

**KIBOGORA POLYTECHNIC**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF GENERAL NURSING**

**ASSESSMENT OF KNOWLEDGE AND PRACTICES OF NURSES REGARDING THE  
MANAGEMENT OF PATIENTS WITH HEMORRHAGIC STROKE IN INTENSIVE CARE UNITY  
AND EMERGENCY AT KIBUYE REFERRAL HOSPITAL**

**Case study: Kibuye Referral hospital From(2020-2022)**

Undergraduate thesis presented in partial fulfillment of the requirements for the award of Bachelor degree with honor in Health Sciences with General Sciences

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## **DECLARATION**

### **Declaration by the Candidate**

We MUNEZERO Steve and RIYAZIMANA Ezechiel hereby declare that this is our own original work and not a duplication of any similar academic work. It has therefore not been previously or concurrently submitted for any other degree, diploma or other qualification to Kibogora Polytechnic or any other institution. All materials cited in this paper which are not our own have been duly acknowledged.

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### **Declaration by the Supervisor**

I declare that this research thesis was submitted for examination with my approval as KP Supervisor

Supervisor's name: Francine TUYISENGE (RN, MSN)

Signed.....

Date.....

## **DEDICATION**

This research was dedicated to:

Almighty God;

Our parents;

Our family members;

Our friends;

Our Supervisor;

Classmate.

## ABSTRACT

**Introduction:** This research thesis was entitled knowledge and practices of nurses regarding the management of patients with hemorrhagic stroke in intensive care unit and emergency.

**Background:** According to the latest WHO data published in May 2018 Stroke Deaths in Rwanda reached 4,971 or 7.23% of total deaths. The age adjusted Death Rate is 131.33 per 100,000 of population ranks Rwanda #42 in the world .

**Methodology:** Quantitative research approaches was used and cross sectional study was used as research design

**Findings:** Nurses received any formal training on management of hemorrhagic stroke in the last two years 11(38%) and 18(62%) were not trained about management of patients with hemorrhagic stroke,10(34%) change patients position every two hours as recommended and 19(66%) did not change patient position every two hours. About materials used to help patients with hemorrhagic stroke 10(34%) nurses confirmed the availability of materials and 19(66%) expressed unavailability of materials necessary in management of patients with hemorrhagic stroke.

**Conclusion:** the management of patients with hemorrhagic stroke by nurses was not appropriate and need to be improved

**Recommendation:** Hospital should train nurses about management of patients with hemorrhagic stroke and avail all materials need in management of hemorrhagic stroke.

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## **LIST OF ABBREVIATIONS**

**ICU:** Intensive Care Unity

**KP:** Kibogora polytechnic

**KRH:** Kibuye Referral Hospital

**WHO:** world Health Organization

## **CHAPTER ONE: GENERAL INTRODUCTION**

### **1.0 Introduction**

This chapter presents the background of the study, problem statement, objectives of the study research questions, significance of the study, limitation of study and scope of the study.

### **1.1 Background of the study**

Stroke can be defined as the sudden development of a focal neurological deficit, which is caused by thrombotic or embolic arterial occlusion (ischemic stroke) or by rupture of an artery in the brain or subarachnoid space (Adeloye, 2018). Approximately 87% of all strokes are ischemic in origin, and the others are hemorrhagic (Alspach, 2019). Stroke incidence is on the rise in the United States. Stroke is a complex, challenging, and costly disease. Stroke is a condition associated with a high incidence of mortality and often leaves a substantial proportion of survivors with significant physical, cognitive and psychological impairments (Catangul & Slark, 2012). Stroke patients require intensive care at some moment during hospitalization, mainly at the emergency unit. No reliable evidence and recommendations exist yet, however, to intervene in all problems these patients manifest (Algeria Azcanio, Escamilla at all 2017).

In addition, difficulties exist to deliver care to people with multiple care needs. It is highlighted that, the larger the number of patient needs are affected, the greater the urgency to plan care, as the systemization of actions aims for the organization, effectiveness and validity of care delivery (Catangul&Slark, 2019). Nurses have an important role to play in providing multiple care and these considerations support the interest in an integrative review of scientific production related to knowledge on nursing interventions delivered to stroke patients. In that context, evidence-based practice encourages the use of research results in health care, which reinforces the importance of this review, which will provide a synthesis of the set of nursing interventions for hospitalized stroke patients and will facilitate the construction and definition of care protocols. Practitioners in Rwanda, According to the latest WHO data published in May 2018 Stroke Deaths in Rwanda reached 4,971 or 7.23% of total deaths. The age adjusted Death Rate is 131.33 per 100,000 of population ranks Rwanda #42 in the world. (WHO 2018) However, despite these benefits and the standard the nursing management of hemorrhagic stroke maintains globally, nursing practitioners in most hospitals and clinics especially in Rwanda are yet to fully

understand and put to practice the approach to solving patient's problems; and this may be due to a number of factors such as inadequate staff, increased workload, poor knowledge of the nursing management; etc. Nurses have an important role to play in providing information and advice on lifestyle risk factors for stroke. However, patients report receiving little information or no information at all (Marin-Neto, 2019). They noted that stroke nurses require improved access to continuing professional development with regard to prevention of stroke. Nurses also require easy access to information that supports evidence-based practice.

## **1.2 Problem Statement**

Hemorrhagic stroke is a serious medical condition for which outcome can be impacted by early, aggressive care. The guidelines offer a framework for goal-directed treatment of the patient with hemorrhagic stroke. Evidence-based guidelines are presented for the care of patients presenting with hemorrhagic stroke. The focus was subdivided into diagnosis, homeostasis, blood pressure management, inpatient and nursing management, preventing medical co morbidities, surgical treatment, outcome prediction, rehabilitation, prevention of recurrence, and future considerations. However, the problem lies in the massive amount of documentation generated by the implementation of this management which nurses feel they have not got the time for while nurses exhibit due diligence and high commitment to the care of their patients, it is observed that the nursing management of patients with hemorrhagic stroke in patient care is conspicuously partial compliant in most healthcare facilities. The effect of this partial compliant of hemorrhagic stroke management on patient outcome is not known. The causes of the partial compliant of management of hemorrhagic stroke in patient care by the nurses are not known. Therefore this study was identifying the knowledge and practices of nurses regarding the management of hemorrhagic stroke in intensive care unit and emergency at Kibogora Referral Hospital, in Rwanda.

## **1.3 Objectives of the study**

### **1.3.1. General Objective**

The aim of this study is to explore nurses 'Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU at KRH.

### **1.3.2. Specific objectives.**

The specific objectives of this study are:

1. To assess the knowledge of nurses about the management of hemorrhagic stroke in Emergency and intensive care unit at Kibuye Referral Hospital.
2. To determine the Practice of nurses regarding management of hemorrhagic stroke in Emergency and intensive care unit at Kibuye Referral Hospital.
3. To assess the common barriers to nursing management of hemorrhagic stroke patients in Emergency and intensive care unit at Kibuye Referral Hospital.

### **1.4 Research Questions**

- 1) What are knowledge among Emergency and intensive care unit Nurses in management of hemorrhagic stroke?
- 2) What are practices manifested by Nurses of Emergency and intensive care unit at Kibuye Referral Hospital regarding management of hemorrhagic stroke ?
- 3) What are common barriers to nursing management of patients with hemorrhagic stroke in Emergency and intensive care unit?

### **1.5 Significance of the Study**

The study assessed the nurses' knowledge and practices regarding management of patients with hemorrhagic stroke in Emergency and ICU at KRH, among nurses and setting. It will therefore be of great benefits to the following people and groups; the findings of this study will remind nurses, of the global standard set through the management of patients with hemorrhagic stroke. The task of identifying and managing patients with hemorrhagic stroke will become systematic and holistic. It was therefore spur them to greater responsibility and enable them maintain high level of professionalism in the nursing.

The information from this study was keep Hospital reminded of the need for applying the policy in regarding management of patients with hemorrhagic stroke. The results of this study will help nurse educators reappraise the curriculum and course content of nursing; and identify areas that

was required review to meet up with nursing management of patients with hemorrhagic stroke. The information from this study shall assist researchers appreciate the setbacks militating against effective nurses' attitudes and knowledge regarding management of patients with hemorrhagic stroke. Mean at the end, I was give copy of my research to research committee of KRH, to KP University Nursing Department.

## **1.6. Limitations of the study**

This study was assess nurses' practice and knowledge regarding management of patients with hemorrhagic stroke using cross sectional design from 25<sup>th</sup> January to 12<sup>th</sup> march 2022. It is also limited to be compared with other studies due to absence of similar studies. Limitation of this study may resulted from poor choice of research design, poor sampling technique, the Lack of reliable data due to the fact that participants may have given improper information thinking that they may revealed information that may cause bad image to their health hospital. Others include, delay in getting approval in data collection on time that was caused stress during data collection. The expected sample size may not be achieved due to the nature of the work of the participants

## **1.7 Scope of the Study**

### **1.7.1. Time Scope**

This study was covered the interval of period from 2021 to 2022.

### **1.7.2. Geographical Scope**

This research was limited to Kibuye referral Hospital is located at bwishura sector; Karongi district, Western province in Rwanda.

### **1.7.3. Content Scope**

The research was focused on the assessment of knowledge and practices of nurses regarding the management of patients with hemorrhagic stroke at kibuye referral hospital, case study: kibuye referral hospital from (2021-2022)



## CHAPTER TWO: LITERATURE REVIEW

### 2.0. Introduction

This chapter deals with the analysis of existing literature on the objective of revealing contribution, weakness and gaps. Hemorrhagic stroke occurs when blood leaks from a blood vessel in or around the brain, also brain hemorrhage or a brain bleed. It tends to affect younger people than ischemic stroke, and is most common in people aged between 45 and 70 and there are two main types of hemorrhagic stroke; intracranial hemorrhage (ICH) and subarachnoid hemorrhage (SAH) (stroke association, 2019).

### 2.1 DEFINITIONS OF KEY CONCEPTS/TERMS

**Stroke:** Is the sudden death of brain cells due to lack of oxygen caused by blockage of blood flow or rupture of an artery to the brain (Sandercock, P. 2017).

**Hemorrhagic stroke:** Is either a brain aneurysm burst or a weakened blood vessel leak .Blood spills into or around the brain and creates swelling and pressure, damaging cells and tissue in the brain (An et al, 2017).

**A nurse:** is a person who has completed a program of basic, generalized nursing education and is authorized by the appropriate regulatory authority to practice nursing in his/her country. (International Council of Nurses.2019)

**Knowledge:** Facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject (English dictionary.2019).

**Practice:** Currently proficient in a particular activity or skill as a result of repeated exercise or performance of its (Oxford dictionary, 2016) .In this study, practice is shown by application of stroke guidelines and knowledge that help the nurses to provide care to the patients with hemorrhagic stroke.

## **2.0 Literature Related To Knowledge Of Nurses About The Management Of Hemorrhagic Stroke .**

During the acute phase, a neurologic flow sheet is maintained to provide data about the following important measures of the patient's clinical status: Change in level of consciousness or responsiveness, Presence or absence of voluntary or involuntary movements of extremities, Stiffness or flaccidity of the neck, Eye opening, comparative size of pupils, and pupillary reaction to light, Color of the face and extremities; temperature and moisture of the skin, Ability to speak, Presence of bleeding and Maintenance of blood pressure (Chan DK, Chan DL, et al, 2021)

### **2.1. Theoretical Literature of Knowledge Of Nurses About The Management Of Hemorrhagic Stroke .**

According to Dallas (2018) conducted a study to assess the effectiveness of lifestyle changes on quality of living among ischemic stroke patients. Lifestyle changing measures such as an overall healthy lifestyle of not smoking, exercising daily, consuming a prudent diet, drinking alcohol in moderation, maintain healthy weight is associated with lowering the risk of multiple chronic disease. The study concluded that the lifestyle changing measures were found to be highly significant in improving the quality of living among ischemic stroke patients. The nurse plays an important role in teaching the patient with stroke. The nurse should provide ongoing education and reinforcement while monitoring the patient progress and compliance with treatment regimen. The nursing care for stroke patient is critically important. Considering the increasing magnitude of the population affected by stroke is an important challenge for the nurses in all health care settings to provide effective care. From the available literature reviewed it was found that stroke is a deliberating condition responsible for high morbidity and life style modification is effective measure to prevent and to control the disease progression (Burton, Fisher, & Green, 2009).

### **2.2 Empirical Literature Knowledge Of Nurses About The Management Of Hemorrhagic Stroke .**

Wiles R. Buckland (2006) conducted a study to identify the information needs of patients and their informal careers at various stages of post-stroke with the aim of developing 6 individualized

information booklets. The information need identified is related to recovery, treatment and prognosis, practical caring tasks, social activities and resources available in the community. The study revealed that the information needs of patients and caregivers following stroke are not currently met and a desire for individualized will identified. The findings of the study suggested that providing information booklets improves knowledge and communication of the patients as well as the caregivers (, Krakau, & Hägglund, 2016)

## **2.4 LITERATURE ON NURING PRACTICE ABOUT HEMORRHAGIC STROKE**

Positioning. Position to prevent contractures, relieve pressure, attain good body alignment, and prevent compressive neuropathies: Prevent flexion, Apply splint at night to prevent flexion of the affected extremity, Prevent addiction, Prevent addiction of the affected shoulder with a pillow placed in the maxilla, Prevent edema, Elevate affected arm to prevent edema and fibrosis, Full range of motion, Provide full range of motion four or five times a day to maintain joint mobility, Prevent venous stasis, Exercise is helpful in preventing venous stasis, which may predispose the patient to thrombosis and pulmonary embolus(Grady A & Bryant J ,2014)

Regain balance, Teach patient to maintain balance in a sitting position, then to balance while standing and begin walking as soon as standing balance is achieved, Personal hygiene, Encourage personal hygiene activities as soon as the patient can sit up, Manage sensory difficulties, Approach patient with a decreased field of vision on the side where visual perception is intact, Visit a speech therapist(Carey M , et al.2017)

Consult with a speech therapist to evaluate gag reflexes and assist in teaching alternate swallowing techniques, Voiding pattern, Analyze voiding pattern and offer urinal or bedpan on patient's voiding schedule, Be consistent in patient's activities, Be consistent in the schedule, routines, and repetitions; a written schedule, checklists, and audiotapes may help with memory and concentration, and a communication board may be used and Assess skin. Frequently assess skin for signs of breakdown, with emphasis on bony areas and dependent body parts.(hutin y& hauri, 2020)

## **2.5 LITERATURE RELATED TO BARRIERS OF NURSING MANAGEMENT ABOUT HAMORRHOGIC STROKE**

### **2.5.0 BARRIERS OF NURSING MANAGEMENT IN HAMORRHOGIC STROKE**

#### **2.5.1 Hospital or health system factors**

The subthemes of these system factors were shortage of medical facilities/equipment, lack of a stroke specific protocol, inadequate staff numbers and limited staff professional development opportunities(John Wiley & Sons, 2013).

#### **2.5.2 Shortage of medical facilities**

The limited availability of essential medical equipment to facilitate effective provision of acute stroke care was a common feature in study hospitals within the northern belt. There was a shortage of medical facilities such as blood pressure (BP) monitoring apparatus, cardio monitors, suction machines, adjustable hospital beds and inadequate space to facilitate patient care. For example, participants in the only stroke unit in this study believed that the inadequate bed capacity (six-bed capacity) limited admission of many patients to receive optimal care(Morris ZS &Wooding S,2021).

Additionally, the lack of a stroke unit was a common concern expressed by medical doctors from hospitals in the middle and southern belts, a situation they believed was caused by limited funds allocated by hospitals and a low priority for acute stroke care. A lack of medical equipment and consumables could delay or deprive patients of standard care. Participants also talked about instances where some medical doctors acquired personal BP monitoring devices to support patient care because of shortages. Another issue was the absence or frequent malfunction or breakdown of diagnostic services such as CT scanning services, a situation which often delayed care delivery or led to referral of patients to other hospitals. According to some medical doctors, this situation sometimes compelled them to proceed with care delivery without a CT scan investigation to inform treatment options(Morris ZS,2021)

### **2.5.3 Lack of a specific protocol for acute stroke care**

Most nurses believed the absence of a specific protocol or clinical guideline for acute stroke care was a key barrier, sometimes the cases come and you've forgotten some important procedures because I left the classroom a very long time ago' (Nurse, ID 13)

### **2.5.4 Limited staff professional development opportunities**

With the exception of medical doctors, nurses and allied health staff expressed great interest in opportunities for staff professional development, mainly in hands-on training workshops related to stroke clinical care. Although there were policies to support staff develop their current knowledge and skills, such opportunities were very rare. Nurses, for example, emphasised the importance of continuous education and professional development as current clinical practice was underpinned by what they were taught in schools many years ago. Overall, there was strong opinion on this matter and a lack of continuous training opportunities inherently affected the quality of care provided to acute stroke patients(McLaren S,2019)

### **2.5.5 Inadequate knowledge**

Lack of knowledge on how to provide appropriate treatment was often discussed, particularly by nurses. Unlike the medical doctors, the nurses were unaware of thrombolytic therapy. This particular type of therapy was not part of what the medical doctors recommended for acute ischaemic stroke care,Most nurses also identified insufficient knowledge of certain acute stroke care procedures as a barrier, especially in triaging unconscious stroke patients, Although nurses talked about consulting senior colleagues, some level of uncertainty was still noted in proceeding to provide care in the absence of a medical doctor(Norrving B & Feigin VL,2015 )

### **2.5.6 Team collaboration and communication**

According to most nurses and all allied health staff, collaborative work in a multidisciplinary stroke team was inadequate, and an obstacle to effective patient care. Physician driven stroke care without adequate involvement of other staff, was frequently discussed:Allied health staff expressed a sense of marginalisation and disconnectedness, especially in the early stages of care. A dietitian for example cited instances where medical teams (doctors and nurses) often discharge patients without his view on dietary plans at discharge(Counsell C ,Tseng MC , et al.2017)

### **2.5.7 National policy context factors**

Participants identified one key barrier under this theme; lack of political will for acute stroke care (Strauss S & Tetroe J, 2018)

### **2.5.8 Lack of political imperative**

The lack of national level support and political imperative for acute stroke care was consistently cited as a broad level barrier, particularly by medical doctors. They expressed strong views on this issue, attributing it to the increasing out-of-pocket medical expenses for patients. Despite the existence of the national health insurance policy which was supposed to replace the practice of 'cash and carry', a lack of political imperative for the scheme has gradually introduced the policy of upfront payments by patients prior to acute care in most hospitals in Ghana presently. They believed this has negatively affected patients' access to care (not only stroke patients) because of their inability to pay for medical expenses (Mensah GA & Norrving B, 2017)

The limited coverage of the national health insurance scheme on chronic care, such as stroke, was also stated as a key barrier. Patients experienced difficulties paying for stroke-related medical costs (eg, CT brain scans and other laboratory tests) that were not covered by the national health insurance scheme. Overall, there was a sense of powerlessness about national level neglect for acute stroke care (Feigin VL, 2016)

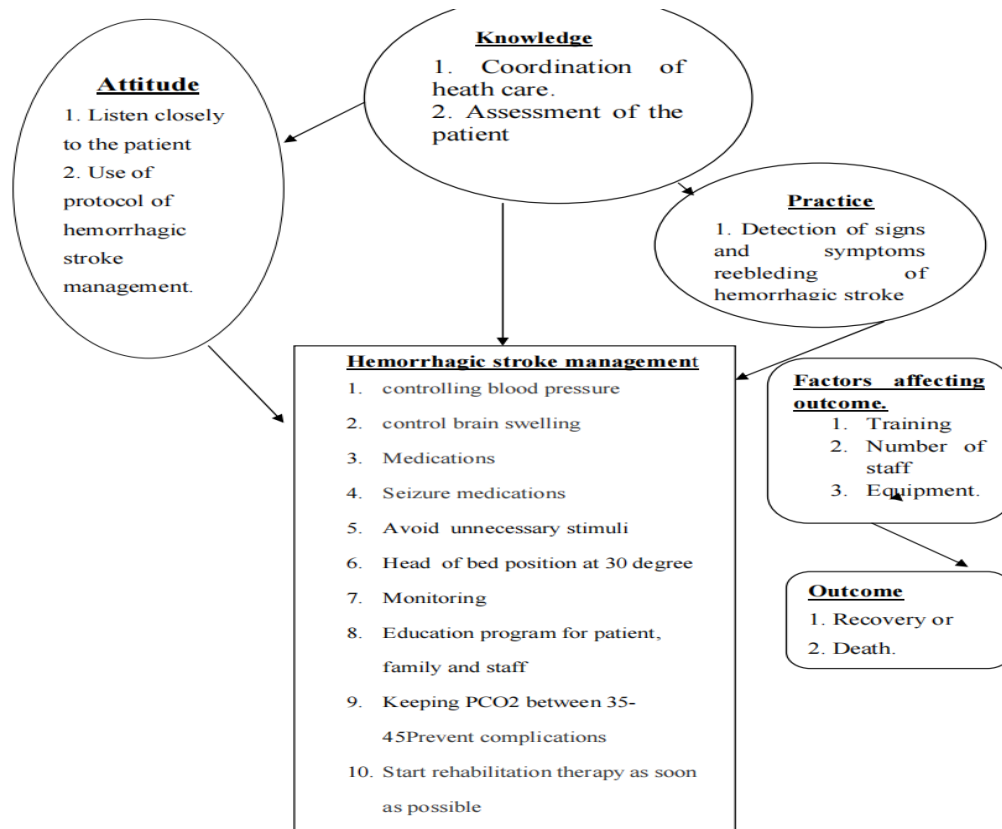
## **2.7 Research gap**

Previous studies have been conducted on assessment of the Factors of Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU, Other studies have undertaken the Policy used to reduce Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU as well as difference between the types of Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU but few studies have been Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU which really inspired present researchers to conduct research entitled "Practice and knowledge regarding the management of patients affected by hemorrhagic stroke in Emergency and ICU"

## 2.8. Conceptual frame work

Conceptual frame work of the study was based on taxonomy of education objectives and the knowledge, attitude and practice developed by Bloom (1956) and modified by Anderson and Krathwohl (2001).

**Figure 1:Figure show conceptual frame work**



Nursing management of patient with hemorrhagic stroke is key element in patient care with hemorrhagic stroke; therefore practicing nursing management, correctly improves the patient condition and reduces the complications. However when it is not well implemented the outcome might be poor which results into poor quality of life. Poor quality of life of an individual is one determinant factor for family disturbance. Family health will be impaired and societal problem become complicated, so, the scientific interventions were effective in improving the care of stroke patient.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.0 Introduction

This chapter covers the methodology; the research design, the target populations, sample size, sample procedure, data collection instrument, method of data analysis and ethical consideration of this study

### 3.1. Research approaches and Design

**Quantitative approaches** According to Daniel (2020). quantitative methods refers to the emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon.

#### 3.1.1. Research Design

Brink and Wood (2021) state that the purpose of a research design is to provide a plan for answering the research question and “is a blueprint for action”. It is the overall plan that spells out the strategies that the researcher uses to develop accurate, objective and interpretative information. This study was use descriptive, cross sectional study design. The research design was chosen because it was describe the present condition.

### 3.2 Target population

The target population is “the entire aggregation of respondents that meet the designated set of criteria” (Burns & Grove 2020).DN(Director of Nurses), 5 leaders Department of services, unity manager,2 Doctor-for consultation and 20 Nurses of Kibuye Referral Hospital through interview and questionnaire. And 29 Peoples. The total nurses working in Emergency and ICU at KDH

### 3.3 sampling procedures

Sampling involves a process of selecting a sub-section of a population that represents the entire population in order to obtain information regarding the phenomenon of interest. A sample is a sub-section of the population, which is selected to participate in a study. There are two methods of sampling, one yields probability samples in which the probability of selection of each



respondent is assured. The other yields non-probability samples in which the probability of selection is unknown (Polit & Hungler 2018)

### **3.4 sample size**

According to 1<sup>st</sup> rule of thumb which stated that if the population is less than 100, include them all and strive to get an 80% response rate (Baker.A, 2012) . Was been proportionate to Nurses. Then in this study the sample size was been applied to DN(Director of Nurses), 5 leaders Department of services, unity manager, 2 Doctor-for consultation and 20 Nurses of Kibuye Referral Hospital through interview and questionnaire. The total sample size was been 29 Peoples.

### **3.5 Ethical issues**

Ethical clearance was been obtained from Kibogora Polytechnic Review Board (IRB), the researchers was ask permission from the administration of the hospital to perform the study. All information that the respondents provided was been kept anonymous and will treat with confidential and the data from the study was only use for the purpose of completing this study.

### **3.6 Data analysis**

Data analysis is “the systematic organization and synthesis of the research data and the testing of research hypotheses, using those data” (Polit & Hungler 2018).

Data collection during settled period was been analyzed by computer using Microsoft Excel and SPSS 21.0.Descriptive analysis was been presented in tables form which indicates frequencies and percentages of different variables that use to analyze data.

### **3.7 Reliability and validity measures**

Validity is the extent to which an instrument measures what it is supposed to measure and performs as it will designed to perform whereas reliability refers to the extent to which the same answers can be obtained using the same instruments more than one time (Polit, 2017).

In order to ensure validity of the tools, the questionnaires were been first pre-test by 4 nurses. The pilot study was being done within one day. Following the pilot study was been rephrased for more clarity. The purpose of pilot study is to minimize errors, ensuring validity and reliability.

## CHAPTER FOUR DATA PRESENTATION, ANALYSIS, INTREPRESENTATION AND SUMMARY

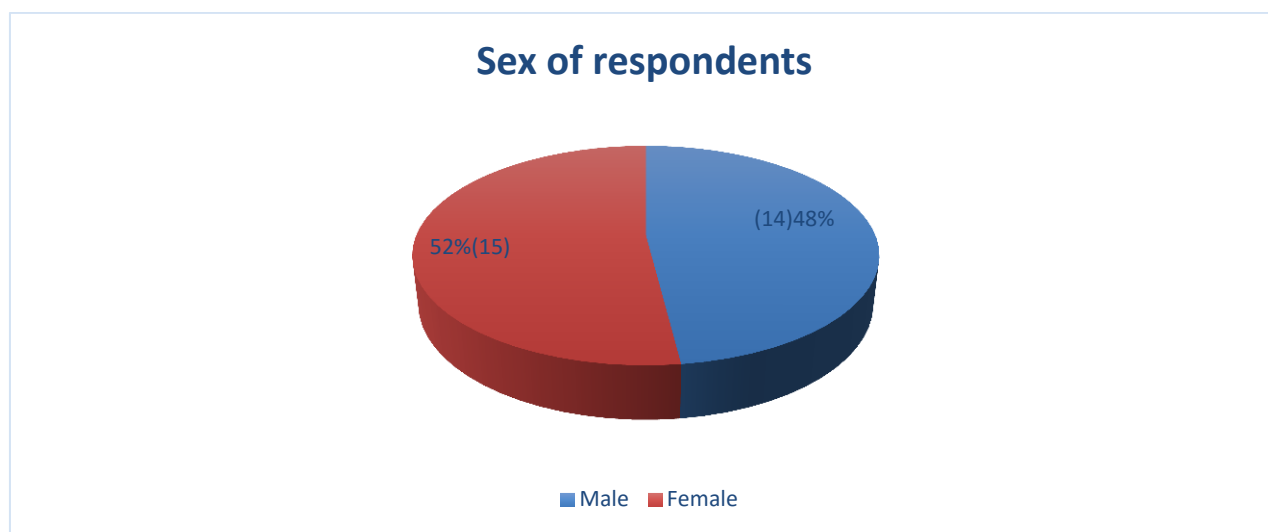
### 4.0. Introduction

This chapter was consisting of social demographic of respondents and findings from the specific objectives and discussion of findings, summary of findings according our research.

### 4.1. Social Demographic of respondents

Social demographic was composed by sex, age, ward, level of education, and experience in services of respondents.

**Figure 4.1.1 Distribution of respondents related to sex**



**Figure 4.1.1 Distribution of respondents related to sex**

The table above explains the sex of respondents on sex Female was 15(52%) and male was 14(48%) the largest number of respondents was saying female.

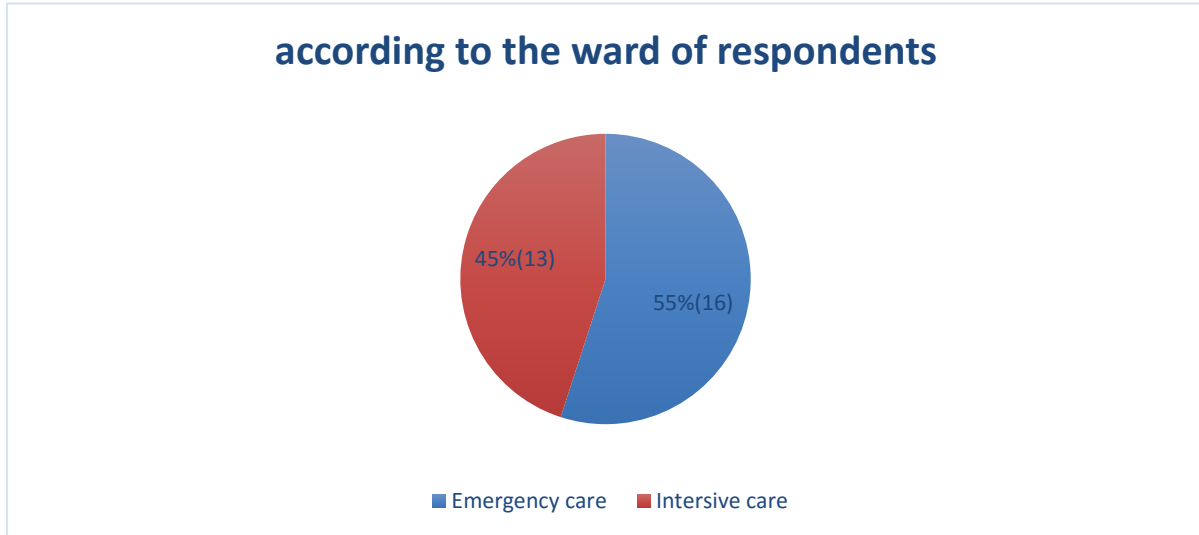
**Table 4.1.1 Distribution of respondents according to the age**

Age Group	Frequency	Percentages
20-30 Years	2	7%
31-40 Years	7	24%
41-50 Years	9	31%
50 years and above	11	38%
<b>Total</b>	<b>29</b>	<b>100</b>

Table 4.1.1 Distribution of respondents according to the age

Table above shows the respondents according to the age group, 20-30 years was 2(7%),31-40 years was 24%, 41-50 years 9(31%) and 5 years and above was 11(38%) the largest number of respondents was in age group 50 years and above.

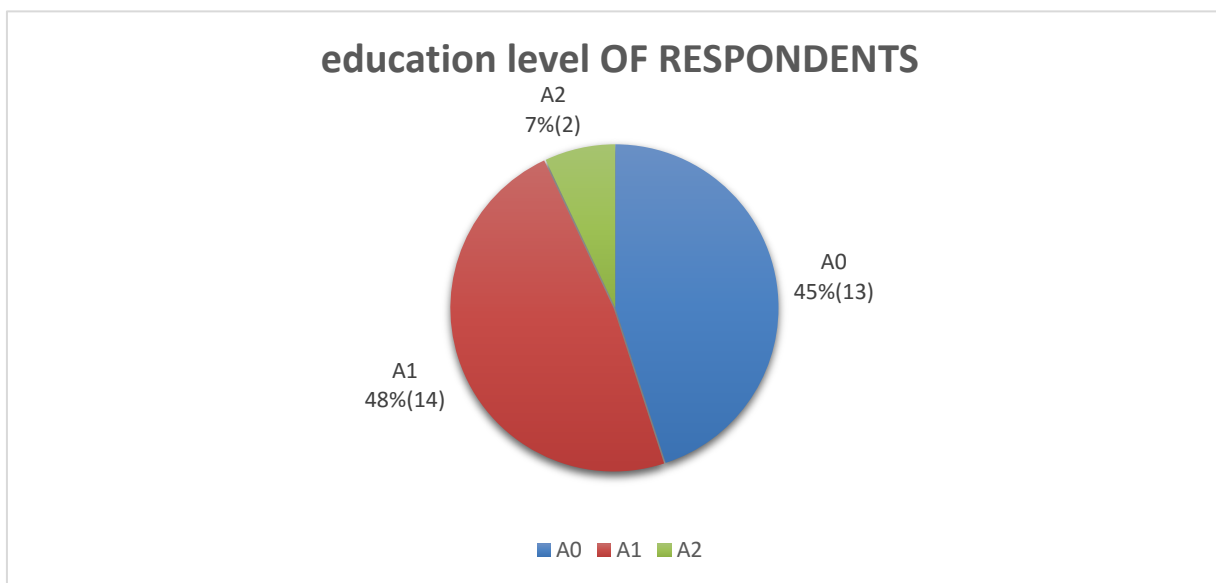
**Figure 4.1.2 Distribution of respondents according to the ward**



**Figure 4.1.2 Distribution of respondents according to the ward**

The figure above shows the respondents according to the ward in emergency care was 16(55%) and Intensive care was 13(45%) the largest number of respondents was emergency care.

**Figure 4.1.3 Distribution of respondents according to education level**



**Figure 4.1.3 Distribution of respondents according to education level**

The figure above shows the number of respondents according to the education level, A0 was 45 % ( 13), A1 was 48 % ( 14) and A2 was 2(7%) the largest number of respondents in education level of A1.

**Table 4.1.2 Distribution of respondents related to the Experience in services**

Experience in services	Frequency	Percentages
6 months-11months	8	27%
1year-5years	11	38%
6years-10years	6	21%
11years and above	4	14%
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.1.2 Distribution of respondents related to the Experience in services

The table above shows the number of respondents according to the experience in services in 6 months-11months was 8(27%), 1 years-5 years was 11(38%), 6 years-10 years was 6(21%) and 11 years and above was 4(14%) the largest number of respondents was in 1 years-5 years.

#### 4.2. KNOWLEDGE ON MANAGEMENT OF HEMORRHAGIC STROKE in emergency care and ICU

**Figure 4.2.4 Nurses training on management of hemorrhagic stroke in the last two years**

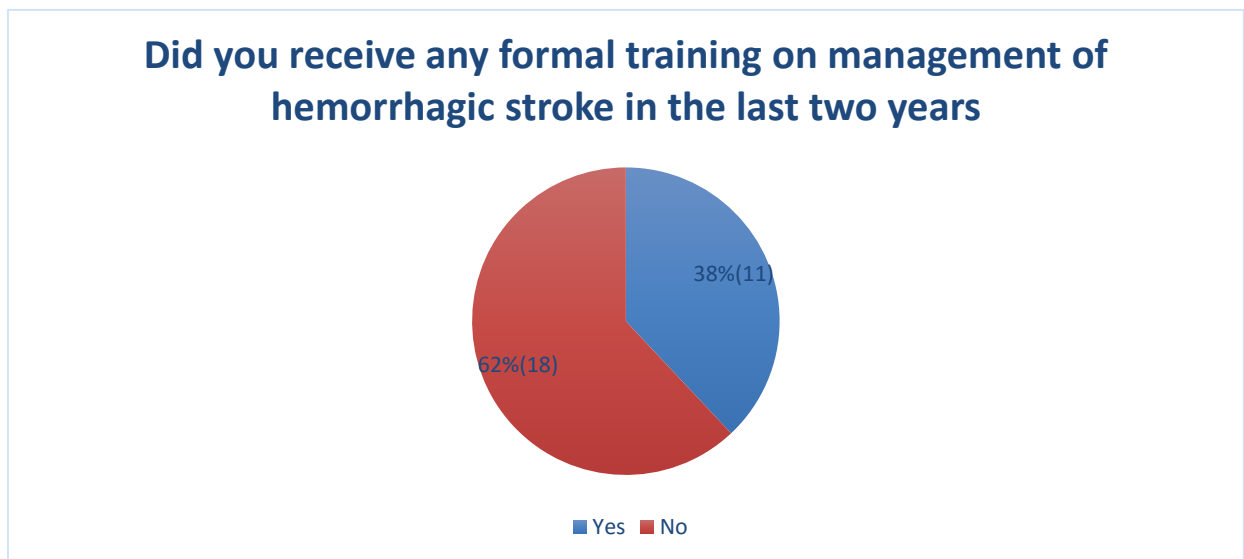


Figure 4.2.4 Nurses receive any formal training on management of hemorrhagic stroke in the last two years

Figure above show the number of respondents according to the Did you receive any formal training on management of hemorrhagic stroke in the last two years, saying yes was 11(38%) and saying no was 18(62%) the largest number of respondents was saying no.

**Figure 4.2.5 Distribution of respondents according to classification of hemorrhage stroke**

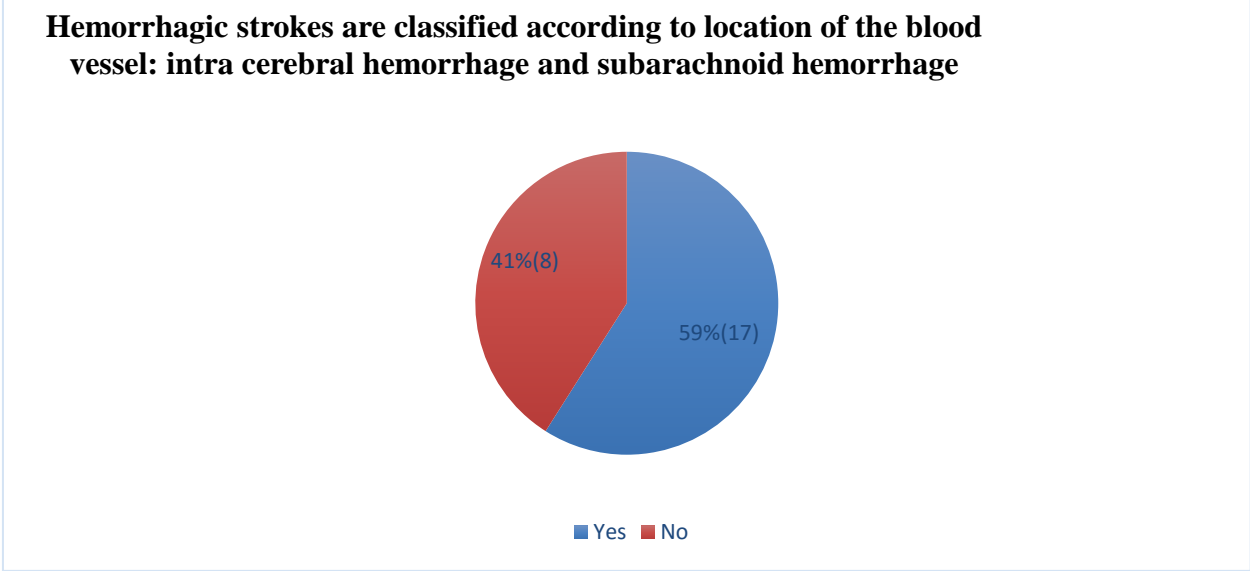


Figure 4.2.5 Distribution of respondents according to the Hemorrhagic strokes is classified according to location of the blood vessel: intra cerebral hemorrhage and subarachnoid hemorrhage

Figure above explain the views of respondents according to the Hemorrhagic strokes are classified according to location of the blood vessel: intra cerebral hemorrhage and subarachnoid hemorrhage, saying yes was 17(59%) and saying no was 8(41) the largest number of respondents was saying no.

**Table 4.2.3 Distribution of respondents according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death**

<b>the Early intervention when ICP is above <math>\geq 20</math> mmHg is required to prevent often precipitous herniation and death</b>	<b>Frequency</b>	<b>Percentages</b>
Yes	20	69%
No	9	31%
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.2.3 Distribution of respondents according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death.

The table above explain the views of respondents according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death in yes was 20(69%) and no was 9(31) the largest number of respondents was saying yes.

**Table 4.2.4 Distribution of respondents according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke**

<b>Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke</b>	<b>Frequency</b>	<b>Percentages</b>
Yes	16	55%
No	13	45%
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.2.4 Distribution of respondents according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke The table above explain the views of respondents related to Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke saying yes was 16(55%) and saying no was 13(45%) the largest number of respondents was saying yes.

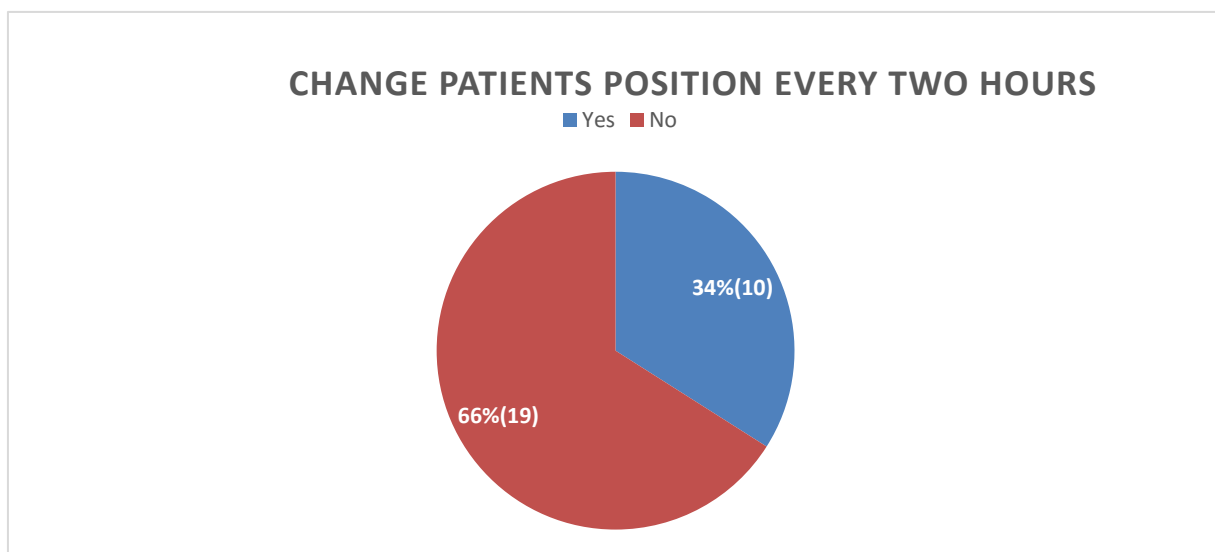
**Table 4.1.5** the table above show the number of respondents related to the goals of Treatment in hemorrhagic stroke

the goals of Treatment in hemorrhagic stroke	Frequency	Percentages
Save the person's life	5	17%
Relieve symptoms	7	24%
Repair the cause of bleeding	9	31%
Prevent Complication	8	28%
<b>Total</b>	<b>29</b>	<b>100%</b>

**Table 4.2.5** Distribution of respondents according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke

The table above explains the number of respondents according to the Therapies such as repositioning and range-of-motion exercises can help prevent complication. The Practice of Nurses Regarding Management of Hemorrhagic Stroke In Emergency And ICU

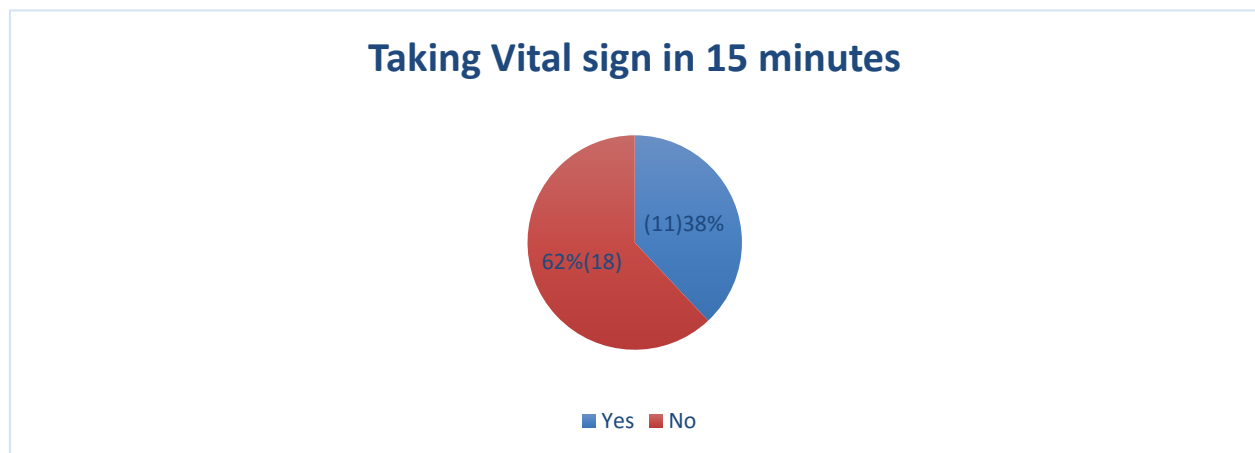
**Figure 4.3.6** Distribution of respondents related to the change patients position every two hours



**Figure 4.3.6** Distribution of respondents related to the change patients position every two hours

The figure above explain the views of respondents according to the change patients position every two hours, the saying yes was 10(34%) and saying No was 19(66%) the largest number of respondents was saying no.

**Figure 4.3.7 Vital sign measurement every in 15 minutes**



**Figure 4.3.7 Vital sign measurement every in 15 minutes**

The figure above shows Vital sign measurement every in 15 minutes, saying yes was 11(38% ) and saying no was 18(62%) the largest number of respondents was saying no.

**Table 4.3.6 Distribution of respondents according to the daily physical exercises**

the daily physical exercises	Frequency	Percentages
Yes	12	41%
No	17	59%
<b>Total</b>	<b>29</b>	<b>100%</b>

**Table 4.3.6 Distribution of respondents according to the daily physical exercises**

The table above explain the number of respondents related to the daily physical exercises in saying yes was 12(41%) and in saying no was 17(59%) the largest number of respondents was saying no.

**Table 4.3.7 Evaluation Glasgow coma scale**

Evaluation of Glasgow coma scale	Frequency	Percentages
YES	13	45%
No	16	55%
<b>Total</b>	<b>29</b>	<b>100%</b>

**Table 4.3.7 Evaluation of Glasgow coma scale**



The table above show the number of respondents according to the Evaluate Glasgow coma scale saying yes was 13(45%) and saying no was 16(55%) the largest number of respondents was saying no.

**Table 4.3. 8 Distribution of respondents related to the Avoidance of stimuli (light, suction when necessary, organize care needed**

Avoid frequent stimuli(light, suction when necessary ,organize care needed	Frequency	Percentages
Yes	14	48%
No	15	52%
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.3.8 Distribution of respondents related to the Avoidance stimuli (light, suction when necessary, organize care needed

The table above show the number of respondent according to the Avoidance stimuli (light, suction when necessary, organize care needed (n=29), saying yes was 14(48%) and saying No was 15(52%) the largest number of respondents was saying no.

**Figure 4.3.8 Distribution of respondents according to the Head of bed position at 30 degree**

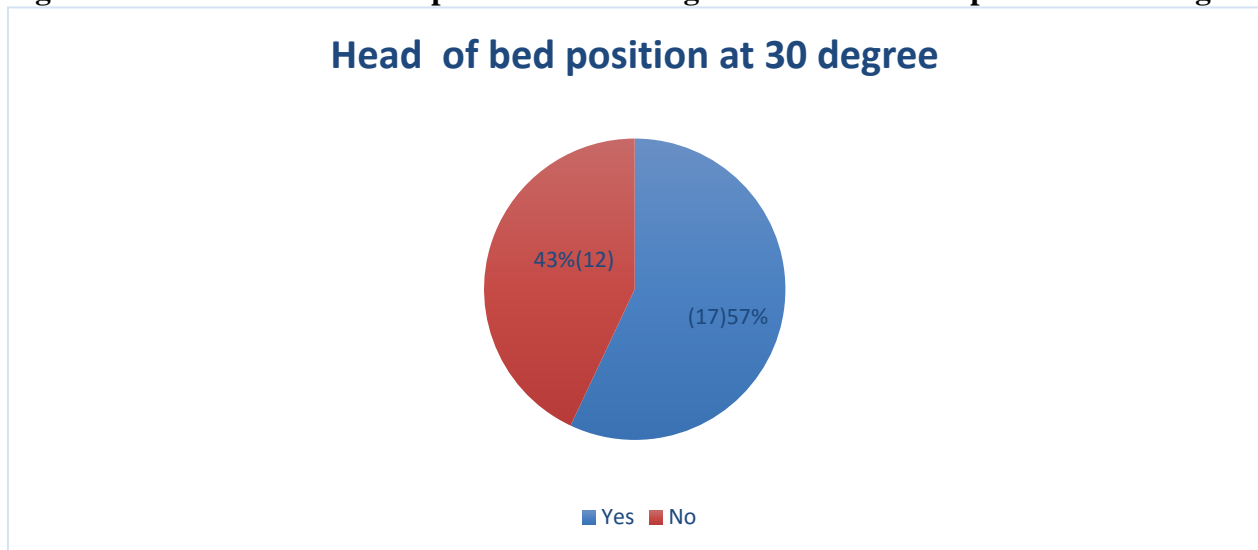
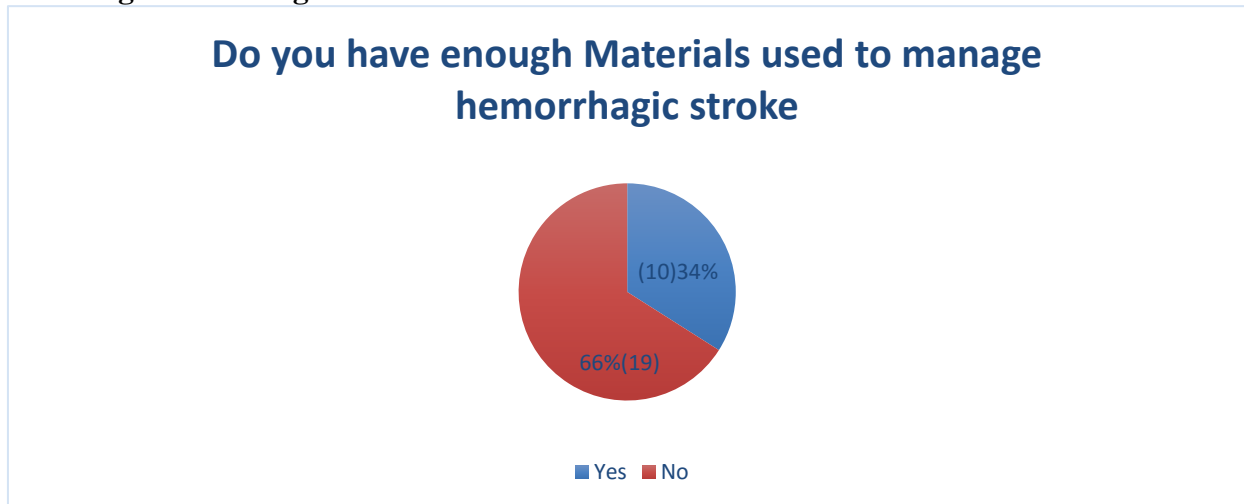


Figure 4.3.8 Distribution of respondents according to the Head of bed position at 30 degree

The figure above show the number of respondents according to the Head of bed position at 30 degree saying yes was 17(57%) and saying no was 12(43%) the largest number of respondents was saying yes.

#### 4.4. The Barrier to Nursing Management of Hemorrhagic Stroke Patients In Emergency And ICU

**Figure 4.4.9 Distribution of respondents related to the Do you have enough Materials used to manage hemorrhagic stroke**



**Figure 4.4.9 Availability of Materials used to manage hemorrhagic stroke**

The figure above explain the views of respondents on availability of Materials used to manage hemorrhagic stroke, saying yes was 10(34%) and saying no was 19(66%) the largest number of respondents was saying no.

**Table 4.4.9 Distribution of respondents according to the Do you have enough nurses trained about management of hemorrhagic stroke**

Do you have enough nurses trained about management of hemorrhagic stroke	Frequency	Percentages
Yes	9	31%
NO	20	69%
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.4.9 Distribution of respondents according to the Do you have enough nurses trained about management of hemorrhagic stroke

The table above show the number of respondents according to the Do you have enough nurses trained about management of hemorrhagic stroke saying yes was 9(31%) and saying no was 20(69%) the largest number of respondents was saying no.

**Table 4.4.10 Distribution of respondents related to Are the working area favorable in managing of patient with hemorrhagic stroke**

<b>Are the working area favorable in managing of patient with hemorrhagic stroke</b>	<b>Frequency</b>	<b>Percentages</b>
<b>Yes</b>	<b>14</b>	<b>48%</b>
<b>No</b>	<b>15</b>	<b>52%</b>
<b>Total</b>	<b>29</b>	<b>100%</b>

Table 4.4.10 Distribution of respondents related to Are the working area favorable in managing of patient with hemorrhagic stroke

Table above show the number of respondents according to the Are the working area favorable in managing of patient with hemorrhagic stroke saying yes was 14(48%) and saying no was 15(52%) the largest number of respondents was saying no.

#### **4.5. DISCUSSION OF FINDINGS**

##### **4.5.1. related to the knowledge on management of hemorrhagic stroke in emergency and ICU**

Related to the Change in level of consciousness or responsiveness, Presence or absence of voluntary or involuntary movements of extremities, Stiffness or flaccidity of the neck, Eye opening, comparative size of pupils, and pupillary reaction to light, Color of the face and extremities; temperature and moisture of the skin, Ability to speak, Presence of bleeding and Maintenance of blood pressure(Chan DK , Chan DL , et al,2021) our findings show the number of nurses receive any formal training on management of hemorrhagic stroke in the last two years, saying yes was 11(38%) and saying no was 18(62%) the largest number of respondents was saying no, according to the Hemorrhagic strokes are classified according to location of the blood vessel: intra cerebral hemorrhage and subarachnoid hemorrhage, saying yes was 17(59%) and saying no was 8(41) the largest number of respondents was saying no, according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death in yes was 20(69%) and no was 9(31) the largest number of respondents was saying yes, related to Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke saying yes was 16(55%) and saying no was 13(45%) the largest

number of respondents was saying yes and according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke saying save the person's life was 5(17%),saying relieve symptoms was 7(24%) , saying repair the cause of bleeding was 9(31%) and saying to prevent complication was 8(28%) the largest number of respondents was saying repair the cause of bleeding.

#### **4.5.2. Related to the Practice of Nurses Regarding Management of Hemorrhagic Stroke in Emergency and ICU**

Different research Prevent edema, Elevate affected arm to prevent edema and fibrosis, Full range of motion, Provide full range of motion four or five times a day to maintain joint mobility, Prevent venous stasis, Exercise is helpful in preventing venous stasis, which may predispose the patient to thrombosis and pulmonary embolus(Grady A &Bryant J ,2014) Our findings show change patients position every two hours, the saying yes was 10(34%) and saying No was 19(66%) the largest number of respondents was saying no, according to the Taking Vital sign in 15 minutes, saying yes was 11(38% ) and saying no was 18(62%) the largest number of respondents was saying no, related to the daily physical exercises in saying yes was 12(41%) and in saying no was 17(59%) the largest number of respondents was saying no, according to the Evaluate Glasgow coma scale saying yes was 13(45%) and saying no was 16(55%) the largest number of respondents was saying no, according to the Avoid frequent stimuli(light, suction when necessary ,organize care needed(n=29), saying yes was 14(48%) and saying No was 15(52%) the largest number of respondents was saying no and according to the Head of bed position at 30 degree saying yes was 17(57%) and saying no was 12(43%) the largest number of respondents was saying yes.

#### **4.5.3. Related to the Barrier to Nursing Management of Hemorrhagic Stroke Patients in Emergency and ICU**

Related to the Patients experienced difficulties paying for stroke-related medical costs (eg, CT brain scans and other laboratory tests) that were not covered by the national health insurance scheme. Overall, there was a sense of powerlessness about national level neglect for acute stroke care(Feigin VL,2016) and also according to the Do you have enough Materials used to manage hemorrhagic stroke, saying yes was 10(34%) and saying no was 19(66%) the largest number of respondents was saying no, according to the Do you have enough nurses trained about management of hemorrhagic stroke saying yes was 9(31%) and saying no was 20(69%) the

largest number of respondents was saying no and according to the Are the working area favorable in managing of patient with hemorrhagic stroke saying yes was 14(48%) and saying no was 15(52%) the largest number of respondents was saying no.

#### **4.6. SUMMARY OF FINDINGS**

The first objectives was To assess the knowledge of nurses about the management of hemorrhagic stroke in Emergency and ICU it was seen that according to the Did you receive any formal training on management of hemorrhagic stroke in the last two years the largest number of respondents was saying no, according to the Hemorrhagic strokes are classified according to location of the blood vessel: intra cerebral hemorrhage and subarachnoid hemorrhage the largest number of respondents was saying no, according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death the largest number of respondents was saying yes, related to Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke the largest number of respondents was saying yes and according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke the largest number of respondents was saying repair the cause of bleeding.

The second objectives was to determine the Practice of nurses regarding management of hemorrhagic stroke in Emergency and ICU. according to the change patients position every two hours the largest number of respondents was saying no, according to the Taking Vital sign in 15 minutes the largest number of respondents was saying no, related to the daily physical exercises the largest number of respondents was saying no, according to the Evaluate Glasgow coma scale the largest number of respondents was saying no, according to the Avoid frequent stimuli(light, suction when necessary ,organize care needed the largest number of respondents was saying no and according to the Head of bed position at 30 degree the largest number of respondents was saying yes.

Third objectives was to assess the factors that influence the management of hemorrhagic stroke patients in Emergency and ICU related to the Do you have enough Materials used to manage hemorrhagic stroke the largest number of respondents was saying no, according to the Do you have enough nurses trained about management of hemorrhagic stroke the largest number of respondents was saying no and according to the Are the working area favorable in managing of patient with hemorrhagic stroke the largest number of respondents was saying no.

## **CHAPTER FIVE CONCLUSION AND RECOMMENDATIONS**

### **5.0 Introduction**

This chapter was conducted by the summary of chapter four, conclusion, recommendations and suggestions for further research supporting our research.

### **5.1. Conclusion**

according to the Did you receive any formal training on management of hemorrhagic stroke in the last two years the largest number of respondents was saying no, according to the Early intervention when ICP is above  $\geq 20$  mmHg is required to prevent often precipitous herniation and death the largest number of respondents was saying yes, related to Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke the largest number of respondents was saying yes and according to the Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke the largest number of respondents was saying repair the cause of bleeding, according to the change patients position every two hours the largest number of respondents was saying no, according to the Taking Vital sign in 15 minutes the largest number of respondents was saying no, related to the daily physical exercises the largest number of respondents was saying no, according to the Evaluate Glasgow coma scale the largest number of respondents was saying no, according to the Avoid frequent stimuli(light, suction when necessary and related to the Do you have enough Materials used to manage hemorrhagic stroke the largest number of respondents was saying no, according to the Do you have enough nurses trained about management of hemorrhagic stroke the largest number of respondents was saying no and according to the Are the working area favorable in managing of patient with hemorrhagic stroke the largest number of respondents was saying no as conclusion the management of patients with hemorrhagic stroke by nurses was not appropriate and need to be improved

### **5.2. Recommendation**

#### **5.2.1. to hospital**

Hospital should train nurses about management of patients with hemorrhagic stroke and avail all materials need in management of hemorrhagic stroke.

### **5.2.2. to nurses**

Should facilitate the patients who attending hospital how to lower the blood pressure if its too high.

### **5.3. Suggestions for further researchers**

The following was suggestions for other research was used increase the knowledge about the research.

- ❖ Contribution of nurses regarding the management of patients with hemorrhagic stroke.
- ❖ Effect of hemorrhagic stroke on the development of nurses knowledge in emergency and ICU.

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## **APPENDICES**

**APPENDICES 1: INTRODUCTORY LETTER**

**KIBOGORA POLYTECHNIC**

**FACULTY OF HEALTH SCIENCES**

**DEPARTMENT OF GENERAL NURSING**

Dear sir, madame,

We called MUNEZERO Steve and RIYAZIMANA Ezechiel; Our registration number are 2000979 and 2000978 a student of Kibogora Polytechnic, Faculty of Health Sciences, and Department of General Nursing and you write this letter to humbly request you to allow our carry out my research in your institution.

We currently carrying a research entitled study about Practice and knowledge, regarding management of hemorrhagic stroke in intensive care unity and emergency case study at KIBUYE REFFERAL hospital. Case study: Kibuye Referral hospital .period (2021-2022) for the sake of completing our Bachelor's Degree in Health sciences at Kibogora Polytechnic

I hereby request you to fill this questionnaire in order to get relevant information for this research. Your responses will be kept confidential and will be used for only the purpose stated above.

Your cooperation is our promotion

## APPENDICES 2: QUESTIONNAIRE

### INSTRUCTIONS:

-Please read the questions carefully before answering. Your answers will be kept confidential.

-You have to answer all questions.

### SECTION A: DEMOGRAPHICS DATA

I.DEMOGRAPHICS DATA	STATEMENTS	YES	NO
1.Sex	Male		
	Female		
2.Age	20-30 years		
	31-40 years		
	41-50 years		
	51years and above		
3.Ward	Emergency care		
	Intensive care		
4.Level of education	A0		
	A1		
	A2		
5.Experience in services	6 months-11 months		
	1year-5years		
	6years-10years		
	11years and above		

**SECTION B: KNOWLEDGE ON MANAGEMENT OF HEMORRHAGIC STROKE**

QUESTIONS	YES	NO	
1).Did you receive any formal training on management of hemorrhagic stroke in the last two years?			
2).Hemorrhagic strokes are classified according to location of the blood vessel: intra cerebral hemorrhage and subarachnoid hemorrhage?			
3).Early intervention when ICP is above $\geq 20$ mmHg is required to prevent often precipitous herniation and death?			
4) Therapies such as repositioning and range-of-motion exercises can help prevent complications related to stroke			
5).The following assertion are goals of Treatment in hemorrhagic stroke?	Save the person's life		
	Relieve symptoms		
	Repair the cause of bleeding		
	Prevent Complication		

**SECTION C: THE PRACTICE OF NURSES REGARDING MANAGEMENT OF HEMORRHAGIC STROKE IN EMERGENCY AND ICU**

<b>PRACTICE</b>	<b>YES</b>	<b>NO</b>
1) change patients position every two hours		
2)Taking Vital sign in 15 minutes		
3)daily physical exercises		
4)Evaluate Glasgow coma scale		
5) Avoid frequent stimuli(light, suction when necessary ,organize care needed)		
6) Head of bed position at 30 degree		

**SECTION D: THE BARRIER TO NURSING MANAGEMENT OF HEMORRHAGIC STROKE PATIENTS IN EMERGENCY AND ICU.**

<b>Challenges Or Barrier To Nursing Management Of Hemorrhagic Stroke</b>	<b>YES</b>	<b>No</b>
1)Do you have enough Materials used to manage hemorrhagic stroke		
2)Do you have enough nurses trained about management of hemorrhagic stroke		
3)Are the working area favorable in managing of patient with hemorrhagic stroke?		