ASSESSMENT OF PARENTS' NEEDS IN NEONATAL INTENSIVE CARE UNITS IN SELECTED DISTRICT HOSPITAL

By

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NEONATAL TRACK

UNIVERSITY OF RWANDA

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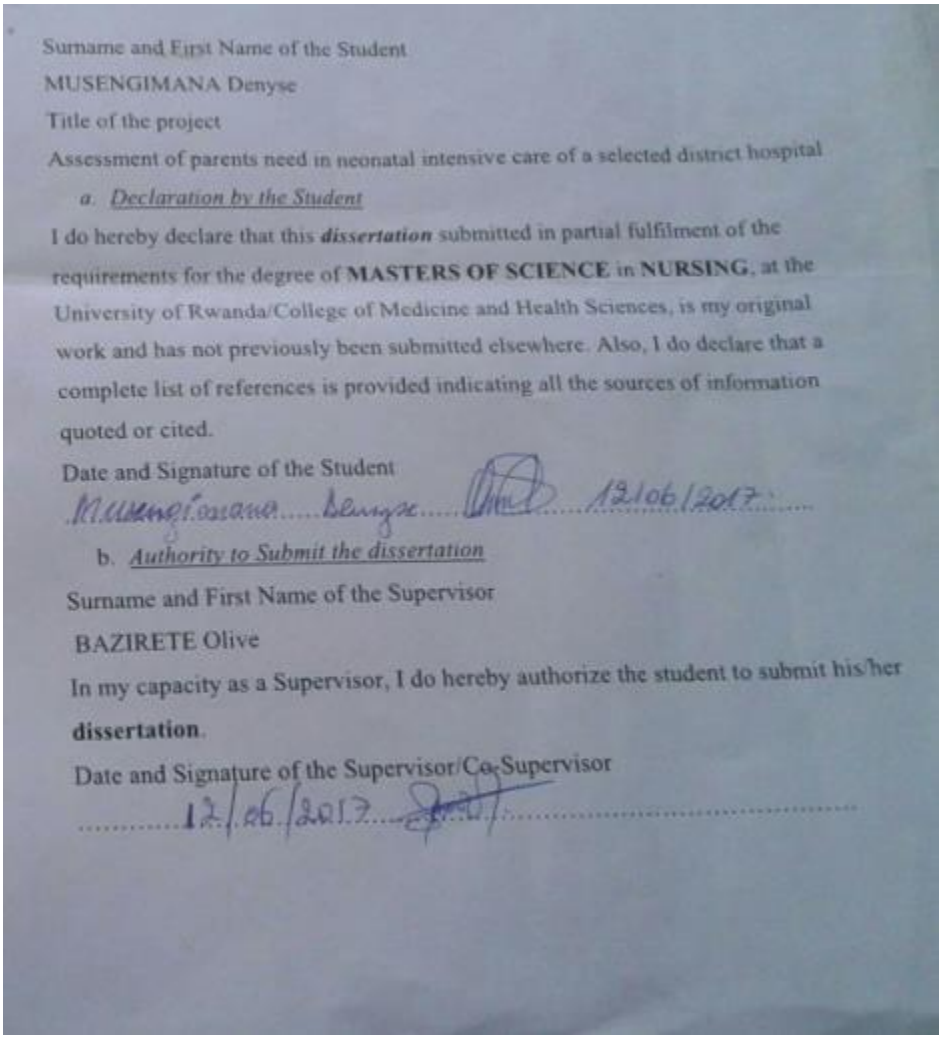
DECLARATION



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Assessment of parents need in neonatal intensive care of a selected district hospital

a. *Declaration by the Student*

I do hereby declare that this ***dissertation*** submitted in partial fulfilment of the requirements for the degree of **MASTERS OF SCIENCE** in **NURSING**, at the University of Rwanda/College of Medicine and Health Sciences, 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

Musengimana Denyse 12/06/2017

b. *Authority to Submit the dissertation*

Surname and First Name of the Supervisor

BAZIRETE Olive

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

12/06/2017

DEDICATION

This thesis is dedicated to my beloved husband HITIMANA Jean Pierre, and our children Ineza H.hugues, Singiza H.Igor, Inema H.Huguette Pascale, who have been a source of support and inspiration throughout this study. It is also dedicated to all nurses/midwives who believe in the richness of care rendered for maternal and especially neonatal health promotion .

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.

ABBREVIATIONS

NICU :Neonatal Intensive Care

WHO:World Health Organisation

UR:University of Rwanda

CMHS:College of Medecine and Health Sciences

SPSS: Statistical Package for Social Sciences

UNICEF:United Nations for Children

RDHS: Rwanda Demographic and Health Survey

RMOH: Rwanda Ministry of Health

MDG: Millennium Development Goals

CCFN:Critical Care Family Need

NNFI:Neonatal family inventory

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ABSTRACT

Introduction : In US, Before 1970, most hospitalized babies were separate from their parents. During 1970 and 80, the importance of family's role in the children patients was recognized. The presence of parent in the NICU is very important to both parent and to the baby. Education and visiting hours must be unlimited for parents. findings from a study conducted in one urbain hospital in rwanda show that ,when a newborn is admitted in nicu, parents are very stressed and worried . these feelings will be increased by the fact that parents lack experience in such event.

Aim of the study: The present study identified the most parents needs in neonatal intensive care ,determine the barriers in satisfying parents needs with a baby and also determine associated factors to parents needs whith baby in nicu at Muhima district hospital.

Methodology:A descriptive quantitative and cross-sectional research design was used in this study. the entire population comprised of 92 parents who had babies hospitalised in neonatal intensive care of Muhima district hospital.Data collection was done with the aid of researcher administered and self administered questionnaires. A statistical package for social sciences (spss 21.0) was used to capture and analyze data. Descriptive statistics was used to present data and inferential statistics such as chi-square test was conducted to test the relationship between different variables of the study at 5% significant levels

Results: Result of our study describe the needs of parents of babies in a NICU indicate that the most important needs for this group were assurance needs (m=3.28) and the least was comfort (m=2.69) in addition, 37% participants were of the view that they did not have information on the time of admission.results also (45.7%).A big majority of respondents represented by 90.1% agreed that caregivers were not sensitive with other pressure of their life.The research revealed that among the factors believed to affect the need of the family , a significant association with assurance need were only age of respondents . statistically significant association between the assurance need and having other children at home have been shown.

Conclusion:The rwanda nurses and midwives council (RNMU) in collaboration of health policy makers are recommended to incorporate usage of family centered care in neonatology in the continued professional development in collaboration with health facilities

KEY WORD(Assessment,family needs,nicu)

DEFINITION OF KEY WORDS

1. **Need assessment** :A systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need. The need can be a desire to improve current performance or to correct a deficiency.
2. **Parent's need**: are necessity which when satisfied , reduces the suffering of the parent.
3. **Neonatal intensive care**:The neonatal intensive care is a specialized care that offers medical and nursing cares for very sick newborn and premature baby.
4. **Neonatal mortality rate**:The number of neonates dying before reaching 28 days of age per 1000 live births per year

.

CHAPTER I GENERAL INTRODUCTION

Approximately 400,000 to 750,000 newborns are admitted in NICU per year (Vazquez and Cong, 2014). Many complications are associated with NICU admission, and those complications may lead neurology and cognitive impairment. Studies have shown that the lack of emotion and physical preparation for NICU admission , combined with parental irresistible distress for the safety of life of their newborn may cause acute stress disorders, and post traumatic stress disorders (Vazquez and Cong, 2014, p. 281–290)

Before 1970, most hospitalized babies were separate from their parents. During 1970 and1980, the importance of family's role in the children patients was recognized. Nowadays, the nurse plays essential role during admission and hospitalization, in taking care of the newborn and their family (Cynthia A. Mundy, 2010, pp. 156–163)

During the neonatal period, the first 28 days of life are the most vulnerable time for a child's endurance. The increase in technology has led to development of neonatal intensive care units (NICU), throughout the world including middle and low income countries .These NICUs have greatly decreased neonatal mortality, resulting of globally neonatal mortality reduction. It fell from 33 deaths per 1000 live birth, in 1990 to 20 death per 1000 live birth in 2013(Bay, Miller and Faijer, 2014, p. 36)

The parent's need is defined as a necessity which when supplied, alleviates or reduces the suffering of the parent, or improves the sense of well being of the parent. Improving the well being is a special role of nurses(Kadeen and Mina, 2016, pp. 4–10)

Sub-Saharan Africa region has the highest neonatal mortality rate.31death per 1000 live birth in 2013 meaning 39% of global neonatal mortality,35% of global neonatal death were caused by prematurity birth complication,24% caused by birth asphyxia,15% caused by sepsis. Rwanda neonatal mortality rate in 2013 was 9 per 1000 live birth.(Bay, Miller and Faijer, 2014)

1.1 BACKGROUND OF THE STUDY

The presence of parent in the NICU is very important to both parent and to the baby. Mehretie (2011), argues that even very small babies recognize their parent's voices and respond to their voice and their touch. Education and visiting hours must be unlimited for parents. Parents' education on specific information concerning their babies, length of stay , impacts babies on future and decision making so that their needs will be viewed as a form of support Mehretie(2011).

Kadeen &Mina (2016) ascertain that, when parents have newborns in NICU, they experience different needs. Helping them meeting those needs plays an important role in that period, like helping parent to cope with parental role and emotion change, as far as the relationship between parent and infant is established and maintained (Kadeen and Mina, 2016, p. 4–10)

Parents are the suppliers of an enormous amount of informations during their infant's admission to the NICU. Special education from health care providers in neonatology is needed to prepare parents for their new role. That Education must meet parent's needs in reducing anxiety, stress and enhance coping and give parents a sense of control.(Kadeen and Mina, 2016, p. 4–10)

Literatures say that, absence of giving education to the parents with newborn admitted in the NICU, causes a dissatisfaction to the parent and to the care givers,because Health care providers are not truthfully informing to them all the time the medical condition and the intensive care received by their babies.(Craig *et al.*, 2015). Even if that information is given, it is in euphemisms, vague testaments and parents are protected from the all truth on their baby treatment and outcome (Craig *et al.*, 2015).

According to Guimarães,(2015), the neonatal individualized development care and assessment, encourage the idea that newborns and families are partners in developing a program, to maximize physical, and emotion growth to improve long term outcome of high sick newborns. He confirmed that communication and education are critical needs of parents in newborn care. And he had noted that parental needs are not always successfully met by the professional team, sometimes parents remain dissatisfied with their participation in care, so it's necessary to improve parent communication especially on admission (Guimarães, 2015, p. 9–11).

Guimarães (2015) in his reserach countinued to recognize that even if parents are viewed as the first person to play a significant role, frequently a little consideration has been given to their emotions and behavior.He highlights that NICU parental program which consists of educational audio visual and written information and supporting activities for parents, as an impotant education tool. And he suggested that it may be better if it starts very early on NICU admission and continues after discharge because it will permit reducing of anxiety and depression of a mother (Guimarães, 2015,9-11)

The same study says again that, when parents have been educated on time of admission and participate in caring , making decision on their newborn increases from 8 to 20%. The study confirms that if parental education has been given in the NICU, their involvement in caring their babies improve their outcome and relationship within the family. (Guimarães, 2015,9-11)

Findings from a study conducted in one urbain hospital in Rwanda show that ,when a newborn is admitted in NICU, parents were very stressed and worried . These feelings will be increased by the fact that parents lack experience in such event. That study showed again that the presence of technology machine used there, ahigh morbidity and mortality rate in NICU setting,combined with absence of information from health providers, decrease the parental hope of recovering for their beloved one(Munyiginya and Brysiewicz, 2014, p. 5–8)

An other study done in 2015 showed that, as dictated by the Rwandan culture, when a baby is born, all the parents are excited ready to recognize the infant and give the name on the eighth day after the birth.When a baby is admitted in the NICU, cultural ceremonies are not held because all the parents are worried about the health of the baby (Musabirema, Brysiewicz and Chipps, 2015, p. 149).

Furthermore,in Rwanda, due to insufficient number of nurses in neonatology units, combine with restriction visiting hours, contribute in reducing the capacity of parents to assume their role, and hence creates a distance between the infant and the parent. A poor staff parents interaction negatively impacts baby‘s care and contribute on distress and discontent of the parents (Musabirema, Brysiewicz and Chipps, 2015,p149)

1.2 PROBLEM STATEMENT

The neonatal intensive care is a specialized care that offers medical and nursing cares for very sick and premature babies. For these newborn infants, parent-infant bonding is affected. Musabirema, Brysiewicz and Chipps, (2015). It is difficult for a nurse to correctly identify needs of parents, because of what they think are important needs differ from those of parents . Most of the time, parents, may not be involved in decision making of their infant care, or they may not be considered. In addition, parents may not be prepared and not authorized to care for their newborns, during hospitalisation .

During clinical practice in neonatology of muhima district hospital,we have constate that relative of parents are not allowed to enter in the hospital when the visiting hours have finished and they are not totaly involved in decision making of care for their babies.beside, inside the hosptal there is no where they can find food and other materials needed, in addition parent can not go out of hospital without special permission provided by nurses.

It is crucial that parents needs be included into individualized plans of care for quality care and better health outcomes" reported by Musabirema,et al.In 2015,in their study on parental perception of stress in the NICU in Rwanda .They revealed that the parents are very stressed when their babies are hospitalised in the NICU and dissatisfied with lack of involvement in their babies'care.Differents studies have been conducted with focus on assessment of parents needs in adults ICU .However, the needs of parent in NICU are not well documented.Therefore there is a need to assess the need of parents in neonatal intensive care units in Rwanda.

1.3 GENERALE OBJECTIVE

To assess needs of parents of newborn admitted in NICU at Muhima district hospital

1.4 SPECIFIC OBJECTIVES

To identify the most parents needs in neonatal intensive care at Muhima district hospital

To determine the barriers in satisfying parents needs with a baby in NICU at Muhima district hospital.

To determine associated factors t influcing parents needs whith baby in NICU at Muhima district hospital.

I.5 RESEARCH QUESTIONS

What are the most parents needs in NICU in muhima district hospital?

What are the barriers in providing parents needs in NICU in muhima district hospital?

What are the associated factors to parents' needs whith baby in NICU in muhima district hospital?

1.6 SIGNIFICANCE OF THE STUDY

According to Amezani et al. (2014), sick neonate and parents members experience the condition of being long time hospitalized and face different machines and techniques. Those situations are the cause for parents to be inaccessible from their babies hence they become anxious and consenquently cannot communicate with them. Long stay in neonatal intensive care prevents parents attachment especially for mothers. Therefore, the result from this study, which assesses parents' needs in neonatal intensive care units, will provide base line information on satisfying the parents needs of a newborn requiring the neonatal intensive care. It will also serve as basis for health policy-makers to establish best practices in the healthcare delivery system with respect to the improvement of quality of service provided to satisfy parents needs in the neonatal intensive care. In addition this study served as the underpinning of further nursing research in exploring more the subject as little is known about family needs in neonatal intensive care

1.7 SUBDIVISION OF THE STUDY

The project shall be made of 6 chapters: Chapter 1 deals with introduction and includes: definitions and key terms, background of the study, problem statement, objectives, research questions and significance of studies and subdivision of the project. Chapter II deals with literature review; Chapter III defines the methodology used, chapter IV presents results of the study, chapter V discusses result discussion , chapter VI is about conclusion and recommendations

CHAPTER II LITERATURE REVIEW

2.1 INTRODUCTION

Examination of studies conducted in Africa and abroad shall be discussed in this chapter, various writings shall be consulted especially journal articles, textbooks, reports published, and internet search (google scholar, hinaly) on parents need in NICU.

According to Grove, B & Gray, (2013:97), literature review includes theoretical and empirical source of current knowledge of the problem. These authors sustain that the theoretical component refers to theories, models and conceptual frameworks as the empirical part refers to different studies published in theses journals, and books. The analysis will be ordered and presented into four headings, namely: Identification of most parents' needs in neonatal intensive care, limits and challenges in satisfying parents' needs in NICU, parents and neonatal characteristics that may contribute to the parents' needs in NICU, and lastly, description of concept framework that guides this study

2.2 THEORETICAL LITERATURE ON FAMILY NEEDS IN THE NICU

Not all parents require the same type or amount of support, as each has its own unique needs to be met. Having an infant in NICU leads to considerable isolation for parents, and therefore, friends, family have little impact on NICU parents' understanding of the clinical situation. The physical and technical complexities of the setting, the infant's condition and the stress experienced by parents necessitate that NICU staff provide the majority of information and support for parent's .Alderson P (2009)

Parents depend almost entirely on information provided by the medical team, this may be as a result of the stress of the NICU experience for parents, the time they spend in the NICU with limited access to written resources or the internet and the relatively easy availability and credibility of the medical team. Nurses have been identified as the primary source of information and although neonatologists are less easily accessible and less easily understood, parents are satisfied with their communication. Kowalski WJ (2006)

2.2.1 DIFFERENTS FAMILY NEEDS IN THE NICU

Several needs are observed when parents have babies in NICU.Jane S.leske grouped those needs in five subscale, which are information need, assurance needs ,support need, proximity needs, and comfort needs . (Cynthia A. Mundy, 2010, pp. 156–163)

Information need is the need to obtain realistic information about the infant, Assurance need is the need to feel confident about the infant's outcome.in addition Support need is the emotional resources needed by the family, comfort need is the need for personal physical comfort and proximity need is the need to remain near the infant. . (Cynthia A. Mundy, 2010, pp. 156–163)

Diagnoses are important for parents to recall because they may be useful in aiding communication with clinicians, who can guide and encourage parents as their children progress. Simons CJ (1998)

Several possible reasons are suggested for why parents are unable to recall diagnoses: some parents not feel a great need to know diagnoses at a time when they are stressed and anxious, or may not understand how the diagnosis relates to the practical consequences for their infants; or clinical staff have presented the diagnosis in technical language. (Guimarães, 2015,9-11)

The information needs change in relation to the changing clinical context of the high-risk infant, it's better to understand the process by which parents receive and interpret information so that it has meaning for them, and to understand which factors enhance or limit the successful assimilation of information. Individual parents have different needs according to the clinical context and language barriers, as well as the parent's socioeconomic status, educational background, cultural differences and beliefs

In neonatology, the patient is the infant, but the parent is the recipient of information. Most parents desire as much information as possible about their children's diseases, and the concept of patient-centered care. directs nurses to provide as much information as the patient desires to facilitate shared decision-making, (Musabirema, Brysiewicz and Chipps, 2015)

In the NICU, it is paramount that parents are able to understand the information they are given to make informed decisions on behalf of their infant. These difficult decisions may include the option for nonintervention at gestations of borderline viability or withdrawal of care in cases in which

there is no prospect of meaningful survival. Regrettably, the NICU is a complex clinical setting in which information and predictions vary and change rapidly: decisions are complex, and parents find the uncertainty difficult to cope with (Ichijima, 2009.)

Providing information requires a process of repetition and reiteration, avoiding the use of euphemisms and technical jargon. For parents, receiving and assimilating appropriate information can contribute to the perception of having some control in an otherwise bewildering and overwhelming situation (Ichijima, 2009)

It is therefore of great importance to ensure that parents are fully informed of the options available for their infants and the possible outcomes of any decisions that they are involved in. Only with full information, considered in the light of the family's values and beliefs, are parents able to feel that they have truly understood the likely outcomes for their high-risk infants(Ichijima, 2009, p. 7)

Parents vary in their wishes and needs in relation to treatment decision-making Some parents wish to be fully involved in all decisions; some prefer to leave the decisions to NICU staff because of their lack of knowledge and feeling of inability at a time of extreme stress In addition, the nature of treatment and other decisions varies extensively: parents may wish to be involved in the less technical and threatening decisions, and yet it is in these decisions that parents are least likely to be involved like dressing the infant and timing of discharge .Simons CJ (1998)

2.3 EMPIRICAL LITERATURE ON FAMILY NEEDS IN THE NICU

2.3.1 IDENTIFICATION OF MOST PARENTS' NEEDS IN NEONATAL INTENSIVE CARE

An hospitalization in the neonatal intensive care units, preserves to be stressful event from the critically ill neonate, as several studies across the world have persitentely pointed out that in the article of Morimoto (2015) called "study to evaluate the needs of parents of critically patient ill in the NICU", which article aimed at identifying the top five needs of parents of critical patient in NICU at a rural hospital, in west central Georgia,using a descriptive design, they worked with parents accompanying critical ill patient. With using questionnaire by a convenience sampling of 20 parents, they have find that they need honest communication, information update with highlighting that the key need is a patient comfort.(Morimoto,2015)

Furthermore, with use of the Critical Care family Need(CCFN) landmark study, Morimoto et al., 2015 , have identified five domains of parents' needs which are assurance, information, proximity, comfort and support. Results from the same study revealed that, limitations of the study were that the study was done in rural hospital and the sample size was small, also, conducting study during the time of hospitalization has influenced both participation and perception of the needs of parents and members. At the end of their work, researchers recommended to others to collect data on patients who spend much time of hospitalization and parents members to participate in survey. They concluded that communication with the patient must remain a nursing priority (Morimoto *et al.*, 2015)

In 2013, findings from the study on Strengths and weaknesses of parent- nurse communication in the NICU, done by Helena Wigert, Micheal Blom Dellenmark and Kristina Bry, where parents were asked to fill full a survey were revealed. These findings demonstrated features of strengths and weaknesses in parents - nurse communication. That study disclosed that in general, parents were happy while communicating with the staff in the neonatal intensive care. Absolutely and appreciated emotion support they have received, also they confirmed to have regular information about their child situation.

In study done in 2001 by Ward K, with purpose of identifying the perceived needs of parents of infants in a neonatal intensive care unit (NICU), with using a convenience sample of 52 parents of NICU infants, completed the NICU family needs inventory was used (NFNI). He have found that the participants reported assurance and information-related needs as the most important, while support needs were ranked as least important the he conclude with suggesting that the need to inform parents of the infants treatment plan and procedures, answer parents' questions honestly, actively listen to parents' fears and expectations, assist parents in understanding infant responses to hospitalization, and other effective nursing interventions to help meet the needs of parents of NICU infants.(Ward K.2001,p281-6)

Though some parents requested to have authorization to discuss with doctors easily and to be present during ward round on their babies, they reported ineffective and poor communication when nurses were occupied in caring for the neonate and during the handover with shift change or between the maternity ward. Finaly, in order to make more effective and improve parental well

being, researchers found that staff need training on how to satisfy parent's emotion needs better way.Also framework of parent expectation from the NICU must be developed with promoting successful communication by using the primary nurse team to improve continuity of care .(Wigert, Dellenmark and Bry, 2013, p. 69–73)

2.3.2 LIMITS AND CHALLENGES IN SATISFYING PARENTS' NEEDS IN THE NICU

A study of Brodsky et al., 2014 done between 2008 and 2011 at Boston Children'sHospital (BCH), intittled "Memorable conversations in neonatal intensive care qualitative research aimed at exploring the perspective of provider on difficult conversation in NICU. 74 participants reported 5 elements which may be the causes of challenges in satisfying parents' needs in NICUThose are: newborn health situation, personality of parents' members, nurse/doctors characteristics, the nurse/doctors –parents relationship. Finally, the researchers made a conclusion of considering the practitioners' experience among difficult discussion to help the personnel to anticipate some confront in neonatal planning, and they proposed message and relational effort of education and learning (Brodsky *et al.*, 2014, p. 38–48)

In the above mentioned study, Brodsky et al, noted that, conflicts between the parents and providers or within the family, may exacerbate the difficult in satisfying of parents needs. Similarly, they found that the hesitation of a newborn's diagnosis or prognosis can increase communicative challenges and be discouraging for neonatal staff. They found also that uncertainty can impact the content of discussions, and impact a family's decision-making in neonatal care.

However, inadequate number of volunteered participants came from four different hospitals, did not allow researchers to investigate in-depth on providers of discipline and their experience Further, findings may be limited because the group was in workshop for that reason participants may be sensitive to difficult in conversations than non-attendees(Brodsky *et al.*, 2014,p38-48)

A study conducted by Ashley et all called differences in parental satisfaction with neonatal intensive care unit nursing care "with the purpose of nurses provide parental support and education in the neonatal intensive care unit" find unknown satisfaction and expectations about nursing care differ between racial groups with prospective cohort constructed of families with a premature infant presenting to primary care between 1/1/10-1/1/13 (N = 249,responding questions about

satisfaction with the NICU were analyzed in ATLAS. using standard qualitative methodology. Find 120 (48%) parents commented on nursing. Parents were most dissatisfied with how nurses supported them, wanting compassionate and respectful communication. Also parents were most dissatisfied with inconsistent nursing care and lack of education about their child. (Ichijima, 2009, p. 7)

But also that study has limitations because, the participant sample and methods employed do not allow for generalization beyond the study sample. Second, the distribution of patients across the 27 NICUs was not controlled and thus this study does not address any potential confounding by site of NICU care. Lastly, that survey did not include questions specific to NICU nursing care which may have limited responses regarding factors that impacted parental satisfaction.

2.3.3 FACTORS CONTRIBUTING TO PARENTS/NEONATAL NEEDS IN NICU.

In 2015, Kadeen Briscoe and Mina Singh worked on parents information,needs of neonatal intensive care in Toronto by using systematic review. Their purpose was to assess information needs of parents of premature infants during hospitalization in the NICU. They gave questionnaire to parents with newborn in NICU. They found that , parents must work with nurses for regular and continuing information needs assessment and suggested that for active engagement in caring their babies parents must have necessary information in order to meet

Their needs (Kadeen and Mina, 2016, pp. 4–10)

Concerning the needs of mothers who have newborns hospitalized in intensive care, in the intention of identifying needs of mothers to infants hospitalized in NICU, (Tsironi *et al.*, 2012)did a quantitative research using questionnaire surveys . Over six months by using two standardized questionnaires they have taken 147 mothers with infants hospitalized in NICU (Sikorova and Kucova, 2012, pp. 330–336)

They have identified a high level of stress of mothers, a feeling of helplessness, and inability to feed and to protect bab from pain procedure. In data collection researchers encountered difficulties because of being with parent's first visit the baby in the ICU they felt shocked, disappointed and fearfull. For this reason, they did not well remember what to respond. At the end, researchers

concluded that parent's centered care must be done in NICU to help in developing relationship between mother and child(Sikorova and Kucova, 2012,p330-336)

Another study was conducted in 2010 by Cynthia A. Mundy with the purpose of assessing the needs of parent in NICU. This one was performed in 36 beds of the NICU at medical college of Georgia.A descriptive correlation design was used, and convenience samplings were used on parents visiting their babies in the NICU. The main questions were to know the most and the least important needs of parentsin NICU and to know if needs of mothers differ from needs of fathers. By using the neonatal intensive care unit parents' needs inventory, both parents were interviewed.

Results from the study pointed out that 93% agreed the assurance in the NICU is very important need, and mothers' needs were not different from fathers' needs. They made a conclusion that identifying the parental needs in neonatal intensive care enhances nursing communication and incorporation of parents into families 'plans of care .

Nevetherless, the small number of participants and the sampling methods were main limitations, because 4 nurses who were skilled in discussing with parents as noticed by the researchers , work on differents shifts. In addition,parents were questioned when they visited their babies. And when the researchers were not there parents who visited their babies were note included in the study. Another limitation was that the difference in numbers of mothers and fathers of parents interviewed, infant diagnosis may influence parent's responses (Cynthia A. Mundy, 2010,p156-163)

In the Study done by Fabris et al., in 2009 and repeated and published by Thon, Kelly N in 2013 on "Supporting parents of preterm baby in the NICU"a study which aimed at creating a comprehensive group psychoeducational.He worked with A group of 10-18 poeple composed by parents who currently have an infant in the NICU, for elaborating a program designed for parents who have their baby in the NICU,

They found that, fathers are often the first one to be present in the NICU. They may have had in mind for their infant's health and appearance and condition.Consequencyly , they have been found

to experience anxiety surrounding becoming a father to a premature or a sick infant, resulting of experiencing a feeling of helplessness and fear of the unknown future of their babies .(Thon, 2013)

Fegran, Helseth, Fagermoen, 2008, and Thon, Kelly N in 2013 found that for mothers, when newborns are in the NICU, they may experience a feeling of helplessness due to the unexpected birth experience and they need to be supported emotionally. Some mothers are affected by the newborn NICU admission, differently than fathers in the sense that the mothers focused on not having normal infant, which impacted their need for control and participation in the care of the baby. (Thon, 2013)

Upon an infants' admission to the NICU, the father often needs to assume more responsibility in the caretaking role due to the mother's health status. Fathers have to play both mother and father's role until the mother fully recovers from the birth . In that study, they also have discovered that fathers commonly have more difficult of taking time off from work when the baby is born, resulting in fewer visits and less time to see the baby in the NICU.They have noticed that fathers need to have confidence in the medical staff to care for their infants, whereas mothers took on the role of a staff during the time that their baby was hospitalized (Thon, 2013).

2.4 THEORETICAL FRAMEWORK

In the 1990, Kolcaba developed the comfort theory, which provides the fundamental concept framework of this study. He uses a taxonomic structure of comfort to reveal three types of comfort: relief, ease, and transcendence.(Nolen, 2013)

Relief is described as the condition of comprise a specific needs to satisfy. Ease is the condition of calm or satisfaction, and transcendence is a state in which one can rise over problems or pain. Theses 3 forms exist in four different contexts, namely: physical, psycho-spiritual, environmental, and sociocultural (Nolen, 2013)

Table 1 : Application of the comfort theory in assessment of parents needs nicu

	RELIEF	EASE	TRANSCENDENCE	QUESTION RELATETED
PHYSICAL	Absence of Flexibility of visiting hour Lack of Nurses observation and care for patient in pain	Cleanliness /appearance of the waiting room Flexibility of visiting hour	Mobility, Comfort:	Q:9,18,20
PSYCHOSPIRITUAL	No Support and no encouragement given during the time the newborn stays in NICU	Support and encouragement given during the time parents member's stay in critical care unit Easy in knowing the patients care giving nurse	Support: Assurance:	Q12,Q16.Q17,Q19 Q1.Q14,Q10,Q7, Q8
ENVIRONMENTAL	No Allowing parents to take share in	Privacy provided for patients and	Proximity:	Q2,Q11,Q13,

	the care of the patient	parentson visiting		
SOCIOCULTURAL	No Clear explanations of tests, procedures, and treatments	Sharing in decisions regarding the patient care and recovery on a regular basi	Information:	Q3,Q4,Q5,Q6,Q15

(Nolen, 2013)

The Comfort model argues that if the needs for three forms are satisfied in all four contexts, the exact holistic care of patient is accomplished (Nolen, 2013).

Nolen 2013, realized that in 2010 ,kolcaba enlarged the comfort theory for both patient and parentsmembers as well, is for that reason the comfort theory will be relevant to this study. All elements of the comfort contexts can be simply applied to parent of enfant in NICU.

If the three levels of comfort are not perceived by parents as satisfied, there are not completely supported and obtainable to focus to their cherished baby needs. Stress, fatigue of patient who is trying to make well and the support system can be caused by this situation .The assumption of comfort care is that when need of patient and family's comfort are met in total, they are strengthened and able to coop with the treatment (Nolen, 2013).

2.5 CONCLUSION

This chapiter highlighted the overoll information regarding parents needs in neonatal intensive care.The review discussed the most parents needs,the barriers in satisfiying parents needs and the factors influcing parents needs in neonatal intensive care.Most of the studies cited above,have shown that assurence and information are the most parents need in neonatal intensive care.Also a feeling of helplessness, lake of information on the time of admission have been shown.success in satisfing parents needs is that , the comfort theory must be completly meeted , for parents to be

satisfied in the nicu.In the next chapiter, the reseacher will present the methodology that was used in this research.

CHAPTER III METHODOLOGY

3.1 INTRODUCTION

This chapter presents the research design and methodology used in the study to address the objectives and questions under study. It starts with a description of the study area, study design, the target population, sampling strategies, data collection methods and procedure use ,data analysis, data management , data dissemination and problems and limitation of the study, as well as ethical issue related to the study.

3.2 STUDY AREA

The study was conducted in Rwanda, a country located in East Africa ,covering an area of 26338 square kilometers with 11, 751, 364 in habitants as in 2016(United Nations Department of Economic and Social Affairs,2016). The country has 5 provinces: those are North, South, East, Wesand Kigali city. The nation language is Kinyarwanda, and the official foreign languages are english and french .The Kigali city is the smallest and most densely populated of Rwanda's five provinces. It has three administrative districts, includes Gasabo which represent the study area of this study

The area of the present study is MUHIMA district hospital, a public hospital with a catchment population of 282,769.The hospital receives the largest number of neonatology cases.

3.3 STUDY DESIGN

This study adopted an analytical cross sectional study design to gather information on parents needs in neonatal intensive care units.

3.4 RESEARCH APPROACH

Quantitative research approach was used to investigate this phenomenon of parents needs with a baby in NICU.

3.5 TARGET POPULATION

The study population and sample include all parents who have newborn admitted in NICU of Muhima hospital. According to Burns & Gray ,2013p.352, the entire population may be target of a study when the population is small, and well defined. MUHIMA receive nearly120 Neonatology cases per month.

3.6 SAMPLING STRATEGIES

A non probability sampling using convenience sampling strategy used in this study.

a. Inclusion critera :

To be a biologic mother or a father of the newborn admitted in the NICU,willing of voluntary participate in this research.

b. Exclusion criteria

Care giverwho is not biologic parent,and parent unwilling to participate in the study .

3.6.2 Sample size

Sample size was calculated using the following folmula

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

N is a population size and **n** is sample size and e is a level of precision (Israel, 2013)

N= all population 120

e=confidence intervail or level of precision(0.05)

n=92

3.7.1 Data collection tools

In order to collect data**,** a researcher administered or self administered questionnaire was used. Adaptation maded in 4 sections namely: demographique data , identification of the most parents needs in neonatal intensive care, assessment of the limits. in satisfying parents' needs in NICU and analyzing parents and neonatal characteristics that may contribute to the parents' needs in

NICU.The questionnaire was translated from English to Kinyarwanda to facilitate respondents understand the tool by using the language they are conversant with.

The needs of families in adult ICUs have been studied since the late 1970s. Molter10 developed a 45-item tool to "determine the needs of the relatives so that energy of health care professionals is not misdirected and total patient care is accomplished. In 1986, the tool was adapted by Molter and Leske and resulted in the CCFNI, which has been used in multiple research investigations to date .The purpose of the CCFNI is to generate the degree of importance of specific needs of the family member of the critically ill, provide a fairly generic instrument that covers a wide array of needs, and provide a practical and useful instrument for the clinical setting When using the CCFNI, families rate the importance of the needs statement on a Likert-type scale. After a factor analysis, Leske11 determined that the tool addressed 5 subscales of needs: support, comfort, information, proximity, and assurance. The CCFNI is specific to adult critical care. Ward.adapted the tool for use in the NICU, resulting in the NNFI. Permission for use of the NNFI in this study was available online.

3.7.2 Procedure of data collection

The investigator started with pre-testing of the questionnaire prior to data collection, in order to avoid methodological error during data collection. The data collection tool was pre-tested to check clarity and applicability, and to make sure if all questions was comprehensible to all participants. Research was on the site of data collection from Monday to Wednesday from 8 am to 3pm and selecting parents after medical ward round.researcher was distributing and helping in filling questionnaire when respondent didn't know how to write

3.7.2.1 Validity and Reliability

Both internal and external validity are important to the overall validity of the research study. Rigor can be enhanced by minimizing biases and controlling extraneous variables (Keele, 2011). In quantitative research, design validity must be established to strengthen the inferences, which may be made about cause-and-effect relationships(Powell, 2012).

Validity: validity concerned knowing whether there is evidence to support that the methods are really measuring the variables that they are supposed to measure The content validity of the

questionnaire have been pre-tested by the researcher, herself who is a registered midwife, and consequently familiar with the area of research.(Powell, 2012)

Reliability :According to Powell (2012), statistical reliability refers to the probability that the same results would be obtained with a new sample of subjects .Reliability refers also to the accuracy and stability of information obtained in a study. For the sake of attractive reliability, the reliability was improved by the statistician expert during the process of interpreting and analyzing the results from this study**.**The Kinyarwanda version of the NNFI exhibited good internal consistency with the Cronbach α of 0.86

3.8 DATA ANALYSIS

All completed questionnaires was captured with SPSS version 21.0. After data collection, the researcher proceeded with data entry followed by data cleaning and data screening to ensure that there were neither errors or missed data. Then, data was analyzed, some graphs was produced, tables was prepared software program to analyze findings in the analysis of percentage of frequencies, of various variables and association between two or more named variable was considered. Techniques of inferencial statistics was used.

3.9 ETHICAL ASPECT

In undertaking this research, various source was consulted to ensure that the study adhere to accepted ethical guideline. Before conducting data collection, ethical approval provided to the researcher .The research proposal was be submitted to the ethical committees of the University of Rwanda, and to the Muhima district hospital to allow the researcher to conduct the study within a limited time. The permission to conduct the study was required, acceptance from the Director of Muhima district hospital, from chief of nursing of Muhima hospital, and from the head of neonatology and from all respondent to this study. After getting explanations about the purpose of the study, the participant was given their concern to participate. The consent was based on sufficient understanding of the study. The right to withdraw from the process at any step of the study was informed to the participants

3.9.1 Informed consent and participant rights

In order to give participants a clear understanding of the study, the letter of invitation to participate in the study information statement was provided . Verbal overview of the study by the investigator handing out the paper questionnaires was provided as well.

Participants were informed of the nature and significance of the study and assured that no harm will come to them by participating in the study. They were informed about the purpose of the study, and confidentiality and anonymity were ensured by numbering the questionnaires and excluding participants' names in the questionnaires. Questionnaires and consent forms were filed separately. Participants' names were not linked to any questionnaire.

3.10 Problems and limitations of the study

Further, waiting participants in order to have enough sample size was a big challenge also small sample size will not allow generalisation of result

3.11 Data management

Data was kept safe and secured at all research stages. No other person was allowed to reach the data except the supervisor. Data sharing will be possible after original reserch has been completed .According to UR regulation after 5years data will be destroyed .

3.12 data dissemination

After finding will be presented to the UR community, the Ministry of health, Muhima district hospital, Nationnal and internationnal conference, then after, the publication will be done.

3.13 Conclusion

This third chapter has presented the research design and methodology of the present study. It has explained the self-administered questionnaire that was used to collect data and the connection between different sections of the tool and objectives of the study. The ethical considerations underlying the study were also outlined.

CHAPTER IV: PRESENTATION OF FINDINGS

4.1 INTRODUCTION

This chapter presents the results of the current study. A total of 92 questionnaires was completed by parents who had newborn in neonatal intensive care of Muhima district hospital . Data from 92 (N=92) questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS) version 21 to capture and analyze data. After data entry, data cleaning and screening were done to ensure that there were neither errors nor missing data. The results was presented in terms of frequencies, using tables and graphical displays.

Table 2 :Distribution of respondents according to age group , genda, mode of delivery of respondent (n=92)

VARIABLES	FREQUENCES	PERCENTAGE
Age Group		
15-20	9	9.8
21-25	18	19.6
26-30	24	26.1
31-35	24	26.1
36-40	15	16.3
41 and +	2	2.2
total	92	100
Gender		
female	91	98.9
male	1	1.1
total	92	100
Mode of delivery		
normal delivery	51	55.4
caesarian	41	44.6
Total	92	100

The table 2 shows that, of the 92 respondents, 98.9 % were females and 1.1% males. The participants' ages ranged from 15 to 41 years. The ages were recorded into six different age groups with age interval of five years. The majority of respondent ranged between 26 to 35 years 52.2%

Table 3: Distribution of respondents according to martital status, parterner involvement in care,having other children and visiting frequency in the NICU (n=92)

Variables	Frequencies	Percentage
marital status		
married	46	50
separated	15	16.3
single	29	31.5
widower	2	2.2
Total	92	100
Respondent had others children at home		
yes	56	60.9
no	36	39.1
Total	92	100
Involvement of father in care		
yes	49	53.3
no	43	46.7
Total	92	100
Frequencies of visiting baby in the NICU		
Parent and baby are in the same room	34	37
every 3hours	58	63
Total	92	100
Other support than partners		
friends	19	44.2
neighbor	7	16.3
Parent	15	34.9

grandparent	2	4.7
Total	43	100

The table 3 shows that 50% of respondent were married, more than half of respondant had other childern at home (60%).Parterners of 46.7% of respondent were not involde in care of their babies and also a big percentage of those whom parterners are not involved in baby's care are supported by friends and neighbour (60.5%).

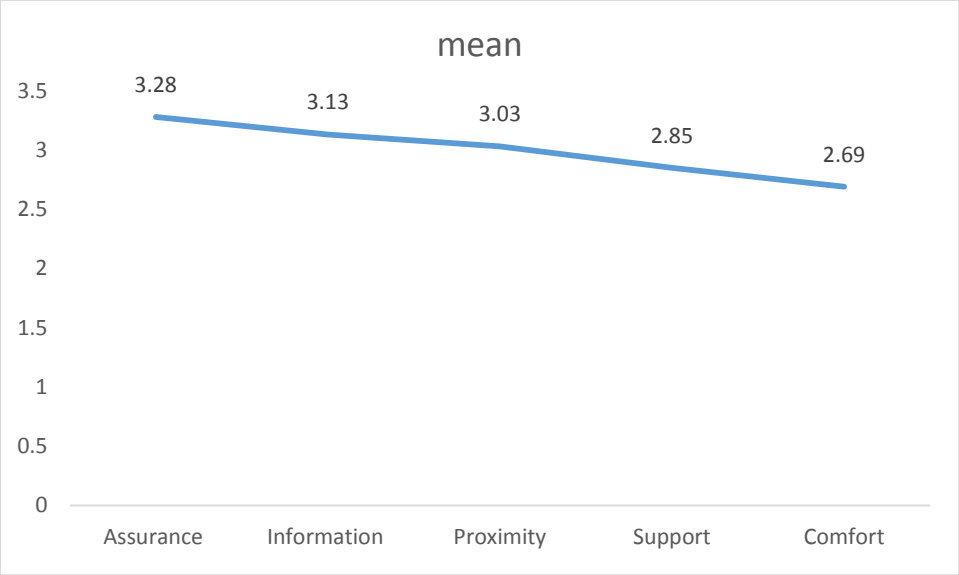
Table 4 :Distribution of respondents according to birth weight , mediacal diagnosis of their babies

Variables	Frequencies	Percentage
Birth weight		
1001g-1500g	22	23.9
1501g-2500g	27	29.3
2501g-3500g	38	41.3
Above 3501g	5	5.4
Total	92	100
Medical diagnosis		
prematurity	31	33.7
neonatal infection	16	17.4
birth asphyxia	31	33.7
prematurity and respiratory destress	14	15.2
Total	92	100

Table 4 shows that 70.6% of baby weight between 1501g to however premature babies couvered 33.9% of babies of the respondants

4.2.4 DISTRIBUTION OF MOST PARENTS NEEDS IN THE NICU

Figure 1 : Respondent according the most to the least parents needs in the NICU



Result of our study describe the needs of parents of babies in a NICU indicate that the most important needs for this Group were assurance needs (M=3.28) and the least was comfort, M=2.69. (Figure no 1)

Table 5: Assurance need of respondents

item	not important N(%)	somewhat important N(%)	Important N(%)	very important N(%)	total
questions answered honestly	1(1.1)	12(13.0)	38(41.3)	41(44.6)	92(100)
To know the expected outcome of my baby	2(2.2)	1(1.1)	28(30.4)	61(66.3)	92(100)

To have understandable explanations	0(0.0)	2(2.2)	11(12.0)	79(85.9)	92(100)
To talk to the doctor every day.	0	25(27.2)	38(41.3)	29(31.5)	92(100)
to leave thehospital for a while.	27(29.3)	18(19.6)	12(13.0)	35(38.0)	92(100)

The results from the table 5 show that, 85.9 % of parents approved that to have understandable explanations is very important, repondant representing 29.3% dont find any importance in leaving the hospital for a while, 66.3%were of the view that it is very important to know the expectected outcome of their babies, less than a half of respondant 41.3% agree with the importance of answered all questions honestly. no one of the respondant comfirm the non important of talking to doctors every day.

Table 6 : Proximity needs of respondents

Items	not important N(%)	somewhat important N(%)	Important N(%)	very important N(%)	total
To see my baby frequently.	1(1.1)	41(44.6)	29(31.5)	21(22.8)	92(100)
to stay or leave when my infant is experiencing painful procedures	12(13.0)	11(12.0)	20(21.7)	49(53.3)	92(100)
To hold my infant in my arms as soon as I can.	0	3(3.3)	69(75.0)	20(21.7)	92(100)

As presented in above table 6, a large number of participants (95.7%) were of the view that it is important to hold their infant skin to skin as soon as they can. whereas 3.3% reveal few importance on that and no one revealed the total absence of that importance. However only 21 parents (22.8%) considered to see their baby frequenly as very important , with 1.1% who reject that importance, and 44.6% highright few importance on that . Only 53.3% of respondant agreed that it is very

important to choose what to do when their baby experiencing the painful procedure, with 13% of respondents who don't find any importance.

Table 7 : Information needs of respondent

item	not important N(%)	somewhat important N(%)	Important N(%)	very important N(%)	total
To be called When there is changes in my baby's condition	0	28(30.4)	45(48.9)	19(20.7)	92(100)
To know how my baby is being treated medically.	0	21(22.8)	48(52.2)	23(25.0)	92(100)
To know specific facts concerning my baby's progress.	0	0	57(62.0)	35(38.0)	92(100)
To know why things were done for my baby	1(1.1)	2(2.2)	26(28.3)	63(68.5)	92(100)
To talk about the possibility of baby's death.	19(20.7)	18(19.6)	27(29.3)	28(30.4)	92(100)

Results of table 7 ,also show that 69.6% of participants confirm that, it is important to be called when there is change in baby's condition while no one reject it .also, 77.2% confirmed the importance of knowing the traitment of their baby .all respondent find an importance in knowing fact concerning their baby progress.the minority of respondant represented by 1.1%found that there were no importance of knowing the diagnosis of their baby,whereas,68.5% agreded that it was very important.in addition, talking about the possibility of baby death was founded very important on the level of 30.4%

Table 8 : Support needs of respondants

Items	not important N(%)	somewhat important N(%)	Important N(%)	very important N(%)	92(100)
talk to other parents whose infants in nicu	10(10.9)	26(28.3)	37(40.2)	19(20.7)	92(100)
To have someone to help with financial problems.	2(2.2)	4(4.3)	24(26.1)	62(67.4)	92(100)
To have a pastor visit	26(28.3)	34(37.0)	28(30.4)	4(4.3)	92(100)
To have another person with me when visiting the NICU.	11(12.0)	6(6.5)	45(48.9)	30(32.6)	92(100)

As shown on table 8, out of 92 respondents, 81.5% agreed that its was an importance in having another person to visiting baby in the NICU while 11% don't agreed with . Almost all participants (represented by 93.5%) founded an importance in having someone to help with finacial problems while 2.2% deni it.concerning a pastor visit only 4.3% founded it as very important

Table 9 : Comfort needs of respondants

Items	not important N(%)	somewhat important N(%)	Important N(%)	very important N(%)	92(100)
To have comfortable chairs at my infant bedside	4(4.3)	43(46.7)	21(22.8)	24(26.1)	92(100)
To have food available in the hospital.	6(6.5)	34(37.0)	26(28.3)	26(28.3)	92(100)
To be alone when you want.	29(31.5)	10(10.9)	23(25.0)	30(32.6)	92(100)

Results of table 9,also show that 28.3% of participants claimed that, it is very important to have food at hospital while 6.5% dont agrred if that.having a comfotable chair at the side of baby have been founded as very important at the level of 26.1% % respondat founded avery a important of being alone at the level of 32.6%

4.3.THE BARRIERS ON SATISFACTION OF PARENTS NEEDS WITH A BABY IN NICU

Table 10 : The barriers on satisfaction of parents needs with a baby in nicu

Items	Strongly agree	agree	disagree	Strongly disagreed
1. I do not have information on my babies condition during admission	34(37.0)	12(13.0)	5(5.4)	41(44.6)
2. Ido not participate in caring my baby during hospitalisation	24(26.1)	13(14.1)	26(28.3)	29(31.5)
3. My paterner do not support me during hosptalisation of my baby	51(55.4)	5(5.4)	9(9.8)	27(29.3)
4. I found the NICU as a place of suffering and waiting.	75(81.5)	8(8.7)	3(3.3)	6(6.5)
5. I don't know how many days my baby will be hospitalized	83(90.2)	3(3.3)	1(1.1)	5(5.4)
6. I have realized that staff lacking competence to care for the sick child	13(14.1)	16(17.4)	38(41.3)	24(26.1)
7. I don't have money for paying hospitalization of my baby	42(45.7)	9(9.8)	15(16.3)	26(28.3)
8. I'm not informed when my baby condition change	33(35.9)	5(5.4)	28(30.4)	25(27.2)

9. Caregiver are not sensitive with other pressure of my life	83(90.2)	2(2.2)	3(3.3)	4(4.3)
10. Caregiver don't talk me in privacy	50(54.3)	11(12.0)	15(16.3)	16(17.4)

As presented above in table 10, participants (37.0 %) were of the view that they did not have information on the time of admission, as presented below in table, participants (37.0 %)

26.1% ageeded to not participate in baby care during hospitalization whereas 55.5 % agreed having paternal support in hosptalisition while 29.3% revealed that they paterner do not support them . However 75 parents (81.5%) found the NICU as a place of suffering , with 3.3% disagreement on it .all most of respondents did not know how many days their baby will be hospitalised(90.2%), Only 14.1% of parents agreed that staff lacked competence to caring they newborn while 26.1% denial it.Results also show 42(45.7) of participants claimed to don't had money for paying hospitalization of their babies.however 25(27.2%) confiming being informed when baby condition was change.A big majority of respondents represented by 90.1% agreed that caregivers were not sensitive with other pressure of their life. whereas 54.3% confimed the absence of privacy when Caregiver talked with them

4.4 FACTORS INFLUENCING THE PARENTS NEEDS (NOT IMPORTANT /VERY IMPORTANT)IN NICU

In order to identify some of the factors that associeted with parents need in NICU, a chi-square test for independence was used. The level of significance was set to 5%. This means that any P-value less than 0.05 indicated that there is a statistical significant association between two variables under study. Correlations were computed between the dependent variable which is family need (assurence,proximity,information,confort and support) and participants' demographic characteristics (age,having other children at home,martial status,mode of delivery) and other selected variables under study

The results indicate that among the factors believed to affect the need of the family , those having a significant association with assurence need were only age of respondents , are having children at home and those whom fathers are not involved in care of their babies

As pesented in the table below out of 9(9.8%) of parent aged between 15-25 who responded to this study, 11.1% consider as very important the need of to be assured, while 88.9% don't , Out of 24 (26.1%) parent aged between 31-35 of respondent ,79.2% find very important to be assured while 20.8% don't see to be assure as important. Hence, this difference in proportions is consistent with the Pearson chi-square test revealed that there was a statistically significant association between the assurance need (very important/ not important) and age of respondents ($(\chi 2(3) = 26.597$ p value =0.000<0.05 level of significance)

With regard to having other children at home, those who have other children agreed that there is a big important of being assured at 83.9% while primigravida don't agree on that at 52.8%. The Pearson chi-square test revealed that there was a statistically significant association between the assurance need (very important/ not important) and having other children at home $(\chi 2= 13.945$p-value = 0.000< 0.05 level of significance)

Table 11 : Association between assurance needs, age and children at home and no husband Support

Variables		Levels of Assurance Needs		Total	χ^2	P_Value
		low level Assurance	High lEvel Assurance			
Assurance Needs and Age	15-20	8	1	9	26.597	0.000
		88.9%	11.1%	100.0%		
	21-25	9	9	18		
		50.0%	50.0%	100.0%		
	26-30	6	18	24		
		25.0%	75.0%	100.0%		
	31-35	5	19	24		
		20.8%	79.2%	100.0%		
	36-40	0	15	15		
		0.0%	100.0%	100.0%		
	41 et +	0	2	2		
		0.0%	100.0%	100.0%		
	Total	28	64	92		
		30.4%	69.6%	100.0%		
Level of Assurance Needs children at home	yes	9	47	56	13.945	.000
		16.1%	83.9%	100.0%		
	no	19	17	36		
		52.8%	47.2%	100.0%		
	Total	28	64	92		
		30.4%	69.6%	100.0%		
Level of Assurance needs and who support you	friends	8	11	19	7.197	.066
		42.1%	57.9%	100.0%		
	neighbour	0	7	7		
		0.0%	100.0%	100.0%		
	parent	8	7	15		
		53.3%	46.7%	100.0%		
	grand parent	0	2	2		
		0.0%	100.0%	100.0%		
	total	16	27	43		
		37.2%	62.8%	100.0%		

Table 11 shows association with information need , those having a significant association with need information are:group age of respondant and timing of visiting babies.because 55.6% of parents with age between 15-20 dont see the big importance of having information in the nicu, while parent between 31-35 age 91.7% highright that it is very important .However researcher find that parents who are not with they babies in the same room need more information (84.5%) rathan than those who are in the same room(67.6%). Comfirmed by the Pearson chi-square test revealed that there is a statistically significant association between the information need (very important/ not important) and frequence of visiting baby ($\chi 2$= 3.571,p-value = 0.05=0.05 level of significance).

Similarly, results from this study indicate a significant relationship between comfort need the support personnel, that is to say there is association between not important and very important in being comfortable among respondents who supported by neighbor, friends, and parents. ($\chi 2$ =10.345 = p-value of 0.16<0.05 ,the study also reavealed a relaionship between assurence need and medical diagnosis of baby with ($\chi 2$= 7.506,p-value = 0.05=0.05

Table 12: Association betwee support and having kids,and martal status at home and proximity and mode of delivery

Variables		Levels of Assurance Needs		Total	x^2	P_Value
		low level Assurance	High lEvel Assurance			
Level of Assurance Needs children at home	yes	9	47	56	13.945	.000
		16.1%	83.9%	100.0%		
	no	19	17	36		
		52.8%	47.2%	100.0%		
	Total	28	64	92		
		30.4%	69.6%	100.0%		
Level of support needs and martial status	married	5	41	46	0.943	.815
		10.9%	89.1%	100.0%		
	separeted	2	13	15		
		13.3%	86.7%	100.0%		
	single	5	24	29		
		17.2%	82.8%	100.0%		
	widower	0	2	2		
		0.0%	100.0%	100.0%		
	total	12	80	92		
		13.0%	87.0%	100.0%		
Level of proximity needs and what is was delivery mode	normal delivery	10	41	51	2.83	.093
		19.6%	80.4%	100.0%		
	cesarien	3	38	41		
		7.3%	92.7%	100.0%		
	Total	13	79	92		
		14.1%	85.9%	100.0%		

The result above table 12 shows that,among respondents who have other children at home56(60.9%) 5.4% dont see the importance of being supported during their hospitalisation time, less than those who dont have other children at home 36(39.1%)25% who dont see that importance.Here association is comfirmed by cheasquare test of 7.454 and p Value of 0.006<0.05. However , martial status did not show any statistical association with support need .Of 46 married (50%)89.1% and 2 widowers (2.2%) 100%confirm the big importance of willing to be supported in the nicu,the same to single parents 29(31%) (86.7%), as well as separated parents , 15 (16%),82.8% who revealed that to be supported in Nicu is very important.However, the Pearson chi-square analysis of the results from this study did not indicate a relationship between the martial status and tthe need of support in nicu ($\chi 2$ (3) = 0.943 p-value of 0.815 >0.05). Results did not show the difference in proportions.

With regard of proximity need,among respondents who had spontanous vaginal delivery equal to 51 (55.4%) ,80.4%find very important to be near of their baby in NICU, compered with cesarien

delivered 41(44,6%) where 92.7% find it very important .However, statistically show small association in proximity need between mothers who delivered spontanously and those who had cesarian shown by Pearson chi-square analysis indicate a small relationship between the delivery mode and the need of proxymity in nicu ($\chi 2$ = 0.2.83 p-value of 0.93 >0.05). Results did not show the difference in proportions.

In addition, there was no significant link between important / not important of being and having job ($\chi 2$ =1.596; P-value=0.206>0.05) as well as support need and type of medical insurance ($\chi 2$ =0.755; P-value=0.685>0.05).

4.5 SUMMARY OF FINDINGS

Data from this study reveal that, the majority of respondent ranged between 26 to 35 years 52.2%, 50% of respondent were married, only 6% had university level of education, more than half of respondant had other childern at home (60%).Parternals of 46.7% of respondant were not involde in care of their babies, in addition a big majority of babies was feeded by breast milk only (73.9%), however premature babies couvered 33.9% of babies of the respondants

Repondant representing 29.3% did not find any importance in leaving the hospital for a while, 66.9% were on the view that it is very important to know the expecteted outcome of their babies. All respondants comfirm the important of talking to doctors every day ,all most of participants (95.7%) were of the view that it was important to hold their infant skin to skin as soon as they can.A big majority of respondent find an importance in knowing fact concerning their baby progress.the minority of respondant represented by 1.1%found that there were no importance of knowing the diagnosis of their baby

In addition,almost all participants (represented by 93.5%) found an importance in having someone to help with finacial problems, results also show that 28.3% of participants claimed that, it is very important to have food at hospital.

A big majority of respondents represented by 90.1% agreed that caregivers were not sensitive with other pressure of their life. whereas 54.3% confimed the absence of privacy when Caregiver talked with them

Bivariate analysis was used to determine the relationship between dependent variable and demographic characteristics and other selected variables under study. The results indicate that among the factors believed to affect the parent's needs, those having a significant association are between the assurence need and age of respondants, $\chi 2 = 26.597$ p-value = 0.000< 0.05), assurence need and having other children at home where $\chi 2 = 13.945$p-value = 0.000< 0.05 .

An other association is between the information need and frequency of visiting baby ($\chi 2=$ 3.571p-value = 0.05=0.05 also association have observed between being comfortable among respondents who supported by neighbor, friends, and parents. ($\chi 2 =10.345 =$ p-value of 0.16<0.05, the study also reavealed a relaionship between assurence need and medical diagnosis of baby with ($\chi 2= 7.506$,p-value = 0.05=0.05

4.6 Conclusion

This chapter four has presented the results from completed questionnaires that were administered to study participants. The findings were grouped into demographic characteristics, assessment of the most parent's needs, challenges in satisfying parent needs, and factors associated with parent's need .The next chapter discusses the results in light of their relevance and how they compare with other relevant researches in the field.

CHAPTER V DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This final chapter discusses the study's results in relation to the aim and objectives as well as relevant literature reported from different studies. The primary aim was to assess needs of parents of newborn admitted in NICU at Muhima district hospital.In this chapter, discussions of results are categorized according to the study's specific objectives: To Identify the most parents needs in neonatal intensive care at Muhima district hospital,to determine the barriers in satisfying parents needs with a baby in NICU, and to determine associated factors to parents needs with baby in NICU.Finally, conclusion and recommendations from this study are drawn.

5.2 Discussion of findings

5.2.1 Research objective 1: to identify the most parents needs in neonatal intensive care at muhima district hospital

To explore the first question, the NICU Family Needs Inventory was administered to a sample of 92 parents with infants hospitalized in the NICU. In general, parents viewed needs in the assurance area as most important and needs in the comfort area as least important to have fulfilled while their babies are in the NICU.

Current literature emphasize the importance of accurately assessing and responding to the needs of families involved in early intervention programs. These best practices are even more evident when reviewing the recommendations of researchers who work with parents of infants in the NICU

Yet little is known about the needs parents have during their infants' hospitalizations, or if parent and infant characteristics influence those needs. More specifically, since we know the NICU can be a stressful and overwhelming environment for parents of the babies who are cared for there, hospitals continue to search for ways in which they can provide effective assistance during this time. Parent support programs are becoming increasingly more common in hospitals with NICUs; however, simply designing and offering a program is not enough. If it does not meet the needs of the population for which it was developed, it is simply a waste of effort, time, and money.

According Ward (2001),practitioners who misinterpret needs and subsequently provide inappropriate supports and resources can often discourage families from seeking the assistance that may truly help them (Ward,2001). While taking care not to assume that all families need the same thing,

In this study, and similar to the results obtained from a previous study using the NICU Family Needs Inventory (Ward, 2001), the majority of mothers ranked as most important fell in the category of assurance needs. Finding supports the conclusion drawn by other researchers that parents of infants in the NICU have an incredible amount of anxiety and fear about their babies' Outcomes; understandably, they have reported fears about their infants dying and the possibility of chronic health problems and/or disability (Ward K.2001, p: 281-6)

The study results describe the needs of parents of babies in a NICU, and indicate that the finding ranked the five needs importance subscales from highest to least as assurance, information, proximity, support , and comfort, Other studies have shown similar results. However, information needs were reported as the most important need in several studies. respondents in this study rated information needs as the second most important need. However, the mean for this subscale was 3.77, suggesting that this need is also very important.Parents in this surveyed group rated comfort needs as the least important subscale need. These findings are different to those found by Mundy, 2010,who rated the support need as the least .the comfort need are especially "To have a comfortable chair at my infant's bedside, to have food available in the hospital, and to be alone when I want. (Ward K, 2001).

The results of this study again show assurance and information-related needs as the most important. similarily with the one done in 2001 by Ward K, with the purpose of identifying the perceived needs of parents of infants in a neonatal intensive care unit (NICU),.find that the participants reported assurance and information-related needs as the most important, contrary to our study which range the comfort on the least important,Ward him find that the support needs were ranked as least important (Ward K.2001, p: 291-6)

The assurance need was ranked as the most important, as infants' parents are exposed to fear, anxiety, and uncertainty about the chance and future health of their infant in the NICU. It can be implied that the need for being encouraged about the survival of the baby was the first priority. Hence, the expression of reciprocal empathy and concern by staff, as well as the use of inspiring and encouraging words along with care, can be very valuable

The finding that assurance needs were ranked as the most important overall is consistent with the results from several studies that have investigated parents' perceptions of their needs in the NICU((Tsironi *et al.*, 2012). However, this finding is inconsistent with other studies that have reported information needs to be the most important ((Tsironi *et al.*, 2012)These differences in needs ranking reaffirms that parents' needs must be assessed on an individualized basis to enhance the likelihood of them being addressed effectively (Cynthia A. Mundy, 2010)as the needs of two individuals are not the same the reported difference in needs ranking may be influenced by the timing of the data collection, age, gender, family structure, and degree of illness of their babies ((Tsironi *et al.*, 2012)

Centered on the findings of this study, support and comfort were thus ranked as the least important needs by parents which is consistent with the findings of other studies (Bialoskurski et al., 2002; Mundy, 2010; Obeisat & Hweidi, 2014; Ward, 2001), suggesting that during the hospitalization period, less emphasis is placed on these needs.

Ward, 2001 and Mundy, 2010 constated an interesting point about the ranking of comfort and support by parents is the facility in which their study was conducted.their study setting doesn't have groups support for parents. Similar to the findings of our studies who dont provides formal and informal support group for parents, these needs were still rated the lowest, indicating that during this period parents, might only be ready to attend to the immediate needs and well-being of their infants ,so that peer support and their own comfort is less of a priority

5.2.2 Research objective 2: limits and challenges in satisfying parents' needs in the nicu

As presented in our study, participants (37.0 %) were of the view that they did not have information on the time of admission, most of the time parent are informed to the state of the babies before transferring theming others services but because of stress and pain during childbearing a mother

may not pay attention on what midwife is saying which is confirmed by study done Priscilla in (2015).The results of that study indicated that parents experienced stress from having their infants cared for in a NICU. once an infant is admitted to a NICU, many factors account for parental stress. the birth of a newborn baby that results in the admission to a nicu is the initial stressor for a family. parents fear for the survival of their infant and begin experiencing feelings of worry, similarly, the noticeable influence of the infant's condition on parental stress is also reported the medical condition of an infant and the required medical/surgical treatment might directly increase parental stress (Ichijima, 2009,p8)

The 42(45.7%) of participants claimed to don't had money for paying hospitalization of their babies. the most stressful events were the appearance and behavior of the baby, in addition, that study find that parents' age, educational level, occupation, and infant birth weight were associated with parental stress.(Musabirema, brysiewicz and chipps, 2015,p 1499)

similar to this studies, which reveal that participants (37.0 %) were of the view that they did not have information on the time of admission, 26.1% agreed to not participate in baby care during hospitalization in 2016, Martin find that the nurse/parent relationship and distinct positive and negative nursing behaviors are important factors affecting parental satisfaction with NICU care. according to martin et al., parents were dissatisfied with how nurses supported them, wanting compassionate and respectful communication and nurses that were attentive to their children. parents were not also most dissatisfied with inconsistent nursing care and lack informative exchanges, wanting education about their child's short and long-term needs(Martin *et al.*, 2016)
A big majority of respondents represented by 90.1% agreed that caregivers were not sensitive with other pressure of their life. However 25(27.2%) confirming being informed when baby condition was change As previous Western studies have demonstrated, valuing parents to take charge of their infants is essential; even if their physical involvement in their infant's care may not always be necessary (*I*chijima, 2009,p12)

5.2.3 Research objective 3: to identify the associated factors to parents' needs with baby in NICU

In addition bivariate analysis was used to determine the relationship between dependent variable and demographic characteristics and other selected variables under study. The results, indicated

that among the factors believed to affect the parent's needs, those having a significant association are between the assurance need and age of respondents, assurance need and having other children at home where ,another association is between the information need and frequency of visiting baby also association have observed between being comfortable among respondents who supported by neighbor, friends, and parents. The study also revealed a relationship between assurance need and medical diagnosis of baby

The study showed that among respondent 46%were not supported by their paterners(husband) in addition, the respondent was almost composed by mothers, of the 92 respondents, 1.1% were male. Which mean that babies are cared by their mothers. This may be explained that the study setting don't have room where male my spend night, because is almost hospital for women.mother who has sick baby stay in their room in waiting recovering of their baby, Which is differently to the study done by Fabris in (2009) aimed at creating a comprehensive group psychoeducational. He worked with a group of 10-18 people composed by parents who currently have an infant in the NICU, they found that, fathers are often the first one to be present in the NICU. So that they may have had in mind for their infant's health and appearance and condition. (Thon, 2013)

In the same study also Thon in (2013) revealed that the father often needs to assume more responsibility in the care taking role due to the mother's health status. Fathers have to play both mother and father's role until the mother fully recovers from the birth. Consequentially , they have been found to experience anxiety surrounding becoming a father to a premature or a sick infant, resulting of experiencing a feeling of helplessness and fear of the unknown future of their babies (Thon, 2013) .In the same study, they also have discovered that fathers commonly have more difficult of taking time off from work when the baby is born, resulting in fewer visits and less time to see the baby in the NICUThon, (2013) which may be similar to the present study where mothers represented by the 98.8% of the parents interviwed, and only 53.3% respodents were supported by their partnels

the studies did not reveal any significant relationship between parents education level and different needs assessment .however other authors have suggested that parents education is associated with the quality of parent-infant interactions and a greater knowledge of infant development (Cynic et al., 1986; Hess, Teti, & Hussey-Gardner, 2004).Therefore, these parents may actively seek more

information and explanation regarding their infants' courses of care in the NICU as they may have a better understanding of the potential ramifications of neonatal illness. Consequently though, this same increased understanding may also lead to higher levels of anxiety, which could account for the need for more emotional support

The study also revealed a significant relationship between assurance need and medical diagnosis of baby compared to the result of the study of Amy L. Nicholas done in 2006 Aimed to identify the needs that mothers feel are most important to have fulfilled while their infants are in the NICU and to examined the relationships between maternal needs and certain parent and infant characteristics done in the NICU of a mid-Atlantic, inner-city hospital, a quantitative research sample size of 46 mothers *using ICU Family Needs Inventory As instrument was used* and The results from this study also suggest two significant relationships between parent and infant characteristics and mothers' needs. These findings reinforce a component in Family Systems Theory which explains important influence of characteristics of both the entire family and individual members on family reaction and adjustment to stress.

Amy L. Nicholas done in 2006 analyses revealed that higher to be unemployed increased Support needs. The recent study revealed that there were no significant relationship between b having job and not did not correlate with the support need($P=0.20>0.05$) ; having medical insurance or not don't have an influence on support need this may be explained that price of hospitalization in NICU are expensive, some may have job without family or involvement of paternal in baby care and other parent don't have good remunerated job an addition most of care and medications in NICU are not covered by community health based medical insurance which covered by 67% of our respondents

CHAPTER VI CONCLUSION AND RECOMMENDATIONS

In sum, parents find all needs important in NICU but, a large percentage of participants have reported that assurance and information are the most needs in neonatal intensive care. Among barriers, the study revealed a big majority who confirm that caregivers were not sensitive with other pressure of their life, absence of information on the time of admission, also some of partners do not give support to their pair during hospitalization, while majority have confirm the absence of privacy when caregiver talked with them.

The study have exposed also association between the assurance need and age of respondents, and having other children at home and medical diagnosis of baby ,another association have been discovered between the information need and frequency of visiting baby and being comfortable and respondents who don't supported by the partners. This responds to the theory guiding the present study which is the Comfort model of Kolcabas, which argues that if the needs for three forms (relief, easy and transcendence) are be satisfied in all four contexts, the exact holistic care of patient is accomplished. Because according this model of comfort, if all levels of comfort are not perceived by parents as satisfied, there are not completely supported and obtainable to focus to their cherished baby. The assumption of comfort care is that when need of patient and family's comfort are met in total, they are strengthened and able to coop with the treatment. However, findings in this study could be useful in designing care model as well as formulating policies that may influence deliverance of care in neonatal intensive care.

In addition This study documented the needs of parents of infants in neonatal intensive care and examined the barriers in satisfying need in NICU. Nurses cannot assume that they know the needs of families from previous experiences. Health care providers must look at each family as an individual group with specific needs. The neonatal family need inventory must be used to identify those needs and allows the integration of individualized nursing care to fulfill those needs and promote a more positive family-centered experience in the NICU for patients and their families.

6.2 CONCLUSION

Identifying the needs of parents in the NICU can enhance nursing communication and allow nurses to incorporate families' needs into the plan of care. For example, nurses can provide more support

services to families during the week of admission, knowing that this is an important need for families during this time. Family-child interactions and inclusion of the family in infant care activities can be based on family needs to promote individualized holistic family-centered care. Determining the most and least important needs of parents allows nurses to objectively define actual needs instead of placing subjective assumptions on family needs. In addition to interviewing the mother and father of the infant, researchers should include other family members because they are an integral part of the child's life and a support system to the family unit.

6.3 RECOMMANDATION

The use of multiple research centers in different geographical locations, within various organizations and among diverse groups of participants, would be better so increase the generalizability of the results.

- **In nursing education and research** :To emphasis of training of nurses and midwives in parent need monitoring should be mandatory in all schools of nursing and midwifery.
- To put in place practical guidelines on the procedure of parent need assessment and also make sure the procedure are properly used in all neonatology unit
- **In nursing practice** :Periodic workshops and seminars should be organized for nurses and midwives and other neonatal healthcare providers on the importance of family centered care which include parents need, and parent group teaching .
- **In nursing leadership and management:**The Rwanda Nurses and Midwives Council (RNMC) needs to consider incorporating usage of family centered care in neonalology in the Continued Professional Development In collaboration with health facilities

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APPENDICES

APPENDIX 1 : QUESTIONNAIRE ENGLISH VERSION

Dear Parent,

I am Denyse MUSENGIMANA a Master Student in nursing in neonatal tract at University of Rwanda conducting my Master's research project. I am asking you to participate in this project which will consist **of assessment of parents needs in neonatal intensive care.** The purpose of the project is to assess needs of parents of newborn admitted in NICU

The questionnaire result will not affect you during the time of your baby hospitalisation. And your name is not recorded on the test and is therefore anonymous (not identifiable). There are no risks to you to participate in this project and the participation is voluntary. This means identification will not be included in any records presentation and your answers in this questionnaire will not be shared with any other person.be sure , the health care team will treat you in the same way whether or not you choose to participate in this study.

Your participation in this study is highly appreciated and is for invaluable contribution in the improvement of the quality of care in satisfying parents needs with a baby in NICU.

For any information and clarification you can contact my supervisor Mrs Olive Bazireteof, on baziretoliva@gmail.com or on phone +250788541013

Kind Regards

Sincerely,

Denyse MUSENGIMANA, RM, BNE

Masters in nursing candidate, University of Rwanda

CODE OF QUESTIONNAIRE.....

SECTION A: ***DEMOGRAPHIC CHARACTERISTICS OF A PARENT : TICK AS APPLICABLE.***

Please answer the following questions

1. **What is your age**

age	Yes	No
15-20		
20-25		
25-30		
20-35		
35-40		
+40		

2. **What your relationship with the baby**

relationship	Yes	No
Mother		
Father		

3. **Do you have other children at hom**e?

Yes ☐

No ☐

4. **What is your level of education?**

level of education	Yes	No
None		
Primary school		

3 years of high school		
6 Years of high school		
University		

5. What is your marital status?

status	Yes	No
Married		
Single		
Divorced		
Separated		
Widower		

6. Is the baby's father/mother involved?

Yes ☐

No ☐

7. If not Who is your main support person?

persons	Yes	No
Friend		
Neigbour		
Parent(s)		
Grandparent(s)		

8. How often do you visit your baby?

time	Yes	No
everytime		
Every3hours		

3 times a day		
Twice a day		
Once a day		
After one day		

9. What was your delivery mode

Delivery mode	Yes	No
Vaginal		
Vacuum delivery		
C-section		

10. **Are you currently employed?**

Yes ☐

No ☐

11. What type of health insurance do you have

insurance	Yes	No
- None		
2- private		
3- Public medical		

12. do you stay at hospital?

Yes ☐

No ☐

SECTION B: INFANT HEALTH INFORMATION

1. **Sex**

SEX	**yes**	**no**
Female		
male		

2. **Birth weight**

Birth weight	Yes	No
Under 800g		
800g-1000g		
1000-1500g		
1500g-2500g		
2500g-3500g		
Above 3500g		

2. **What was the gestational age of your baby?**

Gestation age	Yes	No
Under 28weeks		
Between 28-32		
Between 32-36		
Above 37 weeks		

4. Birth type

Birth type	Yes	No
Single		
Twin		
Triplet		

5. Length of stay in the NICU

Days	Yes	No
1-7		
8-14		
15-28		
More than 28days		

6. **What is the current respiration mode of your baby?**

Current respiration mode	Yes	No
Room air O2		
CPAP		
Nasal canula		

7. What is the current bedding mode of your baby

Current bedding	Yes	No

open crib isolate		
incubator		
bed coat		

8. What is Current feeding mode of your baby

.Current feeding;	Yes	No
fomula milk		
breast feeding		
fluids		

10. what is the type of feeding of your baby

type of feeding	Yes	No
nasal gastric tube		
sucking on breast /bootle		
iv fluids		

11what is medical diagnosis of your baby

diagnosis	**yes**	**no**
prematurity		
Neonatal infection		
Birth asphyxia		

Prematurity and R.destress		

SECTION C:QUESTIONS RELATED TO THE MOST IMPORTANT NEEDS OF PARENTS WITH A BABY IN NICU

TABLE RATING OF PLEASE CHECK (√) HOW IMPORTANT EACH OF THE FOLLOWING NEEDS ARE TO YOU 0785616210

Needs	Not important	Somewhat important	Important	Very important
1. To have questions answered honestly(.A)				
2. To see my baby frequently. (P)				
3. To be called When there is changes in my baby's condition. (I)				
4. . To know how my baby is being treated medically. (I)				
5. To know specific facts concerning my baby's progress. (I)				
6. To know why things were done for my baby. (I)				
7. To know the expected outcome.(A)				
8. To have explanations given those are understandable. (A)				
9. To have comfortable chairs at my infant's bedside. (C)				
10. To talk to the doctor every day. (A)				

11. To feel free to choose to stay or leave when my infant is experiencing painful procedures. (P)				
12. To be able to talk to other parents whose infant is in the NICU or has had a similar situation. (S)				
13. To hold my infant in my arms and against my skin as soon as I can. (P)				
14. To be assured it is alright to leave the hospital for a while. (A)				
15. To talk about the possibility of baby's death. (I)				
16. To have someone to help with financial problems. (S)				
17. To have a pastor visit supp (S)				
18. To have food available in the hospital. (C)				
19. To have another person with me when visiting the NICU.(s)				
20. To be alone when you want. (C)				

Legend: The 5 Subscales of the instrument are: (A)= Assurance, (P)= Proximity, (I)= Information, (C)= Comfort, and (S)= Support

SECTION D:QUESTIONS RELATED TO THE BARRIERS ON SATISFACTION OF PARENTS NEEDS WITH A BABY IN NICU

Im not satisfied because:

	Strongly aggree	aggree	disagree	Strongly diagreed
1. I do not have information on my babies condition during admission				
2. Ido not participate in caring my baby during hospitalisation				
3. My paterner do not support me during hosptalisation of my baby				
4. I found the NICU as a place of suffering and waiting.				
5. I don't know how many days my baby will be hospitalized				
6. I have realized that staff lacking competence to care for the sick child				
7. I don't have money for paying hospitalization of my baby				
8. I'm not informed when my baby condition change				
9. Caregiver are not sensitive with other pressure of my life				
10. Caregiver don't talk me in privacy				

APPENDIX 2 : PARENT CONCERN FORM ENGLISH VERSION

I……..give voluntary permission to participate in the research project "assessment of parents needs in neonatal intensive care unit

I understand that the result from this study, which assesses parents needs in neonatal intensive care units will provide base line information on satisfying the parents needs of a newborn require the neonatal intensive care I understand that the questionnaire result will not affect me during the time of my baby hospitalisation of and will be kept without names.

…….

Parent's signature and date

APPENDIX 3 : QUESTIONNAIRE IN KINYARWANGA

Nyakubahwa, Madamu, Bwana,

Njyewe, **Musengimana Denyse ,** umuforomokazi n'umunyeshuri mukiciro cya gatatu cya Kaminuza mu ishami ry'Ubuvuzi bw'Indwara zimpinja , muri Kaminuza y'u Rwanda, Koleji y'Ubuzima n'Ubuvuzi, nejejwe no kubasaba kugira uruhare muri ubu bushakashatsi bufitwe insanganyamatsiko igira iti: " **GUSHAKASHAKA IBYIFUZO BY ABABYEYI IGIHE BAFITE UMWANA MU BITARO BY IMPINJA ZIREMBYE"**

Ubu bushakashatsi bugamije kumenya ibyifuzo by ababyeyi bafite uruhinja rwakiriwe munzu y indembe. nk'uko insanganya matsiko ibigaragaza..

Nyakubahwa Madamu / Bwana, kugira uruhare muri ubu bushakashatsi ni ubushake bwanyu, si agahato kandi mbijeje ko , ubushake, uruhare n'amakuru muzatanga muri ubu bushakashatsi bizagirwa ibanga . bivuzeko, amazina yanyu, ibisubizo muzatanga kurupapuro rw'ibibazo, cg ubundi buryo ubwaribwo bwose buzakoreshwa mukuranga urupapuro mwasubirijeho, ntaho bizandikwa cyangwa ngo bigaragazwe. Mbijeje ko kutagira uruhare muri ubu bushakashatsi nta ngaruka n'imwe bizabagiraho kandi mwemerewe guhagarika kubugiramo uruhare igihe icyo aricyo cyose bitewe n'impamvu zanyu bwite.

Kugira uruhare muri ubu bushakashatsi ni ibyagaciro gakomeye, ni inkunga ntagereranywa mu guteza imbere umurimo unoze mu birebana no gukurikiza ibyifuzo byose umubyeyi yagira igihe uruhinja rwe ruri mubitaro by indembe.

Mbashimiye ubwitange n'uruhare rwanyu muri ubu bushakashatsi

Murakoze.

Denyse MUSENGIMANA

Numero y' urupapuro rw' ikibazo.....

IGICE CYA MBERE *:UMWIRONDORO W UMUBYEYI*

shyira aka akamenyetso aho bigomba v:

1. **Ufite imyaka ingahe ?**

Imyaka	**Yego**	**Oya**
15-20		
21-25		
26-30		
31-35		
36-40		
+41		

2.Upfana iki n umwana urwaye ?

relationship	**Yego**	**Oya**
Mama we		
Papa we		

3.Ufite abandi bana murugo?

Yego ☐

oya ☐

4.Wize amashuri angahe?

Amashuri	**Yego**	**Oya**
Ntayo		
Amashuri abanza		

amashuri 3yisumbuye		
Amashuri 6 yisumbuye		
kaminuza		

5. irangamimerere :

Iranga mimerere	**Yego**	**Oya**
warasezeranye		
Uri ingaragu		
washatse gatanya		
mwaritandukanyije		
warapfakaye		

6. Uwo mwashakanye ari kugufasha muburwayi bw umwana?

Yego ☐

Oya ☐

7. **Niba ari oya Ninde uri kugufasha**

ugufasha	**YEGO**	**OYA**
inshuti		
umuturanyi		
umubyeyi		
Nyogokuru/sogokuru		

8.Umwana wawe umusura kangahe

igihe	**YEGO**	**OYA**
Buri saha		
Buri masaha3		

Gatatu kumunsi		
2 kumunsi		
1kumunsi		
umunsi ushira ntamusuye		

9.Umwana wawe wamubyaye gute?

Uko wabyaye	**YEGO**	**OYA**
Kubyara neza		
Bamukuruje ibyuma		
warabazwe		

10.Ufite akazi?

Yego ☐

Oya ☐

11.ufite ubuhe bwishingizi

ubwishingizi	**YEGO**	**OYA**
ndiyishyurira		
Mituelle		
3-ubundi bwushingizi		

12. Ese uba mubitaro

yego ☐

Oya ☐

IGICE CYA 2 :AMAKURU AREBANA N UMWANA

1.

Igitsina	**yego**	**oya**
gabo		
gore		

2. **ibiro yavukanye**.

IBIRO	**YEGO**	**OYA**
Munsi ya 800g		
Hagati 801g-1000g		
Hagati 1001-1500g		
Hagati 1501-2500g		
Hagati 2501g-3500g		
hejuru 3500g		

3.Umwana wawe yavukiye ibyumweru bingahe

IBYUMWERU	**YEGO**	**OYA**
Munsi y ibyumweru 28		
Hagati y ibyumweru 28na32		
Hagati yibyumweru 32na37		
Hejuru y ibyumweru37 weeks		

4. **Yavutse ari:**

	YEGO	**OYA**
umwe		

Impanga2		
Impanga3		

5.**Mumaze iminsi ingahe mubitaro..**

iminsi	**yego**	**oya**
hagati1-7		
hagati7-14		
hagati14-28		
Hejuru ya28		

6. Nigute bari kumufasha guhumeka?

uburyo ahumeka	**yego**	**oya**
Ntamwuka bamwongerera		
Bakoresha ibyuma bicometse mumazuru		
Hanyuza ogusigeni mumazuru		

7.Umwana wawe aryamyehe?

AHO ARYAMYE	**yego**	**oya**
Ku itara rishyushya		
Muri kuveze		
Muri beriso		

8.Umwana wawe ari kunywa(atunzwe) iki :

	yego	**oya**
Amata y ifu		
amashereka		
serum		

9. Nigute umwana wawe anywa?

	yego	**oya**
Bakoresha umupira uri mumazuru		
Akurura kwibere/inkongoro		
Banyuza mumutsi		

IGICE CYA3:IMBONERAHAMWE YEREKANA IBYIFUZO BY ABABYEYI IGIHE BAFITE UMWANA MU BITARO BY IMPINJA ZIREMBYE

Shyira akamenyetso *v)*aho uhisemo

Ibyo umubyeyi akeneye	**Singombwa cyane**	**singombwa**	**birakenewe**	**Birakenewe cyane**
21. Gusubizwa ibibazo byose abajije				
22. Kureba umwana kenshi gashoboka				
23. Guhamagarwa igihe ubuzima bw umwana buhindutse.				
24. Kumenya imiti umwana ari guhabwa.				

25. Kumenya byukuri ibiri gukorerwa umwana wanjye.				
26. Kumenya niba umwana wanjye yoroherwa.				
27. Kumenya impamvu y ibiri gukorerwa kumwana wanjye..				
28. Kumenya ingaruka bizamutera				
29. Guhabwa ibisobanuro byumvikana.				
30. Kubona intebe nziza yo kwicaraho iruhande rw umwana wanjye.				
31. Kuvugana na dogiteri buri munsi.				
Ibyo umubyeyi akeneye	**Singombwa cyane**	**singombwa**	**birakenewe**	**Birakenewe cyane**
32. Kugira uburenganzira bwo kugenda cg kuhaguma igihe umwana wanjye akorerwa ibimubabaza..				
33. Gushobora kuvugana n abandi babyeyi duhuje ikibazo.				
34. Guterura umwana wanjye mu ntoki igihe mbishoboye				
35. Kuba mubitaro hatuje igihe umwana wanjye asinziriye.				
36. Kwemererwa kuva kwa muganga akanya gato ukajya mubyawe.				
37. Kubwirwa ko umwana wawe ashobora gupfa				
38. Kugira umuntu wagufasha mu bushobozi bwamafaranga				

39. Gutegerereza hafi y umwana wawe				
40. Kugira pasteur/padiri iruhande rwawe				
41. Kuba warira igihe ubishakiye.				
42. Kubona ibiryo byiza kwa muganga				
43. Kugira undi muntu tujyana gusura umwana				
44. Kuba njyenyine igihe mbikeneye				

IGICE4 : IBIBAZO BIREBANA N'IGITUMA IBYIFUZO BY ABABYEYI BAFITE URUHINJA RWAKIRIWE MU BITARO BY' INDEMBE BITAGERWAHO.

IBYO NIFUZA NTIBIGERWAHO KUBERA KO:

IGITUMA IBYIFUZO BY ABABYEYI BAFITE URUHINJA RWAKIRIWE MU BITARO BY' INDEMBE BITAGERWAHO	Ndabihamya cyane	ndabihamya	ngabihakana	Ndabihakana cyane
1. Nta makuru yerekana uburwayi bwumwana nahawe igihe bashakaga ku mushyira mubitaro				
2. Mu bikorerwa umwana byose muri ikigihe ari mubitaro ntaruhare mbigiramo				
3. Uwo twabyaranye ntakintu amfasha muri ikigihe umwana ari mubitaro				
4. Muri ibi bitaro byimpinja ni ahantu ho gutegerereza no guhangayikira.				

5. Muganga ntambwira iminsi nzamara muri ibi bitaro				
6. Mbona abaganga bahano ntabushobozi bafite bwo kuvura uruhinja rurwaye				
7. Nta magaranga mfite yo kwishyurira ibyo bakorera umwana wanjye				
8. Muganga ntamenyesha iyo ubuzima bw umwana wanjye bwahindutse				
9. muganga ntiyita kubindi bibazo mfite				
10. muganga ntanyihererana iyo ashaka kunganiriza				

MURAKOZE CYANE!

APPENDIX 4 : URUPAPURO RUGENEWE UMUBYEYI WEMEYE KUGIRA URUHARE MIBUSHAKASHSTSI(KINYARWANDA VERSION)

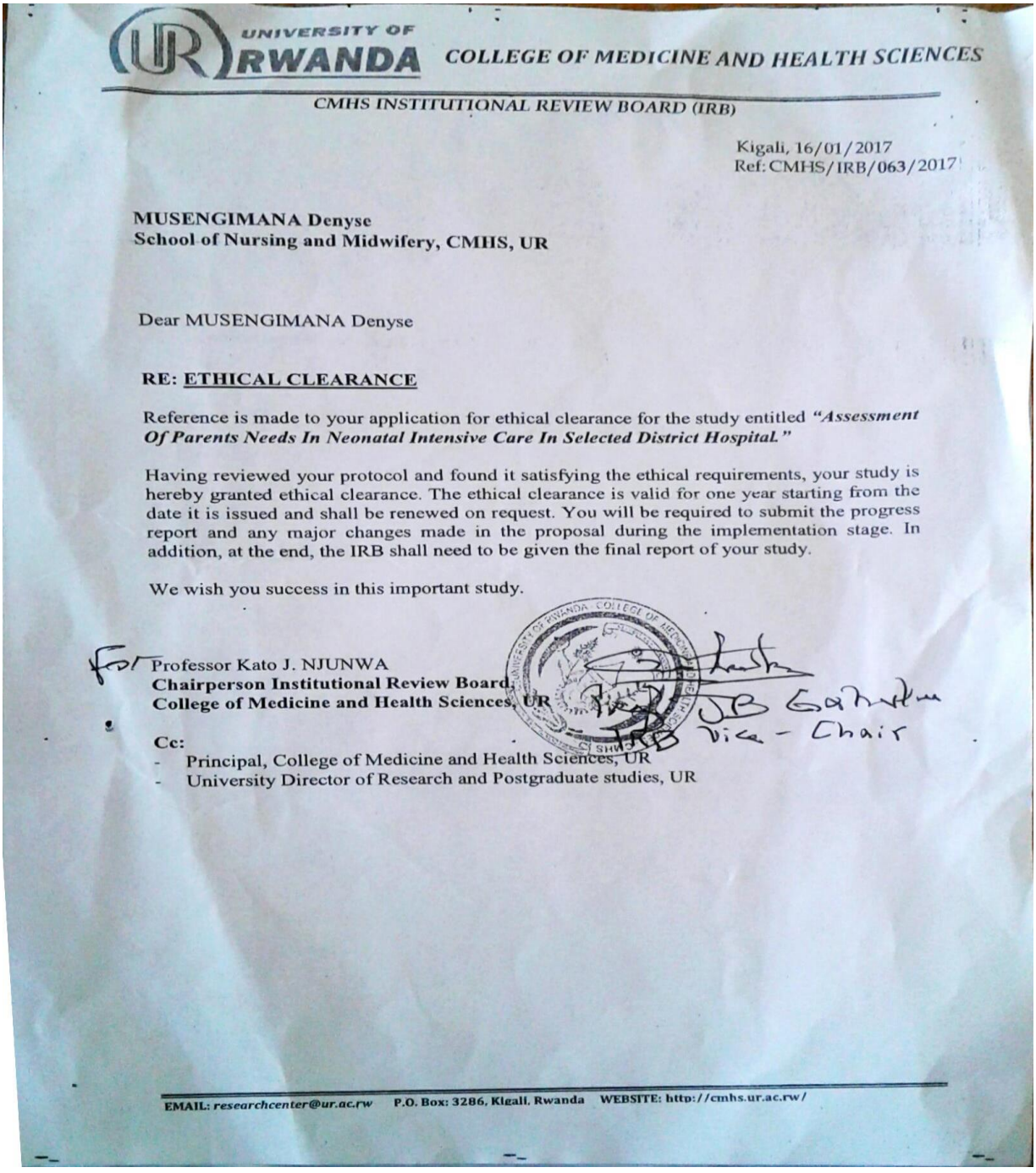
Njyewe…….nemeye ku bushake bwanjye kugira uruhare mubushakashatsi bugamije kumenya ibyifuzo by ababyeyi bafite uruhinja rwakiriwe mu bitaro by' indembe.

Niyumvisha neza ko ububushakashatsi buzabona amakuru kuburyo ibyifuzo by ababyeyi byakubahirizwa igihe impinja zabo zikeneye kwitabwaho mubitaro by indembe. Nasobanuriwe ko ntazina ryanjye rizatangazwa, kandi ko kubanasubije ibi bibazo ntacyo bizahungabanya kuburyo umwana wanjye arimo kwitabwaho.

…….

Amazina n'umukono by umubyeyi.

APPENDIX 5 : ETHICAL CLEARENCE



UNIVERSITY OF RWANDA — COLLEGE OF MEDICINE AND HEALTH SCIENCES

CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 16/01/2017
Ref: CMHS/IRB/063/2017

MUSENGIMANA Denyse
School of Nursing and Midwifery, CMHS, UR

Dear MUSENGIMANA Denyse

RE: ETHICAL CLEARANCE

Reference is made to your application for ethical clearance for the study entitled ***"Assessment Of Parents Needs In Neonatal Intensive Care In Selected District Hospital."***

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.

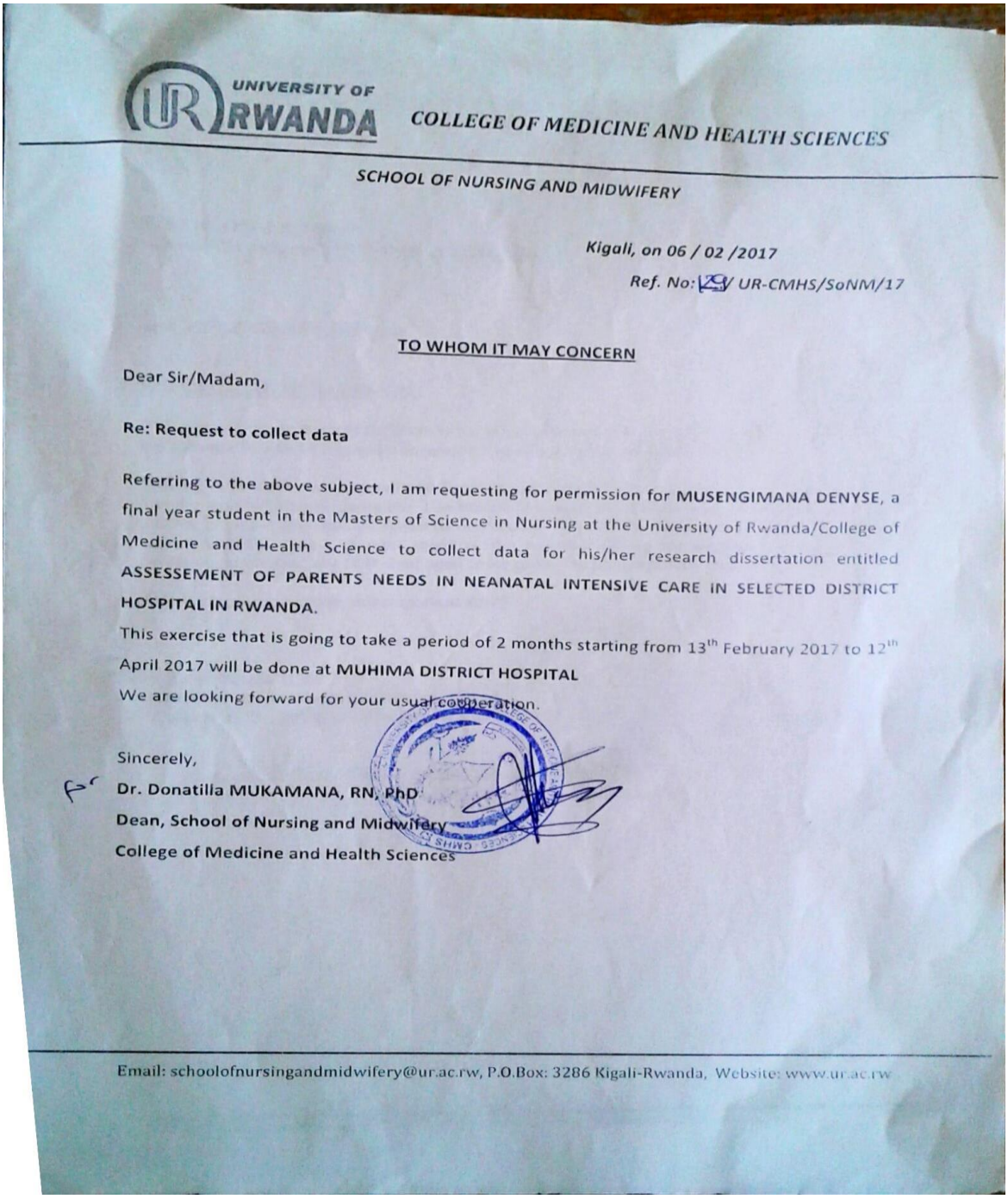
for Professor Kato J. NJUNWA
Chairperson Institutional Review Board,
College of Medicine and Health Sciences, UR

JB Gahutu
Vice - Chair

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

EMAIL: researchcenter@ur.ac.rw P.O. Box: 3286, Kigali, Rwanda WEBSITE: http://cmhs.ur.ac.rw/

APPENDIX 6 : REQUEST FOR DATA COLLECTION



UNIVERSITY OF RWANDA

COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

Kigali, on 06 / 02 /2017

Ref. No: 129/ UR-CMHS/SoNM/17

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Re: Request to collect data

Referring to the above subject, I am requesting for permission for **MUSENGIMANA DENYSE**, a final year student in the Masters of Science in Nursing at the University of Rwanda/College of Medicine and Health Science to collect data for his/her research dissertation entitled **ASSESSEMENT OF PARENTS NEEDS IN NEANATAL INTENSIVE CARE IN SELECTED DISTRICT HOSPITAL IN RWANDA.**

This exercise that is going to take a period of 2 months starting from 13th February 2017 to 12th April 2017 will be done at **MUHIMA DISTRICT HOSPITAL**

We are looking forward for your usual cooperation.

Sincerely,

Dr. Donatilla MUKAMANA, RN, PhD

Dean, School of Nursing and Midwifery

College of Medicine and Health Sciences

Email: schoolofnursingandmidwifery@ur.ac.rw, P.O.Box: 3286 Kigali-Rwanda, Website: www.ur.ac.rw

APPENDIX 7 : REVIEW APPROVAL NOTICE

REPUBLIQUE DU RWANDA

VILLE DE KIGALI
DISTRICT DE NYARUGENGE
HOPITAL DE MUHIMA
B.P : 2456 KIGALI
Tél /Fax : +252 50 37 7
E-mail : muhimahospital1@gmail.com

ETHICS COMMITTEE/ COMMITTEE D'ETHIQUE

06 January, 2017

Review Approval Notice

Dear Denyse MUSENGIMANA,

Re: Your request to conduct a research at Muhima hospital.

During the meeting of ethic committee of Muhima District Hospital that was held on 03 February 2017 to evaluate your demand we are pleased 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 research, or research termination for any reason. The committee expects to receive a final report at the end of the research.

Yours sincerely,

Dr MANIRAGUHA YEZE Aimée Victoire

Chair Person, Ethics Committee

MUHIMA HOSPITAL
ETHIC COMMITTEE

APPENDIX 8 : APPLICATION FOR A FEES WAIVER OF PROTOCAL REVIEW

Denyse MUSENGIMANA

Kanombe –Kicukiro

E-mail: denysa0@yahoo.fr

Tel: 0788588569

12th December 2016

To: The IRB chairperson / CMHS/UR

Respected Sir,

RE: APPLICATION FOR A FEE WAIVER OF PROTOCAL REVIEW

I humbly request for a fee waiver in CMHS Institution review board (IRB).I am a student at the University of Rwanda College of Medicine and Health Sciences Nyarugenge Campus. I would like to do conduct my study at Muhima district Hospital . I need a fee waiver because I don't have a grant for the study and it is very hard for me to raise the money for the review.

Looking forward to your positive response.

Denyse MUSENGIMANA

Supervisors Approval

APPENDIX 9 :LETTER OF PERMISSION OF TOOLS USING

Dear Researcher,

Please find enclosed a copy of the *Critical Care Family Needs Inventory*. You have my permission to use/modify and/or translate the tool to meet your research needs as long as credit is referenced in your work. The psychometric properties of the instrument are published in Leske, J.S. (1991). Internal psychometric properties of the Critical Care Family Needs Inventory, Heart & Lung, 20, 236-244. Please do not hesitate to contact me if you have any questions. Best wishes for a successful research project.

Sincerely,

Jane S. Leske PhD, RN

APPENDIX 11 :CERTIFICATE OF COMPLETION

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Denyse MUSENGIMANA** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 10/18/2016.

Certification Number: 2201329.