Exploring enablers and barriers for records management in a public healthcare setting

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Mini dissertation accepted in partial fulfilment of the requirements for the degree *Master of Business Administration* at the North-West University

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Graduation: November 2021

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ABSTRACT

Background: Record management has been reported to be a problem in health facilities in South Africa. Several studies have assessed the magnitude of the problem and came up with varying strategies to combat this challenge, but the problem persists.

Aim: The present study aimed to explore practices and challenges in record managements in the central community health clinic and subsequently develop strategies aimed at improving record management at this facility.

Methodology: The present study was conducted in the Community Health Clinic in Gauteng Province, South Africa. An unstructured questionnaire was used for data collection from the data clerks and professional nurses. Saturation of data was reached after the eight participants. NVIVO version 11software was used to analyse transcripts employing Tesch approach.

Results and Discussion: The present study found that the participants are aware of the record management policy however they have not seen it and there was no in-house training on record management. Challenges perceived by participants included training in records management, lack of resources such as storage facility, lack of related consumables. Participants recommended the use of electronic records as a probable solution to their challenges.

Conclusion: The presents study shows that record management is a problem in health facilities. It further recommends that record management can be improved by training of health workers, embracing records management budget, and introducing both electronic system and patient-held records system.

Keywords: Record, record management, Health, Challenges, strategies

Acknowledgements

Writing a meaningful and interesting thesis is hard work. This would have not been possible with the support from different people who contributed. Thanks to God for helping me to perseverance to continue with the journey even when it was hard at times.

Foremost I would like to express my sincere gratitude to my supervisor Dr Johan Jordaan in the NWU Business School and all lectures who gave me lectures throughout my studies. Mr Solomon Choma thank you for technical coaching, intellectual guidance, support and valuable feedback that helped me write successfully.

To the Department of Health Gauteng province, Zola clinic in Soweto, a special thanks to the following Mrs ML Morewane-Chief Director JHB District Health Service, Dr EM Ohaju-Senior Public Health Medicine Specialist, Ms Mariah Mazibuko-Regional Health Manager, Mr Boitumelo Molefe- Operational Manager at Zola clinic and Ms Suzan Kekana- Executive Director Government Relations (ANOVA) thanks for making a way for me to conduct my research successfully and giving me a chance when most appeared impossible. I do appreciate the chance and hoping you will do the same for others.

Last but not least I would like to express my appreciation and love to my husband Mr Wally Senne for his encouraging words for his support system. My parents Mr Stoffel Maboa and Mrs Feni Maboa. Thanks to my children who supported me even when missing out on some valuable family time when I was studying Glen Maboa, Kutlwano,Tiisetso and Khumo Senne. You are loved and appreciated always.

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DEFINITION OF KEY CONCEPTS

All terms will be used as they are unless indicated.

Administrator	.
Data Clerk	A member of staff employed to enter or update data. In the present study, a data clerk is an employee whose responsibility is to manage records archival and retrieval in the clinic.
Facility held record	is kept in the facility and remains the product of that facility Mathebeni-Bokwe (2015:5)
File	A folder, cabinet, or other container in which papers, letters, etc., are arranged in convenient order for storage or reference
Health worker	Any person engaged in actions whose primary intent is to enhance health (WHO, 2016).
Patient held record	A record which is kept by the patient Mathebeni-Bokwe (2015:5)
Record	Information created, received, and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business Cunningham (2016:3). In the present study, the terms record and file will be used synonymously as it is a practice in the literature.
Record management	Field of management responsible for the efficient and systematic control of the creation, receipt, maintenance,

use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records. Penn and Pennix (2017:1)

LIST OF ABBREVIATIONS

DoH	Department of Health
FHR	Facility held record
PHR	Patient held record
POOGI	Process of on-going improvement
RCT	Records Continuum Theory
RLT	Records Lifecycle Theory
SA	South Africa
TOC	Theory of Constraints
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION AND SCOPE OF THE STUDY

This section introduces the scope of the present study by defining what records management is, summarising of records management practices in South Africa thereby illustrating how the research problem and its related research aim and objectives were developed.

1.1. Introduction.

A record is defined as information created, received, and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business Cunningham (2016:3). For this reason, records are considered to be important assets to any organisation and therefore there is a need for every organisation to have a system in place to manage records. Records management is defined as a field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records (Penn and Pennix ,2017:1). In trying to develop such systems, several theories, which will be described later, have been developed, including the archival theory by Ketelaar (2017:85), the records life cycle theory (Kim, 2018:1) and more recently, the records continuum theory (McKemmish, 2017:3). Organisations have therefore developed their records management systems based on these theories.

Despite employing these theories by different organisations, several studies have identified challenges associated with records management systems. This section will only focus on challenges observed or identified in South African health facilities. In South Africa, the government has developed guidelines to manage records in its health facilities (DoH SA, 2017). These guidelines prescribe that each of the provincial departments of health have their own provincial record management act based on these guidelines. Despite this, some studies have reported challenges with records management at health

facilities in South Africa. These challenges range from policy-related challenges, personnel-related challenges and resource-related challenges.

Several studies have demonstrated that policy-related challenges in records management, such as lack of availability of policy documents in records management (Marutha and Ngulube, 2012:33) or unawareness of the availability of these policy documents (Mathebeni-Bokwe, 2015:81) or non-adherence to this policy documents (Luthuli and Kalusopa, 2017:9) are found among health facilities in South Africa.

Other studies have reported other challenges, ranging from lack of training in records management (Luthuli and Kalusopa, 2017; Marutha, 2016:80) to operational challenges such as lack of patient flow system (Valla, 2016:84), misfiling or missing files (Mathebeni-Bokwe, 2015:82) and lack of resources such as storage space that result in records that are kept in personal space (Momoti and King, 2019:83) and stationery (Mutshatshi *et al.,* 2018:3).

Poor records management causes healthcare facilities to perform badly in delivering efficient health service to their customers (Adegboyega and Musa, 2019:1).

1.2. Problem statement

Despite various recommendations from a series of studies mentioned before, the researcher's personal observation in one public health facility suggests that records management challenges still exist in the facility.

Kama (2017:2) mentions that poor records management results in long waiting time, often due to lost files, and that healthcare workers opt to make patients wait, instead of explaining the situation to the patients. The facility is expericiencing challenges such as missing files, inefficient records disposition and no systems in place for finding electronic records which pose may pose a challenge in patient waiting times.

Upon reviewing the literature, the researcher suspected that the problem may not be localised, but rather prevalent over all the public health facilities, as some of the browsed literature were recent (Luthuli and Kalusopa, 2017:6; Mutshatshi *et al.*, 2018:1 and Swart *et al.*, 2018:5). This suggests that studies on factors that contribute to records

management should further be elucidated and appropriate efficient strategies should be developed, resulting in the present study .

1.3. Research questions

(a) What are the data and records management practices in a public primary health clinic setting?
(b) What are the enablers and barriers in records management in a public primary health clinic setting?
(c) What are the strategies that will improve records management in a public primary health clinic setting?

1.4. Aim

To develop strategies aimed at improving records management in a public primary health clinic setting.

1.5. Objectives

(a) To explore data and records management practices in a public primary health clinic setting.
(b)To explore the enablers and barriers in records management in a public primary health clinic setting.
(c)To develop strategies aimed at improving records management in a public primary health clinic setting.

1.6. Research method

The study is aimed at obtaining a deeper understanding of the real issues in records management from the viewpoints of the people working with records at the health facility. The chosen method was therefore to conduct interviews with those individuals and to do a detailed qualitative analysis of the interviews, to get a good understanding of the barriers and enablers of records management. The interviews were therefore transcribed, coded and analysed using NVivo software so that themes could be identified and conclusions reached.

CHAPTER TWO: LITERATURE REVIEW

The literature review will elucidate the concepts used in records management and will provide a summary of other scholars' research on the topic.

2.1. Definition and benefits of records management

2.1.1. Definition of a Record

For a better understanding of what records management is, it is important to first describe some concepts used in records management. These include the definition of the terms record and file and explaining the life cycle of a record.

The definition of a record may look simple for people who have only worked in one institution but it becomes a complicated concept among people who have worked at different institutions. A record is defined either in terms of the physical tangible format in which it appears or in terms of the information it contains (Tagbotor *et al.,* 2015:3). However, while certain concepts are shared across disciplines, arguably the most foundational definition of a record is divergent. The term "record" can also be defined as a document where written, typed or captured information like pictures or drawings can be kept for a long time and retrieved for later use, even in non-paper-based formats such as videos (Penn and Pennix, 2017:5). Marutha and Ngulube (2012:24) explain records as containing information while records management shows the adherence to healthcare facilities' rules at all times.

A medical record is a document that keeps information about medicine and patients, as reported by the patients and written by the healthcare workers, for proper continuity of care to the patient. Correct information needs to be documented to legally protect medical staff (Britz, 2018:v).

In the healthcare environment, the record can either be in a paper or electronic format. Paper medical records are a combination of self-reported patient information and clinical diagnostic notes traditionally stored on paper-based mediums (Ventura *et al*.,2011:163) An electronic health record, on the other hand, is defined as data captured electronically while the patient is visiting the healthcare facility. This may contain the patient's demographics, allergies, medications, patient diagnosis and other administrative information so that the facility can extract information for the purpose of billing the patient for the healthcare rendered (Cowie *et al.*, 2017:2)

Electronic records have a great benefit over paper-based records; including the opportunity to transfer patients' medical records from distant locations in real-time, enhanced performance and ease of retrieval of records. They also have the ability to flag abnormal results and to get rid of handwritten prescriptions, which in turn reduces the likelihood of prescription errors (Gaylin *et al.,* 2011:925). Globally, health care services notes the challenges associated with paper based patients records and have gradually moved to electronic records to improve filling retrievals and storage Mathebeni-Bokwe, 2015:3)

2.1.2. Record Management Theories.

Once a record has been created, it becomes a living document for the organisation, and it can therefore be considered to have a lifecycle (QIN *et al.*, 2016:2). This forms the basis of one of the records management theories, the record lifecycle theory (RLT), as depicted in figure1 below. This can be analogous to a human life where a human being is born, lives, dies and is resurrected to eternal life. Likewise, the basic concept of this theory is that every record progress through four phases or stages.

Phase one: Creation of the records

The records are opened for the relevant purposes and the information is captured so that it is easily accessible and retrievable.

Phase two: Active use of the records

In this phase, the records are frequently used as the different business continues, possibly for patient consultation. The information needs to be secured for future use and security of the records is highly important for the continuation of care. Confidentiality of records needs to be controlled so that they are accessible only for approved users.

Phase three: Storage or semi-use

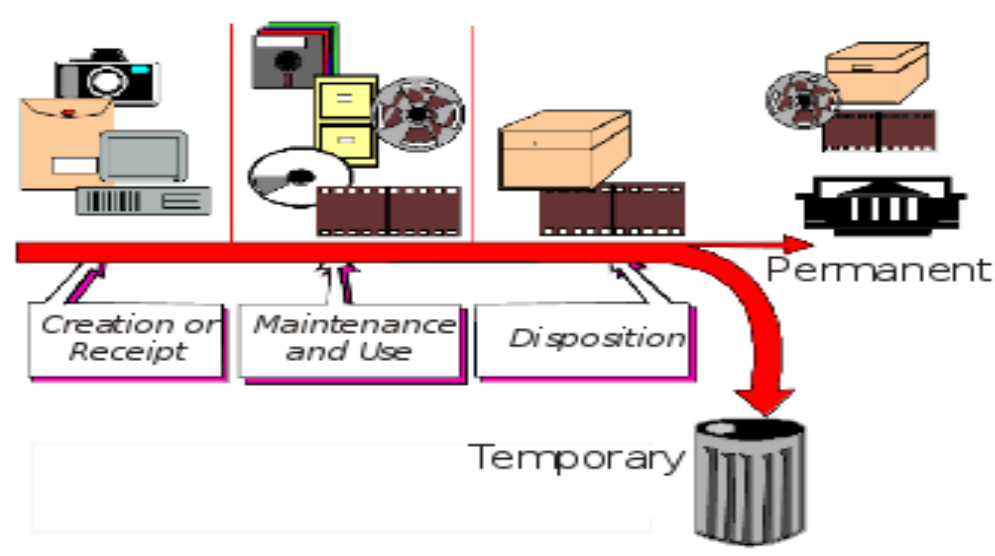
The record that was frequently used, is no longer needed as often as previously, but should not yet be completely discarded. For instance, when a patient is hospitalised, the file was needed daily, whereas, during this phase, if the patient only calls in every six months for medication or if they need new medical care, the file may need to be stored safely but be easily retrieved for future visits.

When the patient does not visit for years, the records may be removed from the shelves for archive or storage.

Phase four: Destruction or final outcome

Some of the records may have reached their retention rate and may need to be destroyed. The information may no longer be needed by the business, although other records might be used for safekeeping. Examples are those records that can be used for research purposes or those with historical significance are archived in storage (Franks, 2013:38).

Figure 1. Record Life-cycle Theory

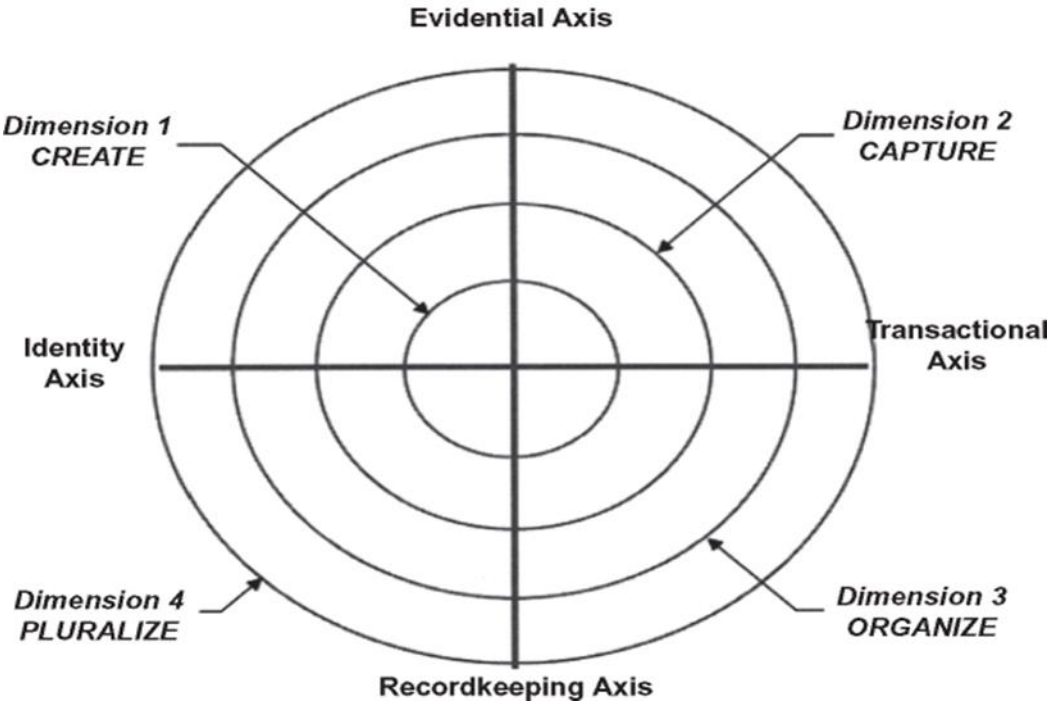


(*FEA Records Management Profile, Version 1.0, 2005:8)*

This records life cycle theory inspired other researchers like Mathebeni-Bokwe (2015:14), who states that the primary aim of records management is to maintain the records in their original form as they were created for the right person for as long as those records are needed for continuity of care. Public health facilities are using records for patients for their health lifetime-related illness. It is therefore imperative for them to create a process flow that is easily acceptable to use and for retrieving of patients file without letting patients wait while the staff try to retrieve the files and to keep the records safe for future use.

In this theory, each stage of the lifecycle is managed separately from the other phases. This led to fragmentation in the management of records. Hence, there was a concern that the overall management of records is too fragmented. As a result, the records lifecycle theory has been improved into what is presently called the records continuum theory (RCT) as displayed in figure 2. In contrast to RLT, RCT regards all the four stages/phases of the lifecycle as interrelated and coherent. RCT refers to a continuum management process from the time of the creation of records (and before creation, in the design of recordkeeping systems), through to the preservation and use of records as archives (McKemmish, 2017:3).

Figure 2. Record Continuum Theory



(Yusuf and Chell 2005:60)

2.1.3. Importance of record management

Chiwanza and Mutongi (2016:49) reported that, according to ISO 15489-1:2001 (E), the benefit of record management is that it allows organisations to conduct business efficiently, support managerial decision making, provide evidence of transactions and to maintain corporate, personal or collective memory. In the healthcare environment, the benefits of records management include improving the quality of care, reducing medical errors and improving communication between healthcare professionals. It also enhances the readability, availability, and accessibility of information, and improves data quality (Chiwanza and Mutongi, 2016:64).

According to Norris, (2002), an organisation is considered to have an effective records management if it has the following seven attributes:

- Create the necessary records.
- Stores the records safely and securely
- Have effective access and retrieval system
- Retain or dispose of the records as required
- Apply the correct information technology
- Promotes secondary use of records
- Has a policy and procedures on records management

2.2. Records management in South African Health Facilities: Situation analysis.

To better understand the records management practices in South Africa, it is important to first describe the South African government health structure, as the record management differs between different organisations (Ngoepe and Van Der Walt, 2009:2). The healthcare system in South Africa is categorised into three stages, namely national, provincial and local government (Winchester and King, 2018:202). In each healthcare facility, we have both primary healthcare facilities, community healthcare facilities and peripheral facilities.

In South Africa, the government has developed guidelines to manage records in its health facilities (DoH SA, 2017). These guidelines indicate that each of the provincial departments of health has its own provincial record management act. The guidelines further prescribe that health facilities under the government's jurisdiction should use a centralised storage management framework. Therefore, in every institution, the records are stored at a central storage facility and managed by administrative staff members. Maphumulo and Bhengu (2019:2) identified that some of the difficulties that South Africa is facing are a shortage of resources, a shortage of staff and poor records management.

The records management system in South African health facilities, as depicted by the national guidelines, requires the involvement of different personnel at different job levels and different stations (DoH SA, 2017). This causes records management in such facilities to be a complex system. The theory of complexity or the complexity theory provides a solution on how to manage such complex situations. According to this theory, a phenomenon should not be always viewed as an individual entity as it may be affected by others (Bastardas-Boada, 2016:1).

According to Miller et al. (1988), understanding the organisation of primary care practices is essential for determining how changes in the delivery of preventive or other healthcare services are implemented.

Kama (2017:2) mentions that poor records management results in long waiting time, often due to lost files, and that healthcare workers opt to make patients wait, instead of explaining the situation to the patients.

Public health facilities in South Africa are still using paper-based records (Luthuliu, 2017:48). Scholars, however, report that some healthcare facilities use electronic records systems, while others use both manual and electronic records systems (Luthuliu, 2017:124). The introduction of electronic health records across health facilities in South Africa is still under review, as there is no national policy document on electronic health records. Instead, there is the National Digital Health Strategy for South Africa 2019-2024 which is a strategic document that outlines how an electronic health records system will be introduced and implemented. Despite not having a policy of electronic health records, there are several studies on the viability of electronic records in different health facilities;(Falck *et al.*, 2019:1)

According to Mathebeni-Bokwe (2015:5), in South Africa, there are mainly two kinds of records used, categorised according to their storage location. These are facility-held records (FHR) and patient-held records (PHR). The FHR, which is kept in the health facility, remains the possession of that health facility and the PHR, which kept by the patient, can be used at any healthcare facility for further healthcare.

2.3. Factors influencing records management in South African healthcare facilities: an indirect representation of record management practices.

In the present study, the researcher, upon reviewing the literature, has observed that articles on records management in health facilities use the words “file”, “document”, and “record” interchangeably.

Since medical records include information used by health workers for the continuous provision of medical care, it is important to ensure that such a record is well-managed. Incorrect information in a patient's record may lead to incorrect treatment, which can be detrimental to the patients’ health (Marutha, 2016:1). It could also cause long waiting times, which may contribute to greater chances of patients dying while waiting for the record to be retrieved (van Harten *et al.*, 2015:275). Mathebeni-Bokwe (2015:101) agrees that long waiting times are caused by manual records management systems that cause problems with the retrieval of records.

As indicated earlier, the public health facilities in South Africa use paper-based records (Luthuliu, 2017:48). This sub-section will be discussing factors influencing paper-based records management in South African health facilities, rather than discussing factors affecting records management in general. Furthermore, most of the articles on records management in health facilities focused mainly on challenges, rather than enablers, of records management. As a result, this section will mainly focus on factors contributing to poor paper-based records management. Alegbeleye and Chilaka (2019:13) reported that challenges related to poor records management include lack of records management policies and procedures, lack of qualified staff such as a records manager and archivist, records management costs and limited resources to implement a workable system.

2.3.1. Policy-related challenges and practices.

For each organisation to run smoothly, it needs a policy to help guide it to perform at its best and such a policy helps the organisation to function (Luthuli, 2017). Studies on the availability of policy documents on record management among different health facilities

have produced varying results. Luthuli and Kalusopa (2017:9) reported that, in a hospital in Kwa-Zulu Natal Province, there was no records management policy. In another study in a hospital in the Eastern Cape Province of South Africa, it was shown that 27% of hospital records administrators were not sure of the existence of any records management policy in the hospital. In a study that compared records management in private and public hospitals, it was found that among hospital record administrators 79% were aware of a record management policy whilst among private hospital administrators only 40% were aware of it. (Luthuliu, 2017:76). A study conducted in several hospitals in Limpopo Province indicated poor knowledge of the legislative framework required for the development of the records management infrastructure among staff members working in the respective records management units (Luthuliu, 2017:46). The knowledge of a policy or awareness of the existence of a policy does not always indicate that the administrators are using the policy in their day-to-day practices. In private hospitals, the record administrators indicated they do not refer to the policy when performing their activities, but that they handle records the way they were training.

These findings suggest that the policy-related challenges reported in South African health facilities are the lack of existence or awareness of records management policy and failure to work according to guidelines that are captured in the policy. This suggests that managing records without applying policy procedures is a common practice among South African health facilities.

2.3.2. Lack of training in records management and training practices

The existence of a policy does not automatically mean that the health workers are aware of the policy. Training about policies is a critical activity in ensuring that the policy is adhered to, as the policy outlines procedures that an organisation expects its employees to follow. A study in the Eastern Cape reported that 45% of health workers reported that they never had training on records management (Mathebeni-Bokwe, 2015:61). A study among public and private health facilities in KwaZulu-Natal reports that the majority of records handlers did not have formal training in records management and this leads to loss of files (Luthuli and Kalusopa, 2017:8). These reports suggest that training on

records management is not practised among South African health facilities. Where training is available, it does not include all health workers who work with records in their day-to-day activities. Bates *et al.* (2014:4) which showed that health workers reported that the health information management course registered during their tertiary studies prepared them properly for good record management.

2.3.3 Operational challenges and practices

As described in the records life cycle theory, there are record management challenges in each life cycle phase. Infrastructure, staff capacity and other related resources are critical factors affecting operations in an organisation that wants to ensure efficient record management. Adequate medical records enable health workers to reconstruct the essential parts of each patient contact without relying on their memory and should therefore be comprehensive enough to allow a health worker to carry on where the last health worker left off (Gray *et al.,* 2018:1)

2.3.3.1. Poor filing and retrieval practices

The two most prominent tools for effective management of records are a file plan and a retention and disposition schedule (Katuu, 2015:295). The use of a centralised record storage system affects records management practices. A study in the Northern Cape province reported that 41.6% shows that healthcare facilities do not have a patient flow system in place (Valla, 2016:73). This has led to patients taking the initiative to save time when visiting another department to either visit the records department for their files or go straight to their consultation (Teviu *et al.*, 2012:138).

A study has reported that record handlers spend about 15 minutes to retrieve a file from the records management department that has been previously used. This increases the waiting time the patient spends in the health facility for healthcare (Luthuliu, 2017:91).

Swart *et al.* (2018:4) show in a study, conducted in Western Cape province, that patients spend an average of 35 minutes in the facility just to receive a file. In some scenarios, the total period spent at the clinic may reach 2 hours or beyond (Stime *et al.*, 2018:4). Another study found that such a high turnaround time may be attributed to challenges in the central records unit, including misfiling, missing files, untidy filing, high records demand and staff shortage (Marutha, 2011:121). Other causes of misfiling may be the result of not having a proper filing system (Teviu *et al.*, 2012:137), the lack of filing space or infrastructure (Adegboyega and Musa, 2019:6) or the lack of training or qualifications in records management (Katuu, 2015:108).

2.3.3.2. Lack of storage facilities

All the healthcare facilities that use the records lifecycle theory as their point of departure, require either a centralised or decentralised system for records management. Having sufficient space for storage for records is vital (Mathebeni-Bokwe, 2015:26). A study evaluating health information management systems in Limpopo Province has shown that facilities, where the information management system was not implemented, indicated problems with storage of the files (Mbananga *et al.*, 2002:73). A storage room in one public facility in KwaZulu-Natal has been observed not to be conducive for storing file s(Luthuli and Kalusopa, 2017:7). Lack of adequate storage space at the national and provincial levels has also been reported (Katuu, 2015:276).

2.3.3.3. Inadequate Staffing

The records handlers at the Ngwelezana Public Hospital reported that they were understaffed, making it difficult to manage records for quality health service (Luthuli and Kalusopa, 2017:6). This has also been reported in studies conducted in Limpopo Province (Marutha, 2011:115).

2.3.3.4. Inadequate financial resources

A study among administrators in Limpopo reported that 46% of administrators indicated that the availability of resources for records administration was less than 25% (Marutha and Ngoepe, 2017:4). This is supported by another study among nurses in Limpopo Province, which reported that there is a lack of stationery to record information (Mutshatshi *et al.*, 2018:3).

2.4. The study's theoretical framework

A theory is a set of interrelated concepts and definitions and acts as an agent behind a scene that explains or predicts events or situations by specifying relations among variables (Glanz *et al*., 2010:31) or simply a view or description of the nature of something (Fu, 2010:1). The present study is based on two theories, namely the theory of change and the theory of constraints.

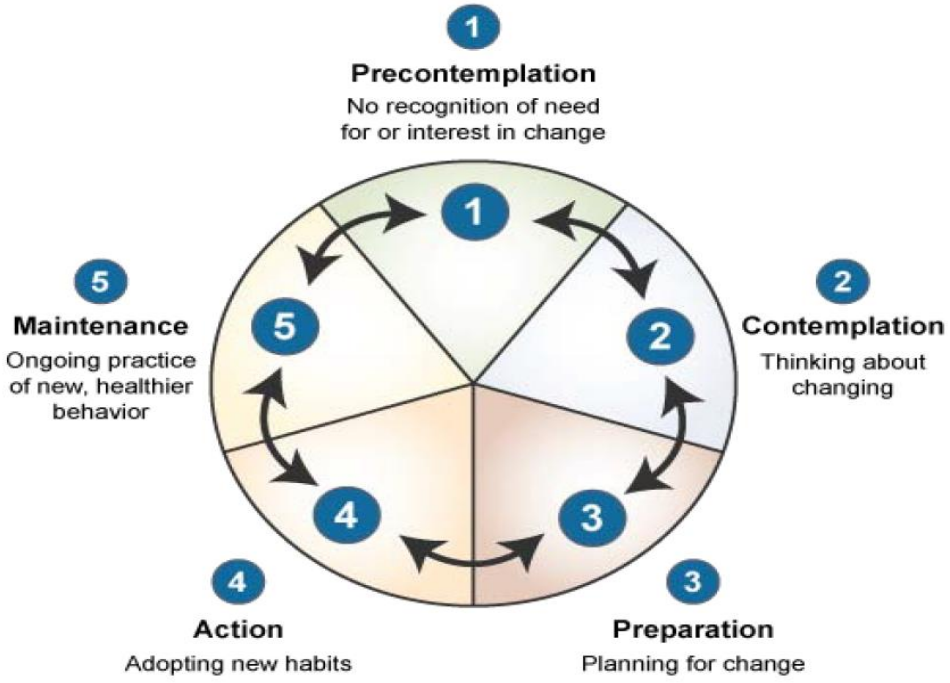
A theory of change articulates how we believe change will happen, and as a result, how we plan to invest time and resources to contribute to that change. It involves unpacking how a given organisation or program anticipates bringing about any desired change. This involves assessing the current state, planning an intervention and outlining the expected outcome. In the present study, the current state will be assessed by assessing the health workers' practices in records management and observe related challenges. This will be followed by developing strategies aimed at addressing those challenges and operationalisation of those challenges.

In some cases, theories sometimes require that an operationalisation model be developed for them to be implemented. The trans-theoretical model is embedded in and is an extension of the theory of change. This model, as illustrated in fig. 3, is sequentially divided into five (5) stages, namely the pre-contemplation stage, contemplation stage, preparation stage, action stage and maintenance stage (Prochaska *et al.*, 2015:126).

The pre-contemplation stage is when an individual or organisation does not recognise the need for change or is not interested in change. In the present study, the pre-contemplation

stage is when the health facility continues to operate on its present mode of operation despite several studies indicating deficiencies in records management stems in health facilities. This indicates that the management or personnel of these facilities either do not see the need to change or is not interesting in changing. The contemplation stage is when an individual or an organisation is thinking about changes. In the present study, the researcher, after going through literature on records management, observes the need for change on how records are managed in health facilities. The preparation stage is when planning for change is initiated. In the present study, the researcher plans the change by conducting a study that will ultimately result in strategies to address the records management challenges. The action stage is when actions that could lead to change are taken. In the present study, the researcher will develop strategies and action plans to be employed to change how records are managed in health facilities. The last stage, the maintenance change is when the observed change is effected. Due to time constraints, the present study will not entertain this last stage, but may recommend how this stage can be fulfilled. Taylor *et al.* (2006:12) stated that the theory has continuously emphasized how public health could promote good health.

Figure 3. Trans-theoritical change model



(sourced from Behavioural and social science e-source) *https://images.app.goo.gl/Uf7B2HGShXaHygZA8*

The Theory of Constraints (TOC) was developed by Dr Eliyahu Goldratt and led to the breaking of several business paradigms and the development of new simplified approaches to managing systems (Goldratt & Schleier, 2010:12). The basic precept of the theory is that every process has a single constraint and that total process throughput can only be improved when the constraint is improved. The theory is based on the three questions of what to change, what to change it into and how to cause the change? The present study is also based on these three questions, as it will explore constraints in records management in the health facilities. Answering the three questions:

- What to change? The study will identify, through the literature study, what are challenges in record management.
- What to change it to? The study also investigates possible enablers of good records management.
- How to cause change? Lastly, the study will also develop strategies aimed at improving records management (Goldratt-Ashlag, 2010:2).

CHAPTER THREE: METHODOLOGY

This section explains the processes and procedures followed when conducting this research. It outlines the type of research design and approach used. Furthermore, it describes the study population, which sampling method was used, the type of data collection tool and data collection processes followed and finally, how data was analysed.

3.1. Research Design and Approach

The present study was a cross-sectional, exploratory, and descriptive approach using qualitative analysis. A cross-sectional study is a study that measures the outcome and the exposures in the study participants at the same point in time (Setia, 2016:261). The present study was cross-sectional, as the researcher only collected data once from the participants without any follow-up. An exploratory study is a study used when there is inadequate information that is present concerning a certain topic and it serves to obtain an extensive understanding of a situation or phenomenon (Creswell and Poth, 2016:295). The present study is exploratory, as processes and challenges in record management are explored. A descriptive study is a study aimed at describing things the way they are, what the actual state of affairs is (Levitt *et al.*, 2018:38).

Teherani *et al.* (2015:1) explain the importance of qualitative research as not just analysing verbal data but recognise visual data, observational data and the review of documents review as important sources of information. The researcher can see how people experience things in their daily lives and observe first-hand how people function. Observation through visiting the facilties in the filling room, interview of the data captures and the health care workers requesting file for efficient patient management.

The present study is qualitative, as content analysis on record-keeping procedures, practices and observation was performed using semi-structured interviews. The requesition of the filling records and records management policies whether the health care workers are familiar with their existance or content.

3.2. Study Site

The present study was conducted at Zola Community Health Centre (CHC). The Health Centre is located in Soweto Township, Johannesburg, Gauteng Province, South Africa. The coordinates of the Health Centre are 26°14'38"S 27°49'52"E. In South Africa, healthcare services are categorized into three levels; Primary care level, District Hospitals and Tertiary level Hospitals (Mathebeni-Bokwe, 2015:4). The Zola Community Health Centre falls under primary healthcare levels. This healthcare facility provides a comprehensive package of healthcare services such as maternal and child health, immunization, a psychiatric unit, family planning, HIV testing services and treatment, nutrition, HIV and TB-related treatment, care and support.

3.3 Study population and sampling

3.3.1 Study population and recruitment

A population is defined as the universe where the sample of the research is to be collected from (Bryman, 2016:174). Grove *et al.* (2012:43) define a population as the people, substances and objects with similarity and sample criteria that can be used to meet specified criteria during research. Both scholars agree with the definition of a population as a group of people with similar interests.

The purpose of the present study was to explore the enablers and barriers in records management in the public healthcare centre. The CHC has several departments and therefore the staff members who qualify to participate in the study was exhaustive. The many patients served by the CHC requires a large number of staff members with extensive experience in the management of records at the different health centre departments'. These participants are sufficiently qualified in answering the aims and objectives of the present study to ensure the credibility of the research. These served as the sampling frame for the present study. The participants were recruited after first

obtaining permission from the district management team and then from the healthcare facility management.

These permission letters were circulated to all staff members in the Zola CHC and served as one of the steps in the recruitment process. Furthermore, the aim, objectives, benefits, and envisaged harm were explained to all who were interested in participating in the study. Those who agreed to participate were required to sign a consent form (See Appendix IV, for the template of the consent form used).

3.3.2 Sampling method, inclusion, and exclusion criteria

3.3.2.1 Sampling Method

A purposive sampling method was used to obtain suitable participants who consented to participation in the present study. A purposive sampling method is a process of selecting participants based on the judgement of a researcher regarding the characteristics of a representative sample (Creswell and Poth, 2016:158). Although random sampling is the recommended sampling method when the researcher intends to infer results obtained from the study site present study to other sites, purposive sampling was used in this study to ensure that participants are knowledgeable of records management at the PHC. The sample, therefore, included all data clerks at work on that day and professional nurses of the healthcare facility available to be interviewed that deal with patients' records on daily basis.

3.3.2.2 Inclusion criteria

All data clerks and professional nurses who consented to the study and were at work during data collection were considered for the study. Sampling continued until data saturation was achieved.

3.3.2.3 Exclusion criteria

Any data clerk or professional nurse with less than one-year healthcare facility working experience and other employees other than data clerks and professional nurses in the CHC were not included. Patients were excluded.

3.3.2.4 Sample size

The importance of having an appropriate sample size is for validation of research results. The sampling process needs to take into account the risks or results that are associated with the sample size (Blaikie and Priest, 2019:545).

In quantitative studies, the sample size is calculated using statistical principles such as sample power and level of significance. In a qualitative study, an approach of data saturation is used to determine the sample size. Data saturation is defined as a process of data collection from many participants until no additional information emerges (Creswell and Poth, 2016:370). In the present study, data became saturated after interviewing 4 Professional Nurses and 4 Data clerks.

3.4 Data collection

Merriam and Tisdell (2015:85) define data as pieces of information that are found in the environment. The information can be collected in different ways, either through questionnaires, interviews or through observations, depending on the method the researcher has used in his/her research.

3.4.1 Development and validation of the data collection tool

3.4.1.1. Development of the instrument

A self-developed unstructured interview protocol was used to collect data (See Appendix I) for the template of the interview questionnaire. According to (Kothari, 2017:8), a semi-structured interview guide is a data collection tool where answers to the questions are to be taken down in the respondent's own words. The data collection tool used in the present study was a semi-structured interview protocol because all the questions were open-ended questions which did not limit the participants to specific answers.

The instrument had questions to address both the objectives of the present study. To explore data management practices, the following questions were asked: -

> *"Are you aware of the contents of the record management policy of the hospital? Please expand on your experience with this policy."*
>
> *"Tell me about your experience with the management of patient records."*
>
> *"Is there anything else that you would like to add?"*

To explore barriers and enablers of good record management, the following questions were asked: -

> *"What works well in the present way of managing hospital records? Please expand."*
>
> *"What does not work well in the present way of managing hospital records? (Challenges that you experience) Please expand".*
>
> *"Is there anything else that you would like to add?"*

To explore the strategies to improve record management in the hospital, the following questions were asked: -

“What would you want to change about how hospital records are kept, maintained, stored or managed?”

“What suggestions do you have to improve the management of patient records?”

“Is there anything else that you would like to add?”

The questionnaire was validated by first being given to the supervisor, who is an expert in the field of records management for her input on content validity to act as a pilot study. Finally, the questions were rephrased according to recommendations from the expert (See Appendix I).

3.4.1.2 Validation of the data collection tool and transcripts

(a) Content validity, credibility and confirmability

Content validity is a process of evaluating the appropriateness and completeness of the data collection tool in terms of whether it is clearly and correctly worded to cover all the intended aspects of the variables (Lam *et al.*, 2018:376). In the present study, content validity was ensured by giving the questionnaire to the supervisor, who is an expert in the field, for her input on content validity. Credibility is defined as a measure for evaluating honesty and quality in qualitative research, referring to confidence in the truth of the data elicited from the participants (Kumar, 2019:475). Credibility was ensured by engaging with the data clerks and professional nurses for prolonged periods to allow intra-interview triangulation.

(b) Confirmability and transferability

Confirmability refers to the neutrality of the data and analysis thereof (Kumar, 2019:276). In the recent study confirmability was ensured by giving data analysis results to the supervisor to ensure alignment with respondents' transcripts. Transferability refers to the extent to which the findings of the study can be transferred to another context or with other participants (Polit *et al.*:207). Transferability was ensured by triangulating the responses with the results of the literature study (Kumar, 2019:277)

3.4.1.3 Data Collection processes

According to Kumar (2019:222), there are two ways in which an interview could be conducted, namely either a self-administered interview, where the interviewee reads the question and answers it, or an interviewer-administered interview, where the interviewer reads the question to the interviewee and records the answer. Furthermore, the biggest advantage of interviewer-administered interviews over self-administered interviews is that, with one-on-one interviews, the interviewer has the opportunity to introduce the research topic and motivate the participant to offer their frank answers. Questions or uncertainties can be clarified immediately. The interviewer-administered interviews can further be divided into one-on-one interviews and group interviews.
The advantage of one-on-one interviews over group interviews is that the researcher can ensure confidentiality, which will increase the participant's responsiveness. Also, focus group interviews are also not good in understanding the individual's motivation (Easterby-Smith *et al.,* 2015:136).

Based on these advantages, in the present study, the researcher used the above-mentioned instrument to personally conduct all interviews as one-on-one interviews (Mayer, 2015:8). The researcher was responsible for asking questions and taking field notes (capturing participants' responses). With participants' prior permission, a voice

recording was used to ensure accurate transcription of the field notes. Privacy, confidentiality and anonymity were ensured by conducting interviews in private secluded areas. The interviews for data clerks were conducted in a principal data clerk's office in the absence of all other data clerks. The interviews for professional nurses were conducted at the nursing bays in the clinic in the absence of other nurses, other employees of the healthcare facility or patients. The researcher ensured the credibility of the participants' responses by prolonging the interview sessions such that she can conduct pre-analysis triangulation of participant's responses during the interviews.

3.5 Data Analysis

The NVIVO version 11 software was used to analyse collected data. The software uses (Tesch, 2013) a method of data analysis which can be summarised in the following eight (8) steps:

Step 1: The software read the entire transcript carefully to obtain a sense of the whole transcript and jot down some ideas.
Step 2: The software selects one case and asks, "what is this about?" and thinks about the underlying meaning in the information. The software's thoughts can be written in the margin.
Step 3: The software is made of all the themes and topics. Similar themes or topics are clustered together.
Step 4: The software will then list all topics and go back to the data and abbreviate the topics as codes and write the codes next to appropriate segments of the text. From this process, the software will see if new categories and codes emerge.
Step 5: The software finds the most descriptive wording topics and turn them into categories. Lines are drawn between categories to show relationships.
Step 6: The software makes a final decision on the abbreviation for each category and alphabetises the codes.
Step 7: The software assembles the data material belonging to each category is assembled and perform preliminary analysis.

Step 8: The software makes final decisions on the abbreviations made from the categories and alphabetizes the codes, and then assembles all the data material belonging to each category in one place and performs a preliminary analysis. Existing material is recoded if necessary.

3.6 Development of recommendations based on results

The strategies obtained from the participants were evaluated against strategies available in the literature. Furthermore, these strategies were discussed with supervisors and with the junior and senior management of the community health centre to assess their relevancy, appropriateness, practicality, and feasibility.

3.7 Ethical Considerations

3.7.1 Ethical clearance and Approvals

The present study was given approval from the provincial Department of Health (DOH), Johannesburg Health District office and the district PHC (primary healthcare) manager. The ethics approval was obtained from the North-West University NWU-00895-20-A4 (see appendix I, II and III, respectively) research ethics committee.

3.7.2 Informed consent

The aims and objectives of the present study were explained to all participants and they were invited to withdraw from their study at any time without giving an explanation that their participation or non-participation will never be used against them in any situation. Consent forms may assist with dealing with ethical problems that may arise during the research with participants (TESCH, 2019:8), Consent forms were given to all participants

and all of those who agreed to participate in the study were required to sign a consent form (See the template of the consent form in Appendix IV).

3.7.3 Confidentiality and Anonymity

Confidentiality is defined as a process in which data collected during a study is not made visible to any other person or shared with anyone (Oliver, 2010:81). The researcher and the supervisor are knowledgeable in research ethics and would not divulge participant-linked responses to anyone who was not involved in the present study.

Anonymity refers to a process in which the participants' identity is kept secret such that the data cannot be linked to the participant (Wiles, 2012:7). In the present study, anonymity was ensured by using research identifiers instead of using participants' names. These researcher identifiers were not linked to any of the participants' names during data collection.

Privacy can be defined as a state where there is no disturbance for the possibility of being observed by people (Bourgeois *et al.,* 2015:135). Privacy is guaranteed by avoiding using identifiable data like names addresses that could be used to profile individuals (Burkell *et al.,* 2015:9). In the present study, privacy was ensured by the researcher using private comfortable areas (Office of the chief data clerks and nurses' bays) for interviews.

3.7.4 Benefit and Harm

The participants could benefit indirectly from the study, as strategies that could improve management practices could ensue from the study. Harm is explained as deliberate or modifiable cause of injury to sample study group, either physically or mentally, which can lead to stress, anxiety or hurt (Francis, 2016:2). In this study, there was no risk of harm or injury imposed on the body or mind of the participants, as the topic and the tools and interview protocol used in the study was of such a nature that it was not invasive or conducive to causing harm to participants. The confirmation for minimal risk of harm was

stipulated on the consent form as well. However, participants were ensured that, if any harm occurs, the affected participants would be referred to psychologists.

CHAPTER FOUR: RESULTS AND DISCUSSION

This section presents the findings of the study and discusses them against available literature. The section is organised according to the objectives of the study, which are the exploring record management practices, barriers and enablers of good record management practices and developing strategies to improve record management.

Objective 1: Exploring data and record management practices

The results are summarized as follows:

Theme 1. Records Management Practices in Zola community Clinic

Practice	Findings	Discordance or Agreement with Literature
Sub-theme 1a. Knowledge about Policy and Procedures	• There is knowledge about the existence of the policy but there was no related induction training programme.	• Training is an essential component in the implementation of a record management system
Sub-theme 1b. Record Filing and retrieval	• Patients' date of birth is used as a filing and retrieving method	• The South African National Guideline for Filing, Archiving and • Disposal of Patient Records in • Primary Healthcare Facilities allows the use of date of birth for filing and tracking of patients.
	• Filing and Retrieval of records is exclusively the responsibility of data clerks.	• In centralized record management systems, data clerks or data officers are exclusively responsible for filing and retrieval of records.

Sub-theme 1c. Record safety and confidentiality	• The institution uses a centralized storage facility.	• Public Health facilities in South Africa also use centralized storage system which is supported by national guidelines.
	• Patient-held record systems are not used.	• Patient-held record management system is a new phenomenon with unique advantages and disadvantages.
	• Patients' confidentiality is ensured through health workers ethical conduct.	• Health workers' tertiary curriculum ensures the health workers practices are ethically correct.

Sub-theme 1a . Knowledge of policies and procedures

For proper management of operational activities, every institution is expected to have institutional policies and procedures as policies and procedures are critical to the record management process and are necessary to meet an organisation's needs (Tagbotor *et al.*, 2015:11). The participants raised concerns and practices that they have felt it will be useful to improve records management.

For proper adherence to institutional policy, the personnel should be familiar with related policy procedures. In the present study, it was observed that hospital clerks are aware that there is a record management policy. However, they have never seen the policy document. This was in contrast to a hospital in KwaZulu-Natal province of South Africa in which participants reported that it was reported that the record management policy was absent (Luthuli & Kalusopa, 2017:6) but in line with the national guideline recommendation that each province should have its own record management policy (Department of Health Sa, 2017).

Despite participants not having seen the policy, they seemed to be familiar with some of the hospital record management procedures.

"No, I don't know the exact contents. I only know there is that policy."

"I am aware that there is that policy, but I have never seen it. I know that the records are supposed to be kept in the facility and the place where the records are kept should always be under lock and key."

"Yes, I am aware. Sorry? The one that I am aware of is that all the records should be kept in a central place and they should be locked. No one is supposed to go out with the file. The patients are not allowed to go out with the file."

According to my experience with records management policy it must be kept for five years at the archives. If there is a need for the referral or a case. Yes, I am aware of the policy.

It was intriguing to note that the participants are familiar with record management procedures without ever having seen the record management policy. Knowledge of record management procedures without ever seeing the policy suggests that the participants could have learned the procedures elsewhere. The most probable period when they could have acquired the knowledge of procedures in record management could be the pre-employment qualification training. This is supported by a study by Bates *et al.* (2014:4) which showed that health workers reported that the health information management course registered during their tertiary studies prepared them properly for good record management. Secondly, they could have acquired the knowledge through in-house induction training. This is supported by a study conducted in Limpopo Province that reported that health workers do get in-house training while others learn through a trial-and-error approach (Mbananga *et al.*, 2002:67).

Sub-Theme 1b. Record filing and retrieval

Management of records includes a proper filling system that will make it easier for the retrieval of the patient file when they come for follow-up visits at the healthcare facility

and that will not increase waiting times but would increase continuum of care (Teviu *et al.*, 2012:136).

The data clerks seemed to be knowledgeable about record filing as they indicated the record system that they were using which was filing according to date of birth. This assists them retrieving the records when needed.

"…if they tell us their date of birth, we can use that to check their files by comparing the date of birth with the files then we can get the patients files."

The patients don't leave with the files; we open the files here in the facility and the patient does not leave with them

The participants indirectly indicated the practice of patient-held records is not a norm in their facility. Instead, patients are given consultation cards which are linked to their files and these are used for retrieving the files from the central storage facility.

"The patient's record, most of the time receive the blue cards. The ones that the patient comes with from home to the hospital and use it to retrieve the patient files."

"…the patients must put their blue cards in the box, and we use them to retrieve the files."

The nurses reported that they were not responsible for filing and it seems that this is the responsibility of the data clerks which is in line with the national guidelines as data clerks (administrative officials) are responsible for filing records in the records storage room (Department of Health SA, 2017).

"Ah, the records we have in our unit, in the consulting rooms. We give them to the clerks and the clerks file them"

"…the clerks take the file and retrieve them when the patients come."

Sub-theme 1c: Records safety and confidentiality

Their responses also indicated that the clinic used a centralized record management system. A system defined by Green & Bowie (2011:203) as a system where records are put together in one place for easy access.

"…all the records should be kept in a central place."

"I know that the records are supposed to be kept in the facility and the place where the records are kept…"

This was in agreement with a study conducted in public and private hospitals in KwaZulu-Natal Province of South Africa reported that public hospital uses a centralized system of managing patients' records where records are managed by administrative officers or record officers (Luthuliu, 2017:120). Furthermore, was in line with the South African national guidelines on filing, archival and disposal of patients records (Department of Health SA, 2017).

The participants reported that the institution is currently using paper-based records but the electronic system has recently been implemented.

"Our records are hand-written, kept in cupboards"

"Well for now we are being given a system where most of the patients are loaded into the system. I think it's one step ahead, maybe next time we won't even have to use files whereby we can write everything in the system."

The participants also commented on the security control measures in the filing facility. They reported that the facility used the lock and key model or the policy or procedures forces then to ensure that the facility is always locked and this limits access by patients or an unauthorized person.

"…….kept on a central place and they should be locked."

“ah, the records need to be in a locked room and must not be accessed by the patients”

“Our departments are at least safe even our record room is safe. No one is doing up and down in it. They are safe. Jaaaa, like I said, the filling is being locked and when everyone knockoff they lock it. No one can come and pull the records”

Patient’s confidentiality seems to be ensured by having cover for each record which will prevent other people from seeing the content of the file. Furthermore, the health workers were knowledgeable about medical ethics as they indicated their good health ethical behaviour of not disclosing patients’ information.

“…bed letter should have a cover so that nothing or anyone can read the patient file.”

“We are not supposed to discuss the patient illness, their status and we must treat them the same without discrimination.”

In summary, the present study shows that participants are managing records according to the national guidelines (filing, retrieval and security). However, this practice is not a result of their knowledge of the institutional guidelines but rather a result of having a record management course during their tertiary studies. This suggests that the national guidelines are also in line with record management courses offered in the institutions of higher learning.

Objective 2: Exploring barriers and enablers of good record management

The results on barriers and enablers of good record management are summarized in the table below.

Theme 2. Barriers and enablers to Good Records Management in Zola community Clinic.

Barriers and enablers of good record management		
Barrier	Findings	Discordance or Agreement with Literature
Sub-theme 2a. Infrastructure and resources	Filing Storage facility	Most institutions using conventional paper filing system also have storage facility challenges.
	Reduced workforce	
	Lack of consumables	Inadequate finances or financial mismanagement among health facilities in developing countries is common.
Sub-theme 2b. Lack of knowledge about importance of records among patients	Loss of files by patients Patients taking files home	Continuation of care may be compromised
Sub-theme 2c Lack of knowledge about importance of records among staff	Misfiling of records Loss of files by staff	Continuation of care may be compromised

Sub-theme 2a: Infrastructure and resources

One of the factors that affect record management is the availability of related resources. This includes the acquisition of files where information is filed and acquisition of cabinets or cupboards where files will be stored. The participants indicated a lack of enough cabinets for filing as one of their challenges in maintaining good record management.

"We only have one challenge with our records. As you can see, they are packed in such a way. They are so many. We have a challenge of cupboards; we don't have ample space."

This challenge has also been reported in a Ghanaian study which reported that inadequate record storage space is a major challenge in records management within a hospital (Amo, 2016:85). This is further supported by another study on the perception of health-workers (patients, clerk and doctors) about their roles in record management, where data clerks indicated that the main reason preventing them to archive files was, amongst others, too few shelves for the many patients (Al-Baho *et al.*, 2003:13).

The quality of the record format was also mentioned as a challenge to good record management. The participants indicated that, because the files are paper-based, they tend to tear off from the entire file.

"The brown folders! As time goes, I think this brown file is going be torn out. I think we need something harder than this brown file."

The other challenge that was indicated was the availability of stationery required to record patients' information. Shortage of recording material was also reported as a challenge in patient record management in a study conducted in Limpopo Province (Mutshatshi *et al.*, 2018:4).

*"**Yes if we can have enough stationery, all things that we need like dated stamp, pens, cocky pens, folders, bed letters then the service will be smooth for the patients**."*

One participant indirectly indicated that they may be overburdened by the day to day responsibilities and thus have manpower challenges.

"I wish that we had a clerk within the clinic who be responsible for the files as right now we are using the intern. He does a wonderful job, but I wish one of the full-time clerks would be responsible for our files it would make much better results."

Sub-theme 2b: Lack of knowledge about importance of records among patients

The participants reported that not being able to receive some of the files after requesting for them was also a challenge.

*"**Most of the time is from retrieving the files but it's not all of them**."*

This suggests that there may be a misfiling problem. This seems to be a common challenge in South African Health Facilities (Mathebeni-Bokwe, 2015:3) and elsewhere in Africa (Amo, 2016:96). This may be a result of not having enough storage capacity or the use of date of birth as a retrieval system. Patients' failure to come to the facility with consultation cards has also been reported as a contributing factor to misfiling (Teviu *et al.*, 2012:140)

Sub-theme 2c*:* Lack of knowledge on record management by other Health Workers in the provision of continuation care*.*

***"..the chemist usually keeps the files**."*

As indicated earlier, it seems that health workers are not adequately induced in record management, and therefore health workers allocated to different departments may handle files differently. Mbananga *et al.* (2002:58) indicated that the flow of information between departments is not clearly defined. Teviu *et al.* (2012:138) reported that patient flow at the hospital is complex, which is in agreement with the researcher's personal experience in public health facilities in South Africa. This may result in files not being returned to the correct place.

Objective 3: Exploring the strategies to improve record management.

The basic principle in strategy development is to first assess challenges and enablers and build strategies based on them. The present study had objectives about the challenges and enablers of good record management, and these were assessed by interviewing data clerks. These were used to develop strategies that could be applied to improve record management at Zola clinic. Furthermore, the participants' suggestion on strategies that could help in record management were considered.

Theme 3. Training on record management

The developed strategies and related description and benefits are summarized in the table below:

Table 3. Strategies for good records management in Zola Community Clinic

Strategy	Description	Benefits
Sub-theme 3a Conduct training workshops for all health workers dealing with files of patients on records management	Training on record management policies and procedures	Improves health workers' practices
		Improve patients' self-management practices
Sub-theme 3b Implement patient-held record practices	Patients also keeping copies of their medical records	Improves patient self-management.
		Improves security of the records
Sub-theme 3c Improve resources needed for good record management	Increase staff	Reduce staff's workload
	Acquiring enough storage units.	Improves storage infrastructure.
	Stationery.	Improves data capturing.
Sub-theme 3d Develop an electronic record management system	Replacing paper-based records with electronic records.	Reduce infra-structure space requirements. Improves record safety and longevity. Improves multidisciplinary interactions. Reduces misfiling.
Sub-theme 3e		

Develop a monitoring and evaluation system within the record management system	Develop a checklist for all record management activities.	Ensures adherence to policy and procedures.

Sub-theme 3a: Conduct training workshops for all health workers dealing with files of patients on records management

Some of the participants' responses indirectly indicated the need for in- house training on record management for both data clerks and professional nurses, as knowledge on the content of the record management policies and procedure document was lacking.

"I am aware that there is that policy, but I have never seen it"

"No, I don't know the exact contents. I only know there is that policy."

Despite not knowing the contents of the record management policy and procedures, the professional nurses were, however, more knowledgeable on keeping departmental statistical records and are not responsible for filing patients' records as these are given to data clerks for storage.

"I think all the records that we keep including the daily stats, the tick register,.."

"Ah, the records we have in our unit, in the consulting rooms. We give them to the clerks and the clerks file them."

These responses indicated the need to train health workers on records management and also familiarise them with institutional policies and procedures on records management. This could be done through workshops that also have a practical component, as Bates *et al.* (2014:5) reported that, among the respondents employed in a healthcare institution, the majority either agreed or strongly agreed that the Health Information Management (HIM) curriculum and practical experiences prepared them for their first entry-level position, with the majority agreeing or strongly agreeing that the coursework prepared them better than the practical experiences did indicate the need for additional training for

their first entry-level position. Studies on implementation of health information systems in health facilities also indicated that training is, or should be, part of the implementation activities (McGinn *et al.*, 2011:6; Ajami and Mohammadi-Bertiani, 2012:2 and Kamadjeu *et al.,* 2005:6). A study by Mbananga *et al.* (2002:67) found that health workers also support the idea of having both pre-training and continuous training in health information management. Luthuliu (2017:139) recommended that training should not only be limited to some staff in the hospital but be expanded to all staff members in the hospital that deals with medical health records.

Participants indicated that training should also be extended to patients, as they also play an important role in record management.

"I think that patients should also be taught about the importance of these records, the importance of covering them and not to be given to anyone as it has confidential information about them, and it can be kept in the archives for old files."

A study in Ghana reported that advocating the importance of hospital records to patients reduced duplication of files (Amo, 2016:85), probably due to reduction in patients coming to the facility without consultation cards.

Theme 3b: Record safety and retrieval

None of the participants directly indicated that the patient-held record system could be a strategy to improve record management. Instead, it seems that the participants either do not support this idea or their knowledge of the hospital's record management policy or procedure prevented them to do so.

"…records need to be in a locked room and must not be accessed by the patients."

"No one is supposed to go out with the file. The patients are not allowed to go out with the file."

"The principle is that they are kept safe. No patient can take their files home all the records are kept in the facility with good supervision"

This finding is in agreement with a study on patients' and general practioners' perceptions of having patients keeping their own records, that indicated that 22% of health workers (GPs in this study) did not see the need for patients to have their records despite the majority of patients supporting the idea (Liaw, 1993). However, the literature supports patient-held records as a strategy for record management, since this promotes patient-centred healthcare and therefore improves patient's self-health management (Archer *et al.*, 2011:515).

Since the participants also revealed that adequate record storage space is one of their challenges, they indirectly recommended the need for adequate space.

"In time we will be moved from this department and maybe we will have ample space with cupboards with enough shelves that will be enough to keep our records."

Sub-theme 3c: Increasing the workforce

A suggestion to acquire extra staff members to help with records management was proposed. It was further indicated that the use of additional staff has shown some improvement in record management. This was also observed

"I ***wish that we had a clerk within the clinic to be responsible for the files as, right now, we are using the intern. He does a wonderful job, but I wish one of the full-time clerks would be responsible for our files it would make much better results".***

Sub-theme 3d: Conversion of paper records to electronic records.

The fourth industrial revolution pushes most of the institutions to move from the conventional manual record management system to electronic systems. A study by

Marcia et.al., (2011) reported that nurses have a positive perception about electronic records and their practices improved after they received training on using electronic records. A study in two public hospitals in KwaZulu Natal indicated that health workers and administrators are satisfied with the implementation of electronic record management system in their facility (Cline and Luiz, 2013:6). Another study at the Public Hospital in KwaZulu-Natal reported that the manual system was time-consuming and laborious in aiding service delivery (Luthuli and Kalusopa, 2017:6). The idea of converting paper records to electronic records was also suggested by the participants of the present study. Those participants who have already started with using an electronic system were satisfied with the system.

"If the records can be changed from paper to computers then we all use computers writing the patients information. The information will always be available at any time…"

"Well, for now, we are being given a system where most of the patients are loaded into the system. I think it's one step ahead,"

Sub-theme 3e: Develop a monitoring and evaluation system within the record management system

Above are the strategies suggested by participants that were all supported by the literature. The researcher went an extra mile to also include other strategies which were not reported by the participants to have a holistic approach in developing strategies. From literature, the only strategy that was omitted but of equal or more important to other strategies was the development of a monitoring and evaluation system with the record management system. The need to develop a monitoring and evaluation system in record management has been recommended by previous studies (Mutshatshi *et al.*, 2018:5) and (Teviu *et al.*, 2012:141).

Since patients' records require multidisciplinary interactions between nurses, doctors and data clerks, it is essential to have a good record management system that will enable proper creation, flow of records filing and storage of patients' records.

CHAPTER FIVE: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS AND THEORETICAL RECOMMENDATIONS

The present study shows that record management guidelines, are critical determinant of record management practices, available in public health facilities in South Africa.The following are the conclusions

Objective 1: Exploring data and record management practices

- Induction training for new health workers on records management policy and procedures
- Periodic refresher training for old staff on records management using module approach
- Record management course in post-matric training programmes for data captures or data clerk
- Central filling system raised as one of the systems that worked well though it was far,
- Filing records according to date of births appears to have improved the filling system,
- Archiving of old and unused records
- Use of passwords for the one computer available to capture files for different data personnel and not just one person

Objective 2. Exploring barriers and enablers of good record management

- Investing money in the introduction or expansion of an electronic records management system as this will address all the resource challenges raised
- Improve the budget allocated to record management during the development of their financial plan

- Train patients on the importance of their medical records to contribute to the ability of the health workers to provide health service for their benefit

- Clear flow of patient file movement between departments to be explictly stated and adapted to changes as they occur

- Staff to be sensetized on records management challenges by records manager on seminars and workshops

Objective 3: Exploring the strategies to improve record management

- Educating patients to keep their patient held records safe as it contains personal information, safety, and confidentiality

- Educating the patients on patient held card that it will be used to retrieve their files using file numbers or date of birth written on it

- Requisition delivery personnel or more data clerks to support collection of patients files between departments,

- Job description modification for available full-time data clerks to support collection of files between departments,

- Requisition of material such as stationery, patient held card, bed letters and dated stamps to improve smooth running of the service

- Transitioning to electronic records to be considered to improve records management and enhance continuation of care

- The acquisition of lockable cabinets to store records and be kept safetly, with key being controlled by the records manager

- Data mangers, facility manager and supervisors to be trained on National Archives systems

Figure 4. Strategic model for improvement of record management in a community clinic

Knowledge of records management system will enable one to identify different parts of the system as individual entities where an intervention can be implemented. Knowing that the role players in the records management system in South Africa include the manager, data capturers and health workers as end-users, makes it easy to pinpoint where interventions should be directed. The recommended strategies highlighted above cannot be aimed at the same people and the same sections in the records management system. Some could be targeted to the executive management of the institution, some to those who are responsible for archiving and retrieving and some to those who interact with patients. One of the principles of monitoring and evaluation is that for every activity in the project, a responsible person who will run with the activity should be identified.

Table 4 indicates where the suggested recommendations should be implemented and who will be the responsible person for each recommendation.

Table 4. Implementation strategy of the present study's recommendations

Strategy	Targeted individuals or groups	Reason	When	Responsible person (groups)
Conduct training workshops for all health workers dealing with files and for patients at entry of joining the team	Data clerks, all health workers working with records	These are individuals who are most likely to grasp and apply the knowledge	All new health workers to be orientated at entry to the facility	Facility manager Data manager
Implement patient-held record practices for all admissions to the health care facility	Nurses	They are the organisation's employees most likely to interact with patients	All new patients to have patient held card to assist in file retrieval at facility	Data manager Facility manager
	The patients	They are the primary custodians of their health	Copy of identification when visiting health facility	Nurses Data captures

				Data clerks
Improve resources needed for good record management as per need Monthly, quarterly and yearly	Executive management	Executive management is responsible for making executive decisions	Budget plenary meeting to include in their next financial year	Facility's chief operations officer Local Area Manager District Manager
Develop an electronic record management system in coming financial year	Executive management	Executive management is responsible for making an executive decision	Budget plenary meeting to include in their next financial year	Facility's chief operations officer Local Area Manager District Manager
Develop a monitoring and evaluation (M&E) system within the record management system in the	Executive management	Executive management is responsible for making executive decisions and developing M&E plan and tools	Budget plenary meeting to include in their next financial year	Facility manager Local Area Manager District Manager Data Manager

current financial year	Unit manager	These are the implementers of M&E at operational level		Local Area Manager Data Manager

5.2. MEETING THE RESEARCH OBJECTIVES

The objectives of the present study included the exploration of the enablers and barriers in records management in a public primary health clinic setting and development of strategies to improve records management. These objective were met as it is stated in the results that the major obstacle was inappropriate record management practices (pg. 26 to 31) which may be a result not being well trained in record management and not having or having read the records management policy and procedures. Another major obstacle were inadequate resources (pg. 32 to 34) needed for good record management. These included lack of storage facilities, not having enough staff (reduced workforce) to handle records and inadequate consumables required to create and update records such as stationery.

Although respondents did not categorically report on enablers, their response on the challenges when coupled with empirical literature search enable establishment of probable enablers. The two helped in developing strategies to improved record management in the facility under study (pg. 35 to 40). The enablers are thus embedded in the strategies reported in the results. These strategies included conducting training in records management workshops, motivation for increase workforce, moving from paper based record management system to an electronic system and development of a monitoring and evaluation system. The finding s of the present study coupled with empirical literature searches furtrher enabled the research to come up with the strategic improvement model (figure 3) and related implementation plan (table 4).

5.3. LIMITATIONS AND TECHNICAL RECOMMENDATIONS

Demographic characteristics of the participants were not assessed in the present study. This limitation prevented the assessment of the association of demographic factors with participants' responses.

Due to permission constraints, the present study did not involve general practitioners or medical specialists as research participants. This may be considered as a critical limitation, as their line of duty requires them to interact with patients' records these play an important role in record. It should however be noted that these health workers only capture the medical information in the files and therefore do not play a major role in record management, which primarily involves filing storing and retrieval.

The research was conducted at Zola Community Health Clinic, which might not be representative of all public healthcare facilities in the country. This prevented generalization of the results of the present study to other public healthcare facilities in the Gauteng Province and elsewhere, both nationally and globally.

Finally, the present study did not assess the aspect of the quality of the information in the records. This limits the possibility of the study to develop strategies aimed at improving information quality captured in the records.

It is suggested that further studies should be conducted using a mixed-method approach, assess all aspects of record management including the quality of the information in the records and using a representative sample of all health workers needed to further elucidate the findings of the present study.

REFERENCES

Adegboyega, K. & Musa, H.S.e. 2019. Managing Health Records in the Context of Service Delivery: Issues and Challenges. *Covenant Journal of Business and Social Sciences*, 10(2).

Ajami, S. & Mohammadi-Bertiani, Z. 2012. Training and its impact on hospital information system (HIS) success. *J Inf Technol Softw Eng*, 2(112).

Al-Baho, A.K., Al-Essa, I. & Al-Assousi, M. 2003. Perceptions of Patients, Doctors and Clerks of their Roles in Causing Problems of Medical Records. *KUWAIT MEDICAL JOURNAL*, 35(1):13-18.

Alegbeleye, G.O. & Chilaka, U.C. 2019. Evaluation of Records Management Practices at the Ministry of Health, Abia State, Nigeria. *Library Philosophy and Practice*:1-21.

Amo, J. 2016. The Role of Records Management Practices in Improving Decision Making In Public Hospitals: The Case of Ashanti Bekwai Municipal Hospital. University of Ghana

Archer, N., Fevrier-Thomas, U., Lokker, C., McKibbon, K.A. & Straus, S.E. 2011. Personal health records: a scoping review. *Journal of the American Medical Informatics Association*, 18(4):515-522

Bastardas-Boada, A. 2016. Complexics as a meta-transdisciplinary field. *Congrès Mondial pour la pensée complexe. Les défis d'un monde globalisé*.

Bates, M., Black, C., Blair, F., Davis, L., Ingram, S., Lane, D., McElderry, A., Peagler, B., Pickett, J. & Plettenberg, C. 2014. Perceptions of health information management educational and practice experiences. *Perspectives in health information management*, 11(Summer).

Blaikie, N. & Priest, J. 2019. Designing social research: The logic of anticipation: John Wiley & Sons.

Bourgeois, F.C., Nigrin, D.J. & Harper, M.B. 2015. Preserving patient privacy and confidentiality in the era of personal health records. *Pediatrics*, 135(5):e1125-e1127.

Britz, R.M. 2018. Medical record-keeping in South Africa: a medico-legal perspective. University of Pretoria.

Bryman, A. 2016. Social research methods: Oxford university press.

Burkell, J.A., Fortier, A., Di Valentino, L. & Roberts, S.T. 2015. Enhancing key digital literacy skills: Information privacy, information security, and copyright/intellectual property.

Chiwanza, K. & Mutongi, C. 2016. What is it in knowledge management that is not in information management? *Journal of Business and Management*, 18(11):49-56.

Cline, G.B. & Luiz, J.M. 2013. Information technology systems in public sector health facilities in developing countries: the case of South Africa. *BMC medical informatics and decision making*, 13(1):13.

Cowie, M.R., Blomster, J.I., Curtis, L.H., Duclaux, S., Ford, I., Fritz, F., Goldman, S., Janmohamed, S., Kreuzer, J. & Leenay, M. 2017. Electronic health records to facilitate clinical research. *Clinical Research in Cardiology*, 106(1):1-9.

Creswell, J.W. & Poth, C.N. 2016. Qualitative inquiry and research design: Choosing among five approaches: Sage publications.

Cunningham, A. 2016. Describing Archives in Context: Peter J Scott and the Australian 'Series' System. Building Trust in Information. Springer. p. 49-57).

Easterby-Smith, M., Thorpe, R. & Jackson, P.R. 2015. Management and business research: Sage.

Falck, L., Zoller, M., Rosemann, T., Martínez-González, N.A. & Chmiel, C. 2019. Toward standardized monitoring of patients with chronic diseases in primary care using electronic medical records: systematic review. *JMIR medical informatics*, 7(2):e10879.

Francis, L. 2016. Benefit and Harm. *(In* Ten Have, H., *ed.* Encyclopedia of Global Bioethics. Cham: Springer International Publishing. p. 240-246).

Franks, P.C. 2013. Records and information management: American Library Association.

Fu, Y. 2010. Theory defined by process.

Gaylin, D.S., Moiduddin, A., Mohamoud, S., Lundeen, K. & Kelly, J.A. 2011. Public attitudes about health information technology, and its relationship to healthcare quality, costs, and privacy. *Health services research*, 46(3):920-938.

Glanz, K & Bishop,D.B. 2010. The role of behavioral science theory in development and implementation of public health interventions. Annual review of public health,31:399-418

Goldratt-Ashlag, E. 2010. The layers of resistance–the buy-in process according to TOC. *Theory of constraints handbook*:571-585.

Goldratt, E. & Schleier, J. 2010. Theory of constraints handbook. *Edited by James F. Cox III and John G. Schleier, Jr. McGrawHill*.

Gray, D.J.P., Sidaway-Lee, K., White, E., Thorne, A. & Evans, P.H. 2018. Continuity of care with doctors—a matter of life and death? A systematic review of continuity of care and mortality. *BMJ open*, 8(6):e021161.

Green, M. & Bowie, M.J. 2011. Essentials of health information management: Principles and practices: Cengage Learning.

Grove, S.K., Burns, N. & Gray, J. 2012. The practice of nursing research: Appraisal, synthesis, and generation of evidence: Elsevier Health Sciences.

Kama, Z.S. 2017. An evaluation of access to health care: Gugulethu Community Health Clinic. Cape Peninsula University of Technology.

Kamadjeu, R., Tapang, E. & Moluh, R. 2005. Designing and implementing an electronic health record system in primary care practice in sub-Saharan Africa: a case study from Cameroon. *Journal of Innovation in Health Informatics*, 13(3):179-186.

Katuu, S.A. 2015. Managing records in South African public health care institutions: A critical analysis.

Ketelaar, E. 2017. Archival turns and returns. *Archival Multiverse*.

Kim, M.-H. 2018. The Standardization on the Appraisal of Records: Analysis of the Appraisal Principles and Process in ISO 15489-1: 2016. *Journal of Korean Society of Archives and Records Management*, 18(4):45-68

Kothari, C. 2017. research methodology methods and techniques by CR Kothari. *Published by New Age International (P) Ltd., Publishers*, 91.

Kumar, R. 2019. Research methodology: A step-by-step guide for beginners: Sage Publications Limited.

Lam, K.W., Hassan, A., Sulaiman, T. & Kamarudin, N. 2018. Evaluating the face and content validity of an instructional technology competency instrument for university lecturers in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(5):367-385.

Levitt, H.M., Bamberg, M., Creswell, J.W., Frost, D.M., Josselson, R. & Suárez-Orozco, C. 2018. Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, 73(1):26.

Luthuli, L.P. & Kalusopa, T. 2017. The management of medical records in the context of service delivery in the public sector in KwaZulu-Natal, South Africa: the case of

Ngwelezana hospital. *South African Journal of Libraries and Information Science*, 83(2):1-11.

Luthuliu, L.P. 2017. Medical records management practices in public and private hospitals in Umhlathuze area, South Africa. University of Zululand.

Marutha, N.S. 2011. Records managment in support of service delivery in the public health sector of the Limpopo Province in South Africa.

Marutha, N.S. 2016. A framework to embed medical records management into the healthcare service delivery in Limpopo Province of South Africa.

Marutha, N.S. & Ngoepe, M. 2017. The role of medical records in the provision of public healthcare services in the Limpopo province of South Africa. *South African Journal of Information Management*, 19(1):1-8.

Marutha, N.S. & Ngulube, P. 2012. Electronic records management in the public health sector of the Limpopo province in South Africa. *Journal of the South African Society of Archivists*, 45:39-67.

Maphumulo, W.T. & Bhengu, B.R. 2019. Challenges of quality improvement in the healthcare of South Africa post-apartheid: A critical review. *curationis*, 42(1):1-9.

Mathebeni-Bokwe, P. 2015. Management of medical records for healthcare service delivery at the Victoria Public Hospital in the Eastern Cape Province: South Africa. University of Fort Hare.

Mayer, I. 2015. Qualitative research with a focus on qualitative data analysis. *International Journal of Sales, Retailing & Marketing*, 4(9):53-67.

Merriam, S.B. & Tisdell, E.J. 2015. Qualitative research: A guide to design and implementation: John Wiley & Sons.

Mbananga, N., Madale, R. & Becker, P. 2002. Evaluation of hospital information system in the Northern province in South Africa. *Durban: Health Systems Trust*.

McGinn, C.A., Grenier, S., Duplantie, J., Shaw, N., Sicotte, C., Mathieu, L., Leduc, Y., Légaré, F. & Gagnon, M.-P. 2011. Comparison of user groups' perspectives of barriers and facilitators to implementing electronic health records: a systematic review. *BMC medicine*, 9(1):46.

McKemmish, S. 2017. Recordkeeping in the Continuum. *An Australian tradition. In*.

Momoti, N. & King, L. 2019. A records management model for an intelligent university. *Journal of the South African Society of Archivists*, 52:79-94.

Mutshatshi, T.E., Mothiba, T.M., Mamogobo, P.M. & Mbombi, M.O. 2018. Record-keeping: Challenges experienced by nurses in selected public hospitals. *curationis*, 41(1):1-6.

Ngoepe, M. & Van Der Walt, T. 2009. An exploration of records management trends in the South African public sector. *Mousaion*, 27(1):116-136.

Oliver, P. 2010. The student's guide to research ethics: McGraw-Hill Education (UK).

Penn, I.A. & Pennix, G.B. 2017. Records management handbook: Routledge.

Polit, D.F., Beck, C.T. & Hungler, B. Essentials of Nursing Research. 2013: Philadelphia: Lippincott, Williams, & Wilkins.

Prochaska, J.O., Redding, C.A. & Evers, K.E. 2015. The transtheoretical model and stages of change. *Health behavior: Theory, research, and practice*:125-148.

QIN, P.-p., LI, Y.-z. & GUO, M.-j. 2016. Research on the Privacy Protection Strategy of Electronic Health Records under Life Cycle Perspective. *China Digital Medicine*(3):2.

Setia, M.S. 2016. Methodology series module 3: Cross-sectional studies. *Indian journal of dermatology*, 61(3):261.

Stime, K.J., Garrett, N., Sookrajh, Y., Dorward, J., Dlamini, N., Olowolagba, A., Sharma, M., Barnabas, R.V. & Drain, P.K. 2018. Clinic flow for STI, HIV, and TB patients in an urban infectious disease clinic offering point-of-care testing services in Durban, South Africa. *BMC health services research*, 18(1):363.

Swart, A.-T., Muller, C.E. & Rabie, T. 2018. The role of triage to reduce waiting times in primary health care facilities in the North West province of South Africa. *Health SA Gesondheid*, 23(1).

Tagbotor, D.P., Adzido, R.Y.N. & Agbanu, P.G. 2015. Analysis of records management and organizational performance. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(2):1-16.

Taylor, D., Bury, M., Campling, N., Carter, S., Garfied, S., Newbould, J. & Rennie, T. 2006. A Review of the use of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Trans-Theoretical Model (TTM) to study and predict health related behaviour change. *London, UK: National Institute for Health and Clinical Excellence*:1-215.

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A. & Varpio, L. 2015. Choosing a qualitative research approach. *Journal of graduate medical education*, 7(4):669-670.

Tesch, R. 2013. Qualitative research: Analysis types and software: Routledge.

TESCH, R. 2019. Analysis: A Reassessment. *New Technology in Sociology: Practical Applications in Research and Work*:86.

Teviu, E., Aikins, M., Abdulai, T., Sackey, S., Boni, P., Afari, E. & Wurapa, F. 2012. Improving medical records filing in a municipal hospital in Ghana. *Ghana medical journal*, 46(3):136.

Valla, A. 2016. A patient flow system for antenatal primary healthcare facilities in the Frances Baard District, Northern Cape Province. University of the Free State

van Harten, M.C., Hoebers, F.J., Kross, K.W., van Werkhoven, E.D., van den Brekel, M.W. & van Dijk, B.A. 2015. Determinants of treatment waiting times for head and neck cancer in the Netherlands and their relation to survival. *Oral oncology*, 51(3):272-278.

Ventura,M.L, Battan, A.M., Zorloni, C, Abbiati,L.,Colombo, M., Farina, S & Tagliabue, P. 2011. The electronic medical record:pros and cons. *The journal of maternal-fetal & neonatal medicine*. 24: 163-166

Winchester, M.S. & King, B. 2018. Decentralization, healthcare access, and inequality in Mpumalanga, South Africa. *Health & place*, 51:200-207

Wiles, R. 2012. What are qualitative research ethics?: A&C Black.

APPENDIX

APPENDIX I: Interview Schedule

Introduction (read aloud to the participant): *This study is about the way records are managed at this hospital. The purpose of the study is to be able to understand the enablers and challenges related to record-keeping in the hospital so that the process could be improved. Taking part in this interview is voluntary. If you share any job description with me, it will not be used to identify you at all. However, I shall not ask for your job description. You can withdraw at any point during the interview and you will remain anonymous at all times. A separate informed consent letter is given to you to indicate your willingness that your answers may be used in my research. Only the final summarised results will be shared with management.*

May I record the session so that I can transcribe it accurately?

<u>Administration hospital records</u>

1. Are you aware of the contents of the record management policy of the hospital? Please expand on your experience with this policy.
2. Tell me about your experience with the management of patient records.
3. What works well in the present way of managing hospital records? Please expand.
4. What does not work well in the present way of managing hospital records? (challenges that you experience) Please expand.
5. What measures are you aware of to ensure the security of patient health information?
6. What would you want to change about how hospital records are kept, maintained, stored or managed?
7. What suggestions do you have to improve the management of patient records?
8. Is there anything else that you would like to add on how

Thank you for taking part in the research

APPENDIX II: Ethical approval certificate

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
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Economic and Management Sciences Research Ethics Committee (EMS-REC)

14 April 2020

Dr J Jordaan
Per e-mail

Dear Dr Jordaan

EMS-REC FEEDBACK: 30102020 (Round Robin)

Student: Senne, GL (23015519)(NWU-00895-20-A4)

Applicant: Dr J Jordaan - MBA

Your ethics application on, ***Exploring enablers and barriers in records management in a public health care facility***, which served Round Robin, refers.

Outcome:

Approved as a minimal risk study. A number **NWU-00895-20-A4** is given for one year of ethics clearance.
Due to the Covid-19 lock down ethics clearance for applications that involve data collection or any form of contact with participants are subject to the restrictions imposed by the South African government.

Kind regards,

Mark Rathbone
Digitally signed by Mark Rathbone
DN: cn=Mark Rathbone, o=North-West University, ou=Business management, email=mark.rathbone@nwu.ac.za, c=ZA
Date: 2021.04.15 10:05:45 +02'00'

Prof Mark Rathbone

Chairperson: Economic and Management Sciences Research Ethics Committee (EMS-REC)

APPENDIX III: The Johannesburg Health District permission letter.

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Joburg
a world class African city

JOHANNESBURG HEALTH DISTRICT

Enquiries: Dr EM Ohaju
Tel: +27(0) 11 694 3888
Cell: 082 731 6672 / 076 8831659
Email: Elizabeth.Ohaju@gauteng.gov.za

22 November 2019

NWU BUSINESS SCHOOL
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2520
Tel: 018 299 1338
E-mail: Lebogang.glendor.maboa@gmail.com

DRC Ref: 2019-11-001

Dear Ms Lebogang Senne

Re: Exploring enablers and barriers in records management in a public hospital, Community Health Care Centres and clinic setting in Johannesburg Health District.

Your application dated **2019/11/20** refers.

The District Research Committee has reviewed your operational research application. This letter serves as a provisional approval to access the Districts Health facilities. Ensure that your final ethical approval is submitted before analysis of your data. Provisional approval is subject to following conditions:

The facility to be visited: Johannesburg Health District Hospital, CHCs and clinics

- The research can only commence after you submit an ethics clearance certificate from a recognized institution.
- This facility will be visited from **25/11/2019 to 31/12/2020**

Region	Regional Health Manager	Contact No.	Cell phone
ACEF	Mrs Martha Ndingandinga	011 440 1231	083 415 3948
G	Mr Peter Mathole	O11 213 9708	082 772 0582
D	Ms Maria Mazibuko	011 472 7665	082 781 9919

- You will report to the Facility Manager before initiating the study.
- Participants' rights and confidentiality will be maintained all the time.
- No resources (Financial, material and human resources) from the above facilities will be used for the study. Neither the District nor the facility will incur any additional cost for this study.

- The study will comply with Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and its related Regulations.
- You will submit a copy (electronic and hard copy) of your final report. In addition, you will submit a six-monthly progress report to the District Research Committee.
- Your supervisor and University of North West will ensure that these reports are being submitted timeously to the District Research Committee.
- The District must be acknowledged in all the reports/publications generated from the research and a copy of these reports/publications must be submitted to the District Research Committee.

We reserve our right to withdraw our approval, if you breach any of the conditions mentioned above.

Please feel free to contact us, if you have any further queries. On behalf of the District Research Committee, we would like to thank you for choosing our District to conduct such an important study.

Regards,

DR EM GHASU
SENIOR PUBLIC HEALTH MEDICINE SPECIALIST
JOHANNESBURG HEALTH DISTRICT
DATE: 22/11/2019

MRS. ML MOREWANE
CHIEF DIRECTOR: JHB DISTRICT HEALTH SERVICES
DATE: 28/11/2019

APPENDIX IV: Consent form template

INFORMED CONSENT DOCUMENTATION: Exploring enablers and barriers in records management in a public healthcare facility

TITLE OF THE RESEARCH: Exploring enablers and barriers in records management in a public healthcare facility

ETHICS REFERENCE NUMBERS: NWU-00895-20-A4

PRINCIPAL INVESTIGATOR: Glendor Lebogang Senne

POST GRADUATE STUDENT: Glendor Lebogang Senne

ADDRESS: 51 Hawknest , Elands rock Estate, South crest , Johannesburg 1449

CONTACT NUMBER: 082 511 1585 W: 018 358 5300

You are being invited to take part in a **research** that forms part of my/our MBA Please take some time to read the information presented here, which will explain the details of this research. Please ask the researcher or person explaining the research to you any questions about any part of this research that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. In addition, your participation is **voluntary** and you are free to say no to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the research at any point, even if you do agree to take part now.

This research has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00895-20-A4)** and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles, Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this research. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research all about?

- *This research will be conducted at district public hospitals and clinics in Gauteng Province, Johannesburg District Health, exploring the enablers and barriers in patient's records management by healthcare workers. It will involve Survey self-limiting questionnaires for hospital staff namely professional nurses, data capture and data clerks working in the hospitals. Five healthcare workers per each department namely out-patient department, casualty and hospitals reception and clinic will be included in this research.*

- *We plan to look at interviewing data captures, data clerks, and professional nurses as they are using the patient's files and the training that they received on patients' records management.*

Why have you been invited to participate?

- *You have been invited to be part of this research because you are knowledgeable about the topic*

What will be expected of you?

- *You will be expected to share your knowledge of the operational processes in the work area and or ward/clinics with the researcher in an interview.*

Will you gain anything from taking part in this research?

- *The gains for you if you take part in this research will be improved insight in the processes that can help with suggestions for better healthcare outcomes. There will be no financial gain.*
- *The other gains of the research are for improving the operational processes in the casualty, out-patient department and reception which should positively impact your work environment.*

Are there risks involved in you taking part in this research and what will be done to prevent them?

- *The risks to you in this research are negligibly small but will be limited by allowing you to stop the interview at any stage, should you deem it necessary. Your identity will be protected at all times and no statement that you make will be shared with management or anyone else such that it can be traced back to you.*
- *There are more gains for you in joining this research than there are risks.*

How will we protect your confidentiality and who will see your findings?

- *Anonymity of your findings will be protected by giving you a unique respondent number and only reporting your opinions under that number. Your privacy will be respected by conducting the interviews in a private setting and the questionnaires will be anonymous. Your results will be kept confidential by only referring to the unique number. Only the researchers and academic research supervisors will be able to look at your findings. Summarised findings will be shared with hospitals and Clinics management. Findings will be kept safe by locking hard copies in locked cupboards in the researcher's office and for electronic data it will be password protected. (As soon as data has been transcribed it will be deleted from the recorders.) Data will be stored for 3 years.*

What will happen with the findings?

- *The findings of this research will only be used for this research/will be used in future improvement of systems in the hospitals and clinics.*

How will you know about the results of this research?

- We will give you the results of this research when the thesis is published by granting you access to the library resource.
- You will be informed of any new relevant findings by your management.

Will you be paid to take part in this research and are there any costs for you?

- This research is funded by myself. No, you will not be paid to take part in the research because that could lead to identification of the respondents. There will thus be no costs involved for you, if you do take part in this research.

Is there anything else that you should know or do?

- You can contact Dr Johannes Jordaan (research supervisor) at Jordaan.Johan@nwu.ac.za if you have any further questions or have any problems.
- You can also contact the Economics and Management Sciences Research Ethics Committee via Prof Leon de Beer (leon.debeer@nwu.ac.za) if you have any concerns that were not answered about the research or if you have complaints about the research.
- You will receive a copy of this information and consent form for your own purposes.

Declaration by participant

By signing below, I ……..……. agree to take part in the research title: Exploration for barriers and enablers in records management in a public hospital setting

I declare that:

- I have read a trusted person in a language with which I am fluent and comfortable explained this information/it to me.
- The research was clearly explained to me.
- I have had a chance to ask questions to both the person getting the consent from me, as well as the researcher and all my questions have been answered.
- I understand that taking part in this research is **voluntary** and I have not been pressurised to take part.

- I may choose to leave the research at any time and will not be handled in a negative way if I do so.
- I may be asked to leave the research before it has finished, if the researcher feels it is in the best interest, or if I do not follow the research plan, as agreed to.

Signed at (*place*) .....…..…… on (*date*) ……...……. 20....

....

Signature of participant **Signature of witness**

Declaration by person obtaining consent

I, *Glendor Lebogang Senne,* declare that:

- I clearly and in detail explained the information in this document to

  ……

- I did/did not use an interpreter.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I gave him/her time to discuss it with others if he/she wished to do so.

Signed at (*place*) on (*date*)

....

Signature of person obtaining consent **Signature of witness**

Declaration by researcher

I *(name)* …… declare that:

- I explained the information in this document to …….. **or** I had it explained by …… who I trained for this purpose.
- I did/did not use an interpreter
- I encouraged him/her to ask questions and took adequate time to answer them or I was available should he/she want to ask any further questions.
- An independent person obtained the informed consent.

- I am satisfied that he/she adequately understands all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (*place*) .....…..…… on (*date*) ……...……. 20....

Signature of the researcher