



**HEALTH SEEKING BEHAVIORS OF PARENTS/CARETAKERS OF
CHILDREN WITH SEVERE RESPIRATORY INFECTIONS IN A
SELECTED REFERRAL HOSPITAL IN RWANDA**

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DECLARATION

We do hereby declare that this dissertation submitted for Partial Fulfillment of the Requirements for the Master in Nursing, in the School Nursing and Midwifery, College of Medicine and Health Sciences at University of Rwanda is our original work and has not previously been submitted elsewhere. Also, we do declare that a complete list of references is provided indicating all the sources of information quoted or cited.

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DEDICATIONS

This dissertation is dedicated to my Husband and Children. In all humility, this dedication is my humble recognition for your importance to me and my destiny.

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ABSTRACT

Introduction: Health seeking behavior determines how a community uses health services. Timely and appropriate health seeking behaviors if practiced by caregivers of children with severe respiratory infection can have a significant impact on child survival.

Aim: This study aimed to examine the health seeking behaviors of parents/caretakers for their children with respiratory infections in referral hospital in Rwanda to analyze the associated factors.

Methods: This study used a cross sectional study design. Data was collected by using a structured questionnaire. A sample size of 149 participants was used. Ethical approval was obtained from Institutional Review Board of University of Rwanda, College of Medicine and Health Sciences. The study was conducted in a selected referral hospital in Rwanda from March 2017 to April 2017.

Results: Out of 149 caretakers, 122 (81.9%) were mothers, majority (67.1%) were aged more than 30 years old, 49 (32.9%) of them were illiterate and 53(35.6%) belonged in the Lower class (category 1). Out of 149, 86 (58.6%) children were previously treated and (42.4%) children were brought directly to the OPD. Treatment was taken from pharmacy in 44.3% of all cases. Only (5.3%) reported health center as the first place of call for health care sought by respondents in the treatment of children. Around 43% sought care within 24 h of the onset of illness while eighty-three (56%) sought care after two days of the onset of illness. It was found that 59.7% of all participants were not aware of any danger signs. Factors associated with time lapse in approaching the source from where treatment was taken or first port of call for health care sought by respondents in the treatment of children were caregiver's age category (p -value=0.021), Care giver's Educational Level (p -value=0.017), caregiver's occupation (p -value=0.028), wealth quintile (p -value=0.041), children's age category (p -value=0.008), children's birth order (p -value=0.010), awareness of danger (p -value=0.025) and satisfaction with welcoming (p -value=0.017).

Conclusion: There was poor health seeking behaviors of parents/caretakers of children with severe respiratory infection. This was evidenced by delay of time lapse in sought of care from onset of illness and home treatment from entrusted sources of care. Furthermore, parent/caretaker educational level, age, wealth and danger signs awareness was strongly associated with poor health seeking behaviors, and caregiver occupation, the child's age and

birth order demonstrated strong association for poor health seeking practices. This directs the education to be focused on specific target groups.

Key terms: Health-seeking behavior, severe respiratory Infections, children, parents/care takers.

DEFINITIONS OF KEY TERMS

Health seeking behavior was defined as Parents/Caregivers response for signs and symptoms of illnesses to reduce severity and complication after recognizing the child's illness (WHO 2015). In this study, it was included first port of call for health care sought by parents/caregivers in the treatment of children and time lapse in approaching the source from where treatment was taken.

Severe respiratory infection (SRI) was defined as any infectious the upper or lower respiratory tract (WHO 2008).

Children: The United Nations Convention on Rights of child defines child as "a human being below the age of 18 years. In this study, only under five year's old children was studied (United Nations 1989).

Parent/caregiver: An individual, such as a father/mother, foster parent, or head of a household who nurtures, assists and raises a child. A parent/caregiver is someone who attends to the needs of a child and who takes responsibility for their well-being (UNICEF 2012).

ABBREVIATIONS

RI	Respiratory Infection
ENT	Ear Nose and Throat
HP	Health Provider
IMNCI	Integrated Management of Neonatal and Childhood Illness
NISR	National Institute of Statistics Rwanda
MDG	Millennium Development Goal
MOH	Ministry of Health
MR	Mortality Rate
MUSA	Mutuelle de Santé
RDHS	Rwanda Demographic and Health Survey
TUHK	Teaching University Hospital Kigali
UK	United Kingdom
USA	United State of America
WHO	World Health Organization
UNICEF	United Nation International for Children Emergency Fund

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CHAPTER I: INTRODUCTION

I.1 Introduction

Respiratory infections are the most common illnesses in childhood, of which lower respiratory tract infections (LRTIs) are the most severe in developing countries (Simoes et al. 2006). Pneumonia, a common and severe LRTI, was responsible for 15% of all deaths among children under-five in sub-Saharan Africa (SSA) in 2013 and most of these deaths were concentrated in a few countries (UNICEF 2014; Liu et al. 2012). Cough and fast and/ or difficult breathing (i.e. tachypnea and/or dyspnea) due to a problem in the chest are clinically recognized as signs of childhood respiratory infections (Pio 2003).

Effective antibiotic treatment for pneumonia exists, and therefore timely recognition of these signs and symptoms by primary caregivers and subsequent care seeking for treatment from ‘appropriate’ providers can prevent many of these deaths (Wardlaw et al. 2006). Nevertheless, only 50% of children in developing countries with suspected pneumonia were taken for care in 2010 (UNICEF 2012). Caregivers may not seek care for myriad reasons: both financial (e.g., the cost of services or treatment, transportation costs, loss of wages) and non-financial (e.g., gender and social norms, insufficient knowledge of danger signs and illness severity, and previous experiences with health services) (Colvin et al. 2013; Ellis et al. 2013; Scott et al. 2013). Further analysis of care seeking behaviours by parents/caregivers, and on child, caregiver and household characteristics associated with care seeking is needed to further optimise future strategies within integrated approaches to prevent and treat childhood respiratory infections (Hancioglu & Arnold 2013).

I.2 Background of study

Worldwide, about 40 percent of child mortality is due to respiratory infection (Rudan et al. 2008). According to the WHO progress Report (WHO, 2011), 75 percent of deaths in 15 countries were due to respiratory infection. All these countries belong to underdeveloped and developing countries of Asia and Africa.

Therefore, success in reduction of childhood mortality due to respiratory infections needs more attention with improved health services. As we know family members are the first people to take responsibilities in child care, like all societies a good partnership is required between health workers and families with governmental support through education. Family’s care improvement seeking behavior contributes significantly to child mortality reduction in developing countries (Awoke 2013).

Studies have shown that early health seeking prevents complications and equally reduces the rate of death. Various studies from developing countries have reported that delay in seeking appropriate care and not seeking any care, contributes to the large number of child's deaths. Improving families' health care seeking behavior could contribute significantly to reducing child mortality in developing countries (Ogunlesi & Olanrewaju 2010).

World Health Organization estimates that seeking prompt and appropriate care could reduce child's deaths due to acute respiratory infections by 20%. Early health seeking behavior for child's minor and acute health problem could reduce morbidity, short and long term complications of the child health problem, this is seen in the integrated management of childhood illness (IMCI) strategy, besides improving providers' skills in managing childhood illness also aims to improve families health care seeking behavior. The health workers are trained to teach the mothers about danger signs and counsel them about need to seek care promptly if these signs (Kendall-Taylor et al. 2008).

Globally there is substantial variability in access to hospital treatment of childhood respiratory diseases both at national and regional levels and within the healthcare systems (Nonvignon & Aikins 2010). For example, some studies have found that the choice of caregivers or parents/caretakers of sick children to seek healthcare facilities depends on accessibility of diagnostic facilities, maternal education level, maternal perceptions and attitudes about symptoms and severity, socioeconomic status, health-related cultural practices and availability of transportation (Jordan et al. 2009)

Challenges are always seen during assessment and identification of poor utilization in care delivered at primary level of health system. These are associated with poor accessibility, economic status, cultural and religion perceptions, parent/caretakers' low level of education, ignorance, and big families (Jordan et al. 2009). In Rwanda it is not known what the motivators are for families to seek health care services for their children experiencing symptoms of this type of infection

However, health Seeking Behavior is quite complex. It requires a decision-making process for one to decide on where to seek perfect treatment for health (Olenja 2003). Health seeking behavior is not governed by a single factor; but rather a result of individual or household

thinking, activeness, sensitiveness, awareness and willingness. Socioeconomic, cultural and demographic factors have a strong impact to health seeking behaviors (Shaikh & Hatcher 2004). This makes it difficult to determine what motivates people and parents/caretakers of children with respiratory infections in particular to seek care. It is in this regard that a study on health seeking behaviors among parents/caretakers of children with respiratory infections in Rwanda was proposed.

I.3 Problem statement

Respiratory infections in Rwanda, account for over 60% of deaths among children (MOH 2014). In the exploratory visit conducted by the researcher, at Kigali Central and Teaching Hospital (CHUK) at Kigali, Rwanda in March 2016, it was discovered that many young children before the age of 7 years suffered from frequent severe respiratory infections at least three times before their seventh birthday.

Delays to seek a health care after symptoms appear are commonly due to initial consultation with traditional healers or not taking prescribed medications. This behavior increases morbidity and poor prognosis affecting the whole society. This situation is worsened for children who are entirely dependent on their parents/caretakers (Arguedas et al. 2012).

According to WHO and UNICEF (2006), three essential steps are required for effective treatment of severe respiratory infection among children under 5 years of age: recognizing that the child is sick, seeking appropriate care and a timely provision of a full course of antibiotic treatment. Therefore, parents/caretakers play a critical role in recognizing the symptoms and promptly seeking appropriate care. However, according to WHO and UNICEF (2006) only 1 of every 5 parents/caretakers in developing world is aware of the foremost symptoms of respiratory infection and health seeking behavior is lower in Sub-Saharan Africa (41%).

Parents/caretakers sought treatment from a health facility for only 27% when the children under five years of age have severe respiratory infection symptoms (WHO and UNICEF, 2006). Therefore, health seeking behavior is a complex procedure. It is a decision-making process to seek perfect treatment for health. The health seeking behavior is not governed by a single factor rather than many factors. It is a result of individual or household thinking, activeness, sensitiveness, awareness and willingness (Olenja 2003).

In Rwanda studies indicate a strong and significant positive association between child health and women's care-related health-seeking behaviors (Winter et al. 2013). Thus, the aim of this study is to observe the extent of health seeking behavior of parents/caretakers and to analyze how does socioeconomic and demographic status of parents/caretakers play an important role to take treatment while their children suffering from severe respiratory Infections.

I.4 Objectives of the study

I.4.1 General Objective

Assessment of health seeking behaviors of parents/caretakers of children presenting with severe respiratory infections in referral hospital in Rwanda

I.4.2 Specific objectives

1. To describe demographic characteristics of the participants
2. To examine health seeking behaviors of parents/caretakers of children with severe respiratory infections in referral hospital in Rwanda
3. To identify the factors associated with the health seeking behaviors of parents/caretakers of children with severe respiratory infections in referral hospital in Rwanda

I.5 Research questions

1. What are the socio-demographic characteristics of the participants?
2. What are the factors associated to the health seeking behaviors of parents/caretakers for their children with severe respiratory infections in referral hospital in Rwanda?
3. What are the health seeking behaviors of parents/caretakers for their children with severe respiratory infections in referral hospital in Rwanda?

I.6 Significance of the Study

The results of this study revealed factors that affect health seeking behaviors of parents/caretakers for their children. The understandings of factors that affect parents/caretakers behaviors provide direction to decision makers in developing strategies to support

parents/caretakers in seeking care for severely ill children. The findings will also form a baseline for further research in this field. With regards to the professional of nursing, the finding from this study provides baseline information regarding the factors associated to health seeking behavior of parents/caretakers of children with severe respiratory infection which will help in health education during provision of nursing care to those children for better management of their condition.

I.7 Subdivision of the Study

This study composed by six chapters: the first chapter concerns with introduction of the study, the second chapter concerns with literature review, the third chapter concerns with research methodology, the fourth chapter concerns with study results, the chapter five concerns with discussion of findings, and chapter six concerns with conclusion and recommendations.

CHAPTER II: LITERATURE REVIEW

II.1 Introduction

This chapter examines literature about parent's health seeking behavior and what influences it. Children in low income countries have been noted to be high risk of respiratory infections (Liu et al. 2015). Parents/caretakers are believed to be responsible for early recognition of abnormal symptoms of respiratory infection and seeking immediately appropriate care.

II.2 Theoretical literature

II.2.1. Health seeking behavior for parents/caretakers of child with severe respiratory infection

Various studies have shown that early health seeking prevents complications and equally reduces the rate of death. Studies from developing countries have reported that delay in seeking appropriate care and not seeking any care, contributes to the large number of child's deaths (Beer et al. 2012). Improving parents/caretakers health seeking behavior could contribute significantly to reducing child mortality in developing countries. The World Health Organization estimates that seeking prompt and appropriate care could reduce child's deaths due to acute respiratory infections by 20%. Early health seeking behavior for child's acute health problem could reduce morbidity, short and long term complications of the child health problem, this is seen in the integrated management of childhood illness (IMCI) strategy, besides improving providers skills in managing childhood illness also aims to improve parents/caretakers health care seeking behavior. The health workers are trained to teach the mothers about danger signs and counsel them about need to seek care promptly if these signs occur (Kendall-Taylor et al. 2008).

Epidemiologists and social scientist have devoted increasing attention to studying health-seeking behavior associated with the leading causes of child mortality, include respiratory infection. Health interview surveys conducted in different countries report varying results about the determinants of health seeking behavior during childhood illnesses (Thind & Cruz 2003). Various factors have been implicated as determinants of health seeking behavior of parents. Some studies have reported that care seeking behavior is predicted by house hold size, age and education of parents. Lack of access to health care due to high cost is perhaps the most common

deterrent to optimal health care seeking in both rural and urban communities (Thind & Cruz 2003). Some studies have also shown that perceived illness severity, maternal recognition of certain signs and symptoms of childhood illness were critical factors determining health care seeking behavior (Goldman & Heuveline 2000).

Guardians and caretakers may also not seek for help or abstain from seeking care for their child health if they fail to recognize symptoms or do not consider them dangerous (Kendall-Taylor et al. 2008). In addition, once a caretaker or parents has recognized illness and decide to seek care, house hold responsibilities and long distances to health units may still delay care seeking (Peterson et al. 2004). When health care are sought, the quality of treatment or care received might not be adequate and may cause delay in subsequent seeking for the same health care. (Travis et al. 2004). It is to this regards to reduce respiratory infection mortality, three crucial steps in management have been suggested by UNICEF: recognize, seek and treat. These steps are equally important. Many child deaths could be averted if timely recognition of symptoms was followed by prompt care seeking at a place where accurate diagnosis would lead to administration of right drugs in correct doses.

II.2.2. Socioeconomic and demographic factors associated to the health seeking behaviors for children with severe respiratory infections

Infants (0–11 months) are more commonly cared by care takers rather than the parents and boys more than girls (Taffa & Chepngeno 2005). Mothers below 35 years of age, who completed secondary education and those who marry at a young age, present with the good in terms of caring for their sick children. Mothers who received professional antenatal care have an advantage of bearing healthy children less prone to infections (Halim et al. 2010).

Previous Studies (Bazzano & Kirkwood 2008; Kristiansson et al. 2008) found that maternal age has effect on care given to children in families in term of health. For rural residents, younger mothers aged between 15–34 years are said to be more active in seeking health care than for older mothers over 35 years of age. In urban residents, mothers less than 25 years old present with more health seeking behavior than those over 25 years of age. It is also reported that younger families are more exposed to media communications than older families due to a higher education level, which might contribute to broad information received on health issues leading to

better health seeking behaviors by those young mothers. According to Maurice (2011), young people and males were found to be associated with prolonged delay in seeking health care.

Previous study also revealed that the health seeking behavior of a community determines how health services are used and in turn the health outcomes of populations. Factors that determine health behavior may be physical, socio-economic, cultural or political. Indeed, the utilization of a health care system may depend on educational levels, economic factors, cultural beliefs and practices. Other factors include environmental conditions, socio-demographic factors, knowledge about the facilities, gender issues, political environment, and the health care system itself (Ogunlesi et al 2010). However, it is observed that socioeconomic, socio-cultural and demographic factors are often ignored while formulating health policies or any schemes for providing health care facilities to people. As a result, new schemes for providing health care services could not achieve its goal. Thus, health seeking behaviour is directed by socioeconomic, socio-cultural, and demographic factors, influence the health behaviour (Babar & Jaunita 2004).

In addition, according to Okwaraji et al (2013) in effect of geographical access to health facilities on child mortality in rural Rwanda: a community based cross sectional study, small sized families thought more about their children's medical attention for respiratory infection in rural and urban residence as opposed to large families. Families with more than 4 children suffer more not only economically but also in regards to concentrated and time spent with their sick child. This reason was more pronounced with urban residences perhaps due to difference in average family members. In urban households average 3.7 persons compared to rural households with 4.9 persons (Ghosh et al. 2013; Borah et al. 2017).

II.2.3. Challenges in accessing health facilities

Other reasons for patient's failure to seek health care services include regular stock-out of drugs, failure to recognize the severity of the child's condition, high cost of health services and long distances covered by patient's to health facilities (Musoke et al. 2014; Luque et al. 2008; Hildenwall et al. 2009). According to Kim & Capeding (2014), in his study on factors influencing healthcare utilization among children with pneumonia in Muntinlupa city, the Philippines, demonstrated parents will seek self treatment for their child's respiratory symptoms by buying antibiotics to treat the problem without a professional diagnosis.

For our country where big number of populations use MUSA as primary insurance and didn't allow them easily to seek health providers at high institutions as early as possible due to health system organization and referring process.

Promotion to better health care in sick is an action taken by concerned individual and the dynamic society of the surrounding (Okwaraji et al. 2012; NoorAli & Luby 1999). Infrastructures facilitate implementation of plans like transport to centers for health accessibility

Knowledge present in the community about certain disease with respect to associated symptom, their causes, trust in the physician and consequences that can emerge from the infection of the disease could also be reason that cause a change in seeking for health care (Kendall-Taylor et al. 2008).

II.3 Empirical Review

Around 5.9 million children died before 5th birthday in 2015, which translates into 16 000 children dying every day. In 2015, the under-five years mortality rate in developing countries was 76 deaths per 1000 live births, which is 11 times higher than developed (7 deaths per 1000 live births) considering reduction of these big differences across countries and achieving a goal by basing on important priorities may save more children's lives to end preventable child deaths (WHO 2016).

About 40 percent child mortality of the world occurs due to Respiratory Infection and Pneumonia Progress Report of 2011 showed that 75 percent deaths in about 15 countries worldwide occurred due to pneumonia. All these countries belong to underdeveloped or developing countries of Asia and Africa. Countries in Africa and Asia are the mainly affected ones. India and Pakistan contributes 69 percent each, Uganda at 73 percent and Tanzania at 59 percent (Global Burden Disease 2008).

Regardless of all the respiratory infection cases reported in children globally, about 65.1% of these sick children manage to receive medical treatment while the other 34.9% do not get any treatment (Reports National Family Health Survey). Infection accounts for over 60% deaths among children (MOH 2014). In the exploratory visit conducted by the researcher, at teaching university hospital Kigali, Rwanda in March 2016, it was discovered that many young children

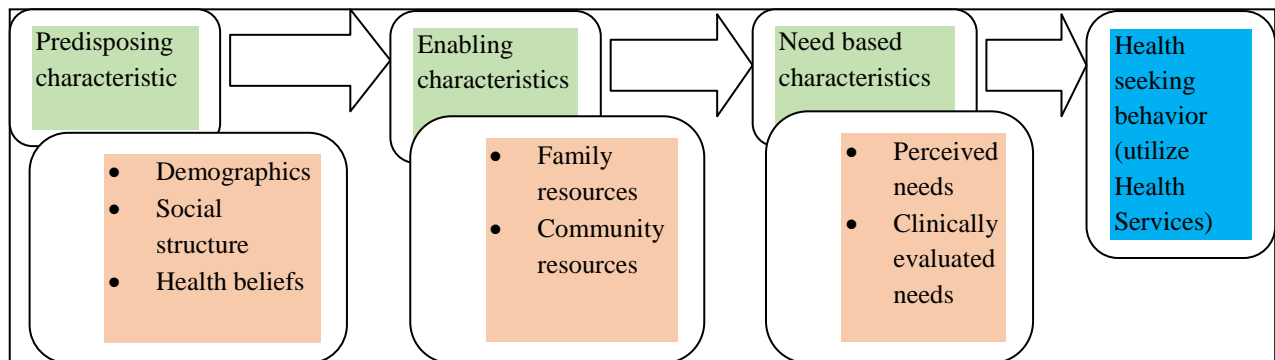
before the age of 7 years suffered from frequent respiratory infections for at least three times before their seventh birthday.

II.4 Conceptual framework

The proposed study is guided by a conceptual framework as adapted from Andersen Health Care Utilization Model (Andersen 1995). the consensus in this study framework is the recognition of their relationship in explaining health care service utilization. As well, their scope in explaining what motivates individuals to seek care was an additional reason for choice. The relevance of the relationship in variables to the current study, is the explanation of how parents/caretakers react when a child is sick, what influences decision to go for treatment (Annual review of public health 2010) and choice of care source.

The Andersen Healthcare Utilization Model (Andersen, 1995) from which the current study conceptual framework has been adapted, constitutes three independent variables that influence ones decision to seek care, and the fourth which explains the outcome of the decision taken. There is interlink between one's environment (health care system, external environment), individual characteristics (Predisposing Characteristics, Enabling Resources), and personal behavior (Personal Health Practices) in shaping decision to seek care (figure 1)

Figure 1: Adapted and modified conceptual model from Andersen Health Care Utilization Model



CHAPTER III: RESEARCH METHODOLOGY

III.1 Introduction

This chapter discusses the study design, study setting, population, sample size estimation, sampling strategy, data collection procedure, data collection tools, data analysis and ethical consideration.

III.2 Study design

In this study a cross-sectional research design and use of quantitative methods of enquiry were used. A cross-sectional design was appropriate since it allowed data to be collected at the same time. Quantitative methods enabled the collected data to be transformed into numerical data format hence making it easier for analysis and interpretation (Creswell 2006).

III.3 Study population

The study population included all parent/caretakers of children with severe respiratory infection admitted in pediatric ward at Teaching University Hospital, Rwanda, during the study period of March 2017 and April 2017.

III.4 Sampling strategy

A convenient sampling method was used for this study as we required reaching the study participants within the shortest possible time. The characteristics of these specific predefined group participants were as follows: parents/caretakers of those whose children have already been diagnosed as having severe respiratory infection, currently hospitalized or waiting for admission and those who were thought to be mentally stable to respond to questionnaire.

III.5 Sample size

From the statistical report of Teaching University Hospital Kigali, for the period of July 2015 to June 2016, the total number of admission of children in pediatrics was 3237 include respiratory infections. From this number, an estimated monthly admission average is 270 pediatric patients. And the period of data correction was 2 months. Therefore;

Estimated Population size (2months) was $270 \times 2 = 540$.

Assume the confidence level of 95%

Then the sample size is given by

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

Where: n is the sample size. N is the population size. E is the level of precision and equal to 0.07.

Therefore:

$$n = \frac{540}{1 + 540 \times (0.07)^2} = \text{the sample size is } n = 149$$

III.6 Inclusive and exclusive criteria

III.6.1 Inclusive criteria

Caregivers of under-five children who were presently caring for an under-five child with severe RI (the biological parents, or the primary caregivers).

III.6.2 Exclusive criteria

Exclusion criteria were Caregivers of children who were presently caring for children above 5 years with severe RI (the biological parents, or the primary caregivers), those with unwilling to sign consent form and those who were not thought to be mentally stable to complete the questionnaire.

III.7 Data collection instruments and procedure

III.7.1 Data Collection instruments

Data was collected using a questionnaire filled in by the researcher. This structured instrument was adopted from previously validated research (Ghosh et al. 2013; Chandrashekhar, 2006; Bazzano et al. 2008; Akande et al. 2009; Awoke, 2013; Borah et al. 2016) which are free accessible online and were adapted to the context of Rwanda based on study objectives. The questionnaire was developed in English and translated into Kinyarwanda to cater for those who

do not understand English. The questionnaire was divided into the following sections: the first section concerns socio-economic and Demographic characteristics of parents/caretakers and children include age category of parents/caretakers, parents/caretakers' relationship to child, birth order of sick child, number of children under 5 in household, parents/caretakers' educational level, parents/caretakers' marital status, parents/caretakers' occupation and wealth quintile; second section concerns health seeking behaviors include various places of call for health care sought by respondents in the treatment of their children and time lapse in approaching the source from where treatment was taken; and the third section concerns challenge in accessing health care include distance from home to nearest health facility, have medical insurance, awareness regarding danger signs of severe RI, decision maker in selecting place of treatment and satisfaction for health care service.

With regards to validity and reliability of instruments, reliability itself is the degree to which an assessment tool produces stable and consistent results and validity refers to how well a test measures what it is supposed to measure (Colin & et al. 2005). In this study, content validity was supported through review by lecturers at University of Rwanda, College of medicine and health sciences, School of Nursing and Midwifery. Supervisors evaluated and ascertain that instrument elicited adequate information to achieve the objectives and respond to research questions of this study. To this regard, a scientific approved was obtained for submission to Institutional Review Board, University of Rwanda College of medicine and health sciences for ethical clearance.

According to Burns and Grove (2007, p. 297), for the instrument to be reliable, it must yield the same measure when used on more than one occasion. Prior to the actual data collection process, pre-testing was conducted on 5% of sample size. Findings of the pre-test indicated if there were some questionnaire items which are difficult to understand, so the researcher made adjustments to those items to make them more easily understood by the participants. Then a pretested structured questionnaire was used to collect data from participants.

III.7.2 Data Collection Procedure

After approval of the data collection instruments, the researcher sought permission from the head of the school to proceed into the field. A letter from the head of department was written requesting for permission from the head of the hospital (Director General) for permission to be

granted to the student to conduct her research on the said subject at the hospital. Once the Director General agreed to the research, then after necessary introductions, the researcher proceeded to data collection. During data collection process, the first step was to select participants among those consecutively attended the study site during data collection and fulfilled the inclusion criteria. A selected parent/caretaker was approached to get the informed consent after ascertaining that he/she is in a good state of mind to participate in the study. Once an informed consent to participate in the study was given, he/she was accompanied to a private quiet room in which interviews were carried out after her/his child had received their health services for which they had come to the hospital. The researcher was reading the questionnaire to participants and filled the response the place reserved on questionnaire. This process took approximately about twenty minutes. The process of data collection was done in good collaboration of the health workers at the facilities to avoid disrupting the normal working hours and operations. The highly professional and deontological standards were observed during the whole process of data collection during the period of March and April 2017.

III.8 Variables

III.8.1. Dependent Variable

The dependent variable was initial treatment seeking behavior for the child with respiratory infection. Two levels of treatment seeking behaviors were defined: 1) Various ports of call for health care sought by respondents in the treatment of childhood illnesses 2) Time lapse in approaching the source from where treatment was taken.

III.8.2. Independent Variables

Independent variables included socio-economic and demographic characteristics of care takers and their children and challenges in accessing health care.

III.9 Data analysis and management

Filled questionnaires were screened for completeness by the researcher. Data was coded, entered and analyzed using SPSS version 16.0. Analysis involved the generation of frequency distributions from univariate analysis and cross-tabulation of certain variables looking for any

associations during bivariate analysis. A chi-square test was performed. A p-value of 0.05 was considered statistically significant.

III.10 Ethical considerations

Ethical approval was obtained from Institutional Review Board of University of Rwanda, College of Medicine and Health Sciences, Nyarugenge Campus. Approval letter by ethical committee from Central Teaching Hospital Kigali was obtained for data collection. Written informed consent was obtained. Anonymity of the participants was guaranteed by not having any identification on the data collection tool so that information could not be traced back to individuals. Confidentiality was guaranteed by storing data in a safe and locked place, and only the researcher and research supervisor had access to the raw data. Participation in this study was voluntary and details about the aim and objectives of the study were explained to the participants. The participants were free to withdraw from the research at any stage without incurring any consequences whatsoever.

CHAPTER IV: RESULTS PRESENTATION

The present study was conducted in selected referral hospital in Rwanda with the following objectives, to examine the prevailing health seeking behaviors of parents/caretakers for their children with respiratory infections in referral hospital, Rwanda and to analyze the prevailing factors associated to the health seeking behaviors of parents/caretakers for their children with respiratory infections in referral hospital, Rwanda. One hundred and forty-nine questionnaires were given to respondents and all questionnaires were answered which translates a response rate of 100%. This chapter presents the findings from our study.

4.1. Socio-demographic characteristics of parents/caretakers of children with severe respiratory infections

The table 4.1 below depicts Socio-demographic characteristics of parents/caretakers of children with severe respiratory infections. Out of 149 caregivers 122 (81.9%) were mothers, 19 (12.8%) were fathers (Table 1). Among the caregiver's majority (67.1%) were aged more than 30 years old. As for the educational status of the caregivers 49 (32.9%) of them were illiterate, while 31 (20.8%) were educated up to primary school level, 45 (30.2%) were secondary school and 24(16.1%) were educated up to university level. Table 1 also revealed that out of the 149 respondents most (83.2%) were married.

Most of the caregivers in our study were Christians (91.3%). With regard to their economic status, 53(35.6%) belonged in the Lower class (category 1), 43 (28.9%) belonged in Middle class (category 3) and 49(32.9%) belonged in Upper class (category 4). Only 2.7% of them belonged in the Lower Middle class (category 2). Furthermore, the results in the table 1 revealed that out of 149 respondents, 44(29.5%) were employed, 52(34.9%) self-employed while 53(35.6%) had no specific employment. out of the 149 children, 82(55%) were male and 67(45%) were female. Among the children 49.7% were less than 8 months of age, followed by 28.2% belonged to 8-18 months of age, 10.7% belonged to 19-29 months of age, 4.7% belonged to 30-40 months of age and 6.7% belonged above 40 months of age up to 5 years old. Out of 149 children (31.5%) were of the first or second birth order, 66(44.3%) were of the third or fourth birth order and 36 (24.2%) were above the fourth birth order. A number of Children under 5 in same household was

reported at 47% for only one under five years old child, 43% for two under five years old children and 10% for three under five years old children.

Table 1: Socio-demographic characteristics of parents/caretakers of children with severe respiratory infections (n=149)

VARIABLES	FREQUENCY	PERCENT
Age Category Caregiver		
16 – 25	15	10.1
26 – 30	34	22.8
31 – 40	71	47.7
Above 41	29	19.5
Caregiver's relationship to child		
Mother	122	81.9
Father	19	12.8
Grandparent	3	2.0
Relative	5	3.4
Child Age Category (months)		
Below 8	74	49.7
8 – 18	42	28.2
19 – 29	16	10.7
30 – 40	7	4.7
Above 40	10	6.7
Gender of child		
Male	82	55.0
Female	67	45.0
Birth order of sick child		
1 – 2	47	31.5
3 – 4	66	44.3
Number of Children under 5 in household		
One	70	47.0
Two	64	43.0
Three	15	10.0
Caregiver 's Educational Level		
No Education	49	32.9
Primary	31	20.8
Secondary	45	30.2
Higher	24	16.1
Caregiver's Marital Status		
Married	124	83.2
Single	11	7.4
Separated	7	4.7
Widowed	7	4.7

Table 1: Cont.

VARIABLES	FREQUENCY	PERCENT
Caregiver's Religion		
Catholic	54	36.2
7-Day Adventist	20	13.4
Muslim	13	8.7
Protestant	25	16.8
Other	37	24.8
Caregiver's Occupation		
Employed	44	29.5
Self Employed	52	34.9
None	53	35.6
Wealth quintile		
Lower class (category 1)	53	35.6
Lower Middle class (category 2)	4	2.7
Middle class (category 3)	43	28.9
Upper class (category 4)	49	32.9
Distance from home to nearest health facility		
Below 1 Km	1	7
1 Km	110	73.8
>2 Km	38	25.5
Have Medical Insurance		
Yes	140	94.0
No	9	6.0

4.2. Parents/Caretakers health seeking behaviors for children with severe respiratory Infection

The table 2 illustrates health seeking behaviors of Parents/caretakers for their children with severe Respiratory infection. For the current episode of illness, out of 149, 86 (58.6%) children were previously treated and (42.4%) children were brought directly to the OPD. Treatment was taken from pharmacy in 44.3% of all cases. Only (5.3%) reported health center as the first ports of call for health care sought by respondents in the treatment of children, 3.3% from neighbor and 4.7 from traditional healers. Furthermore, Time lapse in sought of care from onset of illness was assessed. The table 2 also revealed that sixty-four (43%) sought care within 24 h of the onset of illness while eighty-three (56%) sought care after two days of the onset of illness. Only (1%) sought care more than two days of the onset of illness.

Table 2: Health seeking behaviors of Parents/caretakers for their children with severe Respiratory infection (n=149)

VARIABLES	FREQUENCY	PERCENT
Various ports of call for health care sought by respondents in the treatment of their children		
Pharmacy	66	44.3
Health Center	8	5.3
Neighbor	5	3.3
Traditional healer	7	4.7
No treatment	63	42.4
Time lapse in approaching the source from where treatment was taken		
1 day	64	43
2 days	83	56
More than 2 days	2	1

4.3. Factors associated with health seeking behaviors of parents/caretakers for children with severe respiratory infections

The results presented in the table 4 show caretaker's age categories associated with time lapse in approaching the source from where treatment was taken (p -value=0.021) while they were no significant association between caretaker's age category and first port of call for health care sought by respondents in the treatment of children (p -value=0.180). Caretaker's Educational Level was found to be significantly associated to first port of call for health care sought by respondents in the treatment of children (p -value=0.017) but it has no significant association with time lapse in approaching the source from where treatment was taken (p -value=0.699).

The table 4 also revealed that there is both significant association between caregiver's occupation and time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.028 and p -value=0.049 respectively. Like occupation, wealth quintile was also significantly associated to both time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.041 and p -value=0.036 respectively.

The reading of results presented in the table 4 show children's age category is significantly associated with time lapse in approaching the source from where treatment was taken (p -value=0.008) while they were no significant association between caretakers' age category and first port of call for health care sought by respondents in the treatment of children (p -value=0.746). The table 4 also revealed that there is both significant association between children's birth order and time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.045 and p -value=0.010 respectively. Like birth order, number of Children under 5 in household was also significantly associated to both time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.009 and p -value=0.019 respectively.

The reading of results presented in the table 4 show that only awareness of danger signs and caretakers' satisfaction on how health care provider respond to their need were significantly associated to health seeking behaviors. To this regards, awareness of danger signs was significantly associated with time lapse in approaching the source from where treatment was taken (p -value=0.025) while there was no significant association with first port of call for health care sought by respondents in the treatment of children (p -value=0.081). The welcoming staff was found to be associated with time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.017 and p -value=0.027 respectively.

Table 3: Health seeking behaviors of Parents/caretakers characteristics of accessing health care for children with severe respiratory infection.

Variables	Time lapse in approaching the source from where treatment was taken			First port of call for health care sought by respondents in the treatment of children		
	Within 24 hours	More than 24 hours	<i>p</i> -value	Health facility	Other than health facility	<i>p</i> -value
Age Category Caregiver						
≤ 30 years old	23	26	0.021			
More than 30 years old	41	59				
Care giver's Educational Level						
No Education				5	44	0.017
Primary				5	26	
Secondary				4	41	
Higher				0	24	
Occupation						
Employed	19	25	0.028	3	41	0.049
Self Employed	23	29		8	44	
None	22	31		3	48	
Wealth quintile						
Lower class (category 1)	22	31	0.041	3	48	0.036
Lower Middle class (category 2)	1	3		0	4	
Middle class (category 3)	19	24		8	35	
Upper class (category 4)	22	27		3	45	

Table 3: Cont.

Variables	Time lapse in approaching the source from where treatment was taken			First port of call for health care sought by respondents in the treatment of children		
	Within 24 hours	More than 24 hours	<i>p</i> -value	Health facility	Other than health facility	<i>p</i> -value
Child Age Category						
Below 8	37	37	0.008			
8 - 18	13	29				
19 - 29	6	10				
30 - 40	4	3				
Above 40	4	6				
Birth order						
1 - 2	22	25	0.045	6	41	0.010
3 - 4	24	42		7	59	
Above 4	18	18		1	45	
Number of Children under 5 in household						
One	34	36	0.009	8	62	0.019
Two	26	38		5	59	
Three	4	11		1	14	
Distance from home to nearest health facility						
Awareness of danger sign						
yes	24	36	0.025			
no	40	49				
Decision maker in selecting place of treatment						
Father				3	19	0.118
Mother				11	116	
Perceived Welcoming staffs						
Strongly Disagree	13	9	0.017	4	18	0.027
Disagree	13	8		0	21	
Agree	29	51		9	71	
Strongly Agree	9	17		1	25	

CHAPTER V: DISCUSSION

This study aimed to examine the prevailing health seeking behaviors of parents/caretakers for their children with respiratory infections in referral hospital, Rwanda and to analyze the prevailing factors associated to the health seeking behaviors of parents/caretakers for their children with respiratory infections in referral hospital, Rwanda. The study respondents were mostly mothers (81.9%) and majority (67.1%) were aged more than 30 years old. The act of care giving for children is mainly the responsibility of females in Rwanda and other sub-Saharan African countries. Hence, it was not surprising that almost all the under-five caregivers in this study were females. A greater proportion of the caretakers had primary or no formal level of education, which is consistent with findings from the 2014-2015 RDHS where a greater proportion of the respondent had primary or no formal level education. This information will be helpful when it comes to health education of caretakers in order to improve their health seeking knowledge and practice.

The finding of poor knowledge of caretakers concerning recognition of children who were severely ill was surprising. In this study, with regard to mothers'/caretakers' awareness regarding danger signs of severe respiratory infection, 59.7% were not aware of any danger signs. Mothers' knowledge of the danger signs is an important determinant of health seeking behaviors and the secondary level of education of most of the caretakers in the study can be exploited to improve their health seeking practices. This finding of poor knowledge on recognition of disease symptoms by the respondents was similar to findings from studies carried out by (Tanimola & Owoyemi 2009).

This study revealed that for the current episode of illness, 58.6% children were previously treated and (42.4%) children were brought directly to the OPD. Treatment was taken from pharmacy in 44.3% of all cases. Only (5.3%) reported health center as the first ports of call for health care sought by respondents in the treatment of children, 3.3% from neighbor and 4.7 from traditional healers. Time lapse in sought of care from onset of illness revealed that sixty-four (43%) sought care within 24 h of the onset of illness while eighty-three (56%) sought care after two days of the onset of illness. These results are consistence with other studies (Luque et al. 2008; Hildenwall et al. 2009). In the present study, Among the children 49.7% were less than 8 months of age (range of 10 days–49 months), which implies that under-five children of any age range including

newborns are at risk for respiratory infection. The younger the child, the higher the risk of death from respiratory infection (Ukwaja et al. 2012); therefore, institution of appropriate treatment should not be delayed.

Like other diseases, this public health problem also has several determinants which contribute for its delayed management. Social factor like mother's education and occupation, income of family, economic class has been implicated to be an important determinant (Sreeramareddy 2006). On analysis of the different factors influencing health seeking behaviors of the caretakers we found that education influenced the health seeking behaviors significantly. Educational Level was found to be significantly associated to first port of call for health care sought by respondents in the treatment of children (p -value=0.017) (table 4). Those having more education demonstrated appropriate health seeking behavior while in the non-appropriate health seeking behaviors group maximum were either illiterate or educated up to primary school. Ghosh et al. (2013) and Borah et al. (2016) in their studies also found significant association between education of parents and health seeking behavior.

Health seeking behaviors were better for infants than for older children in the present study. Children's age category was significantly associated with time lapse in approaching the source from where treatment was taken (p -value=0.008). This suggests that more attention is paid to the health of infants in this population. This is commendable because the younger the age of a child, the higher the risk of mortality but it may appear to be unfair to the older children. Thus, Convention on the Rights of the Child, United Nations General Assembly Resolution A/RES/44/25 at New York: United Nations (1989) stated that every child, irrespective of the age, has a right to good health. Surprisingly, there was no gender difference in the health seeking behaviors in the present study. We speculate that this may be a consequence of the efforts of government who openly canvass for gender sensitivity in the country.

Children who were of the first birth order and those without siblings also had good health seeking attention. There was both significant association between children's birth order and time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.045 and p -value=0.010 respectively. This may also be related to the cultural values to the first-child. However, Convention on the Rights of the Child, United Nations General Assembly Resolution

A/RES/44/25 at New York: United Nations (1989) stated that it is important to note that children of other birth orders should equally enjoy the same privileges.

This study also revealed that young caregivers also tended to have good seeking behaviors. Caretakers' age category was associated with time lapse in approaching the source from where treatment was taken (p -value=0.021) (table4) It is not certain why young age would confer an advantage in this regard, but according to Bazzano & Kirkwood (2008) it could be speculated that they are less likely to be socially independent similar to the older mothers.

Similarly, according to Sreeramareddy (2006), they are better equipped for initiating and controlling decision making with regard to health. This may be extrapolated to the overall socioeconomic status of the family as observed in the present study that families in the high socioeconomic groups had better health seeking behaviors than those in the lower groups. Analysis in the present study showed that high family socioeconomic status independently predicted early health seeking and health seeking outside the homes. Thus, wealth quintile was significantly associated to both time lapse in approaching the source from where treatment was taken and first port of call for health care sought by respondents in the treatment of children with p -value=0.041 and p -value=0.036 respectively. This observation was similar to other previous studies like Kristiansson et al. (2008).

LIMITATIONS

These findings must be interpreted in the light of the following limitations. First, this study, only include parents/caretakers who sought care. Therefore, our findings only reflect the data from parents/caretakers who interacted with the health system, not those of the general population. Secondly, caretakers accompanying the sick child were mother, father and sometimes grandparents and relatives. Description of history of illness given by mother was more reliable and accurate in comparison to other family members. The study is an academic requirement therefore; time was a limitation. Nevertheless, the data provides useful information on the health seeking behaviors and challenges in utilizing health facilities which can inform stakeholders in the health sector in Rwanda.

CHAPTER VI : CONCLUSION AND RECOMMANDATIONS

VI.1 CONCLUSION

The study observes the pattern of health seeking behaviors and delay in providing effective and appropriate treatment to sick child. In conclusion, this study showed poor health seeking practices among caretakers of under-five children with respiratory infection. The major factors associated with this poor health seeking behaviors were: caretakers' age, education level, occupation, and wealth quintile, poor recognition of danger signs, birth order and number of fewer than five siblings. Appropriate knowledge of danger signs and symptoms of ill health in a child and prompt and proper treatment by caregivers is necessary to reduce morbidity and mortality among under-five children.

VI.2 RECOMMANDATIONS

Therefore, there should be continuous education of caretakers on recognition of danger signs in children and the need to seek appropriate medical care in health facilities. Thus, an effort should be done to change parents/caretakers behaviors towards child's illness. Mothers should be educated regarding effective management of children illness at household level and recognition of danger signs so as to seek early medical care as stated in IMNCI.

This research was cross-sectional and did not delineate causal-effect of health seeking behavior of parents/caretakers for children with severe respiratory infection. With regard to MCH strategy plan, it will be important to continue to monitor changes in utilization, caretakers and community perceptions and determinants use. Various variables were found to be associated with health seeking behavior.

However, more precise methods of analysis of these variables are needed to assess whether MCH scale up is encouraging equity as intended. As well, given the ultimate goal of MCH strategy plan in decreasing child mortality, quantitative research is needed to determine associations between health seeking behaviors and likelihood of a child death.

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APPENDIX I: CONSENT FORM

II.1 CONSENT ENGLISH VERSION

I'm Esperance MUKANDOLI from University of Rwanda, College of Medicine and Health Sciences; I'm carrying out a research for Educational purpose as partial fulfillment of award of a degree in Masters of Nursing, Pediatrics track

I do seek your permission to participate in responding to the questionnaire that I will be ticking the most appropriate response.

I promise that all the information will strictly be confidential as no names will be given and that there will be no benefits

The respondent is free to withdraw at any time of the study.

Signature.....

Date.....

I have been explained, read and understood the purpose of responding to this questionnaire. I'm doing it willingly and knowing that there is no benefit or payment for doing it.

I promise to give the correct information

Respondents' signature.....

Date.....

II.2 URUPAPURO RUSABA UMUBYEYI UBURENGANZIRA KUGIRA URUHARE MUBUSHAKASHATSI

Babyeyi,

Nitwa Esperance Mukandoli, niga mu cyiciro cya gatatu cya kaminuza mu Buzima rusange bw'abaturage muri Kaminuza y'u Rwanda. Ndi gukora ubushakashatsi mu rwego rwo kurangiza amasomo y' icyiciro cya gatatu cya Kaminuza.

Mbandikiye mbasaba ko mwakemera tugafatany mu gikorwa cy'ubushakashatsi kigamije kureba impamvu nuburyo indwara zifata imyanya yubuhumekero kubana bari muni yimyaka itanu

Ibizava mu bushakashatsi, hagendewe kubibazo dushaka ko mudufasha gusubiza igihe mwaba muje muri ubu bushakashatsi bikazagira umumaro mugukora ubuvugizi buzahindura ibitagenda neza hongera ubukangurambaga nubuvugizi hanashyigikirwa ibyagenze neza.amakuru azatangwa ntazajya hanze kuko ari ibanga ryuyatanga nuyahawe bombi kandi bonyine kandi uyatanga ntamazina azagara kurupapuro rwuwatanze amakuru. Ntandaruka ubushakashatsi buzagira kandi gufatany mu bushakashatsi ni ubushake.

Muramutse mugize ikibazo ku bijyanye n'ubu bushakashatsi, mwahamagara kuri izi nimero: 0788490522 (ushinzwe ubushakashatsi mu ishamba ry'ubuvuzi n'ubuzima rya Kaminuza y,u Rwanda) cg 0783340040 (uwungiriye)

Nimwemera kwifatany natwe muri iki gikorwa no kuba mwaduha amakuru yadufasha kubyo tuzababaza

Murakoze

Mugire Amahoro!

Esperance Mukandoli

Umunyeshuri muri Kaminuza y'uRwanda

APPENDIX II: QUESTIONNAIRE

II.1 QUESTIONNAIRE KINYARWANDA

IMYITWARIRE Y'ABABYEYI MU KUVUZA ABANA BARWAYE INDWARA
Z'UBUHUMEKERO MU BITARO BIKURU BY'IKIGALI

Igice 1 (A): IBIRANGA ABANTU BABAJIWE/BAKOREWEHO UBUSHAKASHATSI

IBIRANGA ABAREZI

Ikigero(imyaka)

Isano umurezi afitanye n'umwana(nyina...,se...,sekuru...,mwene wabo..., undi)

Urwego rw'amashuri ya nyina (ntiyize... amashuri abanza...,ayisumbuye...,kaminuza)

Iranga mimerere(arashatse ...ingaragu ...yatanye n 'uwo bashakanye... umupfakazi...)

Iyoboka mana(umugatolika...,umwadvantiste w'umunsi wa karindwi ...umwi slam...
umuprotestanti...undi)

Umubare wabana bo muminsi y'imyaka 5 mu rugo

Umurimo akora :

Ubwoko bw'umurimo... akorera abandi ...yikorera ku giti cye

Amaranga yinjiza ku kwezi ...5,000frw...10,000frw....20,000frw... >20,000.

Intera irihagati y'iwe no kwamuganga.munsi ya km1 ... km 1...> km2

ii. IBIRANGA UMWANA

ikigero (amezi)

igitsina :gabo..., gore

igiheuburwayi bumara(yego...,oya...)

inkingo yabonye ukurikije ikigero(yeego ..., oya)

icyemezo cy 'amavuko

IGICE CYA KA 2 (B) IBINTU BIHATA UMUNTU KUJYA KWIVUZA

I.IBIMENYETSO

1.ese umwana wawe afite kimwe mubimenyetso bikurikira : inkorora,guhumeke nabi/biruhanyije,kwitsamura,guhumeke vubavuba,umuriro

2.amaze iminsi ingahe akorora ?

3.amaze iminsi ingahe yitsamura?cg ahumeke nabi?

4.amaze iminsi ingahe ahumeke vubavuba?

5.Amaze iminsi ingahe afite umuriro?

6.Amaze iminsi ingahe afite ubundi burwayi (guhitwa)

7.umwana wawe yaba afite uburwayi bw'igihe kirekire?(agakoko gatera sida.,sickle cell,imirire mibi)

II.KUREMBA/ UBUKANA BW'UBURWAYI

1.ni Iki cyaguteye gushaka ubufasha

i.kutagubwa neza ku mwana..., ii) ubukana bw'ibimenyetso...,iii)ubwoba bwogukara ku burwayi...,iv)kumva uhatwa kubikora gutyo...

2. ni Ikihe kimenyetso cyaguteye ubwoba cyane?

3. utekereza iki kuburwayi no kuvurwa by'umwana wawe?

I .gutegereza gukira bidatinze ...,ii) gutinda gukira...iii)kutitabwaho neza

4. ese waba wariyumvishaga ko ubwo burwayi butari bukenewe kwirirwa buvuzwa?...yego ...oya

III.INZITIZI/IMBOGAMIZI

1. ufite ubwishingizi?
2. ni ubuhe bwoko bw'ubwishingizi ufite
3. kimwe mubantu bikurikira cyaba cyarabaye inzitizi mu kuvuza umwana wawe?
 - a. kubona uruhushya rw'umugabo wawe cg uwo mwashakanye
 - b. kubona amafaranga yo kumuvurisha
 - c. intera iri hagati y'iwawe no kwamuganga
4. wakoresha ubuhe buryo bwo kugenda(moto..., taxi.. ,igare .. ,ambiranse...,kugenda n' amaguru)
5. wamaze igihe kingana iki batarakuvurira umwana?
6. igihe ukoresha ngo ugere kwa muganga: muni 1h...isaha 1h amasaha 2h amasaha 3h hejuru yamasaha 3h
- 7.igihe ukoresha ngo ugere ku muvuzi gakondo : muni y'isaha 1h ...isaha 1h amasaha 2h amasaha 3h hejuru yamasaha 3h
- 8.wiriranwa n'umwana wawe umunsi wose ? yego.. oya...
- 9.niba atariko biri muri 8 ni nde usigarana umwana wawe mugihe udahari ?

C. IMYIFATIRE Y'UKENEYE KUVUZA

- 10.ese umwana wawe yaba yarabanje kuvurizwa mu rugo ubu burwayi
- 11.niba ariko biri muri 8 wakuyehe imiti
 - i.muri farumasi
 - ii.kukigo ndera buzima
 - iii. kumuturanyi
 - iv.kumuvuzi gakondo
- 12 niba atariko biri muri 8 nihe washakiye ubufasha nyuma yuko ubona ibimenyetso ?
 - i.muri farumasi

ii.kukigo ndera buzima

iii. kumuturanyi

iv.kumuvuzi gakondo

13. nyuma yuko ubona ibimenyetso byubu burwayi wamaze igihe kingana iki ngo ujyane umwana wawe kwa muganga?(isaha 1h..., iminsi.)

IGICE CYA 4 (D) :UKO KWITABWAHO KWA MUGANGA N’UBIKENEYE BIBONWA

Ushingiye kuribi byavuzwe hepfo garagaza uko ubona ibintu bigenda 1. kwemeranywa nabyo 2 . kutemera nywa nabyo

1kutemeranywa nabyo 2 kutemeranywa nabyo cyane 3. Kwemeranywa nabyo 4. Kwemeranywa nabyo cyane

	UKO BIBONWA			
IBIVUGWA	1	2	3	4
Abakozi bikigo nders buzima bakirana urugwiro ababagana				
Abakozi bo kwamuganga bamvuye neza				
Abakozi bo kwamuganga bamfatiye neza ibizamini by’umwana wanjye				
Abakozi bo kwamuganga baribafite ikinyabupfura , barahumurizaga kandi bari bafite impuwe				

Bakoreshaga ubuhanga mukugera kubantu no kumenyyesha ibyo bashaka				
Abakozi baho bampaye agaciro				
Abakozi baho bari bafite ubumenyi buhagije bwo gusubiza ibibazo bya njye				
Namaze igihe kinini batarita kumwana wanjye				
Imitiyaho yarabonekaga kandi kugiciro kiri mubushobozi bwanjye				
Nagira inama nabandi kuza kuhivuriza				

APPENDIX II.2 QUESTIONNAIRE ENGLISH

SECTION A: DEMOGRAPHIC CHARACTERISTICS

I. Caretaker Characteristics:

Age (years)

Caregiver's relationship to child (Mother....., Father....., Grandparent....., Relative....., Other.....)

Mother Educational Level (No education....., primary, secondary, higher.....)

Marital Status (Married,..... Single....., separated....., widowed.....)

Religion (Catholic....., 7-Day Adventist....., Muslim....., Protestant....., other.....)

Number of children under 5 years of age in household

Occupation

Nature of Employment...employed.....self. Employed

Household monthly income, 5000frw..... 10,000frw.....20,000frw>20,000frw

Distance from home to nearest health facility. Less than 1kilometer1kilometer
.....>2kilometers.....

II. Child Characteristics:

Age (months).....

Gender: M.....F.....

Chronic health condition (Yes..... No.....)

Received immunizations according to age YesNo.....

Birth Order.....

SECTION B: FACTORS INFLUENCING HEALTH SEEKING BEHAVIOR

I. SYMPTOMS

Does your child have any of the following symptoms: Cough, Difficulty breathing/wheezing
Rapid breathing, Fever

For how many days did he/she have a cough?

For how many days did he/she have wheezing or difficult breath?

For how many days did he/she have rapid breathing?

For how many days did he/she have fever?

For how many days did your baby have any other illness? (diarrhea)

Does your child have any chronic illnesses? (HIV, Sickle Cell, Malnutrition)

II. PERCEIVED SEVERITY

What made you to seek care? i. Child discomfort ii. Seriousness of symptoms.....iii. Fear
of complications..... iii. Encouraged to do so.....

What symptom did you find threatening to you?.....

What do you think about the illness and treatment of your child? i. Expect that illness would
recover soon.....ii. Is taking long.....iii. Not well managed

Did you feel that illness did not require medical treatment? Yes.....No.....

III: BARRIERS:

Do you have medical insurance?

What type of medical insurance do you have?

Were any of the following factors a problem to you for seeking health care for your child?

Getting permission from your husband or partner

Getting money for your child's health care

Distance to the health facility

What type of transportation did you use (moto, taxi, bus, bicycle, ambulance, walking)

How long did you wait at the health facility before receiving treatment?

Time To Reach Health Facility Less Than 1hr 1hr..... 2hrs..... 3hrs.... More Than 3hrs.....

Time to reach Traditional Healer Less Than 1hr 1hr..... 2hrs..... 3hrs.... More Than 3hrs.....

Do you stay with your child all day? Yes....No.....

If no in 8, who stays with child when you are away?.....

C: HEALTH SEEKING BEHAVIORS

Did your child receive treatment at home for this illness? YES.....NO.....

If yes in 8, where did you get the drugs from? i. Pharmacy.....ii. Health Center.....iii Neighbor..... Traditional healer.....

If no in 8, where did you seek care from after recognizing symptoms? i. Pharmacy.....ii. Health Center.....iii Neighbor..... Traditional healer.....

After recognition of the symptoms of this illness, how long did you take before taking your child for treatment (hours.....days.....)

SECTION: D

Perceptions of Quality of Health Care:

From the following statements indicate the response that corresponds to how best it applies to you. Agree or disagree: 1=DISAGREE 2=STRONGLY DISAGREE 3=AGREE 4=STRONGLY AGREE

	RESPONSES			
STATEMENT	1	2	3	4
The staffs at the health center were welcoming.				
The staff at the health facility				

were responsive to my medical concerns				
The staff at the health facility provided a thorough physical examination of my child:				
The staff at the health facility were polite, comforting and compassionate:				
The staff at the health facility used good communication and information skills.				
The staffs at the health facility were respectful to me.				
The staff at the health facility have enough knowledge to answer my questions				
I took long to have my child attended too.				
The drugs at the health facility were available and affordable to me				
I would recommend this health facility to others:				

APPENDIX III: ETHICAL CLEARANCE



CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 16/01/2017
Ref: CMHS/IRB/092/2017

MUKANDOLI Esperance
School of Nursing and Midwifery, CMHS, UR

Dear MUKANDOLI Esperance

RE: ETHICAL CLEARANCE

Reference is made to your application for ethical clearance of the revised protocol of the study entitled *"Health Seeking Behaviors Of Parents Of Parents/Caretakers Of Children With Upper Respiratory Infections In A Selected Referral Hospitals In Rwanda"*.

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



Cc:

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

Prof. JB Gashu
IRB Vice-Chair

APPENDIX IV: AUTHORISATION FOR DATA COLLECTION



CENTRE HOSPITALIER UNIVERSITAIRE
UNIVERSITY TEACHING HOSPITAL

Ethics Committee / Comité d'éthique

February 24th, 2017

Ref: EC/CHUK/282/2017

Review Approval Notice

Dear Mukandoli Esperance,

Your research project: "Assessment of health seeking behaviors of parents/caretakers of children presenting with respiratory infections in referral Hospital in Rwanda."

During the meeting of the Ethics Committee of University Teaching Hospital of Kigali (CHUK) that was held on 24/02/2017 to evaluate your protocol of the above mentioned research project, we are pleased to inform you that the Ethics Committee/CHUK has approved your protocol.

You are required to present the results of your study to CHUK Ethics Committee before publication.

PS: Please note that the present approval is valid for 12 months.

Yours sincerely,



John Nyirigira
The Secretary, Ethics Committee,
University Teaching Hospital of Kigali

<<University teaching hospital of Kigali Ethics committee operates according to standard operating procedures (Sops) which are updated on an annual basis and in compliance with GCP and Ethics guidelines and regulations>>.

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