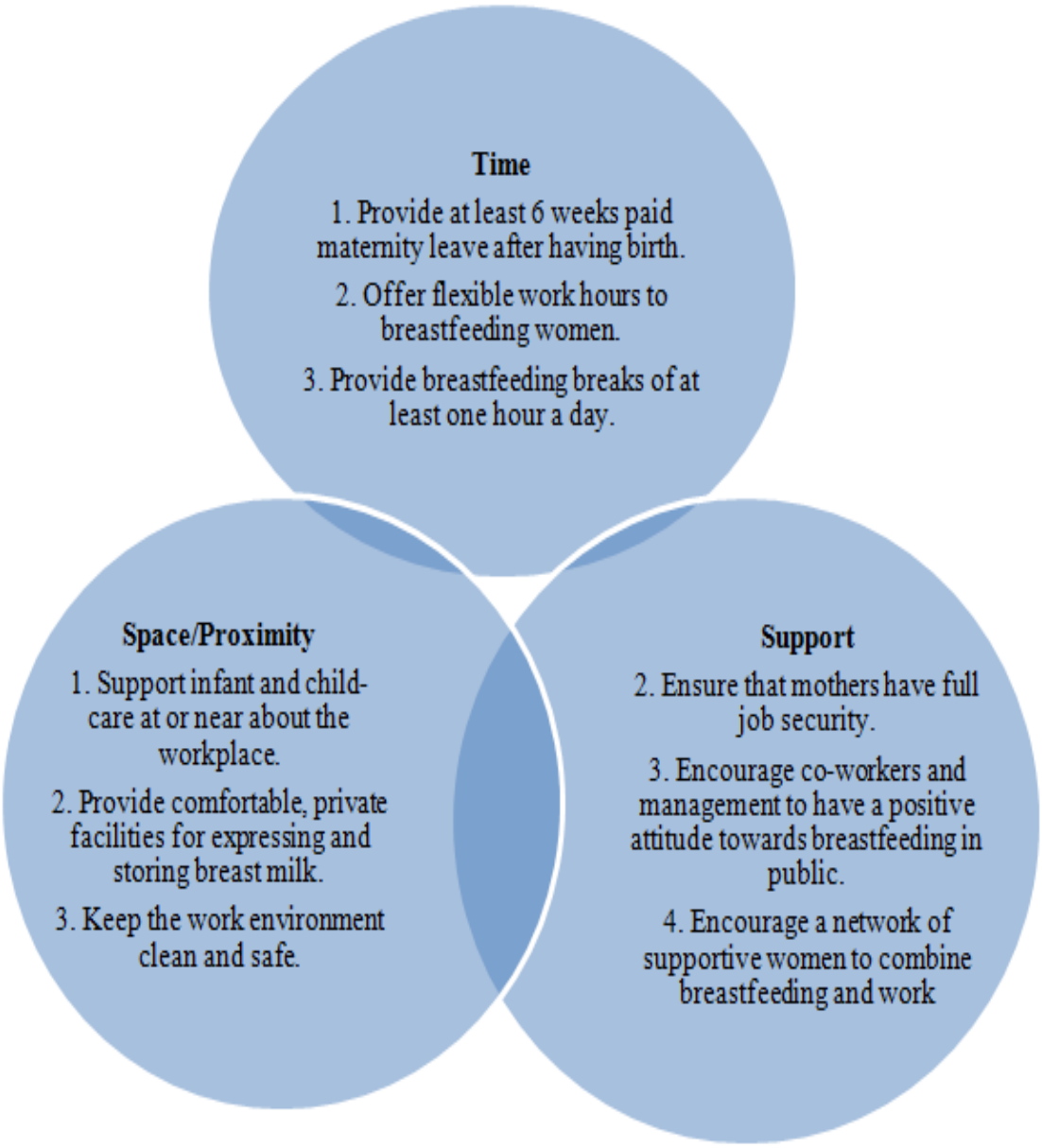
The literature showed that mother's practices are noticeably decreased when they are returning back to work and if breastfeeding breaks are not offered or if they don't provide the care to their children or when the care provided to near her workplace is inaccessible or the facilities for breast expression and milk storing are not, that circumstances play a major role in the decision of stopping breastfeeding for women after returning to work and it makes sense to ask if providing breastfeeding breaks from work might not increase the number of women who breastfeed for the recommended 6 months (CDC, 2012).

Likewise the study done in Malaysia identified that not having adequate breastfeeding facilities at the workplace, the risk factor for breastfeeding discontinuation (Amin *et al.*, 2011, p.3). The same findings were stated in the study done in Gatanga by Gathangu Sabina, Wanjiku Mukui John Kariri, Joash Auka (2015, p.269).

Regarding research gaps, most studies were conducted in developed countries where breast feeding support was promoted. In Africa very few studies done about breast feeding support in workplace. The most studied were conducted in other facilities or organization rather than in hospital settings. In the context of Rwanda, there was no published finding about breast feeding support at workplace.II.5. Conceptual framework

Fig.2. 1: Creating mother-friendly workplaces

Outcome variables



(World Alliance for Breast feeding Action, 2015, p. 2-4)

Source: Women, Work and Breastfeeding: Everybody Benefits! WBW, 2015 Action Folder.

This model was adapted from World Alliance for Breastfeeding Action in their article: Breastfeeding and work: let's make it work! It revisited the 1993 WBW (Women, Work and Breast feeding) campaign on the Mother-Friendly Workplace Initiative. The aim of this model was to empower and support all women, working in both formal and informal sectors, to combine work with child-bearing, especially breastfeeding. The theme for 1993 WBW was "Women, work and breastfeeding: Everybody benefits! The objectives of this model were to inform people about the available maternity protection entitlements and raise awareness to strengthen the national legislation and implementation. In addition to that, it focused on gaining multi-dimensional support from all sectors to enable women everywhere to work and breastfeed. Further it focused promoting action by employers to become baby and mother- friendly and actively facilitate and support their women employees to continue breastfeeding. Finally it emphasized on strengthening supportive practices that enable working women in the informal sector to breastfeed.

The model illustrated three areas that employers must act to create a mother-friendly workplace for combining work and breast feeding: Time, Space/Proximity and Support.
Time which concerned with maternity six months of paid leave to all women from all sectors, one or more paid breastfeeding breaks or a daily reduction of work hour to breastfeed her child, and flexible work hours to breastfeed or to express breast milk such as part-time work schedules, job sharing etc. The items found in this section used by the model were: Six months paid maternity leave; one or more paid breastfeeding breaks Flexible work hours/schedule.

In this study time means breaks that are offered to the breast feeding mother at workplace to enable her to breast feed or to express breast milk. The section of time had three items: the question one was assessing if the frequency of breaks were enough for breastfeeding or pumping breast milk, the second was assessing if the duration of breaks were enough and the last question for this section was assessing if the break schedule could be adjusted for breast feeding or pumping breast milk.

In terms of space/proximity the model stated that there could be crèches or baby care near the workplace for mothers to be together with their babies. This model highlighted that private facilities or space for expressing and storing breast milk need to be provided at workplace, and that space should be the provision of clean work environment. The model indicated that women need high support from family members, society, employers, co-workers as well as superiors in terms of positive attitude towards breastfeeding and understanding the work situation. Women should be well informed of her rights on maternity entitlements. The items for that section included: Infant and childcare at or near the workplace, facility for expressing and storing breast milk.

In this study space was also entitled physical environment which means the space provided to the mother for breast feeding in workplace. It was the last part of the study tool and it had six items: Company supply of the equipment that were needed in expressing breast milk, availability of the place to store expressed milk at work, availability of the designated place needed for breastfeeding or pumping breast milk at work, The distance between the designated place for breastfeeding or pumping breast milk and work area and to feel comfortable when breastfeeding or pumping breast milk in the designated place.

Concerning support the model showed items that were included in: Information about national maternity laws, Support from employer and coworkers with positive attitude about breastfeeding, job security and non-discrimination, Support from the worker's trade unions. In this study support had two sections. The first one was concerned about organizational support which was composed by 7 items namely the organization offered me 6 weeks paid maternity leave to start breastfeeding before returning back to work, I would be able to get information about combining work and breastfeeding from my company, I'm certain my company has written policies for employees that are breastfeeding or pumping breast milk, I'm certain there is a place I could go to breastfeed or pump breast milk at work, There is someone I could go to at work that would help me make arrangements for breastfeeding or pumping breast milk, My job could be at risk (e.g. lose my job or get fewer scheduled hours) if I breastfed or pumped breast milk at work and I would feel comfortable asking for accommodations to help me breastfeed or pump breast milk at work.

The second section is manager support with 9 items. My manager would support me breast feeding or pumping breast milk at work, my manager would help me combining breastfeeding and work, I would feel comfortable speaking with my manager about breastfeeding, my manager says things that make me think he/she supports breastfeeding, I feel my manager would view breastfeeding as an employee's personal choice, my manager would consider it part of his/her job to help me combine breastfeeding and work, my manager would think less
of workers who choose to breastfeed or pump breast milk at work, my manager would make sure my job is covered if I needed time for breastfeeding or pumping breast milk, my manager would change my work schedule to allow me time for breast feeding or pumping breast milk.

In summary this conceptual framework was useful in exploring the support offered to the mothers in workplace environment. It specifies the outcome variables of the study which are time, space/ proximity and support offered to the mother during work time. This study adapted this model because they have similarities as the study explored the support offered to breastfeeding mothers in work employment. The variables: Time, support and space/proximity of this model are similar of this study. All elements included in each variable was assessed in this study except the element about providing information for women workers and unions maternity benefits about supporting the health of women as this unions are not exist in our context of Rwanda.

CHAP III: METHODOLOGY

III.1. Introduction

This chapter describes, the study design, research approach, study area, study population, inclusion and exclusion criteria, sampling, sampling strategy, sample size, data collection instrument, data collection procedure , data analysis, data management and ethical consideration of this research, data dissemination ,Challenges and limitations of the study.

III.2. Study design

This research used cross-sectional study design because no follow-up done in this study and considering the time available to the researcher, to collect data once time was useful and helpful in this study.

III.3. Research approach

The present study used a non-experimental quantitative, descriptive research approach.

III.4. Study area

The study was conducted in the selected district hospitals of Kigali city. The Kigali city has 4 district hospitals and the researcher randomly chose three of them; Masaka, Muhima and Kibagabaga.

Masaka district hospital is one of the district hospitals of Kigali city which is located in Kicukiro district, Masaka sector, Cyimo cell, Kabeza village. It has 10 health centers with total population of 39595 within the catchment area (Rwanda health management and I formation system (HMIS), 2016). It is bordered by Muyumbu sector in Rwamagana district, Kanombe sector in Kicukiro district and Rusororo sector in Gasabo district.

Muhima district hospital is one of the district hospital of Kigali city which is located in Nyarugenge district, Muhima sector. It has 12 health centers including 1 prison with total population of 284860 within the catchment area (HMIS, 2016). It is bordered by Nyarugenge sector, Gisozi sector, Kakiru sector and Kimisagara sector.

Kibagabaga district hospital is one of the district hospital of Kigali city which is located in Gasabo district, Kimironko sector. It has 17 health centers including 1 prison with total population of 625686 within the catchment area (HMIS, 2016). It is bordered by Kinyinya sector, Remera sector.

III.5. Study population

In this study the population was all employed mothers including health professionals and non-health professionals (nurses, doctors, cashiers, managers, supervisors and others) who were breastfeeding and fulltime employed.

III.6.Inclusion and exclusion criteria

The inclusion criteria included breast feeding mothers who are employed in three selected institutions, who had birth while working in the institution at least 6weeks ago. This study excluded the men, non-breast feeding mothers (mothers who weaned their children, mothers who were in menopause, etc) and other breast feeding mothers who were not working in those three selected institutions.

III.6. Sampling

III.6.1. Sampling strategy

Convenience sampling procedure was used in this study. All targeted employed breast feeding women that agreed to participate and were accessible at the time of data collection, participated in the research.

III.6.2. Sample size

The sample size was calculated using formula of proportion from (Yamane, 1967) where n represented the sample size, N represents total population and $(e)^2$ represents margin of error Squared. This proportion is explained using this formula:

$$n = \frac{N}{1+N(e)2} = \frac{188}{1+188(e)2} = 127$$

The researcher considered confidence interval of 95% and maxim variability of 5% with P= 0.05 .The total target population was188 of those employed women. To get the number of total population, a list was provided by human resource management. Kibagabaga hospital reported to have 83 breast feeding mothers (44.1% of population) which was equal to 56 sample size , Masaka reported 63 breast feeding mothers (33.5% of the population) which was equal to 42 sample size and Muhima reported 42 breast feeding mothers (22.3% of the population) which was equal to sample size of 29.

III.7. Data collection

III.7.1.Data collection instrument

In the present study, the researcher used a validated questionnaire developed by Greene et al. (2008) known as the "Assessing the Validity of Measures of an Instrument Designed to Measure Employees‟ Perceptions of Workplace Breastfeeding Support", EPBS-Q. Permission to use this tool was obtained from authors (see attached document of printed e-mail of permission in appendix k). The validity of the tool was ensured and reliability were measured, Reliability was 49% (r=0.89).

The original tool was in English, and was translated in Kinyarwanda to make the instrument more understandable for the participants and to ensure data quality. Then the researcher did the pilot study of translated questionnaire to 10 students mothers who were breast feeding and working in different districts hospitals (Kakiru hospital, Kibungo hospital, Rwamagana hospital and Kabgayi hospital) to ensure its reliability. The internal consistency was calculated using Cronbach's Alpha which was 0.882. This Alpha was interpreted as good according to (Goforth Chelsea, 2015).

The tool used in this study had four sections. Section one; includes 6 questions describing social demographic and characteristics of the participants. Section two, described mothers' perceptions of organizational support. This section has 7 items with four levels of scale; strongly agree=4, agree=3, disagree=2 and strongly disagree=1. Section three described mothers‟ perceptions of manager support. This section has 9 items with four levels of scale; strongly agree=4, agree=3, disagree=2 and strongly disagree=1.Section four described mothers‟ perceptions of time provided to them to be able to breast feed. This section had 3 items with four levels of scale; strongly agree=4, agree=3, disagree=2 and strongly disagree=1. Section five, described mothers' perceptions about physical environment. This section had 6 items with four levels of scale; strongly agree=4, agree=3, disagree=2 and strongly disagree=1. The tool was designed as Likert-Scale with 41 items but some items were removed considering its impossibility in Rwanda like to encourage co-workers and managers towards breastfeeding in public as it is not considered as a good thing in the Rwandan culture when the mother is breast feeding in public. Also in Rwanda there is no strong union or working group that can help as network to support mothers to combine breast feeding and work. Briefly those items were removed to fit the study into Rwandan context.

III.7.2.Data collection procedure

After getting the ethical approval from the Institutional Review Board (IRB) of UR/CMHS, and the area of the study, the researcher went to the study settings to provide explanation about the study. The participants were targeted in staff meeting where the explanations about the research were provided, the researcher explained the objectives of the study to the participants, also explained about the consent form insisting on their rights, the confidentiality and anonymity, then participants who accepted to participate in the study were requested to put their names and signature on the consent form.

Participants after accepting to participate in the study were met with the researcher in prepared room with privacy. Method of self-administered structured questionnaire was used, questionnaires were provided to the participants the same day of data collection. Before filling the research instrument, the researcher gave clear and homogenous instructions to the participants to remove all difficulties related to the study, then after participants were requested to complete the questionnaire using information given by the researcher. After completing the questionnaire the researcher collected the filled questionnaire by going to the place where the participants were given a sit.

III.8. Data analysis

Data was checked for completeness and consistency then they were entered into SPSS version 20. First, descriptive statistics were computed for the study variables. For demographic data: Hospital name, Age, level of education, socio-economic status according to ubudehe category (categories elaborated by Government of Rwanda to classify its population into socio-economic status according to the criteria. The significance is that as the category increases , the better socio-economic status) ,children age and mother who practiced exclusive breastfeeding and those who used formula feeding were analyzed using frequencies, mean, and standard deviation, the organizational, manager support as well as physical environment and time about breastfeeding in those hospitals were analyzed and presented using frequencies and mean score .

Descriptive statistics were computed using frequencies. Before computing mean score the data were transformed into SPSS by recording into different variables, then variables were computed using numerical data. The mean and standard deviation were computed passing through analysis of descriptive statistics then descriptive. To compare supportive mothers' perceptions about breast feeding in workplace in different hospitals, the one way ANOVA test was used because as data were normally distributed, it is used as a parametric test comparing 3 different groups.

The data were obtained by comparing means then using one way ANOVA test. The output of SPSS showed Levin test which tests homogeneity of the group found not to be significant for mothers' perceptions of organizational support with P-value < 0.05 (there was no equality of variances), reason why Brown-Forsythe Welch test was considered to test the significance.

III.9. Ethical consideration

Ethical approval was obtained from IRB the College of Medicine and Health Sciences, University of Rwanda. After obtaining ethical approval, written permission was obtained from three selected institutions. The participants were explained with respect about the study and those who accepted, contributed to the study after getting their written informed consent.

There was confidentiality of participants through using anonymity during data collection, by avoiding putting their names on the questionnaire. Informed consent was obtained from participants on the day of data collection. First the researcher explained to the participants who she was, and then the researcher told the participant the purpose of the study, the reason why they had been chosen as participants.

Also they were explained about the tool that was used to make it understandable. Moreover participants were explained how the confidentiality and privacy of the study were guaranteed as well as how the information provided by them could be beneficial for the following days. Furthermore they were explained how the participation was voluntary and without any reword; they were also explained that they had right to accept or refuse to participate or to withdraw any time without any punishment. At the end the participants were requested to put their names and signature on consent form if they accepted to participate in the study.

III.10. Data management

At the end of the day data collected were entered and stored in the computer that had password to secure information collected from participants. The data were controlled every time to prevent errors. Data entry and data manipulation were highly checked for regular errors until the researcher finished doing analysis and reporting the finds. Data will be kept for 5 years then after they will be burnt.

III.11.Data dissemination

Data will be disseminated through presentation of findings in College of Medicine and Health Sciences, the results findings will also be disseminated in the area of research. To give feedback to the participants, the researcher will inform and request authorities of each hospital to give her appointment to present study result. Data will be disseminated also in different conferences, meetings and seminars as well as in other institutions. Data will be also published.

Conclusion

This study used quantitative, cross sectional design. Three hospitals were chosen, the data collection was done using structured questionnaire which was translated into Kinyarwanda to make it understandable and participants were given the information about ethical concern. In addition the questionnaires were completed after getting instructions, the researcher collected the filled questionnaire and check for their completeness. Then the data was entered into computer where the regular checking of error was performed and computer was protected using password. Moreover the data analysis was performed by using descriptive statistics and parametrical test was used to compare supportive mothers‟ perceptions about breast feeding in workplace and data will be disseminated through meetings, conferences and data will be published.

CHAPTER 4: RESULTS

This chapter describes the findings from this study which included demographic data, perceptions of mothers on organizational support, manager support, time provided to breast feed or to express breast milk and perception of mothers on physical environment. Data are presented in form of percentage, mean and standard deviation by using tables, and figures.

IV.1 Demographic characteristics of respondents

Referring to the table 4.1 describing demographic characteristics of respondents, the results of the present study indicate that many participants were from Kibagabaga hospital with 49(38.6%) and low percentage at Muhima hospital with 35(27.5%). Coming to the age of participants, the results showed that the mean age was 32 and the category of age 25-35 years was reported to have high frequency 93(73.3%) than other category of age. As follows from the table shown below, about the level of education, the most participants were having advanced diploma with 85(66.9%), and only 3(2.4%) participants completed secondary education. From this table it can be seen that for ubudehe category, most participants were classified in Ubudehe category 3 with 124 (97.6%).

Regarding child' birth day, as may be seen below, as the years of birth increased, the mothers ceased to breast feed their children and babies who were born in 2016 were having high frequency compared to children aged above. As mentioned below for exclusive breastfeeding and mixing feedings, the study found that exclusive breast feeding rate was very low comparing with high percentage of mixing feedings; exclusive breastfeeding was only 15 (11.8%) while giving milk before 6 months was 112(88.2%). The overall measurement results are summarized in Table 4.

Table 4. 1: Demographic characteristics of respondents

Demographic characteristics	N	Percent
Kibagabaga	49	38.6
Muhima	35	27.5
Masaka	43	33.9
Age (mean= 32+_4.62539)		
Age less than 25	6	4.7
Age between 25 - 35	93	73.3
Age more than 35	28	22
Education		
Secondary school	3	2.4
Advanced diploma	85	66.9
Bachelor's degree	35	27.6
Master's degree	4	3.1
Ubudehe category		
Ubudehe category 2	1	0.8
Ubudehe category 3	124	97.6
Ubudehe category 4	2	1.6
child' birth day		
Baby born in 2012	2	1.6
Baby born in 2013	11	8.7
Baby born in 2014	17	13.4
Baby born in 2015	41	32.3
Baby born in 2016	51	40.2
Baby born in 2017	5	3.9
Exclusive breast feeding and mixing feedings		
Exclusive breastfeeding	15	11.8
Giving milk before 6 months	112	88.2

IV.2. Mothers' Perceptions of organization Support

The items on mothers' perceptions towards exclusive breastfeeding support offered to mothers at work place employment were scored using a 4-point Likert scale with 4 responses. The responses were categorized as; strongly agree, agree, disagree, and strongly disagree.

To consider mothers' perceptions about breast feeding to be supported agree and strongly agree were combined, and to consider mothers' perceptions about breast feeding not to be supported disagree and strongly disagree were combined. Concerning the description of results about mothers' perceptions toward paid maternity, it has been found that the most number of participants agreed that maternity leave was provided in the first 6 weeks with strongly agree of 108 (85.0%).

Considering perception for getting information about exclusive breast feeding, the majority of participants reported not to get information 105(79.5%). For written policy high percentage of mothers reported the unavailability of written policies at the rate of 109 (85.8%). It has been identified that the most participants reported unavailability of place for breastfeeding 126(99.2%). The results about person to make arrangement at work the high frequency of mothers mentioned the lack of making arrangement at work 80(63%).

The results showed that even though majority of participants reported not to have risk for the job if breastfeeding at work with 70(54.4%) but 58(45.6%) of them reported to have risk for the job, the study demonstrated that majority participants were comfortable while asking accommodation with 92 (72.5%). The overall mean for this section was 19.0+_2.94122, while the minimum score should be 21 for agree and maximum 28 for strongly agree.

Table 4.2: Mothers' perceptions of organizational support

Variables	Likert scale level	N	%	mean	SD
Paid maternity leave	Strongly agree	0	0	1.16	0.39
	Agree	18	14.2		
	Disagree	1	0.8		
	Strongly disagree	108	85		
Getting information about exclusive breast feeding at workplace	Strongly agree	11	8.7	3.07	0.91
	Agree	15	11.8		
	Disagree	55	43.3		
	Strongly disagree	46	36.2		
Availability of written policy about breast feeding	Strongly agree	9	7.1	3.36	0.9
	Agree	9	7.1		
	Disagree	38	28.3		
	Strongly disagree	73	57.5		
Availability of place for breast feeding	Strongly agree	0	0	3.9	0.33
	Agree	1	0.8		
	Disagree	11	8.7		
	Strongly disagree	115	90.6		
Availability of person to make arrangement at work for breast feeding	Strongly agree	13	10.2	2.74	0.91
	Agree	34	26.8		
	Disagree	53	41.7		
	Strongly disagree	27	21.3		
Risk for the job if breast feeding at work	Strongly agree	20	15.7	2.59	0.99
	Agree	38	29.9		
	Disagree	43	33.9		
	Strongly disagree	26	20.5		
Feeling comfortable for accommodation	Strongly agree	25	19.7	2.18	0.87
	Agree	67	52.8		
	Disagree	22	17		
	Strongly disagree	13	10		
The overall mean for this section was				**19.0_+2.94122**	

1 item was formulated negatively and it was reversed during data coding.

IV.3. Mothers' perceptions of manager Support

The section about mothers 'perceptions of manager support, this study identified that the high percentage of employed breastfeeding mothers highlighted lack of their managers to support them (66.1%); majority of mothers were helped by their managers to combine work and breast feeding (63%), additionally most of mothers reported that they were comfortable when speaking with their managers (78 %); Majority of participants responded that their managers did not say things about breastfeeding (88.1%); the study showed that majority of participants illustrated that their managers thought less workers who breastfeed (84.3%).

Above half of participants cited that their managers were sure that job was covered before EBF (51.2%) and a great number of participants reported that their managers should not change the work plan to facilitate them to breast feed 83(57.1%). The overall mean for this section was 12.5039+_3.6663. The score was low comparing to the minimum score of 27 and maximum score of 36.

Table 4. 3. Mothers' perceptions of manager Support

Variables	Likert scale level	N	%	mean	SD
My manager would support me breastfeeding or pumping breast milk at work.	Strongly agree	8	6.3	2.1654	0.86156
	Agree	35	27.6		
	Disagree	54	42.5		
	Strongly disagree	30	23.6		
My manager would help me combining breastfeeding and work	Strongly agree	11	8.7	2.2992	0.83870
	Agree	36	28.3		
	Disagree	60	47.2		
	Strongly disagree	20	15.7		
I would feel comfortable speaking with my manager about breastfeeding.	Strongly agree	41	32.2	3.0157	0.89960
	Agree	58	45.7		
	Disagree	17	13.4		
	Strongly disagree	11	8.7		
My manager says things that make me think he/she supports breastfeeding.	Strongly agree	4	3.1	1.4882	0.78544
	Agree	11	8.7		
	Disagree	28	22		
	Strongly disagree	84	66.1		
I feel my manager would view breastfeeding as an employee's personal choice	Strongly agree	5	3.9	1.6299	0.84330
	Agree	15	11.8		
	Disagree	35	27.6		
	Strongly disagree	72	56.7		
My manager would consider it part of his/her job to help me combine breast feeding and work.	Strongly agree	10	7.9	1.9055	0.92095
	Agree	18	14.2		
	Disagree	49	38.6		
	Strongly disagree	50	39.4		
My manager think less workers who breast feed at workplace	Strongly agree	27	21.3	2.5827	1.04229
	Agree	46	36.3		
	Disagree	28	22		
	Strongly disagree	26	20.5		
My manager would make sure the job is covered if I needed time to breast feed or to pump breast milk	Strongly agree	17	13.4	2.4409	0.93989
	Agree	45	35.4		
	Disagree	42	33.1		
	Strongly disagree	23	18.1		
My manager would change my work schedule to allow me time for breast feeding or pumping breast milk	Strongly agree	17	13.4	2.3780	0.93375
	Agree	37	29.1		
	Disagree	50	39.4		
	Strongly disagree	23	18.1		

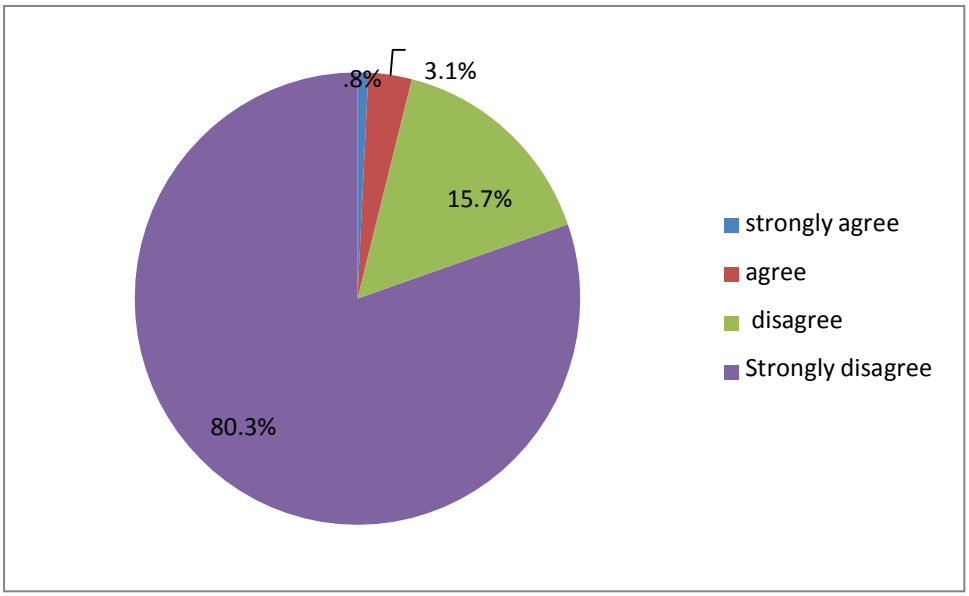
2 items were formulated negatively and they were reversed during data coding.

IV.4.Mothers' perceptions of time provided to them to breast feed or to express breast milk.

The results of this section showed mothers' responses to the time provided to them to breast feed. The overall mean for this section was 5.7795_+1.60314 comparing with the minimum score of 9 and maximum score of 12.

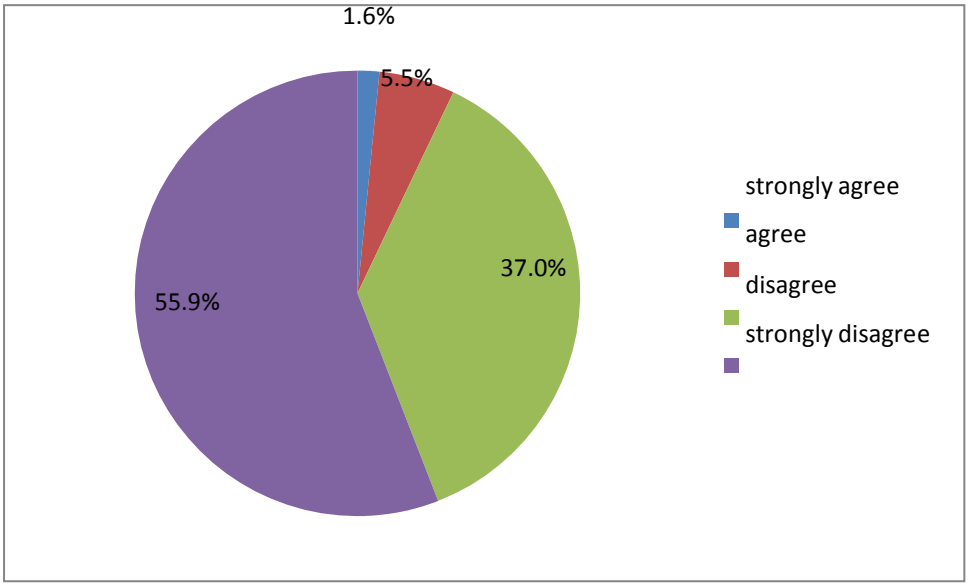
The figure below represented the frequency of breaks identified in this study, which illustrated that, most mothers reported not to have frequent breaks 122 (96%).

Fig.4. 1: Mothers' perceptions about the frequency of breaks provided to the breastfeeding mother



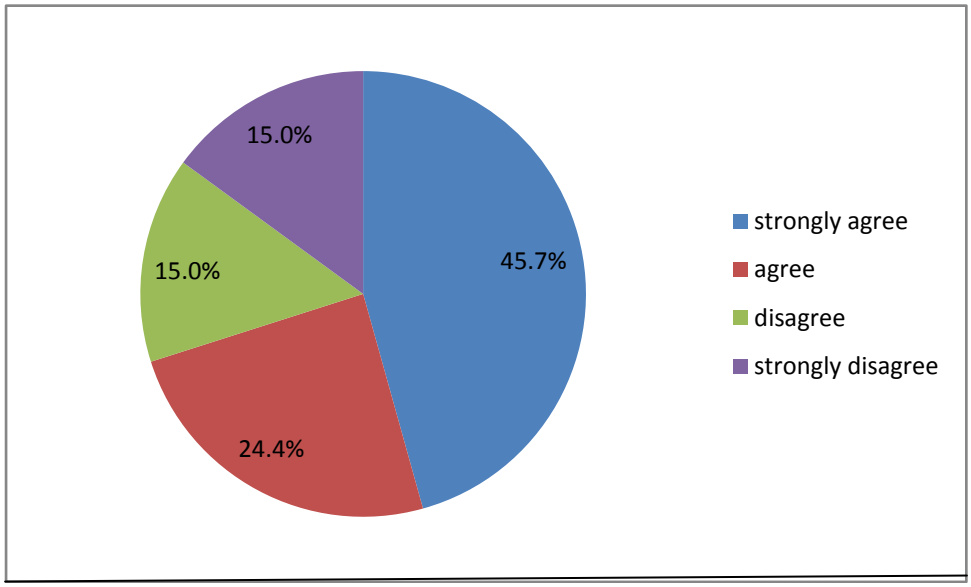
As follows from the figure shown below the data presented illustrated those mothers' breaks Were not long enough with118 (92.9%).

Fig 4.2: Mothers' perceptions about the duration of breaks provided to the breastfeeding mother.



From this figure below, it can be seen that majority of mothers reported that their break schedule could be adjusted to breastfeed 89 (70.1%).

Fig.4.3: Mothers' perceptions about adjustment of break schedule provided to the breastfeeding mother.



IV.5. Mothers' perceptions of physical environment

In response to the physical environment for breast feeding, all mothers reported lack of supply of equipment needed for breast feeding 127(100%); the availability of the place to store EBM at work was also reported to be unavailable 127(100%). Likewise all participants reported that the designed place was unavailable when it was needed 127 (100%). Similarly, most of mothers highlighted that the designed place was not closed enough to their work area 125 (98.4%), in addition to that most of mothers did not feel comfortable breastfeeding in designed place 120(94.5%);Finally mothers reported not to have facilities they needed in the designed place 126 (99.2%). The overall mean for this section was 7.0866+_1.98015. The mean score was low comparing with the minimum score of 18 and maximum score of 24.

Table 4. 4: Mothers' perceptions of physical environment

Variables	Likert scale level	N	%	mean	SD
Supply of equipment needed in breastfeeding	Strongly agree	0	0	1.1339	0.34185
	Agree	0	0		
	Disagree	17	13.4		
	Strongly disagree	110	86.6		
Availability of the place to store expressed breast milk at work.	Strongly agree	0	0	1.1496	0.3581
	Agree	0	0		
	Disagree	19	15		
	Strongly disagree	108	85		
Availability of designed place when it was needed	Strongly agree	0	0	1.1575	0.3657
	Agree	0	0		
	Disagree	20	15.7		
	Strongly disagree	107	84.3		
The designed place is close enough to the work area	Strongly agree	0	0	1.1496	.39998
	Agree	2	1.6		
	Disagree	15	11.8		
	Strongly disagree	110	86.6		
Feel comfortable breastfeeding in designed place	Strongly agree	3	2.4	1.3307	.65532
	Agree	4	3.1		
	Disagree	25	19.7		
	Strongly disagree	95	74.8		
The designated place Includes everything that is needed.	Strongly agree	0	0	1.1654	.39368
	Agree	1	0.8		
	Disagree	19	15		
	Strongly disagree	107	84.3		
The overall mean for this section was				7.0866_+1.98015	

Additional comments

The last part of the questionnaire, requested participants to put their comments related to this study if they had them. Some participants did not give the additional information. Only 42/127(33%) participants gave their views about this study. The results from additional comments identified lack of support by managers as mentioned by some mothers (12 mothers), stated that breastfeeding was mothers‟ business, only managers wanted employees to do their job. Some other participants (2) illustrated how they were stressed when they had much milk in the breast without expressing it.

Majority of participants (20) emphasized on unavailability of the place that could be used to express or to breastfeed. 3 mothers said that if the place reserved for breast milk expression was available and if there was a place to store expressed milk, they could bring their breast pump and feeding bottle as main equipment to practiced milk expression. 5 mothers stated that if there were the culture of supporting mothers, it could influence mothers to practiced exclusive breast feeding.

Comparison of hospitals in terms of support

The comparison between hospitals was obtained by computing ANOVA table. Firstly, the Levin test showed not significance for mothers' perceptions of organizational support, and the Robust Tests of Equality of Means was performed which did not show any significance as well as ANOVA table. The results of the comparison showed that there was no statistical significance between hospitals.

Table 4.5: Test of Homogeneity of Variances used to compare hospitals

The data were obtained by comparing means then using one way ANOVA test. The output of SPSS showed Levin test which tests homogeneity of the group found not to be significant for mothers' perceptions of organizational support with P-value < 0.05 (there was no equality of variances), reason why Brown-Forsythe Welch test was considered to test the significance.

Variables	Levine Statistic	Sig.
Perception on organizational support	4.680	0.011
Perception on manager support	2.140	0.122
Perception on time provided to the breastfeeding Mothers	2.268	0.108
Perceptions of physical environment	0.859	0.426

Table 4.6.: Robust Tests of Equality of Means used to compare hospitals

Robust test of equality showed that there was no statistical significance about support among hospitals.

Variables	Welch Brown Forsythe test	Statistical	Sig.
Perception on organizational support	**Welch**	1.174	0.315
	Brown Forsythe	1.206	0.304
Perception on manager support	**Welch**	1.898	0.157
	Brown Forsythe	1.522	0.223
Perception on time provided to the breastfeeding mothers	**Welch**	1.158	0.320
	Brown Forsythe	0.960	0.386
Perceptions of physical environment	**Welch**	0.657	0.521
	Brown Forsythe	0.603	0.549
overall means	**Welch**	1.272	0.286
	Brown Forsythe	1.078	0.344

Table4. 7: ANOVA table used to compare hospital

The table below showed that there was no statistical significance between hospitals about support

Variables	F	Sig.
Perception on organizational support	1.248	0.291
Perception on manager support	1.566	0.213
Perception on time provided to the breastfeeding mothers	.948	0.390
Perceptions of physical environment	.613	0.544
Overall mean	1.088	0.340

Conclusion for chapter four

The findings from this study highlighted that majority of variables that were presented, most of them were not supported according to mothers' perceptions where percentages of support were low as well as mean scores. The findings were presented in each section using percentage and mean score and more data clarification was given using tables and figures. The results of this study illustrated no statistical difference among hospitals in terms of support.

CHAPV: DISCUSSION

Introduction

This chapter cites the main objective as well as specific objectives, pointed out the originality of the solution, interpreted the facts, it stated the limitations of the study and suggested possible application.

The purpose of this study was to explore mothers' perceptions about breastfeeding support at workplace in selected district hospitals of Kigali. Particular attention is paid to identify mothers' perceptions about organizational support, to assess mothers' perceptions about managers' support, to assess if the time to breast feed is provided to the employed mother at workplace and to evaluate mothers' perceptions about physical environment that support breastfeeding at workplace in the selected district hospitals of Kigali.

The results of this study described the overwhelming the results obtained for the first time in the context of Rwanda and those results were the support, space as well as time that were provided to the employed mothers at workplace employment in Rwanda. This study revealed that mothers aged between 25-35 were having high percentage comparing with other category of the age with the mean of 32 because it is the most productive age in Rwanda, considering level of education the great number of participants were having advanced diploma ; the high percentage of participants reported to be classified into ubudehe category 3, this because the government of Rwanda specified the requirements of each category and employed people are put in this category ; their breastfeeding babies born in 2016 were having high percentage among the breastfeeding babies of the participants.

The reason was that as the babies' age increased, mothers ceased to breastfeed especially after 2 years as most Rwandan mother consider 1000days for baby as essential period for breastfeeding which is equal to 2 years and 9 months. This study considered babies born in January 2017 because mothers who delivered after were still in paid maternity leave considering the time of data collection.

The findings about exclusive breastfeeding and mixing feedings showed that mixing feedings before 6 months was having high percentage with low percentage of exclusive breastfeeding among employed breast feeding mothers, only 11.8%. The research showed the benefits of exclusive breast feeding for the mother and the child (World health organization, 2016b;CDC, 2014a, P. 9; UNICEF, 2015b; Horta and Victora, 2013, P.1-69; Harder et al., 2005, p.398; American Academy of Pediatrics, 2012; World health organization, 2016b) while some studies mentioned the negative effect of early cessation of exclusive breastfeeding on mother and the child (World Health Organization, 2016b; American Academy of Pediatrics, 2012;UNICEF, 2015).

There were numerous studies highlighting the same results of low exclusive breastfeeding rate (Amin et al., 02011, p 4; Bono et al., 2012, p.10; Mascarenhas et al., 2006, p.291-292; Chris Mulford, 2015, p.1-4; CDC, 2012) and cited that it had negative impact of the work on exclusive breast feeding when workplace facilities and support were not in place. The results of other studies found the data contrary to this research (Cai et al., 2012, p.4; McAndrew et al., 2012, p. 30; CDC, 2014b, p.2; Tiriabaya-mudzengerere, 2013, p.8).

This study found that most mothers were provided paid maternity leave in their worksites (99.2%). Rwanda laws allow mothers 3 months of paid maternity leave which is essential because mother requires enough time to recover from the physiological changes of pregnancy and childbirth and to start breastfeeding as well as caring for her infant. In addition it allows her to take that time without experiencing economic loss (Redmond, Valiulis and Drew, 2006).

The research stated that longer duration of maternity leaves were associated with a extended period of breast feeding which contribute to the long term heath of the mother and the child(Mirkovic, Kelsey R, 2014; Ogbuanu, Chinelo, 2011, p1-23). In addition the study by (Ogbuanu, Chinelo, 2011, p.10) found positive association between length of maternity leave and exclusive breast feeding; in opposite the study done in Malaysia found that longer maternity leave had higher risk of stopping breastfeeding compared with mothers with shorter leave (Amin et al., 2011, p.4).

The similar results to this study were found in the study done by (Soomro, 2015, p. 41;Jamil Ahmed Soomro, Zeeshan Noor Shaik, 2016, p 4; Omer-Salim et al., 2015,p. 473; Morgan B, 1996, p. 21; Gathangu Sabina, Wanjiku Mukui John Kariri, Joash Auka, 2015, p.269) The study by (Desmond and Meaney, 2016, p.8; Tarrant M, Dodgson JE, 2002, p. 189) found the results contrary to this study. Majority of mothers reported not to get information about combining the work and breast feeding by organization, the studies done by (Soomro, 2015, p 41; Weber et al., 2011, p.4-6) found similar results of low rate of mothers reported to get information about breast feeding.

The results of this study about availability of written policy about breastfeeding in hospitals showed that majority of mothers reported its unavailability whereby (85.5%) of mothers disagreed. The study by (Lyell, 2012, p.1-6) give a recommendation to the institutions to maintain written policies that protect and support breast feeding mothers, further (Lancet, 2013, p.1-13; Galtry, J and Annandale, 2003, 7-10) emphasized on policy modification according to particular situation at worksite.

Moreover another study highlighted that evaluation of policies implementation is essential in all workplace institutions (Jenn Anderson, Rebecca A. Kuehl, Sara A. Mehltretter Drury, Lois Tschetter, Mary Schwaegerl, Marilyn Hildreth, Heidi Gullickson, Julia Yoder, 2015). Furthermore the study by (Bethany A. Hawke, Barbara A. Dennison, 2013, p.4,6) cited that to have written policies is not enough but they should be communicated to the staff, ensure its sustainability and should be translated into practice. The results from the study done by (Abdulloeva Safina, 2013, p.770) revealed that some institutions had written policies others not. In addition the study done in Australia by (Sara Javanparast and , Linda Sweet, 2012, p.1279) found that only 6 centers were having written policy in the form of breast feeding.

The study identified the gaps in finding someone to make arrangement with if the mother wanted to breastfeed or to express breast milk with the rate of (63%) of mothers who reported to lack someone who could arrange them. When there was no person to continue the activities that was performed by lactating mother, it was difficult to the mother to leave the work while patients needed continuous care. That exposed mother to cease breastfeeding as their break time was consuming while they were waiting to someone to arrange them.

Almost half of participants reported to have the risk for the job if they breastfed at work (45.6%). It could be stressful to employees to breastfeed in the environment that exposed them to lose their job because experiencing economic loss could be an issue for the family and it could influence mothers to stop breast feeding instead of losing their jobs. The findings were different to those found by (Burks Katrina Marie Russo, 2015, p.64). This study demonstrated that participants were comfortable when they were asking accommodations (72.5%).

For the section about mothers' perceptions of manager support, this study identified that the high percentage of employed breastfeeding mothers highlighted lack of their managers to support them (66.1%); majority of mothers were helped by their managers to combine work and breastfeeding (63%), additionally most of mothers reported that they were comfortable when speaking with their managers (78 %); Majority of participants responded that their managers did not say things about breastfeeding (88.1%); the study showed that majority of participants illustrated that their managers thought less workers who breastfeed (84.3%). Above half of participants cited that their managers were sure that job was covered before EBF (51.2%), the opposite results in the study by (Burks Katrina Marie Russo, 2015,p.64) where participants highlighted that managers wouldn't think that they couldn't get their work done if they were continuing to breastfeed and high number of mothers disagreed that their managers might change their work plan facilitation (57.5%), The results were in opposite to the results found by(Burks Katrina Marie Russo, 2015,p.64).

The research identified that support for breastfeeding in the workplace could improve employee health, reduce absenteeism, and generate savings for employers (Katherine Baicker, David Cutler, 2010, p.5; Polston Mills Susan, 2009, p.229-230). In addition the study evidenced that mothers who continue breast feeding after returning to the work need to be encouraged by their coworkers, managers and others and the manager should arrange to facilitate the environment that support employees to breastfeed (CDC, 2012). According to (Galtry and Annandale, 2003), in order to have access to breast feeding resources managers could provide information about maternity leave and balancing breast feeding and work.

Further the manager should have policies about breastfeeding which encourage the supportive culture to familiarize employees with working conditions (ACAS, 2014). In addition the study stated that mothers who have environment that support lactation will be dedicated by their employer and will reduce turnover and contribute to low cost for the employer (Gettas and Morales, 2013,p.198). This study is different to (Froh Elizabeth, 2016, p.3; Burks Katrina Marie Russo, 2015, p.64) study where participants reported to be supported by their managers who made comfortable environment for them.

In response to the time, most mothers highlighted that the breaks were not frequent (96%) and were not long enough (92.9%) but mothers agreed that their breaks could be adjusted to breastfeed (70.1%).The author stated that 30 minutes every 3 to 4 hours is a reasonable break time for the mother in order to wash hands, prepare materials and start expressing breast milk even though more flexibility might be needed (Chris Mulford, 2015, p.1-4). ACAS (2014) stated that considering the impact that lactation could have on mother, child and on the business, managers should logically and objectively consider some short of breaks and should not be in the opposition to the breastfeeding mothers.

In addition, the study done by (Angeletti, 2009, p.3) cited that unavailability of break time for breast milk expression could also lead mother feeling inundated and stop breast feeding earlier than she wanted (Angeletti, 2009, p.3). Moreover the study done in Pakistan identified that breast feeding breaks were important to the mother to continue breast feeding during workday (Avika Dixit, MBBS, Lori Feldman-Winter, MD and and Kinga A. Szucs, MD, 2015,p. 246). Furthermore the study by (Kozhimannil et al., 2016, p.9) revealed that women with reasonable break time to pump were higher exclusively breastfeed and highly breastfed at all at 6 months comparing with mothers without access to either break time or lactation spaces at work.

It has been found in the study done by (Atabay et al., 2015, p.86-87) that globally, there has been gradual progress in the provision of policies supporting breastfeeding breaks at work. The results were consistent with other studies which have been shown that lack of flexible time to express breast milk was associated with breastfeeding discontinuation Amin et al., 2011, p.4). In contrast to some reports in the literature, there were the study by (Burks Katrina Marie Russo, 2015, P.64) showed that participants reported to have flexible time to express breast milk.

Concerning physical environment, all mothers (100%) reported lack of supply of equipment needed for breast feeding, the availability of the place to store expressed breast feed at work was also unavailable because all mothers reported disagreed (100%), all participants (100%) reported that the designed place was unavailable when it was needed, all mothers (100%) highlighted that the designed place was not available before to be closed enough to their work area, in addition most of mothers (94.5%) did not feel comfortable breastfeeding in designed place for the reason mentioned above, finally mothers reported unavailability of the designed place that could include everything they needed.

The study has been found that in all places where the study was conducted mothers reported unavailability of place that could be used to breastfeed or to express breast milk, all of them responded that it was not possible to express in their hospitals as the environment for work could contain microbes and they could not found any private room to use, as staff room were used by both sex. In their additional comments they highlighted absence of managers to support them to breastfeed, managers viewed breastfeeding as personal business and they wanted to promote the employment rather than breastfeeding. Some mothers highlighted how they felt uncomfortable when their breasts were full of breast milk without any place to express and some of them pointed out that the production of breast milk was decreased as they put their babies on the breast when they went back to their home. Others said that if there were breastfeeding supportive culture, it may influence mothers to practice exclusive breastfeeding.

Many authors cited the requirements for breast feeding space (Chris Mulford, 2015; ACAS, 2014;Galtry and Annandale, 2003; South Dakotaworkplaces, 2002, p.2; Jamil Ahmed Soomro, Zeeshan Noor Shaik, 2016, p.1-9).

The study done by Lauren M. Dinour and JacalynM.Szaro (2017,p.133) illustrated that there was an association of exclusive breast feeding and lactation space where mothers who had space for lactation practiced highly exclusive breast feeding than those who did not have it. In addition the study by (Ogbuanu *et al.*, 2011, p.124) cited that when lactation facilities are not available in workplace, it will be a barrier for mother to breastfeed. The study done identified that the availability of rooms reserved to express breast milk at workplace might decrease the time that mothers could spend seeking for a private room to express breast milk and those rooms were well equipped (Slusser *et al.*, 2004, p.168).

The same results were found in the study done by Soomro et al. (2016, p. 5) where mothers missed physical and non-physical facilities to breastfeed. The study done by Amin et al. (2011, p.3). In contrast to some reports in the literature, there were the study done by (Tyler Lennon, 2017; Weber et al., 2011, p.4-6; Weber et al., 2011, p.4-6; Slusser et al., 2004, p.168; Burks Katrina Marie Russo, 2015, P.64) that identified results different to this study.

The comparison of hospitals in terms of mothers' perception about exclusive breast feeding in workplace identified that there was low support as it was demonstrated by mean which was low, there was also low support of mothers in providing time to breast feed as well as low support in providing the space and equipment needed for breast feeding. The results of comparison showed no statistical difference in support between those hospitals.

This study will be relevant as it could bring the improvement in facilitating mothers to breastfeed while working as it was the first research done in Rwanda about support of breast feeding in workplace. In addition it could be useful in conducting other research to explore more about exclusive breastfeeding in workplace. Further it could contribute to education interest by providing the new knowledge about the study in our country. It could influence leaders and managers as well as policy makers to develop policies that support mothers to breast feed at workplace employments.

The analysis did not enable us to determine the association between low exclusive breastfeeding and organization support, manager support, space and time among working mothers. There were no large scale of data from other organization including private institutions as it is the first study in Rwanda, so it was difficult to compare private and government institutions. As mentioned in additional comments, the study did not capture all comments of all participants. This study could not be generalized as the sample size was low and was conducted in Kigali city only. The research was concerned with support offered to the employed breastfeeding mothers in selected district hospitals of Kigali; however, the results should be applicable also to the other state organizations (educational settings and other health facilities) as well as in the private organizations.

Problems and limitations of the study

Problems included shortage of time and shortage of funds. Limitations included, insufficient literature about this topic included lack of previous similar research done in Rwanda about mothers' perceptions about breast feeding support at workplace, which made difficult to compare the results from this study to other studies while discussing. Confounding factors like large percentage of breastfeeding mothers in each hospital could affect organizational and manager support. Then the part of additional comments was provided to the participants, but not all participants responded to that question, so all views were not captured. Also the study could not be generalized considering the method used and sample size.

CHAPVI: CONCLUSION AND RECOMMENDATIONS

VI.1.Conclusion

The purpose of this study was to explore mothers' perceptions about exclusive breastfeeding support at workplace employment in selected district hospitals of Kigali. From the research that has been carried out, it is possible to conclude that workplaces are not providing breast feeding support to the employed breast feeding mothers as this study has clearly shown that there was the lack of support from their organization, employers, lack of the place to use for breast feeding as well as lack of breaks that could be provided to breast feed or to express breast milk. The findings suggest that this study could be useful for other state and private health facilities, educational setting and other organizations.

VI.2. Recommendations

Further study of the issue would be of interest. The research comparing the support provided by private and government institutions are required. The study to determine the association between low exclusive breastfeeding and organization support, manager support, space and time among working mothers are also needed.

The study recommend the institutions to implement government policy of lows providing breaks to the breast feeding mother, in addition to provide the space for lactation as well as to promote environment that support breast feeding mother.

The study recommends the ministry of health to elaborate policies specific for breastfeeding mothers.

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APPENDICES

Consent form

Research project title: Exploration of exclusive breastfeeding support offered to the mother at workplace employment in selected district hospitals of Kigali

My name is Ancille MUREKATETE I am a student in university of Rwanda, in master's program, pediatric track. The purpose of the research is to explore exclusive breastfeeding support offered to the mother at workplace employment in selected district hospitals of Kigali**.** The information generated from this study will be useful for helping breastfeeding mothers to exclusively breastfeed their child in their workplace by doing advocacy to provide them the support while working. It will also answer the gaps related to workplace support that will help in promoting exclusive breast feeding in workplace. There will be confidentiality of participants by using anonymity during data collection and the findings from this research will not harm any participants. The participation is voluntary and without any reword; you have right to accept or refuse to participate without any punishment. If you accept to participate in the study put their names and signature on consent form.

I……after being explained about this research, I accept to participate voluntary in this study by completing the questionnaire given.

Signature……

Person to contact:

Chairperson of the CMHS IRB: 0788 490 522

Deputy Chairperson: 0783 340 040

Kwemera gufatanya n’ umuntu mu bushakashatsi

Ubushakashatsi bwerekeranye n‟ubufasha umubyeyi wabyaye ari mu kazi ahabwa kugirango yonse amezi atandatu ataraha umwana imfashabere mu bitaro bya toranyijwe by‟umujyi wa Kigali.

Nitwa Ancilla Murekatete ndi umunyeshuri muri kaminuza y‟ Urwanda mu cyiciro cya gatatu cyakaminuza mu byerekeranye n‟ubuzima bw‟abana. Intego y‟ubu bushakashatsi ni ukureba ubufasha umubyeyi wabyaye ari mu kazi ahabwa kugirango yonse amezi atandatu ataraha umwana imfashabere, ubushakashatsi buzakorerwa mu bitaro byatoranyijwe by‟umujyi wa Kigali. Amakuru azava muri ubu bushakashatsi azaba ingirakamaro mu gufasha ababyeyi konsa amezi atandatu ntakindi bavangiye umwana igihe bari mu kazi biciye mu gukorerwa ubuvugizi bakabasha guhabwa ubufasha bwo konsa igihe bari mukazi. Ubushakashatsi buzafasha kandi gukuraho imbogamizi zijyanye no gufashwa mu kazi igihe umubyeyi yonsa ari na byo bizatuma konsa gusa umwana amezi atandatu mu gihe mama we ari mu kazi bitezwa imbere. Ibizava mu bushakashatsi bizaba ibanga kandi ntangaruka bizagira kuwabwitabiriye.

Njyewe……maze gusobanurirwa ibijyanye n‟ubu bushakashatsi nemeye kwitabira kandi kubushake nuzuza urupapuro rw‟ibazwa.

Abantu wakwifashisha ugize ikibazo:

Uhagarariye ubushakashatsi muri kaminuza :**0788 490 522**

Umwungirije: **0783 340 040**
Researcher: 0783376267
Supervisor: 0788402547

Questionnaire

Exploration of exclusive breastfeeding support offered to mothers at work place employment in selected district hospitals of Kigali.

Employee survey

Instructions:

1. Provide one response per statement

2. For each of the following statements, breastfeeding means breastfeeding a baby and/or using a breast pump.

3. Answer each statement as it most applies to you, you are breastfeeding and at least you have 6 weeks working in this hospital after having birth.

4. Please fill by ticking in the box under the option that most closely describes how you feel about each statement [X]

Section I: Socio-demographic data

1. Hospital that you are working in: Masaka ☐ Kibagabaga ☐ Muhima ☐

2 Date of Birth of the participant……/……../…..

3. Level of education

Secondary school ☐ Bachelor‟s degree ☐ Masters „degree ☐

4. Socio-economic status based on ubudehe category

Category I ☐ Category II ☐ Category III ☐ Category IV ☐ Category V ☐

5. Date of Birth of your child……/……../…..

6. Exclusive breast feeding and mixing feedings

I only use breast milk for the first 6 months of my infant „life ☐

I mix breast milk with other formula feedings before 6 months of my infant „life ☐

Section II: Organization Support

This section asks about the overall support you feel would be provided by your company if you wanted to combine breastfeeding and work.

	Strongly agree	**Agree**	**Disagree**	**Strongl y disagree**
6. The organization offered me 6 weeks Paid maternity leave to start breastfeeding before returning back to work.	☐	☐	☐	☐
7. I would be able to get information about combining work and breastfeeding from my company.	☐	☐	☐	☐
8. I‟m certain my company has written policies for employees that are breastfeeding or pumping breast milk.	☐	☐	☐	☐
9. I‟m certain there is a place I could go to breastfeed, or pump breast milk at work.	☐	☐	☐	☐

10. There is someone I could go to at work that would help me make arrangements for breastfeeding or pumping breast milk ☐ ☐ ☐ ☐

12. My job could be at risk (e.g. lose my job or get fewer scheduled hours) if I breastfed or pumped breast milk at work. ☐ ☐ ☐ ☐

13. I would feel comfortable asking for Accommodations to help me breastfeed or pump breast milk at work. ☐ ☐ ☐ ☐

Section III: Manager Support

This section asks about the overall support you feel would be provided by your direct manager/supervisor if you wanted to combine breastfeeding and work.

	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
14. My manager would support me breastfeeding or pumping breast milk at work.	☐	☐	☐	☐
15. My manager would help me combining breastfeeding and work.	☐	☐	☐	☐
16. I would feel comfortable speaking with my manager about breastfeeding.	☐	☐	☐	☐
17. My manager says things that make me think he/she supports breastfeeding.	☐	☐	☐	☐
18. I feel my manager would view				

breastfeeding as an employee's personal choice.	☐	☐	☐	☐
19. My manager would consider it part of his/her job to help me combine breast feeding and work.	☐	☐	☐	☐
20. My manager would think less of workers who choose to breastfeed or pump breast milk at work.	☐	☐	☐	☐
21. My manager would make sure my job is covered if I needed time for breastfeeding or pumping breast milk.	☐	☐	☐	☐
22. My manager would change my work schedule to allow me time for breast feeding or pumping breast milk.	☐	☐	☐	☐

Section IV: Time

This section asks about the pace of your job and available time you would have during your workday to breastfeed or pump breast milk.

	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
1 My breaks are frequent enough for Breast-feeding or pumping breast milk.	☐	☐	☐	☐
2. My breaks are long enough for breastfeeding or pumping breast milk.	☐	☐	☐	☐
3. I could adjust my break schedule in order to breastfeed or pump breast milk.	☐	☐	☐	☐

Section V: Physical Environment

This section asks about the physical environment of your workplace for breastfeeding or pumping breast milk after returning to work.

	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**
26. My company would supply the equipment I would need for pumping breast milk at work.	☐	☐	☐	☐
27. I could find a place to store expressed breast milk at work.	☐	☐	☐	☐
28. The designated place for breastfeeding or pumping breast milk at work would be available when I needed it.	☐	☐	☐	☐
29. The designated place for breastfeeding or pumping breast milk is close enough to my work area to use during my breaks.	☐	☐	☐	☐
30. I would feel comfortable breastfeeding or pumping breast milk in the designated place.	☐	☐	☐	☐
30. The designated place for breastfeeding or pumping breast milk includes everything I need.	☐	☐	☐	☐

Thank you for your time completing this survey. Please provide any other comments you may have.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Urupapuro rw’ ibazwa

ubushakashatsi bwerekeranye n’ ubufasha umubyeyi wabyaye ari mukazi ahabwa kugirango yonse amezi atandatu ataraha umwana imfashabere mu bitaro byatoranyijwe by’umujyi waKigali,

Ubushakashatsi ku mukozi

Amabwiriza

1. Tanga igisubizo cyimwe kuri buri nteruro

2. Munteruro muri buri nteruro zikurikira konsa hano bisobanura gushyira umwana ku ibere cyangwa gukama amashereka

3. Subiza buri nteruro uko ubyunva kandi byababyiza byibuza umaze ibyumweru 6 ukorera muri ibi bitaro nyuma yo kubyara

4. Uzuza mugakaze kamwe ukurikije aho wunva igisubizo cyawe kikunyuze muri buri interuro ukoresheje akamenyetso (urugero: [X]

Icyiciro cya I: Imyirondoro

1.Igihe uwitabiriye ubu bushakashatsi yavukiye……/…../…..

2. Amashuri wize

Amashuri yisumbuye ☐ icyiciro cya mbere cya kaminuza ☐ icyiciro cya kabiri cya kaminuza ☐icyiciro cya gatatu cya kaminuza☐

3. Imibereho ukurikije ibyiciro by'ubudehe

Icyicirocya I ☐ Icyiciro cya II ☐ Icyiciro cya III☐Icyiciro cya IV☐ Icyiciro cya V☐

4. Igihe umwana wonsa yavukiye……./……../…..

5. Konsa umwana gusa no kumuha imfashabere

Umwana wanjye aronka gusa mbere y' amezi atandatu ☐

Umwana wanjye muha imfasha bere mbere y'amezi atandatu ☐

Icyiciro cya II: Ubufasha butangwa n' ibitaro

Iki cyiciro kirabaza kubijyanye n'ubufasha wunva wahabwa n'ikigo cyawe ukoreramo niba ushaka gufatanya konsa n' akazi.

	Ndabye meye cyane	**Ndabye meye**	**Ndabih akanye**	**Ndabih akanye cyane**
1.Ibitaro byaguhaye ikiruhuko cy' ibyumweru bitandatu byo konsa mbere y'uko ugaruka ku akazi.	☐	☐	☐	☐
2. Nashoboraga kubona amakuru ajyanye no gufatanya akazi no konsa mubitaro nkoreramo	☐	☐	☐	☐
3. Ndabizi ko ibitaro nkoreramo bifite amategeko yanditse kubijyanye n' abakozi bonsa cyangwa bakama amashereka	☐	☐	☐	☐
4.Ibitaro nkoreramo bifite ahantu nshobora kujya konkereza cyangwa gukamiramo amashereka igihe ndi mukazi.	☐	☐	☐	☐
5. Hari umuntu mukazi ushobora kumfasha iyo nshaka konsa cyangwa gukama amashereka	☐	☐	☐	☐

6.Nshobora kugira ikibazo mukazi
(kubura akazi cyangwa kubona amasaha make) ☐ ☐ ☐ ☐
nonkeje cyangwa nkakama amashereka ku kazi

7. Mba meze neza iyo nsaba ubufasha ☐ ☐ ☐ ☐
bujyanye no konsa cyangwa gukama amashereka

Icyiciro cya III: Ubufasha butangwa n'umuyobozi

.Iki cyiciro kirabaza uburyo wunva umuyobozi wawe agufasha iyo ushaka gufatanya konsa n'akazi.

	Ndabye meye cyane	**Ndabye meye**	**Ndabiha kanye**	**Ndabiha kanye cyane**
8. Umuyobozi wanjye aramfasha iyo njyiye konsa cyangwa gukama ndi mukazi.	☐	☐	☐	☐
9.Umuyobozi wanjye aramfasha iyo nshaka gufatanya konsa n'akazi	☐	☐	☐	☐
10.Numva ntakibazo iyo ndikuvugana n'umuyobozi wanjye kubijyanye no konsa	☐	☐	☐	☐
11.Umuyobozi wanjye avuga ibintu bituma ntekereza ko atanga ubufasha mu konsa	☐	☐	☐	☐
12. Umuyobozi wanjye abona konsa nkamahitamo y' umukozi	☐	☐	☐	☐
13. Umuyobozi wanjye aha agaciro gufatanya konsa n'akazi.	☐	☐	☐	☐
14. Umuyobozi wanjye aha agaciro gake abakozi bahitamo konsa cyangwa gukama amashereka bari mu kazi.	☐	☐	☐	☐
15. Umuyobozi wanjye areba ko narangije				

akazi iyo nshatse igihe cyo konsa cyangwa gukamira umwana amashereka

16. Umuyobozi wanjye ashobora kumpindurira ingengabihe(gahunda isanzwe y'akazi) akampa igihe cyo konsa cyangwa gukamira umwana amashereka ☐ ☐ ☐ ☐

Icyiciro cya IV: Igihe

Iki cyiciro kirabaza imiterere y' akazi n'igihe kiboneka kugirango ubashe konsa cyangwa gukamira umwana amashereka

	Ndabye mee cyane	**Ndabye meye**	**Ndabih akanye**	**Ndabih akanye cyane**
17.Mbona ikiruhuko cyo konsa cyangwa gukamira umwana amashereka inshuro nyinshi	☐	☐	☐	☐
18. Ikiruhuko cyange kiba gihagije kugirango nonse cyangwa nkame amashereka y'umwana	☐	☐	☐	☐
19. Nshobora gukora ibishoboka kuri gahunda narinsanganwe kugirango mbash konsa cyangwa gukamira umwana amashereka	☐	☐	☐	☐

Icyiciro cya V: Ibijyanye n'aho wonkereza cyangwa ukamira umwana amashereka

. Icyi kiciro kirabaza kubijyanye n'aho wonkereza cyangwa ukamira umwana amashereka iyo uri mukazi nyuma yo kuva mukiruhuko cyo konsa.

	Ndabye meye cyane	**Ndabye meye**	**Ndabih akanye**	**Ndabih akanye cyane**
20. Ibitaro nkoreramo bimpa ibikoresho byose nkeneye iyo nshatse gukamira umwana	☐	☐	☐	☐

amashereka ndi mukazi

21. Mbona ahantu nshyira amashereka nakamye iyo ndi mukazi	☐	☐	☐	☐
22.Ahantu hateganyirijwe konsa cyangwa gukamira mukazi haraboneka igihe cyose wahashakira	☐	☐	☐	☐
23.Ahantu hateganyirijwe konsa cyangwa gukama hegereye aho mfatira ikiruhuko iyo ndimukazi	☐	☐	☐	☐
24..Mba nunva aribyiza konkereza cyangwa gukamira ahantu habugenewe	☐	☐	☐	☐

Ethical Clearance

UNIVERSITY OF RWANDA

COLLEGE OF MEDICINE AND HEALTH SCIENCES

CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 16/01/2017
Ref: CMHS/IRB/088/2017

MUREKATETE Ancille
School of Nursing and Midwifery, CMHS, UR

Dear MUREKATETE Ancille

RE: ETHICAL CLEARANCE

Reference is made to your application for ethical clearance for the study entitled ***"Exploration Of Exclusive Breastfeeding Support Offered To Mothers At Work Place Employment In Seiected District Hospitals Of Kigali."***.

Having reviewed your protocol and found it satisfying the ethical requirements, your study is hereby granted ethical clearance. The ethical clearance is valid for one year starting from the date it is issued and shall be renewed on request. You will be required to submit the progress report and any major changes made in the proposal during the implementation stage. In addition, at the end, the IRB shall need to be given the final report of your study.

We wish you success in this important study.

Professor Kato J. NJUNWA
Chairperson Institutional Review Board,
College of Medicine and Health Sciences, UR

JB Gahutu
Vice-Chair IRB

Cc:
- Principal College of Medicine and Health Sciences, UR
- University Director of Research and Postgraduate studies, UR

Permission of Research instrument

Beth Olson 5:30 PM (15 hours ago)

toAncilleMurekatete

Certainly! You are free to use our employee's perception of workplace breastfeeding support instrument for research and educational purposes (non-commercial uses.) We only ask the papers published on this (two with lead author Greene) are cited so credit is given to the MS student who created this.

Best wishes!
Beth

From: Beth Olson <bholson@wisc.edu>

To: ancillemurekatete [mailto:ancille.mu@gmail.com]

Data Collection Approval (Kibagabaga Hospital)

REPUBLIC OF RWANDA

KIGALI CITY
GASABO DISTRICT
KIBAGABAGA HOSPITAL
PO. BOX. 6260 KIGALI

Kibagabaga, ...13...../01..../2017
N°.....67...../HOP.KIBAG./2017

MUREKATETE Ancille
University of Rwanda
School of Nursing and Midwifery
TEL 0783 376 267

RE: APPROVAL TO YOUR REQUEST

Dear Madam,

Reference is made to your letter dated 6th January 2017 requesting a permission to collect data at Kibagabaga district hospital on " Exploration of exclusive breastfeeding support offered to mothers at work place employment ";

I would like to inform you that your request has been received and accepted.

Sincerely,

Dr MUTAGANZWA Avite
The Director of Kibagabaga hospital

Data Collection Approval (Muhima Hospital)

REPUBLIQUE OF RWANDA

MINISTRY OF HEALTH
KIGALI CITY
NYARUGENGE DISTRICT
MUHIMA HOSPITAL
B.P : 2456 KIGALI

ETHICS COMMITTEE/ COMMITTEE D'ETHIQUE

15th March 2017

Review Approval Notice

Dear Ancille MUREKATETE

Re: Your request for data collection at Muhima hospital.

During the meeting of ethic committee of Muhima District Hospital that was held on 14th March 2017 to evaluate your demand we are please to inform you that the Muhima Hospital Ethic Committee has approved your request.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the committee of any proposal change(s) or amendment(s), serious or unexpected outcomes related to the conduct of the internship, or internship termination for any reason. The committee expects to receive a final report at the end of the internship.

Yours sincerely,

Dr MANIRAGUHA YEZE Aimée Victoire

MUHIMA HOSPITAL
ETHIC COMMITTEE

Data Collection Approval (Masaka Hospital)

REPUBLIQUE OF RWANDA

MINISTRY OF HEALTH
KIGALI CITY
NYARUGENGE DISTRICT
MUHIMA HOSPITAL
B.P : 2456 KIGALI

ETHICS COMMITTEE/ COMMITTEE D'ETHIQUE

15th March 2017

Review Approval Notice

Dear Ancille MUREKATETE

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Yours sincerely,

Dr MANIRAGUHA YEZE Aimée Victoire

MUHIMA HOSPITAL
ETHIC COMMITTEE