**ANALYSIS OF MEDICAL RECORDS MANAGEMENT PRACTICES AT CHAKECHAKE HOSPITAL PEMBA, ZANZIBAR**

**FRANCIS EMANUEL CHIKWINDO**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF LIBRARY AND INFORMATION MANAGEMENT (MLIM)**

**DEPARTMENT OF MEDIA AND LIBRARY STUDIES**

**OF THE OPEN UNIVERSITY OF TANZANIA**

**2024**

# CERTIFICATION

The undersigned confirms that she has reviewed and recommends for evaluation by The Open University of Tanzania a research dissertation titled: "**Analysis of the Medical Records Management Practices at Chakechake Hospital, Pemba, Zanzibar,"** as part of the requirements for the Master’s Degree in Library and Information Management (MLIM) at the Open University of Tanzania.

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Dr. Lilian Isowe

(Supervisor)

……………………………….…………

Date

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I, **Francis Emanuel Chikwindo** declare that the work presented in this dissertation is original. It has never been presented to any other university or institution. Where other people’s works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfilment of the Requirements for the Degree of Master of Library and Information Management (MLIM) at the Open University of Tanzania.

…................................................

Signature

………………………………

Date

# DEDICATION

I dedicate this dissertation to my wife, Mary S. Michael, whose love, support, and unwavering belief in my abilities have been my greatest source of strength. She encouraged me to pursue this research with determination and patiently endured the demands of my studies. May the Lord bless her abundantly.

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Thirdly, my appreciation goes to the medical doctor in charge at Chakechake Hospital for his positive cooperation with data collection. He was ready and committed. Additionally, I am deeply grateful to all the respondents who generously took the time to participate in completing questionnaires and providing interviews.

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**ABSTRACT**

This study analyzed the management of medical records at Chakechake Hospital, a public hospital in Pemba, Zanzibar. The objectives were to analyze current medical records management practices, evaluate staff knowledge and competencies, and identify challenges in managing medical records. A mixed-methods approach was used, combining quantitative and qualitative data from 80 respondents that sampled purposively and conveniently from 121 population. Results showed that the hospital creating average records per month, including 1,400 to 1,500 records and the created records are managed through paper and electronic formats. Findings of staff education level shows that 45 (57%) have certificate, 18 (22%) have diploma, 16 (20%) have bachelor degree and 1 (1%) has master degree. Only two staff under records management section have adequate knowledge and skills regarding to supervision of records while health care professionals have not adequate knowledge and skills about records management Challenges reported include limited number of staff, lack of awareness and training, unstable Electronic Medical Records system used in managing records, limited number of records management facilities and too much workload. These challenges limit the effectiveness of the records management practices at the hospital and efficiency of customer services delivered to the patients. To improve record management, the researcher recommends the following; government through the Ministry of Health Zanzibar to employ qualified personnel to fill the deficit of the staff, providing trainings and workshops to the staff, Electronic Medical Record system has to be stabilized and records management facilities to be procured.

**Key words:** Medical records, Electronic Medical Records, Chakechake hospital.

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# LIST OF ABBREVIATIONS AND ACRONYMS

CPAD Comprehensive Patient Application Database

ICT Information and Communication Technology

KCMC Kilimanjaro Christian Medical Centre

MNH Muhimbili National Hospital

EMR Electronic Medical Records

OPD Out Patients Department

RCH Reproductive Child Health

# CHAPTER ONE

# INTRODUCTION

# 1.1 Introduction

Proper management of medical records is essential for assessing the quality of healthcare services offered by hospitals and medical facilities. As a key factor in customer satisfaction, good medical records management enables healthcare providers to locate patient records quickly, facilitates efficient communication among healthcare workers, and helps prevent medical malpractice (Sage, et al., 2020). However, many hospitals and health centers face challenges in managing medical records, including limited space, outdated technology, lack of awareness about emerging skills and knowledge, and insufficient staffing (Zali et al., 2018). These challenges are limiting the provision of good health services to the patients and minimize customer satisfaction.

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

# 1.2 Background to the Study

Medical records are a comprehensive repository of information documenting a patient's history, clinical findings, diagnostic test results, pre- and post-operative care, progress, and medication (Bali et al., 2011). With technological advancements, medical records have transitioned from paper-based to electronic systems, existing in two primary formats: paper-based and electronic. Electronic medical records involve electronic information in various formats, including text, images, audio, and video. These records serve as the foundation for treatment planning and provide a vital communication tool among healthcare professionals and departments (Medical Defense Society, 2019).

The importance of medical records is evident in their roles in ensuring continuity of care. They are generated in all healthcare institutions, regardless of size, technology, or patient volume. Comprehensive medical records allow healthcare providers to assume care and treatment from previous doctors (MEDISEC, 2020). Effective management of medical records is crucial for promoting accountability, protecting critical evidence, and preserving corporate memory (Cox, 2001; Touray, 2021).

Guidelines for creating medical records include not altering files, using legible writing instruments, avoiding personal opinions, and double-checking all information. A complete and well-maintained medical record is essential for providing quality healthcare services. Incomplete or inaccurate records can lead to misdiagnosis and ineffective treatment (Ngidi, 2015).

Medical records management involves the governance and storage of patients' information from creation to disposition (DataGuide, 2024). Records can be managed manually or electronically using systems such as Electronic Medical Records and Health Information Systems (Elikwu, Igbokwe, & Emokhare, 2020). The management process involves various stakeholders, including receptionists, medical doctors, nurses, and registry staff (Nishanthan et al., 2022).

Despite the importance of medical records management, several challenges exist (Chen, et al., 2020). Limited space for files, inadequate staff, and security issues are among the challenges faced by healthcare institutions (Keshta & Odeh, 2021). Zali et al. (2018) identified lack of adequate space, insufficient budget, and lack of staff as some of the issues affecting medical records management. Moreover, Garba and Harande (2018) highlighted the sensitivity of medical records as a major challenge in their management, noting that healthcare institutions face challenges with storage, access, safety, and security. These challenges vary depending on the size of the institution, technology used, and budget allocated. Additionally, Abdulazeez et al. (2015) noted that hospitals face challenges in preserving and managing their records due to outdated forms, a shortage of experienced personnel, lack of planning in storage of inactive records, lack of records retention schedules, and delays in transferring records. These challenges can lead to difficulties in accessing medical records on time, limited lifespan of the records, and over-occupation of storage space.

# 1.3 Statement of the Problem

Effective medical records management complies with comprehensive policies and frameworks and employs a sufficient number of staff to ensure the accessibility and usability of records (Gisemba, n.d). Effective records management practices enhance the accessibility and usability of medical records, while poor management leads to inaccessibility or loss of records. Inaccessible or missing medical records result in poor health services. Therefore, it is essential for all health service providers to manage their medical records professionally to guarantee the smooth provision of quality health services. Effective medical records management allows for the proper and timely retrieval of records when needed.

## Various researches were conducted worldwide including African countries that shows the necessity of managing medical records (Ngidi, 2015), Lodge et al. (2020), Mashoka et al. (2019), Logle, et al. (2020) and Mashoka, et al. (2019) identified that when a medical record lacks important information like the correct name of patient, medication history and admission date become a challenge in providing standard health care services. Based on previous studies conducted in various hospitals in Tanzania, there are different findings on medical records management practices in different hospitals*.* It is essential to regularly analyse the medical records Management practices because they become outdated or inefficient over time due to changes on technological advancements. This study was conducted with the aim to fill this gap by analysing the current medical records management practices with specific references to Chakechake Hospital.

# 1.4 Research Objectives

# 1.4.1 General Objective

The primary objective of the study was to analyse the management of medical records at Chakechake Hospital in Pemba.

# 1.4.2 Specific Objectives

The specific objectives of this study were:

1. To analyze current records management practices at the Chakechake hospital.
2. To evaluate knowledge and competencies of staff in managing medical records at the Chakechake hospital.
3. To identify the Challenges in managing medical records in Chakechake hospital.

# 1.5 Research Questions

The study was focused to answer the following questions

1. What are the current practices employed for medical records management at Chakechake Hospital?
2. What knowledge and competencies do the staff possess for managing medical records at Chakechake Hospital?
3. What challenges does Chakechake hospital face in managing medical records?

# 1.6 Relevance of the Research

Management of medical records practices at the Chakechake hospital need to be analyzed in order to understand the real situation on how medical records are managed including knowledge and competence of the staff, facilities used and identifying challenges that face medical records management and proposing possible solutions for the identified challenges. This study will be useful to hospital management, medical doctors, and records custodians at the hospital, as they are stakeholders who interacting much with medical records by showing strengths and weaknesses of the current medical records management practices. Finally, it will contribute to the improvement of medical records management practices by maintaining the quality of services provided and efficiency of health record management practices, ultimately improving patient care and safety.

# 1.7 Scope of the Study

The study concentrated on analyzing the practices of Chakechake Hospital in managing its medical records. The objectives were to analyze the current practices in place, evaluate the knowledge and skills of the staff involved in records management, and identify the challenges that hospital faces in this area. Chakechake Hospital was used as a case study and involved medical doctors, clinical officers, heath attendants, social workers and records management officers.

# 1.8 Limitations of the Study

This study faced limited time to interview some of respondents and financial implication on printing questionnaire. To overcome these limitattions, interview was conducted while respondents continue with their activities and researcher asked assistance from his office to print questionnaires.

# 1.9 Organization of the Dissertation

Chapter one introduces the study and provides its background, covering the problem statement, the overall objective of the research, specific objectives, research questions, the significance of the study, and its scope and limitations. Chapter two describes the literature review and relevant research related to the problem, including the empirical review, an overview of medical records management, the research gap, and the conceptual framework. Chapter three explains the methodology and procedures used to conduct the study and data analysis. Chapter four covers data presentation, analysis, and discussion. Chapter five summarizes the study findings, conclusions, recommendations, and areas for further research.

# CHAPTER TWO

# LITERATURE REVIEW

# 2.1 Introduction

The focus of this chapter is to review different literature relating to the research topic. Literature that will be reviewed will provide much understanding about the medical records management practice, give general understanding on what has been researched/ done by other scholars, conceptual definitions, theories guiding the study as well as shows the research gap.

# 2.2 Definitions of Key Terms

In the context of this study the following definitions of the key terms are provided.

# 2.2.1 Record

UNISA (2007, as cited in Luthuli, 2017) defined a record as recorded information, regardless of format or medium, which has been created, received, used, accessed, and maintained as evidence and information in pursuit of legal responsibilities or in the conduct of business. In the context of this study, a record is a formal document containing useful information that can serve as proof of actions taken, by whom, when, and how they were performed.

# 2.2.2 Records Management

Record management refers to the organized management of all records from the point of their creation or receipt, through processing, distribution, organization, storage, and retrieval, until their ultimate disposal. In this study, records management will encompass all activities conducted to ensure that all records within the institution are secure and accessible.

# 2.2.3 Medical Records

Medical records are documents explain details about the patient’s history, clinical findings, diagnostic test results, patient progress, and medication (Bali et al., 2011). As noted by Wong and Bradley (2009), a medical record serves multiple purposes, functioning as a document that conveys and records essential information regarding patients' medical care among healthcare providers. In this research, medical records pertain to information presented in different formats that serve as proof of patients' medications.

# 2.2.4 Records Keeping System

Records keeping system refers to a shared filing system where records are captured, organized, accessed, protected, retained, and destroyed according to approved records schedules (Government Records Office, Archives of Manitoba, 2022). In this study, the records keeping system is defined as the organized procedures established to ensure that medical records are captured, well-organized, protected, accessed, used, and disposed of in a manner that prevents unintended leaks or destruction of information.

# 2.2.5 Electronic Record

Electronic record refers to the information stored in an electronic format, encompassing documents, images, emails, databases and other categories of data (Government Records Office, Archives of Manitoba, 2022). In this study, electronic records defined as the information created, stored, shared and used by the assistance of computer, and that record contains information in various forms like images, text, video, and audio.

# 2.2.6 Records Keeping Manager

Records keeping manager refers to a person who is responsible for the effective management of information that is received and generated by an organization.

# 2.3 Critical Review of Supporting Theories or Theoretical Analysis

For the effective records management programme and its compliance, the records keeping staff need to be aware on their responsibilities in managing the records, records keeping systems and records keeping procedures including how to create and manage files, retention and destruction (IRMT, 2009). Hospitals should employ qualified medical records managers to manage their records mostly in centralized records management system (Luthuli & Kahusopa, 2017). The following section presents theories guiding this study.

# 2.3.1 Records Life Cycle

Records life cycle model was developed by Theodore Schellenberg in 1956 discusses various phases that a record passes through from the point of its creation to the point of its disposition. Records life cycle determine life span of records, record life span is time length when a record kept (New York State Archives, 2011). The basic assumption of this model is that, some records retain their values longer than others and values of records are changing over time. Every organization manage its records through these phases of records life cycle, these phases are; creation/receipt phase, active records phase, inactive records phase and final disposition (McEachreon, 2012). Records life cycle establishing the base on how records should be managed in the organization through their entire life, regardless of the format whether is paper records or electronic records. All organizations that manage records including hospitals need to adhere to the model during the management of the organization’s records. Records life cycle modal fits to be used as leading roadmap of this research because the model states much about stages and activities from the point where records are born to the end of their life. Therefore, with the alignment to the records life cycle model; this research wants to analyze practices of managing medical records, evaluate knowledge and competence of the staff as well as identifying challenges that face the hospital in managing medical records, the records life cycle gives hints on what to do with management of those records basing on the stage of the records. When medical records are created lives in active stage and start to be used, as days go on, the frequency of usage decline. Stages change to semi active and inactive stages and at the end the records will be deposited. These stages or phases of records management attached with activities or practices that clearly helping to ensure successful management of records.

# 2.4 Empirical Analysis of Relevant Studies

Several studies have been conducted by various scholars regarding the management of medical records. those studies reveal different aspects of management of medical records including tools and facilities used, knowledge and skills, challenges and so on. The following subsections is literature review from various studies towards management of medical records.

# 2.4.1 Practices of Managing Medical Records

Medical records are vital assets in all healthcare providers, necessitating proper management. Healthcare providers such as hospitals employ various methods of records management based on their size, allocated funds for records management, technological advancements, and regulatory requirements (Thomas, 2009). In India, Thomas identified that many hospitals use traditional methods, involving manual systems with books and papers. Similarly, in Africa, for example South Africa, most hospitals use manual methods where patient information is recorded in paper files when they visit hospitals for treatment (Pyrene, 2015). Medical records are primarily created in paper format, relying on their accuracy and completeness to provide adequate services. A common practice in hospital record management is consolidating all patient paper records into a single file labeled with the patient's name on the cover.

On the other hand, medical records are increasingly managed electronically, leveraging computer systems. Electronic medical records serve the same purpose as paper records in facilitating quality healthcare services to patients. These electronic health records may be managed through integrated or standalone systems. Patient information is captured during hospital visits and updated according to the services provided (Kumar, et al., 2002). From the studies, most health care facilities creating medical records in paper and electronic formats whereby they using files and computers for the storage of created records.

# 2.4.2 Knowledge, Skills and Competencies of Staff in Managing Medical Records

According to Sahid, et al., (2020), it is recommended that medical records managers possess a comprehensive knowledge of records management theory and practice, including frameworks and best practices. They should also understand and be able to implement various records management tools and techniques, and be proficient in using records management software applications (Chen, 2022). Medical records managers need to be well-versed and skilled in various practices related to managing records to enhance efficiency in hospital health provision activities.

As many healthcare providers are transitioning from manual to electronic medical records, staff in records management units/sections must be adaptable and capable of embracing changes that arise in their field (Keshta, 2021). ICT (Information and Communications Technology) introduces various technologies, including software, hardware, and connectivity, to support records management activities. Health service delivery infrastructures are being developed and integrated with ICT technologies (Elikwu, 2020). Various studies shows that knowledge and skills especially for emerging technologies and experiences are needed to be imparted to the people who interact with medical records

# 2.4.3 Challenges in Managing Medical Records

Sahid, et al., (2020) stated that the management of medical records faces various challenges such as misfiling and missing files, shortages of records staff, and poor staff knowledge. These issues are significant problems in medical records management, where misfiling and missing files can result from unclear systems used for filing records. Zali, et al., (2019) noted that, shortage of records staff is also a major concern, as many healthcare institutions do not employ an adequate number of personnel trained in records management. Poor staff knowledge often stems from insufficient training provided by management on records management practices, which fails to equip staff with the necessary skills to handle evolving challenges in the field (Thomas, 2009).

Paper-based records are considered difficult to create, store, and use, as well as costly and prone to being misplaced (Pyrene, 2015). Managing medical records in paper form requires large spaces to accommodate filing cabinets and shelves, which adds to the overall costs. Electronic records management also presents challenges, including staff familiarity with records management systems and limited funds allocated for investing in facilities such as computers and software.

# 2.5 Research Gap

Various studies have been conducted that assess the management of medical records and records management in general, both globally and in Tanzania. For example, Sahid et al., (2020) conducted a study titled "Role of Medical Records Management Practice in Improving Decision Making in University Hospital" in Malaysia. Another study by Pyrene, (2015) focused on "Management of Medical Records for Healthcare Service Delivery at Victoria Public Hospital in the Eastern Cape Province, South Africa." In Tanzania, Lodge et al., (2020) investigated the completeness of patient medical records for surgical and obstetric patients in Northern Tanzania. Mashoka et al., (2019) studied the implementation of electronic medical records at an emergency medicine department in Tanzania from an information technology perspective.

However, none of these studies analyzed the medical records management practices in hospitals especially in Tanzania. Therefore, the current study was designed to analyze the management of medical records practices in hospitals by taking Chakechake Hospital as the case study.

# 2.6 Analytical/Conceptual Framework

A conceptual framework reflects a researcher’s integrated ideas from existing literature on how to explain a particular topic. It highlights the key factors involved in the study, drawing from prior research and observations made by other scholars on the subject (Regoniel, 2015).

In this research, the independent variable are the knowledge and skills of records management staff, as well as the records management practices. The dependent variable is successful records management that intervened by challenges. This framework illustrates the relationships between the knowledge and skills of the records management unit, records management practices, and their direct relationship with successful medical records management that can be affected by challenges. The conceptual framework suggests that, knowledge and skills of the staff who engaging in medical records management and their practices are influencing the successful management of medical records whereby exitance of challenges affect the contribution of knowledge and skills together with practices towards reaching a successful management of the medical records. Figure 2.1 below illustrates the conceptual relationship between knowledge and skills of records management personnel, the practices of managing medical records and a successful management of medical records depending on the impacts of challenges that exist.

**Independent Variables Dependent Variable**

* Successful records management
* Knowledge and skills of records management staff
* Practices of medical records management

Challenges

**Figure 2.1: Relationship Between Knowledge and Skills of Staff and Practices of Medical Records Management Towards Successful Medical Records Management Practice with the Influence of Existing or Non-Existing Challenges.**

**Source**: (Researcher, 2022)

# CHAPTER THREE

# RESEARCH METHODOLOGY

# 3.1 Introduction

Research methodology is defined as a structured approach to addressing a research problem (Kothari, 2004). It can also be considered a broad framework that guides a researcher in their efforts to create new knowledge or gain insight into a specific phenomenon (Kumar, 2011). This chapter outlines the research design, approach, study area, study population, sample size, sampling methods, data collection techniques, tools used, as well as data processing, analysis, and ethical considerations.

# 3.2 Research Design

Research design refers to a logical and systematic plan for guiding a research study (Krishnaswami, 2005). Essentially, it is a plan that ensures the study effectively addresses the problem in line with the study objectives (Saunders et al., 2007; Kumar, 2005; Kothari, 2004; Creswell, 2003). The research design helps to determine how data will be collected, analyzed, interpreted, and presented.

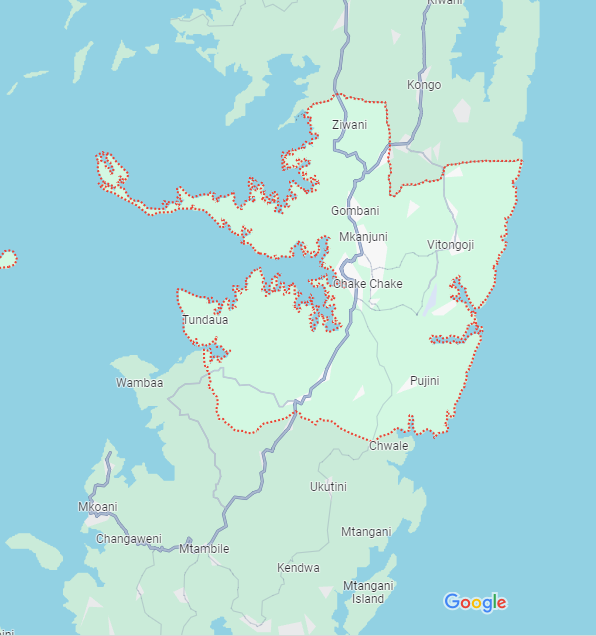
For this study, a case study research design was employed to guide the study. Johannesson and Perjons (2014) describe case study research design as focusing on one instance of a phenomenon for investigation. Case study research design provide in-depth investigation of a single problem, but their findings are limited to the applicability of the context in which the study was conducted (and cannot be generalized). Case study research design can be positivist, interpretive, or critical, depending on the philosophical assumptions of the researcher (Malhotra, 2017). Researchers choose case study as a research design based on its ability to focus deeply on one instance, its natural setting, and its utilization of multiple sources of information and methods of data collection.

# 3.3 Research Approach

A research approach refers to the guiding philosophy or principle behind a study, as noted by Dawson (2009). It encompasses the main principles that steer all activities leading to findings, including any constraints, dilemmas, and ethical considerations. In this study, a mixed-method approach was utilized whereby qualitative research approach dominated and quantitative research approach takes a small portion of the mixed-approach. Mixed-research approach incorporating both qualitative and quantitative methods. The qualitative approach investigates attitudes, behaviors, and experiences through interviews and focus group discussions, whereas the quantitative approach generates statistics through questionnaires and structured interviews (Dawson, 2009). The rationale for employing both approaches was their complementary nature, which helped the researcher minimize bias.

# 3.4 Area of the Study

The selection of a research area for the case study research design limits applicability of the data collected and the usefulness of the information produced (Kombo and Tromp, 2006). Chakechake hospital is located at Chakechake district in the south Pemba region and it save as a referral hospital within the district, due to that the data that collected supply sufficient information for the study. According to City Population (2023), Chakechake District covers 219.1 square kilometers, and the 2022 Tanzania national census reported a population of 136,298 for the district. Figure 3.1 below shows a map of the study area.



**Figure 3.2: A Map of Chakechake District**

**Source:** (Google Map, 2023)

# 3.5 Population of the Study

Population is a group of individuals who have one or more characteristics in common that are of interest to researcher (Mashindano, 2022). For the case of this study, population involved respondents consisting the medical doctors (general and specialized), nurses, clinical officers, laboratory technicians, pharmacists, social workers, health attendants and records management officers in Chakechake hospital. Thus, the target population was 121 including 10 medical doctors, 11 clinical officers, 18 laboratory technicians, 7 pharmacists, 3 radiologist, 3 dentists, 3 eye specialists, 4 social workers, 2 records management officers and 60 health attendants.

# 3.6 Sample Size

According to Dawson (2009), sample size refers to the number of people taking part in research. The sample size must reflect the population of the study by being inclusive of all categories in the population, and the number selected must be reasonable. The ultimate test of a sample design is how well it represents the characteristics of the population it purports to (Kothari, 2004). This study included an optimum number of 80 respondents from various professions in Chakechake Hospital, including 10 medical doctors, 11 clinical officers, 6 laboratory technicians, 3 pharmacists, 3 radiologists, 3 dentists, 3 eye specialists, 4 social workers, 2 records managers, and 35 health attendants. Sample size of 80 respondents is optimum since it covers almost 67 percent of the whole population.

# 3.7 Sampling Techniques

Sampling technique refers to the selection of a part of an aggregate or totality on the basis of which a judgment or inference about the entire aggregate is made (Kothari, 1990). Sampling techniques are classified into two categories: probability and non-probability sampling (Msabila & Nalaika, as cited in Luanda, 2022). Probability sampling is a technique where a researcher sets a selection criterion and chooses members of a population randomly. In contrast, non-probability sampling is a technique where the researcher chooses members for research arbitrarily, without a fixed method, making it difficult for all elements of the population to have an equal chance of being included in the sample (QuestionPro, 2022).

Sampling techniques were employed to narrow down the number of participants involved in this study to those capable of providing relevant information. Both purposive sampling and convenience sampling methods were utilized. As noted by Saunders et al. (2007), purposive or judgmental sampling allows researchers to use their discretion to select cases that can effectively address the research questions and fulfill the research objectives based on established criteria. Purposive sampling was specifically used to select the medical doctor in charge, as well as the heads of departments or sections, including the Outpatients Department (OPD), Inpatients Department (IPD), reception, and records management unit. This sampling technique was chosen to be applied for the identified respondents because of the managerial positions that they possess.

Convenience sampling, also called accidental sampling or opportunity sampling, involves including respondents who are convenient for the researcher to approach. This technique is beneficial when the sample is defined in broad terms (Kapur, 2018). It is low-cost, requires less effort, and is less time-consuming, as the sample is easier to approach. However, it has some limitations, including susceptibility to biases and systematic errors. Convenience sampling was used to select medical doctors, clinical officers, health attendants, nurses, receptionists, radiologists, dentists, eye specialists, social workers, records management officers, and laboratory technicians. Therefore, this study had a minimum sample size of 80 respondents from Chakechake Hospital, as shown in Table 3.1 below.

**Table 3.1 Distribution of the Target Population**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Category** | **Population** | **Selected Sample Size** | **Sampling Techniques** |
| 1. | Medical doctors | 10 | 10 | Purposive |
| 2. | Clinical officers | 11 | 11 | Purposive |
| 3. | Laboratory technicians | 18 | 6 | Convenient |
| 4. | Pharmacists | 7 | 3 | Convenient |
| 5. | Radiologists | 3 | 3 | Purposive |
| 6. | Dentists | 3 | 3 | Purposive |
| 7. | Eye specialists | 3 | 3 | Purposive |
| 8. | Social workers | 4 | 4 | Purposive |
| 9. | Health attendants | 60 | 35 | Convenient |
| 10. | Records management officers | 2 | 2 | Purposive |
| **TOTAL** | | **121** | **80** |  |

**Source:** (Field Data, 2023)

# 3.8 Data Collection Methods

As stated by Kothari (2004), data collection methods assist researchers in gathering information to address the research problem. To secure sufficient and trustworthy information for this study, the researcher employed triangulation, which involves using a combination of methods to collect primary data. By utilizing triangulation, the researcher integrated various data collection methods, including questionnaires, interviews, and observations, in order to enhance the validity and reliability of the data gathered, acknowledging that each method presents its own advantages and disadvantages.

Primary data refers to information that a researcher collects firsthand from the field specifically for a research project (Kumar, 2011). This data consists of newly obtained information gathered through a standardized questionnaire that includes both closed- and open-ended questions, as well as through various types of interviews (semi-structured and structured) and observations.

# 3.9 Data Collection Instruments

According to Johnson (1994), a data collection instrument is a tool used to gather necessary data from respondents through various research approaches. Depending on the research methodology, the researcher must apply specific data collection instruments. In this study, which used a mixed approach, questionnaires, interviews, and observation methods were utilized.

# 3.9.1 Questionnaire

A questionnaire is a structured set of research questions aimed at gathering specific information from respondents. It streamlines the data collection process, lends itself to analysis, reduces bias in how questions are formulated and asked, and ensures that the questions are both engaging and valid (Business Dictionary, 2011).

The primary tool for data collection in this study was the questionnaire, which was chosen for its ability to give a room to the respondent to provide answers privately and freely. It was effective for obtaining data from the selected sample within a short time, as responses were collected within the designated time frame. Additionally, it maintained the confidentiality of the respondents. As noted by Debois (2019), questionnaires generate quick results, provide valid and reliable data, and give respondents the opportunity to express their views freely. In this research, the investigator designed structured questionnaires featuring both open- and closed-ended questions. Self-administered questionnaires were prepared and distributed to 76 selected respondents, including 7 medical doctors, 11 clinical officers, 6 laboratory technicians, 3 pharmacists, 3 radiologists, 3 dentists, 3 eye specialists, 4 social workers, 1 record manager, and 35 health attendants.

# 3.9.2 Interview

An interview is an instrument used for collecting data in which researchers and respondents engage in verbal communication (Kothari, 2000 as cited in Luanda, 2022). Both structured and unstructured questions were created to gain a comprehensive understanding of how medical records are managed at Chakechake Hospital. One advantage of interviews is that they typically yield a higher response rate, and the personal interaction allows for clarification of any misunderstandings between the researcher and the respondent (Babbie & Mouton, 2001 as cited in Ngidi, 2015). Nonetheless, interviewers may encounter challenges, such as difficulties in recording responses during the interview and facing a lack of interest or disappointment from certain respondents.

An interview schedule was applied to one medical doctor in charge, two medical doctors (heads of departments in OPD and RCH), and one head of the records management office. This tool was expected to suit these groups of respondents as it allows for more detailed explanations and complements questionnaire responses.

# 3.9.3 Observation Checklist

In this instrument, a researcher visits a field and observes what is happening regarding the research objectives. According to CDC (2018), observation offers advantages such as collecting data where and when an event is occurring, not relying on people’s willingness or ability to provide information, and allowing the researcher to directly see what people do rather than relying on what people say they did. However, the observation faces some limitations, including susceptibility to observer bias, the Hawthorne effect, and being potentially expensive and time-consuming compared to other data collection methods.

An observation schedule/checklist was used in the records management section. Elements of records management observed included space, number of personnel, facilities, tools used for classification and organization, accessibility of records, and their movement (see appendix 3). A summary of the observations was recorded in a notebook as part of the study notes.

# 3.10 Ethical Consideration

Researchers need to protect participants, gain trust with respondents, support the reliability of research, and defend against any actions that might reflect negatively on their institution or organization (Creswell, 2009). Researchers demonstrate ethical behavior by informing respondents about the study's purpose, ensuring privacy, anonymity, and confidentiality, and informing them that the study findings are intended solely for specified purposes.

The Department of Postgraduate Research and Publication sent a letter to request permission from the Revolutionary Government of Zanzibar via the Zanzibar Health Research Institute. In line with these protocols, respondents were assured that their anonymity would be maintained; their names and personal information were not connected to the specific responses given. Furthermore, for this research, respondents were promised confidentiality, with the information gathered being used exclusively for academic purposes. The ethical guidelines of the Open University of Tanzania were rigorously followed.

# 3.11 Data Quality

Data quality is the state of data to be valid and reliable. Assessing how accurately a test measures what it is intended to measure and the consistency of the test results (Kombo & Tromp, 2006). To ensure both validity and reliability in this study, the researcher performed pre testing on the data collection instruments, including the questionnaire and interview guide before starting the actual data collection. This pre testing was conducted with a sample of nurses and doctors to validate the data collection instruments and the questions posed. Pre testing was conducted in order to identify whether the instruments are more enough to bring answers of the research questions or are week and need improvement.

# 3.12 Data Processing, Analysis and Presentation

Data analysis is the process of examining patterns, identifying similarities, and identifying themes within data, and drawing conclusions regarding the study findings (Bernard, 2013 as cited in Ngidi, 2015). Respondents provide their views and opinions as data, which is then processed into information that can be understood by those interpreting the findings.

Data analysis in this study was guided by research objectives, employing both qualitative and quantitative methods. Quantitative data collected in the study were analyzed using Excel packages, while thematic analysis was used for qualitative data. The data was primarily presented in frequency tables, charts, graphs, figures, and percentages, and further explained in text organized according to the study objectives. These methods facilitated comparisons among the various data collected during the study, aiding the researcher in interpreting findings, discussing conclusions, and making recommendations, all of which are presented in chapters four and five of this study.

# 3.13 Chapter Summary

This chapter covered and discussed the research methodology, including the research design, approach, study area, population, sample size, sampling techniques, data collection methods and instruments, ethical considerations, as well as data processing, analysis, and presentation.

# CHAPTER FOUR

# DATA PRESENTATION, ANALYSIS AND DISCUSSION

# 

# 4.1 Introduction

This chapter presents, analyzes, and discusses the key findings of the study, which sought to analyze the present medical records management practices at Chakechake Hospital, evaluate the staff's knowledge and competencies in managing medical records, and identify the challenges faced in managing medical records. The findings, derived from questionnaires, interviews, and observations, are discussed in relation to each of the study's objectives.

# 4.2 Response Rate

The research targeted 10 medical doctors, 11 clinical officers, 6 laboratory technicians, 3 pharmacists, 3 radiologists, 3 dentists, 3 eye specialists, 4 social workers, 2 records managers, and 35 health attendants, making a total of 80 respondents. A total of seventy-six questionnaires were distributed and self-administered by respondents, and all 76 (100%) were returned. Additionally, 4 (100%) officers were interviewed.

# 4.3 Demographic Information of the Respondents

Demographic data about respondents were collected to determine the characteristics of those involved. The data collected included sex and age. These data are presented below.

# 4.3.1 Respondents Sex

With regards to sex, data shows that 34 (43%) respondents were male and 46 (57%) respondents were female. Results on respondent’s sex are shown in figure 4.1

**Figure 4.1: Sex Distribution of Respondents (N=80)**

**Source:** (Field Data, 2023)

Sanchez et al. (2021) found that women's representation in the healthcare sector is on the rise and has now surpassed that of men. Specifically, in the field of medicine, the proportion of women increased from 36.6% in 2000 to 54.3% in 2016, as reported by the Spanish National Health System in 2018. Exavery et al. (2013), in their study “Gender-based distributional skewness of the United Republic of Tanzania’s health workforce: a cross-sectional health facility survey,” revealed that 75% of health workers are women. Women dominate in nursing (91%) and as medical attendants (86%), while clinical officers (28%) and medical doctors (21%) are predominantly men. Overall, in the general distribution of health workers in Tanzania, women dominate.

# 4.3.2 Age Range of Respondents

Respondents fell into three age ranges as established by the researcher. The first age group, 21-35 years, included 17 (21%) respondents. The second age range, 36-45 years, included 53 (66%) respondents. The last age group is 46 and above, included 10 (13%) respondents. Table 4.1 shows the age distribution among the respondents.

**Table 4.1 Distribution of Respondents by Age Range (N=80)**

|  |  |  |
| --- | --- | --- |
| **Age Range** | **Frequency** | **Percentage (%)** |
| 21-35 | 17 | 21 |
| 36-45 | 53 | 66 |
| 46 and above | 10 | 13 |
| **Total** | **80** | **100** |

**Source:** (Field Data, 2023)

The mean age of health workers is 39 years, with an age range of 15 to 63 years (Exavery et al., 2013). Notably, the age range of 36 to 45 years had the largest proportion of respondents, which may be attributed to the education system in the health sector. This system requires individuals to invest a significant amount of time studying and mastering their profession. These findings agree with those of Urassa (2015), who found that among community health workers interviewed, the largest proportion (37%) was in the age group of 35 years.

# 4.4 Present Records Management Practices at the Chakechake Hospital

This research was conducted to determine how Chakechake Hospital manages its medical records. The focus was on the quantity of records created (depending on the number of patients served by the hospital), the format used by the hospital to keep its records, the system used, the facilities used to keep records, the time taken to locate the records, and the person responsible for collecting records.

# 4.4.1 Number of Medical Records Created per Month

The number of patients attending the hospital is approximately 1,400 to 1,500 per month. This number includes both inpatients and outpatients who seek medical services at the hospital. These attendance statistics form the basis for knowing the number of medical records created by the hospital. Therefore, Chakechake Hospital creates approximately 1,400 to 1,500 medical records per month, reflecting the number of patients served by the hospital.

Interviews with two respondents were conducted to determine the number of medical records created by the hospital per month, as illustrated by the following quotes:

*“We receive about 350-plus patients per week, so what I can say roughly is that we serve about 1,400 to 1,500 per month, which includes both inpatients and outpatients”*

(Respondent one).

*“Approximately, we attend to 50 to 70 patients in our department (OPD) per day, and we serve them across all ages: children, women, and men*”

(Respondent two).

# 4.4.2 Formats Used in Managing Medical Records at the Hospital

The research aimed to identify the formats in which medical records are generated, managed, and used. The results show that the hospital manages its medical records in both paper and electronic formats. When patients attend the hospital, they bring books used to record medication information from the point of registration to the final stage. The hospital then uses a register book and an electronic records management system known as the Electronic Medical Record (EMR) to record patient information. The system used by the hospital is centralized, allowing all departments to use the same system to input and retrieve information. The researcher included a question that captured data about the format used by Chakechake Hospital to manage its records, and the responses are shown in Table 4.2

**Table 4.2 Format Used by Chakechake Hospital to Keep its Medical Records**

|  |  |  |
| --- | --- | --- |
| **Format Used to Keep Records** | **Frequency** | **Percentage** |
| Paper format | 0 | 0 |
| Electronic format | 0 | 0 |
| Both (paper and electronic) | 80 | 100 |

**Source:** (Field Data, 2023)

Records of patient information can exist in either paper-based format, electronic format, or both (Spooner & Pesaturo n.d). At Chakechake Hospital, medical records are kept in both formats (paper-based and electronic). Interview data from the respondent one noted during the interview that:

*"We are using both formats to manage patients' records: we use paper format and electronic format"* (Respondent one).

*"In our department, we use both formats—paper records and electronic records. Patients come with books where we record medication information, and then we enter those records into our register and electronic system (EMR)"* (Respondent two).

# 4.4.3 Facilities Used to Manage the Medical Records

The study aimed to determine which facilities are used by the hospital. The results on the facilities used to manage medical records by the hospital are presented in Table 4.3

**Table 4.3 Facilities Used by Chakechake Hospital to Manage Medical Records**

|  |  |
| --- | --- |
| **S/N** | **Facilities Used in Managing Medical Records** |
| 1 | Computers |
| 2 | File cabinets |
| 3 | Shelves |
| 4 | Register |
| 5 | Files |

**Source:** (Field Data, 2023)

Records management tools aid health service delivery, although using files and paper records in general is time-consuming and laborious (Luthuli & Kalusopa, 2017). Files are used to keep paper records protected against dust and are stored in cabinets and shelves according to a proposed system of arrangement. Based on the data collected, the hospital uses computers and file cabinets: computers manage electronic records, while file cabinets store register books. Researchers in the field observed medical doctors and receptionists using computers to input patient information.

*“We use registers to note all information about the patient, and at the same time, we use computers to enter their data into the records management system. Once a register is full, we store it in cabinets and start using another register”* (Respondent two).

*“We use electronic systems to manage medical records. We use District Health Information System (DHIS2) and Electronic Medical Records (EMR). Therefore, we use computers to input and retrieve data from these systems. Additionally, we use registers to keep information on patients attended to at the hospital”* (Respondent three).

# 4.4.4 Time Used to Locate the Medical Records

A researcher was interested in knowing what time it takes to locate records when needed. Respondents reported that they typically take less than five minutes to locate the records when they need them. They attributed this to the fact that when a patient is registered in the register book, it is easier to access their information immediately after accessing the register book. Additionally, in the electronic medical record (EMR), it is possible to locate records within five minutes, although there are some challenges, such as dependence on internet connectivity and occasional system failures that prevent reports from being produced.

*"Locating records from the register is not difficult; as long as a patient is registered, it takes almost two to three minutes to locate. But with EMR, if you have an internet connection, it is faster and can take less than two minutes"* (Respondent two).

# 4.5 Professions and Competencies of the Staff

Under this section, the researcher collected data related to professional skills, level of education, and experience. These data were collected to understand the competencies of those involved in managing the medical records at Chakechake Hospital.

**4.5.1 Profession of the Respondents**

The researcher targeted ten major professional groups, namely: medical doctors,

clinical officers, laboratory technicians, pharmacists, dentists, radiologists, eye specialists, social workers, health attendants, and records management officers, to collect data. The professions of the respondents are shown in Table 4.4

**Table 4.4 Professions of the Respondents**

|  |  |  |
| --- | --- | --- |
| **Profession** | **Frequency** | **Percentage (%)** |
| Medical doctors | 10 | 13 |
| Health attendants | 35 | 44 |
| Clinical officers | 11 | 13 |
| Laboratory technicians | 6 | 8 |
| Pharmacist | 3 | 4 |
| Dentist | 3 | 4 |
| Radiologists | 3 | 4 |
| Eye specialists | 3 | 4 |
| Social workers | 4 | 4 |
| Record management officers | 2 | 2 |
| **Total** | **80** | **100** |

**Source:** (Field Data, 2023)

# 4.5.2 Level of Education Attained by Respondents

The response shows that 45 (57%) attained a Certificate level, 18 (22%) attained a Diploma level, 16 (20%) attained a Bachelor's Degree level, and 1 (1%) attained a Master's Degree level. Figure 4.2 shows the education level of the respondents.

**Figure 4.2: Level of Education Attained by Respondents**

**Source:** (Field Data, 2023)

Career paths in public health are widely diverse, with some jobs requiring only a bachelor's degree. However, to hold higher-level positions, a graduate degree is typically the ideal educational requirement (Health Management Degree Guide, 2023). To become a physician, one must graduate from an accredited medical school after completing undergraduate coursework and obtain licensure.

In the health sector, various levels of education are recognized based on specialization. For instance, clinical officers require three years of basic clinical training, assistant medical doctors need five years of clinical training, and diploma nurses require three years of nursing training (Msuya et al., 2017). At Chakechake hospital, records management officers and healthcare professionals have different levels of education, as noted in the following quote:

*“I am the head of this section and we are only two here; my assistant has certificate in records management”* (Respondent three).

Having only two staff members in the records management section may lead to challenges such as overworking and a lack of managerial skills and experience, especially considering the hospital manages a large number of records.

# 4.5.3 Working Experience of the Respondents

Working experience was asked in interval of five years; 0-5 years, 6-10 years, 11-15 years and more than 15 years. 60 (75%) respondents indicated that they have 0-5 years of experience, 11 (14%) respondents indicated 6-10 years of experience, 6 (7%) respondents indicated 11-15 years of experience and 3 (4%) respondents indicated more than 15 years of experience. Table 4.5 shows the working experience of the respondents.

**Table 4.5 Working Experience of the Respondents**

|  |  |  |
| --- | --- | --- |
| **Working Experience** | **Frequency** | **Percentage (%)** |
| 0-5 years | 60 | 75 |
| 6-10 years | 11 | 14 |
| 11-15 years | 6 | 7 |
| More than 15 years | 3 | 4 |
| **Total** | **80** | **100** |

**Source:** (Field Data, 2023)

The working experience of health professionals and records management officers may contribute to good practices in medical records management at the hospital. Findings shows that few staff members, 3 (3%) of the respondents, indicated they have more than 15 years of experience at Chakechake Hospital. A significant portion of the staff have less than five years of experience, while those with moderate experience are fairly numerous. Staff members with more experience can impart knowledge to others regarding the practice of managing medical records. The following quote illustrates the experience of one of the medical doctors:

*“I have been working here for 8 years now. We used to keep manual records using registers, but recently, they introduced an Electronic Medical Record (EMR) system to keep electronic records. As the head of the outpatient department, I have 2 years of experience”* (Respondent two).

# 4.5.4 Qualification of the Respondents

Respondents were asked whether they had records management qualifications or not. Of the 80 respondents, 2 (3%) had records management qualifications, and 78 (97%) were specialized in various healthcare fields. Table 4.6 presents the qualifications of the respondents regarding records management.

**Table 4.6 Records Management Qualification**

|  |  |  |
| --- | --- | --- |
| **Records Management Qualification** | **Frequency** | **Percentage** |
| Having records management qualification | 2 | 3 |
| Not having records management qualification | 78 | 97 |
| **Total** | **80** | **100** |

**Source:** (Field Data, 2023)

Skilled records management personnel are essential for the successful execution of a records management programme (Gisemba et al., 2022). This study found that most respondents were specialized in healthcare professions rather than records management professions. There were only two staff members who were specialized in records management, and all others were from the healthcare profession.

# 4.5.5 Records Management Competence

The researcher aimed to understand the respondents' competence in records management. To assess their proficiency in this area, respondents were asked to showcase their abilities and expertise. Table 4.7 presents the competencies of the respondents.

**Table 4.7 Competence of the Respondents**

|  |  |  |
| --- | --- | --- |
| **Skills and Competence** | **Frequency** | **Percentage** |
| I am skilled and competent for all records management operational duties requirements | 2 | 3 |
| I am competent in IT skills and knowledge | 58 | 88 |
| I have enough experience and skills in electronic records management | 2 | 3 |
| I can manage medical records in its lifespan | 2 | 3 |
| I am familiar with and can follow the principles and guidelines of record management | 2 | 3 |

**Source:** (Field Data, 2023)

Wamukoya (2015) noted that good medical records management involves proficient staff, enabling institutions to establish accountability, transparency, and a commitment to rooting out corruption and malpractice. Staff with records management skills are crucial for ensuring the well-managed production of records, which is essential for the well-being of the hospital as an institution. Chakechake Hospital has only two staff members who have skills and competency in the field of records supervision. The others have skills in using Information and Communication Technologies (ICT) facilities to manage electronic records; therefore, apart from records managers, other staff are not capable of managing medical records, including both electronic and paper records.

# 4.5.6 Trainings and Workshops Improving Skills and Competence of Records Management

The study aimed to determine whether training and workshops on records management are provided. Respondents reported that the hospital conducts training and workshops on records management at least once a year.

*“We need more training and workshops on EMR because the system we use is new to us and we do not know much about it. Currently, we receive at least one training or workshop per year.”* (Respondent four)

Gisemba et al. (2022) found that the majority of staff and other healthcare professionals developed some medical records management skills on the job, but none had attended workshops, conferences, or seminars. Some staff took the initiative to train themselves on medical records management without the hospital's involvement. According to interviewees, training and workshops on records management are important.

# 4.6 Challenges in Managing Medical Records

The practice of handling medical records at Chakechake Hospital faces various challenges, as reported by respondents. Additionally, various measures were proposed accordingly to overcome these challenges.

# 4.6.1 Challenges that Lead to Improper Records Management at the Chakechake Hospital

The research aimed to understand the challenges leading to improper records management at the hospital. Respondents acknowledged these challenges and cited various reasons for improper records management. Lack of awareness and training was mentioned by 10 (12%) respondents, an unstable record management system (EMR) by 43 (54%), a limited number of staff by 26 (33%), limited records management facilities by 49 (61%), and excessive workload by 6 (7%) respondents. Table 4.8 shows the reasons for improper administration of medical records at the hospital.

**Table 4.8 Reasons for Improper Records Management at the Chakechake Hospital**

|  |  |  |
| --- | --- | --- |
| **Reason** | **Frequency** | **Percentage** |
| Lack of awareness and training | 10 | 12 |
| Unstable record management system (EMR) | 43 | 54 |
| Limited number of staff | 26 | 33 |
| Limited resources like storage facilities | 49 | 61 |
| Too much work load | 6 | 7 |

**Source:** (Field Data, 2023)

Gisemba et al., (2022) revealed challenges faced in the administration of medical records, among these challenges are insufficient storage facilities, a shortage of medical records staff for carrying out records management responsibilities in various units and departments, lack of a Medical Records Centre for disposing of medical records, and incomplete information on doctors' records. Chakechake Hospital faces various challenges in managing medical records, as explained by the medical officer in charge during the interview, as quoted below:

*“Apart from using EMR and paper records, we still face some challenges. Obviously, there is no activity that does not face challenges. The main challenges that we face include a small number of computers, a shortage of staff, and unfamiliarity among the staff about EMR since it's a new system.”* (Respondent one).

Respondent two also noted some of the challenges associated with Electronic Medical Records (EMR), which are stated in the following quote below.

*“We thank management for introducing the Electronic Medical Record (EMR) system, but it has some challenges that make us uncomfortable using it. Specifically, the system fails to provide information about a patient after 24 hours of making data entry. Additionally, the system often goes down during electronic cutoffs, and there are only a limited number of computers available”* (Respondent two).

There is a gap in terms of training, staff numbers, and staff competence, as well as a lack of standard operating procedures, policy framework, and procedural guidelines. Furthermore, the hospital faces challenges due to a scarcity of medical records administration knowledge and skills (Gisemba et al., 2022).

# 4.6.2 Measures to be Taken in Order to Improve the Practice of Managing Medical Records at Chakechake Hospital

According to the challenges mentioned as reasons for improper medical records management, respondents proposed measures to improve the practice of records management at the hospital. The proposed measures include: providing sufficient computers, increasing the number of staff, implementing a single, standardized system for records management (either electronic or manual), and providing training and seminars to staff.

Luthuli and Kalusopa (2017) recommended additional measures to upgrade medical records management practices. They noted that public hospitals must employ adequate, qualified records managers for the records management function, adopt internal training facilitated by qualified records managers from trustworthy organizations, and motivate records managers. The hospital should also introduce operational strategies and procedural outlines for medical records management, build medical records administration capacity, provide medical records management knowledge and skills to staff, and improve ICT infrastructure.

*“The hospital must adopt a single format for managing records, either in paper format or electronic format. Additionally, computers need to be supplied adequately, and data entry staff must be employed”* (Respondent two).

Another respondent said;

*“As there are only two records management staff, I propose that we add more staff; the government should improve the electronic medical records (EMR) system and provide additional facilities, such as computers”* (Respondent three).

# 4.7 Chapter Summary

This chapter has discussed the practice of managing medical records at Chakechake Hospital, including current practices, staff knowledge and competencies in managing medical records, and challenges associated with record administration at the hospital. The results reveal that the hospital maintains its records in both paper and electronic formats, with records stored in registers and the Electronic Medical Record system. Additionally, the findings show that Chakechake Hospital has only two staff members with a medium level of education (diploma and certificate level) in the records management section. Other staff members have limited skills in records management, although they are computer literate and capable of feeding and retrieving information from the EMR. The findings also indicate that there are some challenges faced by Chakechake Hospital in managing medical records, including limited numbers of staff and computers, as well as difficulties with the EMR system providing information after 24 hours following data entry. Based on these challenges, it was proposed to increase the number of staff and computers, provide regular training on records management and EMR system use, and employ data entry staff.

# CHAPTER FIVE

# SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

# 5.1 Introduction

This study analysed the practices of medical records management at Chakechake Hospital with three specific objectives including; analysing current practices in managing medical records at the Chakechake hospital, evaluating knowledge and skills of the staff and identifying challenges face medical records management at the hospital. The study used case study research design and mixed-approaches, also data collected from 80 respondents through three instruments including questionnaire, interview and observation checklist. Analysis of the collected data was done by using Microsoft Excell package and thematic analysis. Under this chapter summaries of the key findings from Chapter 4 are presented, draws conclusions, and provides recommendations. Consequently, the study has identified important insights that can enhance the administration of medical records. The pertinent findings are summarized in alignment with the research objectives stated earlier.

# 5.2 Summary of the Major Findings

# 5.2.1 Current Records Management Practices at the Chakechake Hospital

The study revealed the actual practices of managing medical records at Chakechake Hospital, with approximately of 1,500 medical records created per month. These records are generated from all departments, including outpatients and inpatients departments. The records are created in both paper and electronic formats, which are managed through paper files, registers, and the Electronic Medical Records system. Chakechake Hospital utilizes various facilities to store its medical records, including computers, file cabinets, shelves, registers, and files.

The retrieval of medical records at the hospital takes between two and five minutes, regardless of whether they are paper-based or electronic. The time it takes to locate records depends on the register in which the information is stored; if it is a closed register or an open use register, and for electronic records, it depends on the stability of the system and internet connectivity. If these factors are favorable, records can be retrieved within the specified timeframe of two to five minutes.

# 5.2.2 Professional Skills and Competencies of Staff

The staff at Chakechake Hospital who participated in this study consisted of 10 professions, including medical doctors, health attendants, clinical officers, laboratory technicians, pharmacists, dentists, radiologists, eye specialists, social workers, and records management officers, totaling 80 respondents. Among them, 45 (57%) held a Certificate education, 18 (22%) held a Diploma education, 16 (20%) held a Bachelor's degree, and 1 (1%) held a Master's degree. Regarding the respondents' experience, 60 (75%) had 0-5 years of experience, 11 (14%) had 6-10 years of experience, 6 (7%) had 11-15 years of experience, and 3 (4%) had more than 15 years of experience.

Of the 80 respondents, only 2 (3%) were records management professionals, while 78 (97%) were not. Chakechake Hospital has only two records management professionals, which has resulted in an overload of activities for these two staff members in the records administration section. In response to the small number of records management professionals, the hospital has attempted to provide training to staff on records management. However, the frequency of these trainings is low due to the introduction of an Electronic Medical Records (EMR) system.

# 5.2.3 Challenges that Chakechake Hospital Face in Managing Medical Records

The administration of medical records is a challenging practice at the hospital, as mentioned by the respondents. The reported challenges were: lack of awareness and trainings (5%, or 7%), an unstable records management system (36%, or 54%), limited resources (such as file cabinets and shelves) (41%, or 61%), a limited number of staff (22%, or 33%), and too much workload (5%, or 7%).

The results of the study indicated that the introduction of the medical records management system (EMR) was associated with several challenges, including inaccessibility of records after 24 hours, electricity cutoffs, and the absence of data entry personnel. Given these challenges, respondents proposed that either paper form records be used or that the EMR system be improved.

# 5.3 Conclusion

The management of medical records at Chakechake Hospital is conducted through the use of both paper and electronic formats. Electronic medical records are kept using the Electronic Medical Records system, which reportedly faces challenges such as failure to provide information (records) after 24 hours of data entry and unstable accessibility due to electronic cutoffs and internet connectivity issues, where paper records are managed by using files, registers, file cabinets and shelves. Medical records are retrieved within two to three minutes when they are needed. There are only two staff members with a records management profession, who are overwhelmed by the large number of records produced. Other staff receive training on records management, although these training sessions are not frequent. Limited storage facilities and unstable records management system were reported as challenges that contributing to the failure of managing medical records to the better level.

# 5.4 Recommendations

This study assessed medical records management practices at Chakechake Hospital in Pemba, Zanzibar. In light of the findings, the following recommendations were proposed to improve the practice of managing medical records at Chakechake Hospital and in Pemba more generally.

# 5.4.1 Recommendation to Ministry of Health Zanzibar

Based on the challenge of a small number of staff available at the hospital, the Ministry of Health in Zanzibar is recommended to employ new staff to fill the deficit. The Ministry of Health in Zanzibar must add to the number of staff at the records management department, where currently there are only two staff. The staff to be employed should have different levels of education, especially higher levels, as currently, the staff with higher education levels in the records management department have a diploma level.

# 5.4.2 Recommendations to System Developer

The Electronic Medical Record system used to manage medical records at the Chakechake Hospital reported having some challenges, including its failure to generate reports and users having small experience about it. Therefore, the following are recommended:

1. To improve the system's ability to produce reports and enable users to access data when they need it. Improved data accessibility will enhance timely records creation and its uses, timely records management contributing to good services provision to customers and reducing the time spent tracing patients' records. Currently, medical doctors cannot access records from the system after 24 hours of data entry, thus they are forced to access the records from registers. Also, trainings have to be provided to the staff who using the system in order to familiar with it.

# 5.4.3 Recommendation to Medical Doctor in Charge

Medical doctor in charge as an overall supervisor of the facilities and services that provided to the customers at the hospital, the following recommendations provided.

1. Organizing seminars and workshops will help build the capacity of staff on the system use and computer literacy. Seminars and workshops should be conducted frequently for all system users involved in the administration of medical records at the hospital.
2. Purchasing an adequate number of computers and records storage facilities and ensure that all offices that need them are supplied. It was observed that there was a small number of computers, which led to low working efficiency. Therefore, when computers are purchased in sufficient numbers, efficiency will be increased.

# 5.4.4 Suggestions for Further Studies

This study was planned to analyze the management of medical records practices at the Chakechake hospital. The results of the study bring awareness to the current practices at the Chakechake hospital regarding the management of medical records. Further studies need to be conducted.

1. Analysis of the medical records by including other health care facilities in Pemba Island.
2. Relationship existing between records management practices and customer satisfaction.

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# APPENDICES

# Appendix I: Questionnaire For Medical Doctors, Nurses, Receptionists and Records Management Officers

Respondent Informed Consent

My name is Francis E. Chikwindo, a Master student from The Open University Tanzania centre of Pemba. I am here to carry out an assessment of the management of medical records at Chakechake hospital; this is the main purpose of the study. Your positive response is very important in accomplishing this assessment.

Thank you for your cooperation towards this study.

**SECTION A: Background information**

Tick the correct answer

1. Sex
2. Male { }
3. Female { }
4. In which age do you belong
5. Below 20 years { }
6. 21-35 years { }
7. 36-45 years { }
8. 46 years and above { }
9. What is your career/profession
10. Medical doctor { }
11. Nurse { }
12. Record management officer { }
13. Other ( )

What is your work experience 0- 5yrs ( ), 6-10 yrs ( ), 11-15yrs ( ) More than 15yrs ( )

1. What is the highest level of education you have attained
2. Certificate { }
3. Diploma { }
4. Bachelor degree { }
5. Master degree { }
6. PhD { }

**SECTION B: Current records management practice at the hospital**

1. In what format, the hospital keeps its patients records
2. Paper format { }
3. Electronic format { }
4. Both (paper and electronic)

Others (specify)………………………………………………………………

1. Regarding to the format mentioned above, is there any records management system applied in managing medical records at the Chakechake hospital?
2. Yes { }
3. No { }
4. If yes in question 2 above, what type of records management system does the hospital use?
5. Centralized ( )
6. Decentralized ( )
7. Not sure ( )
8. If not in question 2 above, how does medical records kept………………………………………………………………………………………………………………………………………………………………………………………...
9. How many is medical record created/received in this hospital?..............................
10. How many medical records are created/received daily in this hospital?

0 -10 ( ) 10-20 ( ) 20-30 ( ) 30+ ( )

How do the above medical records arranged and classified?..................................................

1. What do you use in maintaining/keeping the medical records?

Filing cabinets ( ) shelves ( ) computers ( )

1. How long does it take to find/locate a patient file? Less than 5minutes ( ),5-10Minutes ( ), 10-15 Minutes( ), +15Minutes ( )
2. What do you do, if the patient file is not located in its place?...........................................

Do you think it is okay to create a new patient file when the old one is not found? Yes ( ) No ( )

if yes what effect will it have on continuity of health care delivery?................................

1. Who is responsible for collecting medical records from different hospital departments/wards?

Records Officer ( ), Hospital clerk/messenger ( ), Nurses ( ) other ..

1. How frequently are medical records collected from other departments/wards? Hourly ( ), daily ( ), Weekly ( ),other………………………………….
2. Who is the overall in charge of Medical records management in this hospital?.....................

**SECTION C: Knowledge and competence of staff**

1. Do you have Records Management qualifications? Yes ( ), No ( )

If Yes, What is the highest level of Records Management qualification achieved?

Certificate ( ), Diploma ( ), Undergraduate degree ( ), Postgraduate diploma ( ), Master degree( ), Doctoral degree ( )

1. Basing on question 1 above if you are not a record management officer, how do you handle patients records when they are in your office
2. To how long you have been in your career (basing on question 1, section C)
3. Less than 5 years { }
4. 5 years to 10 years { }
5. 11 years to 15 years { }
6. 16 years and above { }

**Tick the correct response in the following statements about your skills and competences**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Skills and competence** | **Strongly agree** | **agree** | **Unsure** | **disagree** | **Strongly disagree** |
| 1 | I am skilled and competent for all records management operational duties requirements |  |  |  |  |  |
| 2 | I am competent in IT skills and knowledge |  |  |  |  |  |
| 3 | I have enough experience and skills in electronic records management |  |  |  |  |  |
| 4 | I can manage medical records in its lifespan |  |  |  |  |  |
| 5. | I am familiar with and can follow the principles and guidelines of record management |  |  |  |  |  |

Does the hospital conduct records management trainings and workshops? Yes ( ) No () If yes, explain how regular…………………………………………….

What do you consider to be done to improve your skills and competency in records management?

**SECTION D: Challenges in managing records at Chakechake hospital**

1. What are the reasons for improper records management in your hospital? (Tick)
2. Lack of awareness and training ( )
3. Lack of record management system ( )
4. Unqualified records management staff ( )
5. Limited number of staff ( )
6. Lack of space for filing ( )
7. Unclear filing system ( )
8. Limited resources ie facilities ( )
9. Too much work load ( )
10. Others, mention

…………………………………………………………………………

1. What are your suggestions on what can be done to improve records management practices at your hospital?

…………………………………………………………………………………

**Dodoso la Madaktari, Manesi, Watunza Kumbukumbu na Makarani**

Idhini ya Taarifa ya anayejibu

Ninaitwa Francis Emanuel Chikwindo, ni mwanafunzi wa Chuo Kikuu Huria cha Tanzania kituo cha Pemba. Lengo langu ni kufanya utafiti katika Hospitali ya Chakechake, utafiti huu utajikita katika kutathmini usimamizi wa kumbukumbu za kimatibabu katika Hospitali;. Ushiriki wako ni muhimu katika kukamilisha tathmini hii.

Asante kwa ushirikiano wako.

**SEHEMU A: Taarifa za Utangulizi**

Weka alama ya Vema panapostahili

1. Jinsi
2. Ke { }
3. Me { }
4. Umri ulionao
5. Chini ya miaka 20 { }
6. Miaka 21-35 { }
7. Miaka 36-45 { }
8. Maika 46 na zaidi { }
9. Taaluma yako ni ipi
10. Daktari wa binadam { }
11. Muuguzi { }
12. Afisa mtunza kumbukumbu { }
13. Nyingine ( )
14. Uzoefu wako katika kazi
15. Miaka 0- 5 ( )
16. Miaka 6-10 ( )
17. Miaka 11-15 ( )
18. Miaka 16 na zaidi ( )
19. Kiwango cha juu cha elimu ulichofikia
20. Cheti { }
21. Stashahada { }
22. Shahada ya awali { }
23. Shahada ya umahili { }
24. Shahada ya uzamili { }

**SEHEMU B: Hali ilivyo sasa katika kusimamia kumbukumbu hospitalini**

1. Katika muundo gani hospitali hutunza kumbukumbu
2. Kwenye karatasi { }
3. Katika muundo tepe { }
4. Vyote kwa pamoja (karatasi na muundo tepe)

Nyingine (bainisha)……………………………………………………………

1. Kutokana na muundo uliotaja hapo juu, kuna mfumo wowote wa usimamizi wa kumbukumbu unaotumika katika kusimamia kumbukumbu za matibabu katika hospitali ya Chakechake?
2. Ndio { }
3. Hapana { }
4. Kama jibu ni ndio katika kipengele 2, ni aina gani ya mfumo wa usimamizi wa kumbukumbu ambayo hospitali hutumia?
5. Jumuishi ( )
6. Ugatuzi ( )
7. Sina uhakika ( )
8. Kama jibu ni hapana katika kipengele 2, kumbukumbu za matibabu huhifadhiwa vipi ……………………………………………………………………………………………………………………………………………………………………
9. Ni kumbukumbu ngapi za matibabu zimeundwa/kupokelewa katika hospitali hii? ..............................

Je, ni kumbukumbu ngapi za matibabu zinazoundwa/kupokelewa kila siku katika hospitali hii?

0 -10 ( ) 10-20 ( ) 20-30 ( ) 30+ ( )

Je, kumbukumbu za matibabu zilizo hapo juu zinapangwa na kuainishwa vipi? .................................................

1. Unatumia nini katika kutunza kumbukumbu za matibabu?

Makabati ya kufungua ( ) rafu ( ) kompyuta ( )

1. Inachukua muda gani kupata/kupata faili ya mgonjwa? Chini ya dakika 5 ( ), dakika 5-10 ( ), dakika 10-15 ( ), Zaidi ya dakika 15 ( )
2. Unafanya nini ikiwa faili ya mgonjwa haipo mahali pake? ...........................................

Unafikiri ni sawa kuunda faili jipya la mgonjwa wakati la zamani halijapatikana? Ndio ( ) Hapana ( )

kama ndio itakuwa na athari gani katika mwendelezo wa utoaji wa huduma za afya?................................

Nani ana jukumu la kukusanya kumbukumbu za matibabu kutoka idara/wodi tofauti za hospitali? Afisa Kumbukumbu ( ), Karani wa hospitali/mjumbe ( ), Wauguzi ( ) Wengine ……………

1. Kumbukumbu za matibabu hukusanywa mara ngapi kutoka kwa idara/wodi zingine? Kila saa ( ), kila siku ( ), Kila wiki ( ), nyingine ………………………………….
2. Ni nani msimamizi mkuu wa kumbukumbu za matibabu katika hospitali hii?

**SEHEMU C: Maarifa na uwezo wa wafanyakazi**

1. Je, una sifa za Usimamizi wa Kumbukumbu? Ndio ( ), Hapana ( )

Kama Ndiyo, Je, ni kiwango gani cha juu zaidi cha kufuzu kwa Usimamizi wa Kumbukumbu kilichofikiwa? Cheti ( ), Stashahada ( ), Shahada ya awali ( ), Stashahada ya uzamili ( ), Shahada ya uzamili ( ), Shahada ya udaktari ( )

1. Kwa kuzingatia swali la 1 hapo juu kama wewe si afisa wa usimamizi wa kumbukumbu, unashughulikia vipi kumbukumbu za wagonjwa wanapokuwa ofisini kwako.
2. Umekuwa katika taaluma yako kwa muda gani (kulingana na swali la 1, sehemu C)
3. Chini ya miaka 5 { }
4. Kati ya miaka 5 hadi 10 { }
5. Kati ya miaka 11 hadi 15 { }
6. Zaidi ya maika 15 { }
7. Weka alama kwenye jibu sahihi katika kauli zifuatazo kuhusu ujuzi na umahiri wako

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Ujuzi na uwezo** | **Kubali sana** | **Kubali** | **Sina uhakika** | **Sikubaliani** | **Sikubaliani sana** |
| i | Nina ujuzi na uwezo kwa mahitaji yote ya majukumu ya usimamizi wa Kumbukumbu |  |  |  |  |  |
| ii | Nina uwezo katika ujuzi na maarifa ya TEHAMA |  |  |  |  |  |
| iii | Nina uzoefu na ujuzi wa kutosha katika usimamizi wa kumbukumbu za kielektroniki |  |  |  |  |  |
| iv | Ninaweza kudhibiti kumbukumbu za matibabu katika muda wake wa maisha |  |  |  |  |  |
| v | Ninafahamu na ninaweza kufuata kanuni na miongozo ya usimamizi wa kumbukumbu |  |  |  |  |  |

1. Je, hospitali inaendesha mafunzo ya usimamizi wa kumbukumbu na warsha? Ndio ( ) Hapana ( ) Kama Ndiyo, eleza ni kwa mara ngapi ……………………………………………..
2. Unafikiria nini kifanyike ili kuboresha ujuzi na uwezo wako katika usimamizi wa rekodi?

……………………………………………………………………………………………………………………………………………………………………………………………………………………

**SEHEMU D: Changamoto katika kusimamia kumbukumbu katika hospitali ya Chakechake**

1. Je, ni sababu zipi za usimamizi usiofaa wa kumbukumbu katika hospitali yako? (Jibu)
2. Ukosefu wa ufahamu na mafunzo ( )
3. Ukosefu wa mfumo wa usimamizi wa kumbukumbu ( )
4. Wafanyakazi wa usimamizi wa rekodi wasio na sifa ( )
5. Idadi ndogo ya wafanyikazi ( )
6. Ukosefu wa nafasi ya kuweka mafaili ( )
7. Mfumo usioeleweka wa uhifadhi mafaili ( )
8. Rasilimali chache kama vile vifaa ( )
9. Mrundikano wa kazi nyingi ( )
10. Nyingine, taja

…………………………………………………………………………

1. Je, unapendekeza nini kifanyike ili kuboresha mbinu za usimamizi wa kumbukumbu katika Hospitali yako?

……………………………………………………………………………………………………………………………………………………………………

# Appendix II: Interview Guide

1. What is the qualification do you have? Basing on the qualification, how long you are in the field
2. How many medical records are created or received per day
3. In what format the hospital produces the medical records
4. How does the medical records arranged and classified
5. What system used in managing medical records
6. Who is responsible to collect medical records, and how often
7. How long it takes to locate the medical records
8. What are the reasons for the improper management for medical records
9. What measures are you proposing to be implemented in order to improve records management practice?

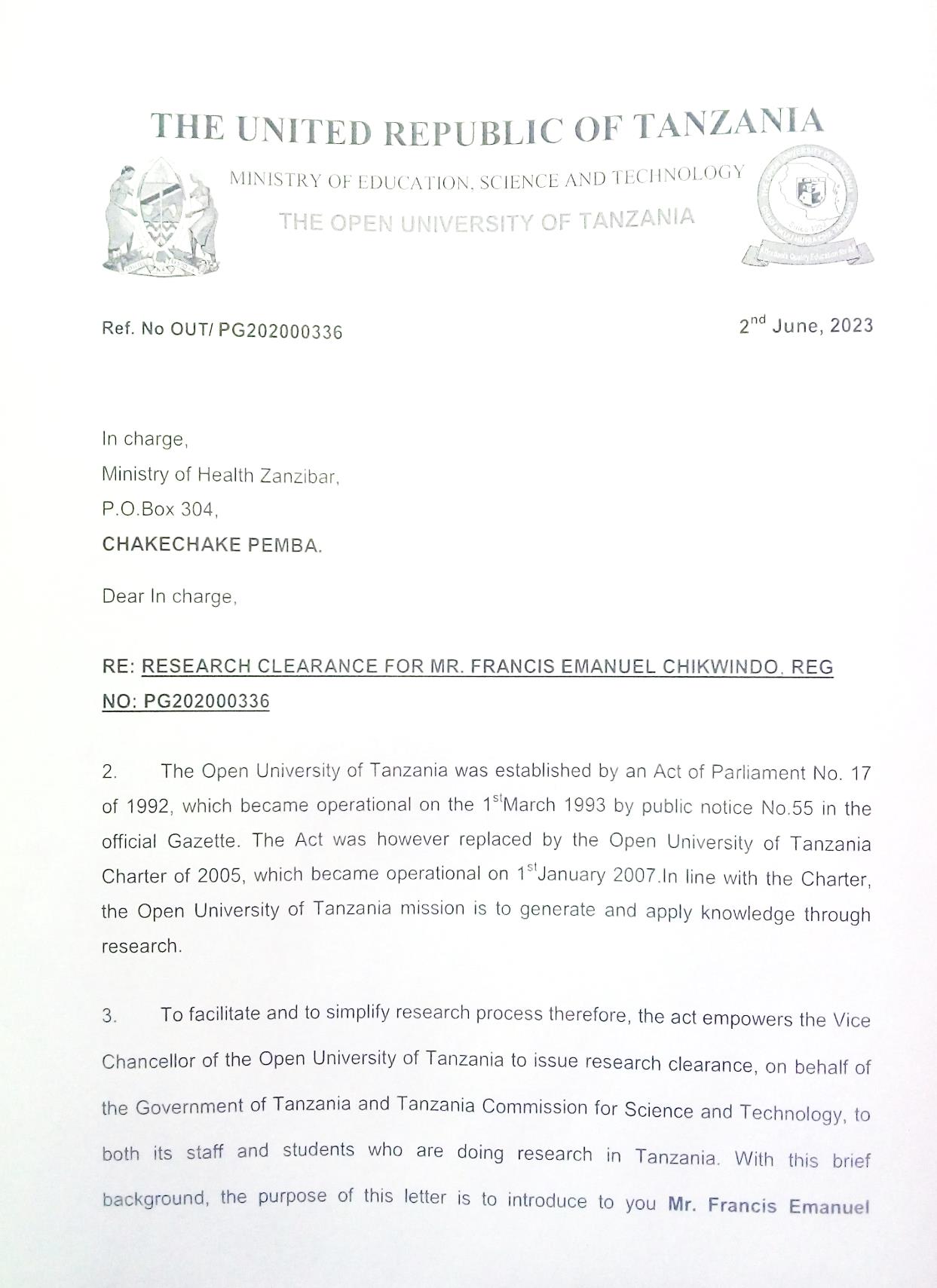
**Mwongozo wa Mahojiano**

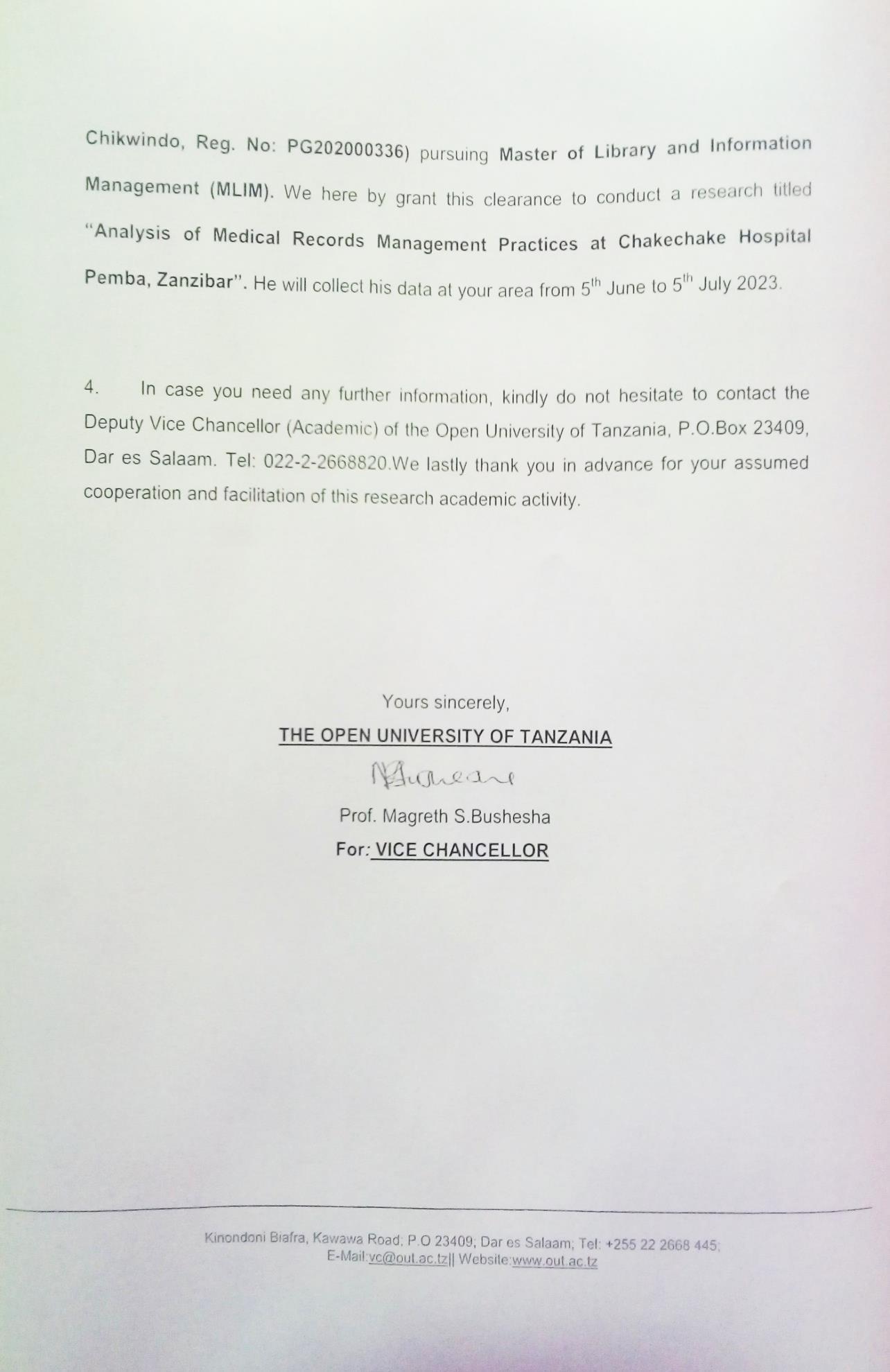
1. Una sifa gani? Kwa kuzingatia sifa, uko kwenye uwanja wa usimamizi wa kumbukumbu kwa muda gani
2. Ni kumbukumbu ngapi za matibabu zinaundwa au kupokelewa kwa siku
3. Hospitali huzalisha kumbukumbu za matibabu katika muundo gani
4. Jinsi gani kumbukumbu za matibabu hupangwa na kuainishwa
5. Mfumo gani unaotumika katika kusimamia kumbukumbu za matibabu
6. Nani anawajibika kukusanya rekodi za matibabu, na mara ngapi
7. Inachukua muda gani kupata kumbukumbu za matibabu
8. Ni sababu zipi za usimamizi usiofaa wa kumbukumbu za matibabu
9. Ni hatua gani unapendekeza zitekelezwe ili kuboresha usimamizi wa kumbukumbu

# Appendix III: Observation Guide

1. How medical records are created, where they are stored and how they are filed?
2. Is there enough number of records management staff and space?
3. Are there enough facilities for records management? How medical records are secured and preserved?
4. If the storage record room is protected from unauthorized staff in accessing records
5. How is the retrieval of medical records done? And how long does it take to retrieve the records
6. What challenges do records management staffs face in their daily duties?

# Appendix IV: Research Clearance Letter from Directorate of Postgraduate Studies (OUT)





# Appendix IV: Research Clearance Letter from Zanzibar Health Research Institute

