

**AN AUDIT OF DISCHARGED PATIENT FILES AT
HOSPITALS SPECIALISING IN THE MANAGEMENT OF
TUBERCULOSIS**

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for the degree of Master of Nursing in the Faculty of Health Sciences
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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Volene Werely

March 2011

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ABSTRACT

Background

In her clinical practice as nursing manager the researcher was concerned about incomplete and inaccurate documentation of patients diagnosed with tuberculosis (TB) which were compromising the management of these patients. The primary care nurses endorsed these concerns.

Goals and Objective

The goal of this study was to audit nursing documentation according to the phases of the nursing process and the discharge planning of patients diagnosed with TB discharged from TB hospitals in the Western Cape.

The objectives for the study were to determine whether the patients were adequately assessed and diagnosed, whether nursing care plans were formulated based on the assessment and whether they were implemented and evaluated according to the nursing process - including the discharged planning.

Ethics approval was obtained from the Committee of Human Research Science at Stellenbosch University and permission was also obtained from the respective institutions.

Methodology

A descriptive design with a quantitative approach was applied for the purpose of this study. The total population for the study was N=1768. A systematic random sample of 12% from each hospital was drawn: n=214, hospital A (n=142) and hospital B (n=72).

Criteria included:

- all adult patients older than 18 years
- patients who were discharged between 01 January 2007 and 31st December 2007
- all discharged patients from the two hospitals specializing in patients diagnosed with TB.

Instrumentation: An audit instrument based on the objectives of the study was approved as the data collection tool. Guided by the proposed study a 10% (n=21) of the number of discharged patient files were drawn for the purpose of a pilot study.

Reliability and validity was ensured through the use of experts in the field of nursing, research methodology and statistics. A pilot study was also conducted to support the reliability and validity of the study.

Data collection

The researcher collected the data personally with the support of five trained field workers who only assisted at hospital B and was reluctant to assist at the second hospital.

Data analysis

Data was analysed with the support of a statistician and expressed in frequencies and tables.

Results

All phases of the nursing process showed a low compliance. Results showed that only n=90(42%) of the registered professional nurses checked and signed the initial assessment, furthermore only n=53(34%) showed that a recording was made of all referral documentation to the patient's follow-up clinic.

Recommendations

Recommendations based on the scientific evidence obtained from the study include the implementation of a quality assurance programme namely standardisation, auditing, case management of patients, education and training, rewarding of staff and further research.

Conclusion

In conclusion guided by the research question "Are the audited discharged patient files at hospitals specialising in the management of patients with TB in the WCDoH compliant?" The researcher concludes that the discharged patient files are not compliant.

Key words

Audit, compliance, discharged patient, discharge patient files, documentation, hospital specialising in the management of tuberculosis (TB) patients, multi-disciplinary health team, nursing process, Registered Professional Nurse (RPN), record keeping, tuberculosis

OPSOMMING

Agtergrond

In haar kliniese praktyk as verpleegbestuurder is die navorser besorg oor die onvolledige en onakkurate dokumentasie van pasiënte wat met tuberkulose (TB) gediagnoseer is en wat dus die versorging van hierdie pasiënte in gevaar stel. Hierdie besorgdhede is deur die primêre sorg verpleegsters bevestig.

Doel en Doelwitte

Die doel van die studie is om die verpleegdokumente te ouditeer volgens die fases van die verpleegproses, asook die ontslagbeplanning van die pasiënte gediagnoseer met TB van die hospitale in die Wes-Kaap.

Die doelwitte is om te bepaal of die pasiënte korrek geassesseer en gediagnoseer is en of verpleegsorgplanne opgestel is, wat gebaseer is op die assessering en versorgingsplanne wat geïmplementeer en geëvalueer is volgens die verpleegproses, insluitende die ontslagbeplanning.

Etiese goedgekeuring is toegestaan deur die Komitee vir Menslike Navorsingswetenskap van die Universiteit van Stellenbosch en toestemming is ook ontvang van die onderskeie instansies.

Metodologie

'n Beskrywende ontwerp met 'n kwantitatiewe benadering is toegepas vir die doel van die studie. Die totale bevolking vir die studie is $N=1786$. 'n Sistematiese ewekansige geselekteerde steekproef van 12% van elke hospitaal is geneem: $n=214$, hospitaal A ($n=142$) en hospitaal B ($n=72$).

Die kriteria sluit in:

- alle volwasse pasiënte ouer as 18 jaar
- pasiënte wat gedurende die periode 01 Januarie 2007 tot 31 Desember 2007 ontslaan is

- alle ontslag pasiënte van die twee hospitale wat spesialiseer in pasiënte wat gediagnoseer is met TB.

Instrumentasie

'n Ouditinstrument gebaseer op die doelwitte is goedgekeur as die dataversamelingsinstrument. Na aanleiding van die voorgestelde studie is 10% (n=21) van die aantal ontslag pasiëntlêers getrek vir die doel van die loodsondersoek.

Betroubaarheid en geldigheid is verseker deur gebruik te maak van deskundiges in die verplegingsveld, die navorsingsmetodologie en statistiek. Die loodsondersoek is ook uitgevoer om die betroubaarheid en geldigheid van die studie te rugsteun.

Dataversameling

Die navorser het die data persoonlik gekollekteer met die bystand van vyf opgeleide veldwerkers wat slegs hulp verleen het by hospital B en wat teësinnig was om hulp te verleen by die tweede hospitaal.

Data-analise

Data is geanaliseer met die hulp van 'n statistikus en is uitgedruk in frekwensies en tabelle.

Resultate

Alle fases van die verpleegproses het nie voldoen aan die vereistes nie. Resultate dui daarop dat slegs n=90 (42%) van die geregistreerde professionele verpleegsters die aanvanklike assessering nagegaan en onderteken het, vervolgens het slegs n=53 (34%) getoon dat 'n opname gemaak was van alle verwysde dokumentasie van die pasiënt se opvolgbesoek aan die kliniek.

Aanbevelings

Aanbevelings is gebaseer op die wetenskaplike bewys wat verkry is van die studie vir die implementering van 'n gehalte versekeringsprogram, naamlik standardisering, ouditering, gevallebestuur van pasiente, opvoeding en opleiding, erkenning aan die personeel, en voortgesette navorsing.

Samevatting

Ter afsluiting gelei deur die navorsing's vraag nl. "Is die geouditeerde verpleegdokumente in hospitale wat spesialiseer in die bestuur van pasiente gediagnoseer met TB in die Weskaap se Department van Gesondheid bygehou?" Die navorsers bevestig dat die verpleegdokumente nie bygehou was nie.

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ABBREVIATIONS AND ACRONYMS

ANA:	American Nursing Association
CDC:	Centres of Disease Control
CNO:	College of Nurses of Ontario
CLPNBC:	College of Licensed Practical Nurses of British Columbia
COHASA:	Council for Health Services Accreditation of South Africa
CRNBC:	College of Registered Nurses from British Columbia
CRNNS:	College of Registered Nurses of Nova Scotia
DENOSA:	Democratic Nursing Organization of South Africa
ECSACON:	Eastern Central African College of Nursing
HPCSA:	Health Professional Council of South Africa
ICN:	International Council of Nursing
JCAHO:	Joint Commission of Accreditation of Healthcare Organizations
MDG:	Millennium Development Goals
MDR-TB:	Multi Drug Resistant Tuberculosis
NANB:	Nursing Association of Brunswick
nbsa:	Nursing Board of South Australia
NICE:	National Institute Centre of Excellence
RPN:	Registered Professional Nurse
SADC:	Southern African Developing Communities
SANC:	South African Nursing Council
TB:	Tuberculosis
WCDoH:	Western Cape Department of Health
WHO:	World Health Organization
XDR-TB:	Extreme Drug Resistant Tuberculosis

DEFINITIONS

For the purpose of the study the following terms were used:

Audit

An audit is defined as the examination or review of records with the aim of improving practice. (Kozier, Erb, Berman and Snyder 2004:113).

Compliance

Compliance is defined as the total observed activities divided by the available opportunities multiply by 100 and expressed as a percentage. If a 100% is achieved it is accepted as compliance (HPCSA 2009:7). For the purpose of the study, 100% compliance will refer to the measurement as expressed in percentages when all relevant information was documented in the patient's file as required according to the scientific nursing process. For the purpose of this study a 95% rate was accepted as being compliant.

Discharged patient

A discharged patient is referred to a patient leaving the hospital for home. Patients may also leave one level of health care for another within or outside the current health care service (Kozier et al. 2004:113).

Discharge patient file

The discharged patient file as referred to in the study will refer to the central document which contains all relevant data about the discharged patient including nursing documentation (Researcher:2011).

Documentation

Documentation is defined as the recording of pertinent patient data in a clinical record (Mosby 2006:541).

Hospital specialising in the management of TB patients

Hospitals defined as hospitals with a specific focus on managing patients infected with TB (Western Cape Department of Health, 2006).

Multidisciplinary health team

A multidisciplinary health team composed of a group of health care members with varied complementary experience, qualifications and skills that contributes to the achievement of the health organisation's specific objectives (Business Dictionary.com 2009).

Nursing process

According to Regulation 2598 as promulgated by the Nursing Act No 50 of 1978, the nursing process is based on the following phases; assessment, diagnosing, planning, implementation, evaluation.

Registered Professional Nurse (RPN)

The RPN is defined as a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such practice as in section 30 (1) of the Nursing Act 33 of 2005.

Record keeping

Record keeping is a tool to support the care process by promoting continuity of care and improve communication within the multi-disciplinary team (National Health Systems Trust, 2007:4).

Tuberculosis (TB)

TB is a chronic granulomatous infection caused by acid-fast bacillus *Mycobacterium tuberculosis* (Mosby 2002:1761).

CHAPTER 1:

SCIENTIFIC FOUNDATION OF THE STUDY

1.1 Introduction

In her clinical practice as nursing manager the researcher was concerned about incomplete and inaccurate documentation of patients diagnosed with tuberculosis (TB) which was compromising the management of these patients. The primary care nurses functioning in this clinical practice environment endorsed these concerns. The RPN identified those patients with incomplete referral information which included essential data about the patients' clinical condition for example, their prescribed treatment, laboratory test results such as sputum analysis and x-rays. The latter were elements experienced on follow-up appointments which resulted in a problem for nurses working in the primary health care setting. Consequently, this led to a breakdown in the continuity of nursing care.

1.2 Rationale

Ms Skosana, Accreditation Manager of the South African Nursing Council (SANC) (November 2010), emphasised the importance of correct, detailed and clear written documentation according to the nursing process phases. She identified that the nursing recordings were incomplete and commented that if the nursing information is not recorded no assumptions can be made that it was given, as there is no written evidence available. The documentation should provide a true reflection of care rendered to the patient at any given time according to Skosana (2010).

Clinical record keeping which is a professional responsibility is often neglected, and could sometimes lead to serious legal consequences (Muller 2002:63). Incomplete report writing may adversely affect patient care and affect the value and credibility of the professional compliance (Retief, 2002:4).

Toman identified that a major factor contributing to the failure to effectively manage TB was due to poor record keeping (Toman, 2004:26). The National TB Strategic Plan of South Africa (2007-2011), emphasises the proper use of TB management documentation to improve problem-solving, patient care and contact tracing.

The continuity of patient care is supported by accurate documentation even in the absence of the health care provider. According to Graves (2007:62), "If there is no documentation, there is no evidence".

Furthermore, the importance of the evaluation of nursing documentation and recording is emphasized by Booyens (2007:638), who states that nursing documentation should be valid and reliable, so that the actual quality of care can be determined. Nursing documentation therefore, forms a valuable means of communication to the broader multi-disciplinary team who is responsible for the management of the patients with TB. When the documents are incomplete and inaccurate, the outcome of quality care to the patient may be compromised (Booyens, 2007:638; Muller, 2009:227). Muller (2009:316) links the evaluation of the quality of care to: 1. the degree to which the patient's needs are met, 2. the degree to which health facilities are appropriately used, 3. the patient's functional improvement and 4. continuity of care. The four aforementioned aspects as described by Muller (2009:316) and Booyens (2007:638), should all be reflected in nursing documentation.

1.3 Significance of the study

The significance of this study will identify the deficits in the assessment, diagnosing, planning, implementation and evaluation, and discharge of the TB patients. The outcome of the study will be communicated to the relevant health policymakers, hospital nursing personnel and nursing education institutions.

1.4 The problem statement

Following the discussion as supported by the literature inaccurate recording in the nursing documents may lead to ineffective management and follow-up of the TB patient. Incidents such as absconding, defaulting, patients refusing treatment and non-compliance to the TB regime, if not recorded in the nursing documentation may result in miscommunication among the healthcare practitioners and patients. It was therefore imperative that a scientific investigation was undertaken to determine whether the documentation complied with the nursing care process.

1.5 Research question

Are the audited discharged patient files at hospitals specialising in the management of patients with TB in the WCDoH compliant?

1.6 Goal

The goal of this study was to audit discharged patients' files according to the phases of the nursing process and the discharge planning of patients with TB discharged from hospitals specialising in the management of patients with TB in the WCDoH.

1.7 Objectives

Based on the phases of the nursing process the objectives were set to determine whether the:

- Patients were adequately assessed by registered professional nurses with reference to their specific needs: physical, social, psychological dimensions of a human being
- Nursing diagnoses made by the registered professional nurse were relevant to the assessed needs of the patient
- Nursing care plans were based on the nursing diagnosis made by the registered professional nurse
- Nursing care plans were implemented by the registered professional nurse
- Nursing care plans were evaluated, adapted or discontinued by the registered professional nurse
- Discharged criteria were applied by the registered professional nurse.

1.8 Brief discussion of the research methodology

A brief overview of the research methodology applied in this study is described in this chapter.

1.8.1 Research design

A descriptive quantitative research design was applied in an audit of discharged patients' files from hospitals specialising in the management of patients with TB in the WCDoH.

1.8.2 Population and Sampling

The target population for this study were the files of patients, N=1768 who were discharged between 1st January 2007 and 31st December 2007 from hospitals specialising in the management of patients with TB in the WCDoH. There are six hospitals in the WCDoH which manage patients diagnosed with TB, for the purpose of the study it was decided to concentrate on those hospitals which are utilizing the nursing process documents as designed by the WCDoH.

Only two of the six hospitals met the above mentioned criterium and will be referred to as hospital A and hospital B in the study. The discharged patient files of patients diagnosed with TB which form the sample were regarded as one single group despite being from two hospitals. The targeted population as defined by Polit and Hungler (2004:290), is the entire population in which the researchers are interested and to which they would like to generalize the results of the study. For the purpose of this study a systematic random sample was selected from these files. The table 1.1 shows the number of discharges from the two hospitals and the sample of n=214 (12%) was systematically drawn with intervals of five to achieve the sample size of n=214.

Table 1.1: Discharges from the two hospitals (A and B) between January 2007 and December 2007

Hospital	Population of Discharges	Sample (12%)
Hospital A	n=1171	n=142
Hospital B	n=597	n=72
Total	N=1768	n=214

1.8.3 Criteria

For the purpose of the study the following inclusion criteria were set for the research sample:

1.8.3.1 *Inclusion criteria*

- Only the files of patients who were discharged between 1 January 2007 and 31 December 2007 from the health facilities of the WCDoh as decided upon
- Discharged patients' files from hospitals utilizing the nursing process documents as designed by the WCDoh and
- Discharged patient files of both male and female adult patients older than 18 years were included in the study.

1.8.4 Pilot Study

A pilot study was conducted under similar conditions as the actual study. The purpose of the pilot study was to determine the feasibility of the study. A systematic random sample of n=21 (10%) of discharged patient files were selected from one of the hospitals managing TB patients and which met the criteria as set for the study.

1.8.5 Reliability and validity of the study

The reliability was assured through a pilot study, consultation with experts in nursing, statistics and research methodology.

Content, face, criterion and construct validity of the study was ensured through the consultation of various experts in nursing, quality assurance and literature study.

1.8.6 Instrumentation

An audit instrument was designed based on the nursing process documents used by WCDoH. (Annexure A).

1.8.7 Data collection

The data was collected using the audit instrument described. The researcher travelled to the hospitals where the discharged patient files were audited. The data was collected over a period of four weeks at hospital B and six weeks at hospital A.

1.9 Ethical considerations

The University of Stellenbosch: Committee for Human Science Research of the Faculty of Health Sciences (Annexure B & C) granted ethics approval for this study.

Furthermore, the permission of the Research and Ethics committees of hospital A and hospital B (Annexure D & E) were obtained.

The rights of the subjects were protected ensuring their confidentiality, anonymity and privacy. After completion of the study the information will be disclosed to the department and the institutional management in a discrete manner. The researcher maintained objectivity and integrity in the conduct of the research as proposed by Mouton (2005:240). Discharged patients' files were audited in the hospitals in a strictly confidential and private environment. All data collected are stored in a locked cupboard for the use of the researcher only for a period of five years. The National Health Act (Act No 61 of 2003, section 17) affirmed the responsible usage of patient documents.

1.10 Study outlay

Chapter 1: In this chapter the rationale, problem statement, significance, goal and objectives of the study, and the research methodology was briefly described.

Chapter 2: This chapter described the literature review related to patient documentation including the legal requirements, clinical auditing as a quality improvement measure, **and** conceptual framework based on the nursing process

Chapter 3: A more in-depth description of the research methodology applied in this study is described in this chapter.

Chapter 4: The data analysis, interpretation and discussion of the results obtained are described in chapter 4.

Chapter 5: In chapter 5 the conclusions and recommendations based on the scientific evidence are described.

1.11 Conclusion

In this chapter an overview to the background for the study, the problem statement, goal, objectives and a brief overview of the research methodology applied in the study were described. In the next chapter the literature review, conceptual theoretical framework based on the nursing process and related models and theories for the study are discussed. Various aspects about documentation are also discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature was reviewed to explore viewpoints in the field of the study. The study seeks to give an overview on different perspectives and legislation with reference to the management of TB. Furthermore the literature review aims to describe the nurse's responsibility to provide care according to the patient's rights. Therefore the focus of this chapter is to explore the concepts and broader principles relating to clinical and nursing documentation.

As a point of departure for this study, nurses play a pivotal role in the management of the patient infected with TB. Consequently, the accurate keeping of patient records, which reflects the plan of nursing care and the patient's response to the plan, is of critical importance (R2598 as promulgated, Nursing Act 50 of 1978).

Mr Tendani Mabuda, Registrar of SANC, at an information session in the Western Cape during 2010, indicated that all nurses should ensure that the care rendered to their patients are documented accurately, professionally and in a scientific format, based on the nursing process. He cited Regulation 387 (Acts and Omissions) which stipulates that it is the right of the patient that the care should be documented by a responsible and accountable nursing professional. Non adherence may result in an omission on the part of the nurse.

The concept of documentation will be explained from the various perspectives to provide an understanding of the legislative and professional requirements. According to most of the International Nursing Councils and Associations (American Nursing Association (ANA), SANC, NANB and ICN Code of Practice) any information that is clinically significant should be documented. The progression of the patient's care and condition must be evident in the nurse's documentation.

The nursing process, a scientific framework will be discussed in conjunction with various relevant nursing theories. An explanation will be provided of all the phases of the nursing process and discharge planning.

According to George (2002:148), the Orem theory (2001), indicates that nurses should select the type of nursing care and the sequential combination of nursing care that will have an optimum effect on achieving the desired regulation of patients towards self-care. Therefore, it is expected that the professional nurse will develop and implement the appropriate care plan related to the nursing diagnosis. Thus, the obligation of the registered professional nurse is to record, collect and communicate all the patient data.

Furthermore, several studies have shown serious shortcomings in the documentation of the nursing care in patient records. An investigation into the accuracy of patient records in Swedish nursing homes established that there are considerable deficiencies in the accuracy of the patient records in the reports from the nurses (Ehrenberg and Ehnfors, 2001:307). The findings in the study indicated that nurses make assessments about patient problems which were not documented in the patient records (Ehrenberg and Ehnfors, 2001:308).

The point that comes to mind is "If it is not recorded, it has not been done!"; a reference to the statement by De Marinis, Piredda, Pascarella, Vincenzi, Spiga, Tartaglini, Alvaro and Matarese (2010-1544).

The researcher is of the opinion that claims are made that the patient records do not provide an accurate reflection of the reality of care provided, because nurses do not always record everything that they do or say to the patient. The care can be written by the registered professional nurses who have the knowledge, skills and competence to determine the care according to the condition of the patient (Nursing Act No 33 of 2005). Nurses will indicate in the records when the patient's condition stabilized or deteriorated, therefore it is important that these evaluations are recorded at prescribed intervals or more regularly according to the patient's condition.

2.2 The role of nurses in the management of patients with TB

Nurses as members of the multi-disciplinary team have a professional responsibility to ensure that patients are managed according to their illness profile: making an assessment, diagnosing and treating them accordingly (Nursing Act 33 of 2005, Section 56 (1)). Therefore the role of nurses in the management of patients with TB, which are in line with the outcomes of the Centre for Disease Control and Prevention (CDC) (2009), include activities such as:

- assessment of patients' understanding and knowledge of the disease;
- encouraging social support;

- cooperation and collaboration on the medical and nursing case management of patients;
- ensuring adherence and provision of correct schedule of medicine administration;
- monitoring of the patient's adverse reactions and responses to drug therapy;
- ensuring the correct and timeous administration of treatment plans and procedures

Ensuring the positive outcomes of the above mentioned activities, proper recording should be done. Through effective documentation, the capturing of all data collected, management of the data and analysis thereof will be an enabling communication method to ensure that the information is disseminated to the correct health service provider. In this way, the outcomes in the management of the patient infected with TB should be able to achieve the intended effects of the TB program outlined by CDC (2009).

It has been identified that a major factor contributing to the failure to effectively manage TB was due to administrative errors, which included indicators such as incorrect processing of patient records and poor record keeping (Toman, 2004:26). The management of the TB patient requires therefore more problem-solving and contact treatment, as emphasised in the National TB Plan of South Africa (2007-2011).

Singh, Upshur and Padayatchi (2007:3), supported the fact that the increase of the development of TB drug resistance was related to irregular and inappropriate treatment. The development of TB drug resistance is aggravated by systemic problems, such as incompetent personnel and lack of proper and continuous documentation. In combating TB drug resistance the Democratic Nurses Organization of South Africa (DENOSA) asserts that nurses play a crucial role in the prevention, detection and treatment of TB and MDR-TB (DENOSA, 2005:50).

Furthermore, the patient's level of insight and understanding of the disease plays a major role in the cure rate of the disease. Aspects that impact on the effective management of the disease will include the number of patients who abscond and refuse to take further treatment. Currently the management of TB is aggravated by multi-drug resistant (MDR) and extreme drug resistant (XDR) strains of *Mycobacterium tuberculosis* (MTB) (National Tuberculosis Plan of South Africa, 2007-2011).

Therefore it is imperative to effectively manage the patient identified as at risk of absconding from inpatient facilities (hospitals), particularly patients diagnosed with MDR and XDR TB. In

circumstances when patients abscond from the health facilities whilst still highly contagious, it places a further responsibility on the management of the health facility to manage these risk cases more strictly and appropriately. The abscond rate at both these institutions signify the patient's level of understanding regarding their role within the context of their own disease management, as well as the contact of the nursing personnel with the patient.

The patient records will show what measures the nurse has instituted to motivate his/her patient to comply by adhering to the TB management program. Consequently, the accurate keeping of patient records, which reflects the plan of nursing care and the patient's response to the plan, is of critical importance (R2598 as promulgated, Nursing Act 50 of 1978). Therefore, it is expected that the professional nurse will develop and implement the appropriate care plan related to the nursing diagnosis of the individual patient. Thus, the obligation of the professional nurse is to record, collect and communicate all the patient data on a continuous basis.

According to Muller (2009:227), the general principles of writing which are critical in the communication of patient care through documentation in the nursing facilities are stated as follows: legibility, correctness, appropriateness as well as critical thinking. Through the researcher's experience as a quality assurance manager in the Western Cape Department of Health it has been identified that these principles are often not adhered to. Subsequently the omission of these principles may lead to misdiagnosis, incomplete statistical data of the results of clinical investigations done or other relevant information pertaining to the nursing care of the TB patient. In cases where these principles were not adhered to it may lead to errors in patient care and the individual professional nurses may be held responsible and accountable by the regulatory body, South African Nursing Council (SANC), for misconduct.

As a framework for documentation the scientific nursing process will be used to measure and evaluate the recording by the nurse in order to determine if it is in accordance with the different phases of care. The assessment, diagnosing, planning, implementation and evaluation of care as described in the Scope of Practice of a registered nurse, Regulation 2598 as promulgated by the Nursing Act No 50 of 1978, form the foundation of how care is being documented.

The nursing process phases allow for the identification and planning of care when managing and caring for the patients infected with TB. The care provided should be focusing on the individual in his/her totality. Totality is referred to as the physical, psychological, socio-

economical, spiritual and cultural context of the patient as a human being (Kozier et al., 2004:128). Caring as a major phenomenon include, but is not restricted to: the person in his or her totality, environment, health, interpersonal relations and ultimately toward goal attainment (George 2002:548). The nursing process as explained by George (2002:23), provides a means for evaluating the quality of nursing care given and therefore can be used in demonstrating the nurse's accountabilities and responsibility to the patient. This refers to the different caring paradigms as identified by the nursing theorists when using the nursing process.

2.3 The Travis illness/wellness continuum model

In the context of caring, it is important that the nurse guides the patients to balance their lives towards fulfilment of quality of life. To explain the Travis illness/wellness continuum Stellenberg and Bruce (2007:42), stated that it is important that people should maintain a balance between the illness/wellness paradigm.

Nursing plays a fundamental role in the interventions at each stage of the illness/ wellness continuum to ensure that the patients are treated effectively at each stage. Comprehensive nursing is based on the preventative, promotive, curative and rehabilitative treatment of the patients. According to Travis as described in Stellenberg and Bruce (2007:42), a patient could be disabled physically or mentally which may place them in an illness paradigm, however if they have a positive and optimistic outlook in life without barriers such as stigma they could move into the paradigm of a high level of wellness.

As described in figure 2.1 the researcher shows a comprehensive illustration of the illness/wellness continuum. The illness paradigm shows that a late identification of a disability and diagnosis of signs and symptoms of a disease may lead in the direction of premature death. In such a case the management of the disease will require immediate secondary level medical intervention, such as hospitalization to cure any disability or illness. Patients are treated with medication and surgical interventions, but if not effectively managed the disease can cause premature death. Therefore, a patient infected with TB does not necessarily have to face premature death but with appropriate intervention could indeed be on the way to a higher level of wellness. Nurses could provide interventions such as education and awareness to the patients on how to manage their disease effectively.

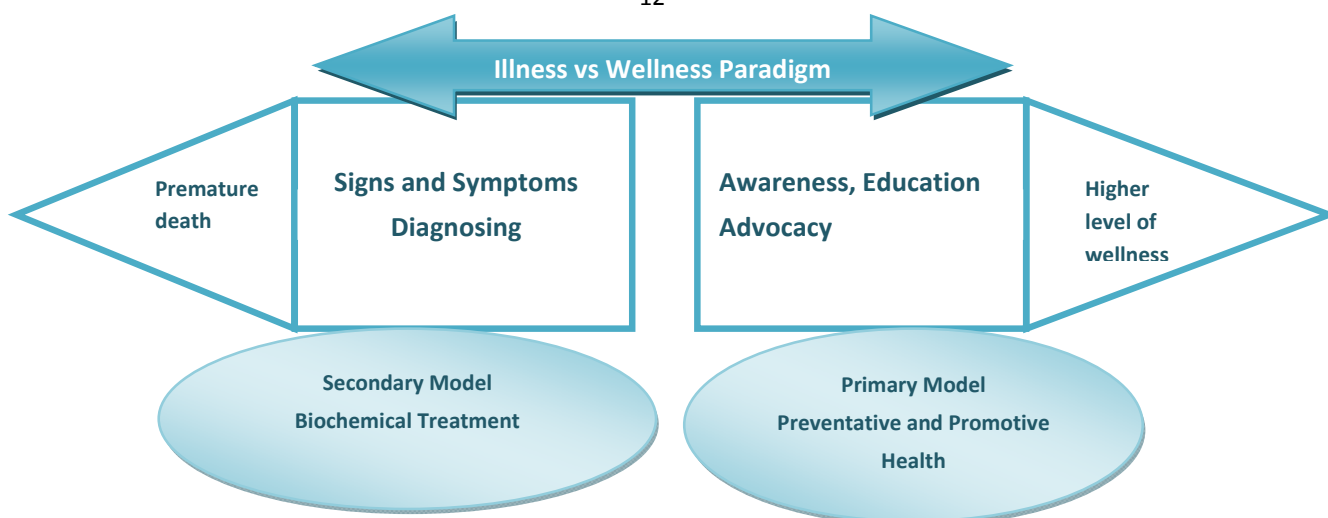


Figure 2.1: Adapted version of Travis' Illness / Wellness Model (2001)

According to Botha in Stellenberg and Bruce (2007:960), the quality of life is not only associated with material luxuries, but is interlinked with individuals' health/illness status. Thus, patient documentation should reflect the interventions implemented at the various stages of the disease identification.

The components of healthy living for the patient diagnosed with TB will include the following:

- the correct medication regime
- promotion of a healthy life style
- conducive healthy environment
- healthy social integration.

The nurse should understand the specific problems related to TB management such as the cure rate, abscond rate and death rate of patients affected by TB. Therefore, the importance of documenting all nursing observations, care and treatment in the management of patients cannot be overemphasized.

Furthermore, nursing documentation should reflect the assessment of the patient's level of insight and understanding of the disease which contribute to the improved cure rate. Nurses are responsible for informing the patient on admission about the length of stay at the health facility, the medication regime that the patient will follow whilst in hospital and the consequences of not adhering to the TB program. The health education given and the educational strategies utilised should be reflected in the documentation. Adherence to the correct recording of the patients' information will give an indication to the reader whether the patient has received the necessary information relating to TB to create an awareness of the

disease amongst patients so that unduly absconding patients and non compliance of treatment could be minimised.

2.4 Perspectives on tuberculosis

According to the National TB Plan (2007-2011) South Africa has the seventh highest TB incidence in the world contributing to approximately 80% of the total global burden of all TB cases. TB is an infectious disease that is one of the Millennium Development Goals (MDGs), namely number 6 (World Health Organization (WHO) 2009). The international goal is to decrease new infections by 50% by 2015. Global control measures were called for to improve the cure rates of the disease (WHO 2009). The call was to detect at least 70% of people infected with TB and cure at least 85% of those detected (National TB Plan 2007-2011).

The National Tuberculosis (TB) Plan of South Africa (2007-2011), states that the prevention of TB in South Africa is about effective and efficient diagnosing, treatment and high quality care to the patients. South Africa is one of 22 countries in the world with the highest incidence of TB, with South Africa ranked in seventh place. The Centre for Disease Control and Prevention (CDC) (2009), considers tuberculosis one of the world's deadliest diseases with one third of the world's population infected by TB, of which more than 9 million people become sick with TB annually. Each year there are almost 2 million TB related deaths worldwide and TB is also the leading cause of death in people /individuals infected with HIV.

According to the Health Systems Trust report the number of deaths for South Africa in 2005 was approximately 218 per 100 000 of the population (Health Systems Trust, 2008). The South African National Minister of Health declared TB as a national crisis in 2005, many strategic documents and guiding principles were formulated to address the burden of TB in South Africa. At an annual meeting the Deputy Minister of Health, Dr Molefi Sefularo in his address on the 12th October 2009, alluded to the fact that South Africa is not only one of the worst affected countries with a high TB incident rate, but this is further aggravated by the highest number of confirmed MDR-TB and XDR-TB cases in the Southern African Development Community (SADC).

A comprehensive and continuous systematic approach is therefore required in the management of patients infected with TB (National Health Plan, 2007-2011). Nurses are the primary care givers when TB patients are being hospitalized or managed in a primary health care setting (Stellenberg and Bruce, 2007:589). To ensure that patients are receiving the

required care, quality assurance indicators should be identified to monitor and evaluate the care given (Kozier et al. 2004, 323).

The Democratic Nursing Organisation of South Africa (DENOSA), (2005:50) claims that approximately 3 million nurses are working or are registered in the 22 high risk countries where 80% of TB cases are found. Considering this nursing has a responsibility and important contribution in the eradication of TB. Accurate nursing documentation can contribute in obtaining this goal.

The cure rate for TB as described by the Health Systems Trust (2008), indicates that South Africa has a cure rate of approximately 56.6%, with Gauteng as the highest (78%) and Mpumalanga (41%) as the lowest.

2.5 An understanding of documentation

According to Creasia and Parker (2001:322), the evidence of care that was provided by a professional who is knowledgeable and who instils trust will realize and visualize it through accurate documentation. The professional responsibility of a registered nurse is to ensure that all diagnostic and therapeutic interventions as observed and assessed by the nurse should be accurately recorded. This function cannot be delegated to subordinates such as ward clerks (Searle, 2005:261). This is further substantiated by Muller (2009:41), who indicates that the evidence of care should be reflected according to the charter of patient's rights. Therefore, the nursing practitioner should be able to provide evidence of the care given through documentation.

2.5.1 Legislative and ethical framework governing the care of a patient

All practicing nursing staff are registered with the South African Nursing Council (SANC), which is the statutory body prescribing the legislative and ethical framework for the care of patients. In addition the individual rights of patients are protected by the Constitution of South Africa, 1996 (Act 108 of 1996) and the National Health Act (Act 61 of 2003).

2.5.1.1 *Constitution of South Africa*

The Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) guarantees all citizens the right to health care service. Patients such as individuals with TB, including XDR-TB, are human beings with human rights, "There is no role for stigma and discrimination in managing TB". The Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) state

that all citizens of South Africa will be treated with dignity, equality and respect. In Section 24 of the Constitution it is emphasized that everybody has a right to an environment that is safe to their health. The right of the public to safe nursing care is reflected in the right of each individual to acceptable, legal, knowledgeable and ethical safe nursing (Searle 2005:73).

2.5.1.2 The National Health Act

The National Health Act, 61 of 2003 provides for the establishment of a health system that must provide the population of South Africa with a quality and affordable health service. The rights and duties of the health care users and providers are clearly stated in the National Health Act 61 of 2003. The Act stipulates the importance of access, protection and safe guarding of the health care user's records. Therefore, the continuity of care between the different levels such as tertiary, secondary or district health should ensure accessibility, affordability, the prevention of disruption and an appropriate referral system for patient care.

2.5.1.3 The South African Nursing Council (SANC)

Nursing practice and the nursing profession in South Africa is controlled by the Nursing Act, 33 of 2005. The practice of the nurse is grounded on the ethical principles embodied in the Codes of Practice and is based on the nature and extent of their education, knowledge and experience. It is therefore expected that they will ensure in the execution of their practice that the safety and health of the patients will be of the highest quality. Nurses must be mindful of measures such as correct identification, safe application of diagnostic and therapeutic interventions, appropriate monitoring of the client's condition and accurate and complete recording of care and observations.

The Scope of Practice for Nurses as encapsulated in Regulation 2598, promulgated by the Nursing Act No 50 of 1978, clearly stipulate the responsibility of the registered nurse when caring for any patient. The scope of practice of a registered nurse shall entail the acts or procedures, which may be performed by scientific interventions based on disciplines such as physics, chemistry, psychology, sociology, applicable to health care practice. The knowledge and skills acquired through the support of these disciplines will enable the nurse to scientifically assess, diagnose, plan, implement and evaluate care. In addition the rehabilitation, prevention and promotion of health are also emphasised. The new Nursing Act No 33 of 2005 describes the professional registered nurse as a "...person who is qualified and competent to independently practice comprehensive nursing in the manner and to the

level prescribed and who is capable of assuming responsibility and accountability for such practice”.

2.5.1.4 The patient's rights charter

The rights of the patients that arise from the common law of the country protect and safeguard the patient's name, person as well as their property. Therefore, it is acceptable practice that nurses will perform their duties with due care and consideration to their patients. The rights of the patients are encapsulated in the South African Patient's Rights Charter (2005), which include the right to be treated with dignity and respect, and to receive care from the moment of diagnosis to the completion of treatment, as well as to be treated by a named nurse and to receive quality care. The patient has therefore a right to free treatment, appropriate health education, promotive and preventative care.

2.5.1.5 Batho Pele Principles

The White Paper on Transformation (1997) states the delivery of services to the citizens that is responsive to their needs. The providers of the services could be held responsible and accountable in cases where it is not provided at the highest quality level. The Batho Pele principles are encapsulated in the White Paper on Transformation (1997) and it stipulates the finest manner in which the public servants should serve the clients. Ensuring care that will put the client first and treating them with respect, dignity and integrity is emphasised in the Batho Pele Principles of 2000. In addition these principles emphasise the strengthening of relationships with other agencies, such as the communities, which will allow the continuity of care. This relationship is pivotal for the effective management of the TB patient.

2.5.1.6 The International Council of Nursing (ICN)

The ICN in their continuum of competencies framework set clear parameters of competencies for the registered nurse to work within their scope of practice. The key competencies relating to record keeping include interventions related to assessments, planning of care, implementation and evaluation (ICN 2007:3,18-22).

Furthermore, the ICN international Code of Ethics for nurses emphasises that nurses do have an obligatory responsibility to promote health, do no harm to the patient, do good by actively helping and protecting the patient as well as serving the patient with dignity and respect (Duma,De Swardt, Khanyile, Kyriacos, Mtshali, Mareel 2008:35).

The ICN (2007:53), affirmed that the nurse plays a significant role in the control of TB, therefore to be effective in treating cases, nurses must understand the disease, recognize the signs and symptoms and support drug adherence to TB treatment.

2.5.2 Clinical auditing as a quality improvement measure

The audit is the tool to control the quality of the work of the nursing team and it is used to improve the quality of care provided. The auditing system is understood as a systematic evaluation of nursing care, monitored through the notes in the nursing records of patients (Setz & D'Innocenza, 2009:314).

To further explain the above statement it must be understood that the conceptualization of the concept of quality assurance commenced during the 1950's when planning, organizing and evaluating health care service became a public concern (Tomey, 2000:436). The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) required audits of care as part of their quality assurance standards. Subsequently in the 1990s nursing was required to examine a nursing care problem quarterly, document the assessment of the problem, develop and implement the plan for correction and evaluate the effectiveness of the implemented actions (Tomey, 2000:437). The JCAHO recommended then a retrospective review of patient care through a close-chart audit that focuses on patient-care outcomes (Tomey, 2000:437).

The objective of quality in health care was therefore shifted to the assurance that the patient receives the required care they deserve.

The National Institute for Clinical Excellence (NICE) (2006:1), defines clinical auditing as a quality improvement process. It requires the improvement of patient care and outcomes through the systematic review of care against explicit criteria and the implementation of change. Furthermore, NICE (2006:4) depicts five stages of the clinical audit process:

- preparing for the audit
- selecting the criteria
- measuring the performance
- making improvements
- sustaining improvement.

2.5.2.1 *The concepts of quality assurance*

The concept of quality is referred to as having several dimensions namely, appropriateness, equity, accessibility, effectiveness, acceptability and efficiency (Booyens, 2007:596). The care rendered to the patients should be captured based on the characteristics of quality to portray the excellent care provided. These attributes/characteristics of excellence as described by Muller (2005:199) are:

- Applicability: The right decision at the right time
- Acceptability: Legal, ethical and cultural
- Safety: A therapeutic environment with appropriate risk management
- Equality: Money, race, sex and social status will not play a role
- Accessibility: Provision of health care services, facilities, equipment, expertise and personnel
- Effectiveness and efficiency: Clinical results and resources utilisation
- Professional knowledge and competence: Applicable according to the demands and needs that are set
- Satisfaction: Patient, family and multi-disciplinary approach.

2.5.2.2 *Structural, process and outcome standards*

The quality of health care performance is measured in terms of a whole systems approach which includes the elements of structural standards, process standards and outcome standards.

The maintenance of excellence to enhance quality assurance implies high levels of service. The introduction of a formal quality improvement programme to monitor, measure and evaluate the quality of service delivered is a requisite to be in operation. Opportunities for improvement are therefore identified, and a mechanism is provided to take remedial steps to maintain improvements and bring about change and transformation (Booyens, 2007:597).

2.5.2.3 *Standards*

The COHSASA (Council for Health Service Accreditation of South Africa) promoted a process where standards and criteria are used to assess the quality of services in hospitals (COHSASA s.a). The Standard Assessment Manual that is used by this Council for accreditation purposes, include a section on service and generic elements. The generic element is divided into standards which are defined as 'predetermined expectations set by a competent authority that describes the acceptable level of performance of an organization or

individual in relation to structure in place, conduct of a process, or measurable outcome achieved' (COHSASA s.a.:2).

The challenge health practitioners are facing daily is the question whether they are providing quality health care to their patients. At the most basic level of care, the emphasis is on quality. The challenge with regards to quality is knowing and doing the right thing, at the right time, in the right way, for the right person. Hence the aspects such as competence and competency of the health care provider to render the care as required have to be understood (Muller, 2009:250).

To determine if the client received quality care from the health care practitioner, the patient documentation becomes the yardstick to measure the written evidence of care provided. The question is how accurate should the content of the patient documentation be to give us an idea of the level of care rendered.

Various aspects impact on the substantiation of care extrapolated from documentation. It is a fact that in the hospital, the documentation of the patient's care and clinical findings are not done by the same nurse or health practitioner. Documentation in high care units is most often done by the nurses that are taking care of the patient. Conversely, in general wards, the majority of the charting is done by the enrolled nurses, who also measure vital signs and get the patient up to walk, feed or bath.

Subjectivity in the recording of data is apparent, because the RPN may chart based upon his or her own observations. These subjective recordings can vary from communicating with the patient or relatives, writing in the continuous care notes of daily happenings, or it may be the checking of the charts. Aspects that influence the quality of reporting and charting are such as the level of motivation of the staff, competency, knowledge, as well as increased workloads and shortages of staff. The Department of Health (2007) clarifies that monitoring and evaluation is increasingly being recognized as a critical aspect of interventions made in health development.

2.5.2.4 Standards for nursing practice

The South African Nursing Council (SANC), Eastern Central African College of Nursing (ECSACON) and International Council of Nursing (ICN) standards of practice are based on the principles of quality nursing practice which encompass care provided by competent nurses who are knowledgeable and skilled.

Professional regulation is instrumental in controlling and maintaining quality control and standards of a profession. Patients have to be safeguarded against inadequacies in professional duties of professionals. Kozier et al. (2004:323), state that quality assurance should be an on-going systematic process to evaluate and promote excellence in health care.

2.5.2.5 Standards for documentation

The compliance with the Standards of Practice of the nursing regulatory body of British Columbia is emphasized by the College of Licensed Practical Nurses of British Columbia (CLPNBC) (2007). The Standards for Nursing Documentation as cited by CLPNBC (2007), should be adhered to and comply with the following requirements:

- Health care should communicate the care provided in the documentation and must support continuity of quality of care.
- Documentation should provide evidence-based practices that are within professional and legal obligations.
- Accurate and comprehensive documentation can be used to measure quality improvement and risk management pertaining to client care.
- Proper documentation should indicate safe and competent practice, provided by skilled, knowledgeable and competent service providers.

2.5.2.6 Measuring

Clinical auditing should be a measurement which is used by nurses to evaluate the care provided, it can be retrospectively (after discharge) done or concurrent whilst the patient is still hospitalized (Kozier et al., 2004:323). The auditing can be classified as a form of assistance (internal and external), time (continuous and periodic), the nature (regular and special) and the limit (total and partial) (Setz & D'Innocenza, 2009:315).

2.5.3 Concepts of documentation

Nursing records are legal documents and should reflect accurately and honestly the nursing interventions implemented for a particular patient (Young et al. 2003:195). Hence writing about patient care is a primary activity of the nursing professional and, as such, documenting the care rendered and the patient's response is an important aspect of the nurse's duty. According to Ellis and Love (2001:332), records can be a critical factor in avoiding litigation. Documentation is a valuable tool of communication between health care providers, and it is a method of demonstrating that the nurse has applied nursing knowledge, skills and judgment when caring for the patient (Creasia and Parker, 2001:153). The record should reflect a clear

picture of the needs of the patient, the action of the nurse and the outcomes of the care. It is important that documentation regardless of practice must be consistent with the professional requirements (Kozier et al. 2004:264).

2.5.3.1 Defining health care records

The Health Profession's Council of South Africa (HPCSA) (2007:1), defines a health record as any relevant record made by a health care practitioner at the time of or subsequent to a consultation and/or examination or the application of health management. A health record contains the information about the health of an identifiable individual recorded by a health care professional, either personally or according to his or her discretion. An integral part of effective and non-threatening nursing practice is the manner of documentation in the health record of the patients (College of Nurses of Ontario (CNO) 2006:3). Clear, comprehensive and accurate documentation is a record of the judgments and critical thinking used in professional practice which provides an account of nurses' contribution to health care (CNO, 2006:3).

Documentation as cited by the College of Registered Nurses from British Columbia (CRNBC) (2002:3), refers to any written or electronically generated information about a client that describes the care or services rendered to the client. According to Young et al. (2003:61), nursing documentation is an accurate account of what occurred during the interaction process between nurse and client. Nursing narrative documentation is a system in which nursing actions and client responses are recorded in chronological order and reflect the care given during a particular time frame. The data are recorded in the progress notes such as the kardex. These notes may be supported by other tools such as flow sheets.

The College of Registered Nurses from British Columbia (CRNBC) (2007:3), explained that documentation is the manner in which nurses communicate their views with regard to the status of patients, nursing interventions that are provided and the results of these interventions. Through accurate and proper documentation the information increases the likelihood that the patient will receive consistent and informed care of service. The CRNBC (2007:3), reiterated that documentation facilitates communication, promotes good nursing care and ensures the attainment of professional and legal standards.

2.5.3.2 *Types of nursing records*

The nursing documentation forms used by nurses in the health care institutions take into account the beliefs and values about health and organizational policies, as well as legislative factors. For example, a health facility that values patient perceptions of his/her health as an important aspect of a complete assessment will have a form that includes a space for the full assessment information (CNO 2006:4-5).

The nursing forms used frequently include inter alia:

Continuous progress report: This is a communication tool to convey the patient's current orders as well as upcoming tests, surgery, diet, or prescription from the doctor or orders from other health care providers. This is a permanent health record which contains information on the changes in a patient's condition and care. This document reflects the record on the nursing assessment, the care provided and the outcome (CNO 2006:5).

Care Plans: This is a written outline of care for the individual patient. This is also a permanent health record which is kept updated regularly and clearly identifies the needs and wishes of the patient. Nurses should ensure that the care plans are clear, valid and individualized (CNO, 2006:6).

Flow Sheets and Checklists: These records communicate the routine care and frequently recorded information such as the activity of daily living, vital signs, intake and output specific to the needs of the patients (CNO, 2006:6-7).

2.5.3.3 *The principles of documentation*

The principles for proper nursing documentation as shown in figure 2.3 are explained as follows:

Nurses should review, validate and clarify the patient data before they commence with writing in the patient record. The importance of maintaining precision in documentation that leads to the credibility of the profession is emphasised by the Nursing Association of New Brunswick (NANB) (2002). The NANB (2002) stressed that inclusion of detailed and accurate prescriptions such as specific quantities, actual dates, time frames pertinent to the patient's condition, will strengthen the value of the document.

Accurate documentation is explained by the College of Licensed Practical Nurses of British Columbia (CLPNBC) (2007), that encompassed the criteria such as: clear, legible and non-

erasable written entries expressed with the correct grammar, terminology and spelling. It should have identifiable signatures on all entries, chronological in format, timeliness, concise, factual and non-biased. It is expected that documentation should be thorough and completely reflecting the use of all senses during observation of the client. The clients are the recipients of nursing service. These recipients can either be an individual or families, groups, populations or entire communities (CRNNS 2004). According to New Brunswick (NANB) (2002), the fundamental principles that must be adhered to with documentation are:

- Avoid empty spaces in documents, it provides space for others to write in data within the parameters of a previous signature. Lines should be drawn through unused spaces.
- All entries must be clear and legible when documenting. Illegible notes may lead to misinterpretations by the health care providers.

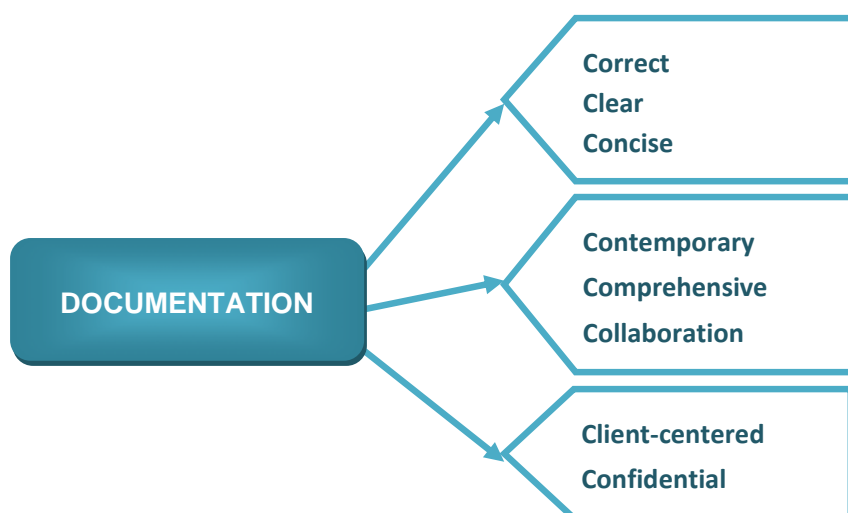


Figure 2.2: Illustration on the principles of documentation by researcher (adapted from nbsa (2006)).

2.5.3.4 *Principles of professional writing style*

Language is an essential speech and the alphabet is a means of representing the spoken word on paper. South Africa is a multicultural and multi-lingual country with an inclusive language policy (South African Constitution, Act 108 of 1996). According to Adey, Orr and Swemmer (2004:266), English is an acceptable international language. Therefore, when writing reports, it is imperative to ensure that mistakes be avoided, to allow the content of the message that must be conveyed to be clearly understood. There are certain aspects that need to be highlighted when focusing on the linguistic and professional requirements when

writing reports. The writer of the report should adhere to the principles of writing such as the appropriate style of writing and the common mistakes that result in the report not portraying the actual message of events that occurred.

Adey, et al. (2004:278), refer to the style of writing as the manner in which a message is written. The authors explain that style is influenced by three factors when used in the written context. The factors to bring across the message are the:

- content of the message;
- individual or people to whom the message is addressed and
- script in which the message is to be communicated.

Adey, et al. (2004:279), advocate a set of guidelines that forms a basis for the style of effective and pleasing results in good writing and should be followed. They refer to it as the following:

- focus on the message;
- do not make assumptions;
- write according to a plan in an orderly and organized format;
- write simplistically, plainly and clearly without using descriptive words that are unnecessary;
- be accurate, without using excessive words;
- be factual and limit points of opinion and
- write concise and ensure correct spelling.

2.5.3.5 Common linguistic mistakes identified in recording

The professional context that the patient documentation should reflect, is to ensure that the construction of the sentences convey the meaning of the message. To ensure communication that is clear and vivid, the usage of words that result in common linguistic mistakes should be avoided as it can allow for misinterpretation, time wasting and professional incorrectness. Common mistakes that are being made is the use of abbreviations, clichés, euphemisms, exaggerations, the using of wrong words causing incorrect understanding and comprehension and this is also likely to be hindered by the use of jargon (Adey, et al. 2004:161).

Adey, et al. (2004:9-163), describe the following common mistakes when writing professionally:

- **The use of abbreviations:** the writer uses abbreviations to save time, however, if it is used incorrectly in a statement, it can lead to misunderstanding, misinterpretation and could mislead the reader.
- **Euphemisms** mean where words are softened to hide its unpleasant idea.
- **Exaggeration** is used in the written text which places a different emphasis on the content of the message. When writing a report it is advised that generalization should be used sparingly and judiciously in the written text.
- **Feeling in words**, this means that words have both denominators and connotations. Denominators which are the objective meaning of the words as it is written in the dictionary. Connotations of a word are the associations, feelings, sensations, opinions and ideas that the word evokes. Words can have negative connotations, positive connotations and neutral connotations; one can describe the same thing in different ways.
- **Generalization is** when the writer tends to make a conclusion, without sufficient evidence. It allows for stereotypes which are a description or standardised mental image which put too much emphasis on characteristics and not enough on individual differences. Generalizations should be avoided especially if it is not based on enough information or detail.
- The use of **wrong words** that are misused are words such as: hanged versus hung.

2.5.3.6 *Medico legal aspects and implications of documentations*

The fundamental issues in the professional conduct of nurses when exercising

their duty to care for the patients are to ensure that the patient's records are available to other members of the health care team (Searle, 2005:203). The nurses have a responsibility to check prescriptions before the administration of medication. This entails the verification of labels for expiry dates, condition of administration, compatibilities and allergies. In the case where the patients are correctly identified for all treatment that they are intended to receive, the nurse must record the delivered treatment and care promptly and accurately (Searle, 2005:205).

Hicks (2005:234), reaffirms that the legal basis for nurses to perform their duty is to work within the scope of the Nursing Act. The legal role of the nurse as the provider of health service is explained by Hicks (2005:234) as follows:

- ensure that the client receives competent, safe and holistic care;

- render care by “standards of a reasonable, prudent person” and
- supervise/evaluate that which has been delegated.

The registered nurse should use professional judgment when delegating tasks or procedures to other health care providers. The functions delegated should be within the scope of practice of the particular health care provider. The College of Registered Nurses of Nova Scotia (CRNNS) (2007), cited that the registered nurse is responsible for the delegated decision and should therefore base the decision on sound nursing judgment and rationale, to ensure that the person has the skill, knowledge and competence to perform the delegated task. Safe and ethical practice should be maintained and feedback through accurate documentation to communicate the care should be provided.

The nursing supervisors have a supervisory liability which means that the registered nurse as supervisor is potentially liable for the action of the subordinates. The subordinates can be referred to as staff with limited education and training, therefore the supervisor can be liable for judgment errors, which result from delegated duties by nurses to care for patients without supervision and which may result in errors (Ellis and Love, 2001:314). Subsequently, the nurse can be held responsible for malpractice when care given to a patient cannot be proven through proper documentation. These actions could result in an omission of a correct act that could result in an adverse incident involving the patient, for example a patient is admitted and the nurse fails to establish a plan of action for monitoring and maintaining the safety or care of the patient (Ellis and Love, 2001:308).

Hicks (2008:18), indicated that nurses can be held liable in terms of Tort Law, which refers to the non-compliance of nurses to exercise their duties, which in this instance is documentation which can result in legal actions. Examples of Tort Law specific to the health care profession include negligence and malpractice (Verschoor, Fick, Jansen, Viljoen 2008:19:).

Truth refers to nothing less than the truth in the court of law. Truth has been the foundation of many professions, courts and religious people. It is a valued fundamental principle in the philosophy of nurses and the nursing profession. Retief (2002:67), depicts that ‘The truth is the be-all and the end-all of the profession’.

Three concepts that underlie the notion of truth in report writing are identified by Retief (2002:67) as:

- reporting should be accurate;

- report writing should promote understanding and
- reporting should be balanced.

Substantial evidence may refer to the clear written recordings made of the patient's observation, decision reached, action taken and evaluation of patient responses which are considered in litigation cases above that of verbal testimonies (Ellis et al., 2001:333).

2.5.3.7 Factors that impact on the legality of nursing records

Accurate recordkeeping is essential in all aspects of the nursing care regimen therefore the nurse can be held accountable and responsible when nursing actions are not carried out (Young et al. 2003:61). The nursing records provide concrete evidence of the planning and implementation of the nursing regime. The nurses should be aware of the factors that impact on their accuracy in record keeping such as:

- **Accurate record keeping**

The keeping of accurate, complete and identified records is emphasized by Verschoor et al. (2005:45), as this is the nurse's first line of defence of any legal matter. Nurses are called to medical lawsuits as they may be included amongst the practitioners who are charged or the nurse can be called to testify as a witness on behalf of an organization to describe the care that was given to a patient at a given period. Ellis and Love (2001:336), explain the important aspects of concern in law suits when nurses have to testify. In these cases the nurses may give evidence regarding the clinical notes, which is regarded as factual evidence.

- **Unfounded conclusions**

Nursing documentation should be evidence-based and be supported with all the necessary data before conclusions can be made. When unfounded conclusions and labelling are used during recording this will result in applying incorrect value judgments about the patient and his/her behaviour. Nurses should avoid using statements such as 'patient uncooperative' or 'patient depressed'. Nurses should preferably record the actions and observed behaviour of the patients, for example 'the patient refuses to bath' or 'the patient is showing signs of depression, not eating and staying in his room' (CNO, 2006:5).

- **Date, time, identity of patient and signature**

All entries in the health record of a patient must have the date, time, the recorder's signature and designation (NANB, 2002:3). The date and time of care must be included even if it is different from the date and time of documentation. It is further emphasised by Searle (2005:249), that the full signature, which includes the professional designation should reflect after every entry and that the documents are clearly identified.

- **Abbreviations and symbols**

Abbreviations and symbols can be an effective and efficient form of documentation, if widely understood by all health care practitioners and others who may read the health records. It is noted that unacceptable abbreviations and symbols which are poorly defined, obscure and those with multiple meanings can lead to confusion, errors or wasted time (CNO, 2006).

- **Recording during emergencies**

Legislation and generally accepted standards of practice require nurses to document the care they give to show accountability for their actions and decisions. It is acceptable practice that the person who has seen the event, or performed the action documents the actual incident (CNO, 2006:5). In cases when there is a person recording for a multi-disciplinary team such as for example, the cardiac arrest team, the recorder will identify all the persons involved and the care that they provided. During the recording for others it should be clearly indicated who had the first-hand knowledge of the event, or who performed the action. In cases where the care provided required an assisting person, it is important to name the assisting person especially when an adverse incident occurs.

- **Changes or additions**

The integrity of health records should always be maintained, therefore changes and additions must be clearly documented. To prevent the impression of incorrect, incomplete and inappropriate recordings during changes, the wording such as "forgotten, late entry and omission" should be clearly included when the changes are made in the record by the nurse (CNO 2006:4). In cases when a health care provider disagrees with an entry that was made he/she can change the recording by using the wording such as "forgotten, late entry and omission" it should be clearly included when the changes are made in the record according to her/his version (CNO 2006:4).

- **Co-signing entries**

Caution must be applied when co-signing also referred to as countersigning another person's documentation (NANB, 2002:3). In the event that two people were involved in the provision of care, then both must sign the document (Searle, 2005:250).

2.5.3.8 *Ethical fundamentals of reporting*

The Health Professionals Council of South Africa (2007), depicts that "Practice as a health care professional is based upon a relationship of mutual trust between patients and health care practitioners". The term "profession" means "a dedication, promise or commitment publicly made". To be a good health care practitioner, requires a life-long commitment to sound professional and ethical practices and an overriding dedication to the interests of one's fellow human beings and society (HPCSA, 2007:2).

Report writing or charting on the finding of a patient by any health professional is not a quick and simplistic task. In fact everything that a nurse does has an ethical dimension, to a lesser or a greater extent. It is not just the most senior nurse who takes the most important ethical decisions but it can also be the junior nurse that must record the findings of a minor incident that took place in the patient's life. Everything a nurse writes has an influence on the patient's life. The influence can be good or bad, therefore it is necessary that information must be factual and based on evidence. Retief (2002:3), explains that ethics when reporting is not easy, he clarifies the reasons for his statement with the following:

- Ethics amount to a mere choice between right and wrong; to deal with this reasoning is to accomplish a high level of moral decision-making by gathering the correct facts.
- Ethical decision making is by nature contextual, hence it requires that facts should be based on political, social and cultural dimensions. It therefore compels the nurse to have a knowledge and respect for the context when writing about the patient.
- Each and every ethical decision is subjective, because each person comes with their own background, thoughts and actions.

Retief (2002:4), indicates when report writing is done irresponsibly much harm can be done and credibility is tainted.

2.5.3.9 *Complexities in documentation*

Cheevakasemsook, Chapman, Francis and Davies (2006:366-374), explored the complexities and related factors regarding nursing documentation and auditing for

completeness of nursing documentation. Complexities in nursing documentation include three aspects: disruption, incompleteness and inappropriate charting. The related factors that influence and comprise documentation are: limited nurses' competence, motivation and confidence; ineffective nursing procedures; and inadequate nursing audits, supervision and staff development (Cheevakasemsook et al., 2006:366-374). Current health-care systems require that documentation ensures continuity of care, furnishes legal evidence of the process of care and supports evaluation of quality of patient care.

2.6 Conceptual theoretical framework for the study

The professional nurse today has to manage the care of her patients during challenging times, with limited resources and in ever changing and dynamic health systems delivery approaches (Searle, 2005:389-92). However, the essence of the provision of care to the patient never changes whether individually or as a group. The process of positive outcomes of care is to ensure that it is based on the 'rights' of care: the *right* care at the *right* time by the *right* provider in the *right* setting (Creasia and Parker, 2001:154).

The researcher proceeds to describe the theoretical foundation based on various models and theories in nursing. An explanation regarding the significance of the nursing process as a scientific approach to problem solving in nursing practice is given. The theories as identified are described in relation to the various phases of the nursing process from a scientific context as shown in figure 2.2. Understanding and knowing how to apply effective clinical decision-making skills when executing their function is through the application of the scientific nursing process.



Figure 2.3: The conceptual theoretical framework for the study (Illustration by the researcher)

2.6.1 Towards an understanding of the nursing process

The nursing process since the 1970's was identified as a key fundamental requirement in the nurse caring process, which gives direction towards identifying nursing care as a scientific process based on a problem-solving approach. The nursing process has been used by nursing scholars as the tool or methodology that is used to give meaning to the evaluation of quality nursing care (George 2002:23). It is reiterated that the nursing process is the method used in nursing practice to solve clinical problems and apply critical clinical judgments during the management of the patient. The nursing process is referred to as the process that

provides a logical and rational way for the nurse to solve problems and make decisions so that the care given is appropriate and effective (Luey, Hood and Leddy, 2003:238).

The essential components of the nursing process are assessment, diagnosis, planning, implementation and evaluation and these form an integral part of how the care to the client is documented and communicated (Searle 2005:141). The nursing process is also referred to as an intentional intellectual activity by which the practice of nursing is directed in an orderly and systematic manner (George 2002:38).

2.6.2 Conceptual theoretical framework of the nursing process

The nursing process is implemented in nursing practice as the framework that provides a systematic, patient-centred approach to promote optimal health and well being of the patient population. The nurses use the process to identify patient needs, establish a plan of care, maximise strengths and resolve actual and potential problems. It is an outcome-focused approach, with emphasis placed on evidence-based care, which guides the nurses to assess, plan, implement and evaluate the care of the patient (Kozier et al. 2004:249). The goal using the nursing process in nursing is to promote the healing process by manipulating the environment and see the person in relation to the environment and how the environment impacts on the person (Creasia and Parker, 2001:121).

The fundamental principles of the nursing process as described in Kozier et al. (2004:261) are:

- it stimulates critical thinking whereby the delivery of nursing care is prioritised in care management;
- it facilitates inter professional communication and interperonal relationships;
- supporting the patient to make informed decisions through advocacy;
- using time and resources efficiently through patient care resource utilization and
- enhancing competence practice and integrating standard-based practice.

2.6.3 Assessment phase

The assessment phase in the nursing process is the initial phase to determine the needs of the patient, or whether the needs have been recognized and attended to when caring for the patient (Booyens, 2007:459).

The assessment phase as referred to by Luey, et al. (2003:239), is an ongoing process of data collection to determine the client's strengths and health concerns. The data should be

relevant and important to the presenting needs of the patient. This data can be collected through observation, examination, history taking and reviewing of previous clinical records.

The basic needs of the patients should be recorded at the assessment phase in the planning of care. These basic needs are explained by Hesook and Kollak (2007:16), using Maslow's scientific philosophy, according to his conception of man as a "holistic, functioning, adjusting individual", which focuses on Maslow's hierarchy of basic human needs: physiological, safety and security, belongingness, esteem and self-actualization needs. A thorough assessment with specific reference to the patient infected with TB will prevent or minimise adverse consequences such as absconding, refusal of treatment or patients not understanding the disease process. Currently hospitals managing patients with TB are faced with various challenges as reported in the Cape Argus 9th May 2008. Patients absconded from an urban hospital due to the frustrations experienced with the food, isolation and lengthy hospitalization which posed a risk to the public and the patients because of their high infectious status.

The Florence Nightingale theory is useful in the assessment phase of need identification. The Florence Nightingale theory as cited in George (2002:51), conceptualized the significant role that the environment plays with regard to the health of an individual. The environment is external to the person and affects the health of both sick and well individuals. The Florence Nightingale theory explains the notion that disease is a reparative process and describes the nurse's role as manipulating the environment to facilitate and encourage the healing process. George (2002:51), indicated that Nightingale stated that the nurse's role is to promote or provide the proper environment for patients, including fresh air, light, pure water, warmth, quietness and the provision of an appropriate diet selection.

The duty of the nurse is to observe and assess the patient's physical and psycho-social state, taking action to reduce stress, assessing whether behaviour is inappropriate or self destructive, assisting and protecting them from harming themselves and others (Searle, 2005:206).

The theory of Abdellah in George (2002:178), indicated that the 21 nursing problems which focus on the identification of the physical, biological and socio-psychological needs of the patients, are useful in the assessment phase of the nursing process. The 21 nursing problem areas identified by Abdellah guide and promote the use of critical thinking in nursing in making nursing judgments in the care process. Abdellah categorizes the problems as overt or covert. The overt problems focus on the visible condition, whilst the covert problem is referred

to as emotional, sociological and interpersonal. Abdellah maintains that by addressing the overt problems the covert problems may be solved (George, 2002:178).

The nursing theorist, Henderson, in George (2002:88), emphasises that an individual's basic needs are based on fourteen basic nursing components. These nursing components are categorized as follows:

- the first nine components are physiological
- the tenth and fourteenth components are psychological aspects of communication and learning
- the eleventh is spiritual and moral
- the twelfth and thirteenth components are sociological such as occupation and recreation. Henderson based her theory about nursing care on the human needs, and the physical and emotional aspects of the individual (George, 2002:105).

The assessment phase therefore comprises of all the patient data collected subjectively and objectively, which are based on scientific principles.

2.6.4 Nursing diagnosis

The nursing diagnosis is explained by Luey et al. (2003:239), as “a clear, concise statement of the client's health status and concerns appropriate for nursing intervention.” The nursing professional recognizes, categorizes and organizes the presenting patterns and data of the client. The data is organized and a nursing interpretation is made before stating an actual diagnosis or problem (Luey et al. 2003:239).

Making a nursing diagnosis is the second phase of the nursing process. The nursing diagnosis is defined in the Scope of Practice for Nurses (Regulation 2598 as promulgated in the Nursing Act No 50 of 1978) as “...the identification of, and discriminating between physical, psychological and social signs and symptoms in man...”

The nursing diagnosis phase of the nursing process can be considered a decisive statement concerning the client's nursing needs. The nursing diagnosis is based on the client's assessment and should be ranked in order of priority. The diagnostic statements are developed from the nurse's inferences, which are based on the assessed and validated data, coupled with nursing, scientific and humanistic concepts and theories (George, 2002:29).

Nursing diagnoses provide the basis for the selection of nursing interventions to achieve outcomes for which the nurse is accountable. Suitable nursing interventions and goals are therefore required to be implemented to achieve the desired outcome.

It is imperative that the nursing diagnosis has an expected outcome. Outcome identification identifies expected outcomes of the client's nursing diagnosis. These outcomes or anticipated goals predict the expected care outcomes, based on identified care interventions and actions needed to treat the patient's conditions (Kozier, et al. 2004:299). The achievement of effective outcomes is to improve, stabilize and not to support deterioration or death of the patient's condition. According to Searle (2005:206), the observation, treatment and care of the patient must be in accordance with the diagnosis, medical and nursing regimes that must be recorded.

2.6.5 Planning phase

In the planning phase of the nursing process the professional nurse determines how to assist the client in resolving concerns related to restoration, maintenance or promotion of health (Luey et al. 2003:239). Activities are planned whereby the concerns of the patient are prioritized and the desired health outcome determined. An appropriate nursing intervention is planned with a well designed care plan specific to the patient's condition. Lee and Chang (2004:33), clarify the appropriate use of standardised care plans that will enhance the nurse's access to appropriate information to make clinical decisions and subsequently improve the recording process and quality of care rendered. Henderson's theory as cited in George (2002:87), states that caring should be planned and written according to a care plan, as it ensures that other care givers follow the planned regime (George, 2002:87).

A care plan is referred to as a statement of the goals to be achieved by the patient in overcoming problems and of nursing interventions applied if progress is unsatisfactory. It includes the implications of the interventions and information about the assessment and evaluation (Neary, 2000:213). Different formats of care plans can be utilized during the planning phase of patient care. The two different plans of care are articulated by Kozier et al., (2004:294), which are individualised or standardised plans of care. Individual care plans are referred to as care plans that are designed for a specific patient with a specific disease condition. The patient with a medical diagnosis of TB will have a specific care plan to manage him or her according to their personal disease profile and needs. The standardised care plan is designed for a specific disease or medical condition. The standardised care plan is

structured according to a set clinical pathway. The multi disciplinary team approach should be captured in the individualised care plan formulated for the individual patient. The interaction between nursing staff and the multi disciplinary team should be included in the care plan because these care plans are needed to treat each diagnostic condition and/or patient problem which has been assessed as requiring care (Kozier et al. 2004:298).

2.6.6 Implementation phase

Kozier et al. (2004-316), explained that it is in the implementation phase where the specific nursing intervention action is required, the RPN provides the measures needed to determine care outcomes and resources. The effectiveness of the nursing action depends largely on the nurse's ability to communicate with others.

The skills used to provide nursing actions are according to Kozier et al. (2004-316):

- cognitive skills which include problem-solving, critical thinking and creativity;
- interpersonal skills necessary for all nursing activities through using therapeutic communication and
- technical skills which is the manipulation of equipment, mobilizing patients, giving injections and doing bandages.

2.6.7 Evaluation phase

The evaluation phase of the nursing process is to determine whether the expected outcomes or goals as set or planned were achieved in the patient care or not. Smeltzer and Bare (2004:41), explained that the three skills required, that are written in the past tense, is to illustrate whether the actual outcomes are:

- patient's condition improved;
- patient's condition stabilized and
- patient's condition deteriorated, he died and was discharged.

The nursing process phases are explained by the Rodgers methodology (1988) as cited in (George, 2002:269), which are based on two fundamental phases: evaluative and diagnostic, and interventive. The evaluative and diagnostic phase is referred to as the "process of determining the position of an individual, family or group on the continuum of minimum to maximum well-being". The interventive phase is "the process of determining and initiating processes characterized by ongoing modification, alteration, revision and change" (George 2002:277).

Evaluation is a systematic, continuous process of comparing the client's response with the desired health outcomes. The evaluation of quality of nursing should be based on the principles of trustworthiness and objective assessment and not the subjective findings of the evaluator. Muller (2009:212), states that the outcomes should reflect the true state of affairs, accurate and correct. Evaluation allows for flexibility in care, allowing for change and adaptations as the patient's needs change and the standards of care are evaluated (Young, et al. 2003:199).

2.6.8 Discharge planning

The discharge plan describes the written outline of the care to be given when the patient is discharged from a health institution (Young, et al. 2003:183). The discharge planning is a process designed to make necessary arrangements for the patient and the relatives to ensure: continuity of care, ensure follow-up of the patient and to ensure quality of care based on a good referral system.

The patient-centred vs. family-centred approach are important to understand in discharge planning. Different conceptual theories were developed and assumptions made of the philosophies that underpinned the different theories, which attempted to explain the patient within his/her environment. Traditionally the nurse cared for the patient and the patient was the centre of the caring process. However, it was realized that patient care cannot be individualized and limited, but must be in the context of family interactive partnerships. Luey, et al. (2003: 361), define the family system as an organized whole, individuals within the family are parts of the system and are interdependent to each other. The family-centered model focuses on the bond in the family. Underpinning the family-centered system's model is the family interest, family needs, beliefs, roles and support as shown in figure 2.3.

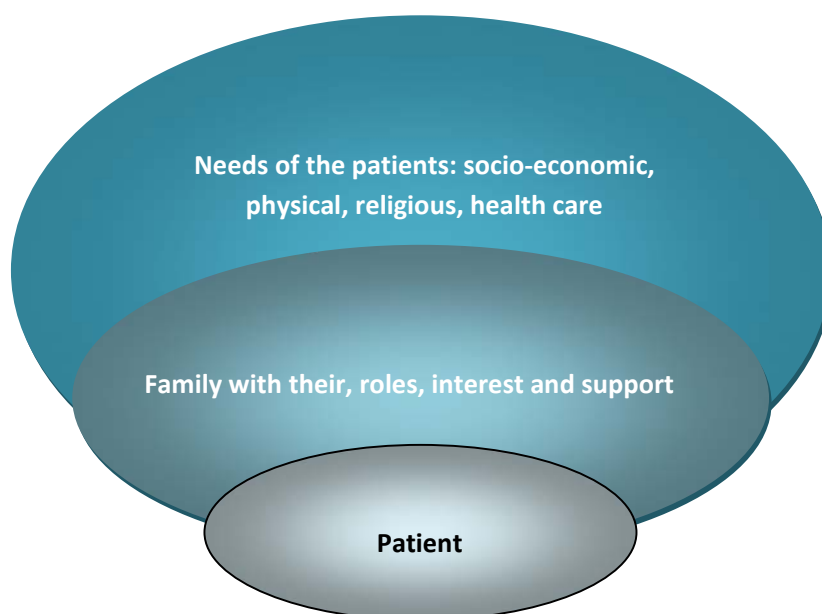


Figure 2.4: The patient and family-centred approach (Illustration by researcher)

The key concepts as explained by Smeltzer and Bare (2004:161), in the family that are functional are:

- affective (meeting the emotional needs of the family member);
- socialization: which assist with reintegration in the community by the patient;
- socio-economic: provision of the socio-economic needs;
- providing the physical necessities: food, shelter and clothing and
- health care: assisting with the maintenance of the patient's health.

According to Smeltzer and Bare (2004:161), the discharge implementation plan should include the:

- provision of patient education;
- referral between the health institution and
- external referral agency.

It is required that the nurse should know that the referral/discharge form sent to the community nurse or follow-up clinician, should be meaningful, containing all the relevant information about the patient such as for example, the current physical health status, subsequent health needs, the projected level of care needed such as home-based care or

convalescent institutions. The patient will also require social assistance, sick certificates and drug taking maintenance schedules. The specific outcomes should be to draw up the discharge plan and ultimately ensure that the patient is reintegrated into his society and eliminate concerns regarding stigma of the disease (Young, et al., 2003: 203).

According to Edelman and Mandle (2006:154), to ensure a smooth reintegration after discharge, a comprehensive family discharge assessment needs to be done, which will provide the nurse with the knowledge about the family's understanding and attitude towards the disease. Therefore, to ensure an effective discharge planning for a patient, the role of the nurse is comprehensive. This involves health promotion and disease prevention and bringing in the family as a support network.

It is important to evaluate whether the patients will be able to care for themselves and understand the context of the disease. To allow the patient to maintain his/her socio-economical status the nurse must determine whether the patient is employable or financially in a position to sustain her/himself so that referral to the social worker could be done if necessary to ensure that the patient's socio-economic needs are fulfilled. Furthermore, to the maintaining of the patient's socio-economic needs it was shown in a study conducted by Simons, Petch and Caplan (2002:101), that the patient should have easy access to information on practical issues, which include medication, benefits, transport and community-based resources. The information to be documented in the nursing process should be in accordance with the standards for nursing practice. Documentation reflects the nursing process demonstrating that the nurse has fulfilled her duty to care. It is required that nurses apply the problem-solving processes in their decision-making. However, the challenge that the nurses are faced with is it is their responsibility to establish how much information is enough for documentation and what needs to be documented.

2.7 Conclusion

In this chapter various aspects in understanding documentation are described including the legislative issues, the rights of the patient and an overview on the auditing process as a quality improvement tool showing the importance of quality assurance with specific reference to the patient documentation process. Furthermore the chapter describes the nursing process and related theories and models which form the conceptual theoretical framework for the study. Special emphasis was placed on the nursing process, a scientific framework used by the nursing professional when caring for the patient. The five key phases in the nursing

process are explained, as well as the final phase that concluded the caring continuum of the patient.

In the next chapter the researcher will discuss the research methodology which was implemented as described in Chapter 1.

CHAPTER 3:

RESEARCH METHODOLOGY

3.1 Introduction

The aim of chapter 3 is to describe in more detail the research methodology which was implemented in this study. This chapter includes an in-depth discussion on the research design, population and sampling, reliability and validity, pilot study, data collection, instrumentation and data analysis.

3.2 Goal

The goal of this study was to audit discharged patient files according to the phases of the nursing process including the discharged planning of the discharged patients diagnosed with TB from hospitals specialising in the management of patients with TB in the WCDoH.

3.3 Objectives

Based on the phases of the nursing process the objectives were set to determine whether the:

- Patients were adequately assessed by registered professional nurses with reference to their specific needs: physical, social, psychological dimensions of a human being
- Nursing diagnoses made by the registered professional nurse were relevant to the assessed needs of the patient
- Nursing care plans were based on the nursing diagnosis made by the registered professional nurse
- Nursing care plans were implemented by the registered professional nurse
- Nursing care plans were evaluated, adapted or discontinued by the registered professional nurse
- Discharged criteria were applied by the registered professional nurse.

3.4 Research methodology

Pollit and Beck (2004:723), defined research methods as a broad plan consisting of the steps, procedures and strategies for gathering and analysing the data in the research investigation.

3.4.1 Research design

Burns and Grove (2007:553), maintain that the research design is the blueprint for conducting a study. Furthermore, it is explained by Babbie, Voster, and Prozesky (2006:647), that the research design is the plan or structured framework of the way you intend to conduct the research process. Rubin and Babbie as quoted in De Vos, Strydom, Fouche, and Delport (2007:133), state that the research design deals with the act of designing the study in its broadest sense. This refers to all the decisions made in planning the study. These decisions include the overall type of design, sampling, sources and procedures for data collection, measurement issues and data analysis. For the purpose of this study a descriptive quantitative approach was applied to audit discharged patients' files at hospitals managing TB patients in the Western Cape. According to Burns and Grove (2007:25,249), a descriptive design is to describe a systematic investigation of relationships between or among variables of a single group.

3.4.2 Population and Sampling

According to Welman and Kruger (2004:47), the population is the study object, which may be organizations, groups or individuals and events whereby the research problem has an interest. Polit and Beck (2004:290), referred to the population as the "aggregate of cases that conform to the designated criteria and that are accessible for the study". Polit and Beck (2004:291), defined sampling as the process of selecting a portion of the population to represent the entire population. Furthermore, probability sampling involves the random selection of the population, and the relevance will be that each element of the population will be included in the sample (Polit and Beck, 2004:291).

The target population for this study are patient files of discharged patients who were discharged between 1st January 2007 and 31st December 2007 from hospitals specialising in the management of patients with TB in the WCDoH. There are six hospitals managed by the WCDoH and specialising in patients diagnosed with TB, For the purpose of the study it was decided to concentrate on those hospitals which met the following criterium:

- only hospitals which are utilizing the nursing process documents as designed by the WCDoH.

Only two of the six hospitals meet this criterium which will be referred to as hospital A and hospital B in the study. The discharged patient files of patients diagnosed with TB which formed the sample were regarded as one single group despite being from two hospitals.

The targeted population as defined by Polit and Hungler (2004:290), is the entire population in which the researchers are interested and to which they would like to generalize the results of the study. The targeted population for this study comprised of N=1768 discharged patient files containing nursing documentation and which were discharged between 01 January 2007 and 31 December 2007. For the purpose of this study, a systematic random sample was selected from these files. Table 1.1 shows the number of discharges N=1768 from the two hospitals during the period and the sample of n=214 (12%) was systematically drawn with intervals of five (5) meaning that every fifth file was drawn to achieve the sample size of n=214.

According to Burns and Grove (2003:246), systematic sampling can be conducted when an ordered list of all members of the population, the size of the population and the size of the sample is available. The population size is divided by the sample size, giving (**k**). Furthermore Brink, Van der Walt and Van Rensburg (2006:219), explain that systematic sampling may involve the selection of elements at equal intervals, such as every fifth, eight or twentieth element. Therefore, for the purpose of this study every fifth file was drawn.

The total sample size required for the purpose of this study was n=214 (12%). The population size for hospital A was n=1171 with a sample size of n=142 while hospital B was n=597 with a sample size of n=72.

The researcher conducted the study at hospital A, where the discharged patient files were kept in the medical records department. The medical records department was a single well ventilated room with appropriate fluorescent lighting to ensure visibility. The medical record room entrance had a counter where files were handed to people requesting files. This counter served as a barrier to prevent unauthorized access to the medical records room. There was a bell on the counter to alert the presence of any person who required assistance. It was a secure facility manned by an administration clerk and kept locked at all times when the administration clerk was not in the room. The discharged patient files as identified were separate from other files. The discharged patient files were in the racks mounted on the right side of the room. Shelving was arranged along the walls of the room. Three racks consisting of a total of five shelves were designated for discharged patient files and each shelf consists of 500 discharged patient files. The discharged patient files were arranged from the top to the bottom shelf on the right side of the room according to the numbering system based on the last three digits of the patient's file number. On the first day of the visit the researcher with the

assistance of the administrative clerk have drawn the sample size $n=142$ for the study, it was stored away in the medical records department where the files will not be mixed with the other files in the department. It was only for the researcher to be used on the follow-up visits.

The researcher for easy reference marked the shelf from the top down as follows: 1st shelf (A to B), 2nd shelf (C to D), 3rd shelf (E to F) 4th shelf (G to H) and 5th shelf (I to J). The shelves were easily accessible and reachable for the researcher and the administration clerk.

The administrative clerk working in the medical records of the hospitals assisted the researcher in selecting the sample size (discharged patient files with nursing documents) as per the hospital which met the criteria. The population size for Hospital A was $n=1171$ (66%) and 12% for the sample size to be drawn was $n=142$ as indicated in table 1.1. The starting point from where the sample was drawn was from the 1st file in the 1st shelf (A-B) and thereafter every fifth file was drawn from the shelves consisting of the discharged patient files. In the case where the fifth file did not adhere to the inclusion criteria the next fifth file was drawn.

The researcher therefore examined each patient file drawn to determine whether it met the criteria as set for the study.

The researcher conducted the study at hospital B under similar conditions as at hospital A. The discharged patient files, were kept in the medical records department. The medical records department was a single well ventilated room with appropriate fluorescent lighting. The room had two windows just below the ceiling. The medical records department was a secure facility manned by an administration clerk and locked when the administration clerk was not in the room. The discharged patient files were kept in 3 racks mounted to the left side of the room. The folders were arranged according to the folder numbers. The rack was divided into 5 shelves which each consisted of approximately 300 patient files. The researcher for easy reference marked the shelf from the top down as follows: 1st shelf (A to B), 2nd shelf (C to D) and 3rd shelf (E to F). The shelves were easily accessible and within reach of the researcher and the administration clerk who drew the discharged patient files.

An administrative clerk working in the medical records of the hospitals assisted the researcher in selecting the sample size (discharged patient files with nursing documents) as per the hospital which met the criteria.

3.4.3 Criteria

For the purpose of the study the following inclusion and exclusion criteria were set for the research sample:

Inclusion criteria

- Only the discharged patient files of patients who were discharged between 1 January 2007 and 31 December 2007
- Discharged patient files of hospitals utilizing the nursing process documents as designed by the WCDoH and
- Discharged patient files of both male and female adult patients older than 18 years were included in the study. The rationale for including patient files of the 18 year old patients was because they are independent, self reliant and employable.

3.4.4 Pilot Study

A pilot study was conducted under similar conditions as the actual study. The purpose of the pilot study was to determine the feasibility of the study, to pre-test the audit instrument for any ambiguity and inaccuracies. A systematic sample of n=21 (10%) of discharged patients' files were selected from one of the hospitals managing TB patients and which met the criteria as set for the study. The size of the sample of the pilot study was guided by the size of the sample (n=214) of the proposed study. The results of these audited discharged patient files were not included in the proposed study. The outcome of the pilot study showed that the study was feasible, all ambiguity and errors were eliminated from the audit instrument. Questions which showed redundancy and duplication were removed such as "Assess what test was done by the referring agent". This question was removed as it was similar to "Variable 12: Assess what tests were done by referring agent..."

Prior to the commencement of the study the fieldworkers were given a training session on the accurate completion of the discharged files. The session was also to ensure that all participants completed the information according to the same framework. During training the fieldworkers audited files under direct supervision of the researcher.

According to Burns and Grove (2007:549), a pilot study is a smaller version of a proposed study conducted to develop and refine the methodology, such as the instrument and data collection processes to be used in the larger study. LoBiondo-Wood and Haber (2006:204), stressed that the importance of conducting a pilot study was to identify the areas in the

interventions that need to be amended to enable the researchers to test an instrument they intend to use in a study.

3.4.5 Reliability of the study

Reliability refers to the consistency with which an instrument measures an attribute (Burns and Grove 2003:270). This is supported by de Vos, Strydom, Fouché and Delport (2007:162), who emphasises stability or consistency of the measurement. For the purpose of this study the reliability was ensured in the following manner:

- A statistician was consulted to assist in determining the size of the sample and data analysis.
- All constructs were clearly conceptualized to ensure that each measure only indicated one specific concept.
- The audit instrument was pretested in a pilot study to determine the feasibility of the study, for any ambiguity and inaccuracies.
- Five RPNs were trained as field workers to assist the researcher with the data collection. Pre- training was given to the field workers, which included an audit of documentation files by each field worker. During the auditing of the files discussions were allowed to ensure that all the field workers are consistent when completing the instruments.

Procedure for completion of the audit instrument:

The audit instrument designed was based on the nursing documentation currently used in the WCDoH hospitals. Consensus was reached that the audit instrument be completed as follow:

- The standard instrument was used, which clearly indicates the standard and criteria for each phase of the nursing process, which show what aspects of the nursing documentation in the patient file will be audited. The evaluation is based on the criteria as set for compliance, partial compliance, non-compliance and not applicable.
- Is the signature, date and time on the entry? The file will be opened and the records will be checked too for the signature, date, time after the care was provided or a procedure was performed; the signature, date and time should be on each record. If a patient had a special procedure for example a biopsy and the full signature of the nurse providing the care during the procedure, date and time a compliance score is given, when only the signature, or date or time was recorded it is given partial compliance. If no signature, date or time is given a non compliance score is given.

- Is the entry legible? When all the records are read you can clearly follow the sequence of events as according to the correct policy then a compliance score is given, if information is not clear and not easily understood a partial compliance score is given. If not done a non compliance score is given.
- Does the admission record include baseline information such as patient vital signs, condition of the patient, where was the patient referred? If the nursing documents include the full details a compliance score is given, if minimal details are given then a partial compliance score is given, if there is no information a non compliance score is given.
- There is a detailed description of the patient's condition before, during and after the procedure as well as any interventions done for the patient. When all these processes were recorded a score was given as compliance. When the nurse only wrote that the patient received the procedure without the detailed explanation, a partial compliance score was given.

3.4.6 Validity of the study

Validity is the degree to which an instrument measures or reflects the concepts that are being studied (Burns and Grove, 2003:274). According to De Vos et al. (2007:160), validity ensures that the instrument actually measures the concept in question and that the concept is measured accurately. For the purpose of the study validity was ensured in the following manner.

Content validity is described by De Vos et al. (2007:161), as “does the instrument provide an adequate sample of items that represent the content”. Content validity was determined for the study through the utilization and guidance of nursing experts, a nursing quality assurance expert and the relevant literature.

Face validity as explained by Burns and Grove (2007:540), is the verification that the instrument measures the content desired. For the purpose of the study, the instrument was pretested, through a pilot study, and all relevant questions pertaining to the phases in the audit instrument were used in the actual study, after the removal of duplicated questions.

Criterion validity

This was assured by applying the scientific formulated standardised nursing process documents. The items linked to the various phases were aligned with the standardised documents used in the daily clinical practice.

Construct validity

The audit instrument could safely be compared with the WCDoH nursing documents.

The instrument was circulated to various experts in nursing and quality assurance to ensure the content, face criterion, and construct validity of the instrument before submission to the Human Ethics Research Committee.

3.4.7 Instrumentation

Instrumentation consists of an audit instrument (Annexure A) with a set of 77 questions which guided the researcher to gain the relevant information for the study. The instrument was based on the five (5) phases of the nursing process and a discharged planning phase. It included all the relevant data needed to explore the objectives of the study.

The instrument was divided into the specific phases and questions to address the phases of the nursing process:

The assessment phase consisted of questions (1-25) which included the following:

- admission criteria of a patient
- biographical data: address, contact details, family contact
- assessment of the patient's understanding of the disease
- assessment of tests that were conducted and still to be done
- assessment of the patient's needs
- the involvement of the registered nurse during the assessment phase.

Phase on making a nursing diagnosis (question 26)

Establish whether a nursing specific diagnosis was made relevant to the presenting symptoms.

Phase on planning of the nursing care according to the nursing diagnosis (questions 27 – 34) which included the following:

- the formulation of a nursing plan specific to the diagnosis or general standard care plan
- the evaluation of the completeness of the content of the care plan such as the expected outcomes, assessment times and nursing prescriptions, whether monitoring was done, recorded and signed
- evaluate whether the RPN was involved during the planning phase.

Phase on the implementation of the care plan (questions 35 – 47) which include the following:

- evaluate whether the problem oriented progress reports were implemented
- all the planned continuous reports were implemented such as observation and medication
- monitoring of all data as legally correct, dated and signed
- evaluate the involvement of the registered nurse during the implementation phase.

Phase on the evaluation of the patient care provided as documented (questions 48 – 65) which include the following:

- evaluation of the completeness of the progress reports
- monitoring of the interaction with the multi-disciplinary team
- evaluate whether a crises entry was recorded
- evaluate whether all problems were evaluated, adapted or discontinued
- monitor the involvement of the RPN during the evaluation phase whether the document was dated and signed by the RPN.

Phase on the discharged criteria referred to the completion of the discharge records as addressed in (questions 66 – 77)

- evaluate whether a discharge plan was implemented
- evidence of the implementation of a discharge or final diagnosis
- monitor whether all protocols were followed regarding death entry or abscond entry
- evaluate whether the family was involved during the discharge phase
- monitor whether the nurse indicated how the patient left the hospital, transport, education and awareness provided and referral aspects
- monitor the completeness of the documents. Establish the legally correctness of the document at this stage; and whether dated and signed
- establish the involvement of the registered nurse during the discharge phase.

The instrument comprised of closed questions that were structured to a four point rating scale, on a frequency scale of compliance, partially compliance, and non-compliance and not applicable. Numerical values of, (2), (1), (0) were awarded, according to the level of completion of the documents. The acceptable standard result for all variables and the instrument total score were set at 95% by the researcher.

A questionnaire is "...a set of questions on a form which is completed by the respondent in respect of a research project" (De Vos, 2000:152). The audit instrument was developed by the researcher, and refined with the assistance of the nursing experts in the field of documentation. Questions were formulated and based on the literature and the actual documentation used in the clinical environment of the WCDoH.

3.4.8 Data collection

Burns and Grove (2007:536), define data collection as the identification of subjects and the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions or hypotheses of a study. The data was collected with the support of five field workers and the use of a pretested structured audit instrument.

The audit forms were completed by using the data as contained in the folders. The researcher travelled to the identified hospitals where the study was conducted. The duration of data collection at hospital A was six weeks and four weeks at hospital B.

At hospital B, the researcher with the support of five trained fieldworkers collected the data. A total of n=72 discharged patient files were audited, each field worker audited n=12 discharged patient files and the researcher n=12 discharged patient files.

At hospital A the researcher did the actual data collection personally without the support of any field workers. The rationale for the absence of the field workers at hospital A was due to their reluctance to assist further in the project. Consequently due to time constraints the researcher decided to complete the data collection process without any further assistance. The number of discharged patients' files audited was n=142. This was done over a period of six weeks. The completed audit instrument was numbered to assist the researcher to keep track with the instruments.

3.4.9 Data analysis and interpretation

With the support of a statistician data was analysed using the STATISTICA computer programme. Data was expressed in frequencies and tables. A statistician, Prof M Kidd based at the University of Stellenbosch assisted with the formulation of the data sheet and the analysis and the interpretation of the data.

3.5 Ethical considerations

The researcher obtained consent to conduct the research from the University of Stellenbosch, Committee for Human Science Research of the Faculty of Health Sciences. Further consent was received from hospital A and hospital B (Annexure C & D), the hospitals specialising in patients with TB, as well as Ethics and Research Committees.

The rights of the subjects were protected assuring their confidentiality, anonymity and privacy, whilst assessing the discharged patient files. The information will be disclosed to the department and the institutional management in a discrete manner after the completion of the study. The researcher strove to maintain objectivity and integrity in the conduct of the research as proposed by Mouton (2005:240). Discharged patients' files were audited in the hospitals under a strictly confidential and private environment. The principles of confidentiality, access to health records and protection of health records as enshrined in the National Health Act No 61 of 2003 (sections 14, 15, 17) was adhered to during the study. All data collected was stored in a locked cupboard at the Provincial Directorate Nursing Services office for the use by the researcher only. The analysed data will be stored for a period of five years.

3.6 Limitations

The study was conducted in only two hospitals within the WCDoH that met the specific criteria set for the study. A limitation to this study was the withdrawal of the field workers which delayed the data collection process.

3.7 Conclusion

In this chapter detailed information relating to the research methodology as implemented in this study was described which included the research design, population and sampling, data collection and data analysis, validity and reliability. A detailed description of the audit instrument was described. The research methodology implemented was aligned to the proposal that was submitted for ethics approval.

CHAPTER 4: ANALYSIS AND INTERPRETATION OF RESEARCH FINDINGS

4.1 Introduction

In this chapter the results of the research study are presented, interpreted and discussed. Only quantitative data was collected from the hospitals managing patients diagnosed with TB, n=214. The data was only drawn from the discharged patient files, according to the specific criteria set for the study.

4.2 Description of statistical analysis

The data is presented in the form of frequency tables with percentages as per the scoring criteria of compliance, partial-compliance, and non-compliance and not applicable. Although both hospitals were included in the study it was analysed as a single sample.

4.3 Criteria for scoring of patient discharged files

The audit instrument was aligned with the patient documents i.e. questions on the patient records were similar to that of the audit instrument.

The scoring was done according to whether a question was fully answered (compliance), partially answered (partial-compliance), not answered (non-compliance) or not applicable to the specific question.

Criteria for compliance

A score of (2) was given if all the relevant information was documented as required. This was the only criteria against which compliance was measured.

Criteria for partial-compliance

A score of (1) was given if all the relevant information required for the particular question was not given i.e. an incomplete answer.

Criteria for non-compliance

A score of (0) was given if a question was not answered.

Criteria for not applicable

“Not Applicable” was applied when there was no relevance to the particular question.

Table 4.1: Criteria and scores

ITEM	SCORE	COMMENTS
Compliance	2	Total (100%) compliance with correct recording
Partial-Compliance	1	Partial compliance (50%). Incomplete recording
Non-Compliance	0	No recording or very limited recording
Not Applicable		No relevance to specific questions

For the purpose of this study a target of 95% was set to determine compliance. This target was determined by the researcher, the supervisor an expert in the field of research and quality assurance managers in the WCDoH.

4.4 Phases of the nursing process

- Assessment (Variables 1-25)
- Nursing diagnosis (Variables 26)
- Planning (Variables 27-34)
- Implementation (Variables 35-47)
- Evaluation (Variables 48-65)
- Discharge (Variables 66-77)

4.4.1 Assessment phase (Variables 1-25)

The assessment phase entailed the collection of the patient’s primary information in essence to make an appropriate and accurate nursing diagnosis. The assessment phase included variables from 1-25. Variables have been grouped to simplify the interpretation of each phase. “Hospital” refers to the sample of audited discharged patient files selected from both hospitals.

Assessment of immediate data required at admission was recorded (Variables 1, 2, 4, 7) (table 4.2)

Variable 1 (n=214): Table 4.2 shows that the assessment of the audited discharged patient files n=165(77%) was completed within 24 hours after admission and was found to be compliant.

Variable 2 (n=214): The audited discharged patient files showing name and ward were found to be compliant n=185(87%).

Variable 4 (n=214). The assessment of the biographical data identified that n=124(58%) was compliant while n=76(36%) non-compliant.

Variable 7 (n=214): The source of referral on admission was predominantly compliant n=172(81%).

It is important to know the source of referral on admission which will assist the health care practitioners to evaluate the level of treatment and guide them with the continuity of the patient's treatment regime.

The acceptable level of compliance of 95% was not achieved in all the above mentioned variables that were assessed with reference to the recording of immediate data on admission. It is critically important that patients are assessed within 24 hours after admission by the nurses.

Furthermore, patient documents which are not accurately identified may have serious legal implications and jeopardize the management of patient care as described in paragraphs 2.5.3.6 and 2.5.3.7. The importance of the source of referral as described in the National Health Act, (61 of 2003) stipulates that patients should be referred to the appropriate level of care to prevent the disruption of care (Paragraph 2.5.1.2). It is therefore important that this information is obtained during assessment.

Table 4.2: Assessment of the patient's immediate data on admission

Variable 1: Assessment notes were completed within 24 hours of admission	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	99 (70%)	66 (92%)	165 (77%)
Partial-Compliance	37 (26%)	6 (8%)	43 (20%)
Non-Compliance	6 (4%)	0 (0%)	6 (3%)
Variable 2: Admission record with clear identification of the patient's name and ward	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	116 (82%)	69 (96%)	185 (87%)
Partial-Compliance	8 (6%)	3 (4%)	11 (5%)
Non-Compliance	18 (12%)	0 (0%)	18 (8%)
Variable 4: Assess whether the biographical data was completed such as address and contact number	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	71 (50%)	54 (74%)	125 (58%)
Partial-Compliance	4 (3%)	9 (13%)	13 (6 %)
Non-Compliance	67 (47%)	9 (13%)	76 (36%)
Variable 7: Assessment of the patient's source of referral on admission.	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	113 (79%)	59 (83%)	172 (81%)
Partial-Compliance	1 (1%)	1 (1%)	2 (1%)
Non-Compliance	28 (20%)	12 (16%)	40 (18%)

Assessment of the patient's socio-economic status and social network (Variables 3, 5, 6, 25) (TABLE 4.3).

Variable 3 (n=214): The assessment of the patient's socio-economic background n=125(58%) was compliant while n=76(36%) were non-compliant.

Variable 5 (n=214): Table 4.3 shows that only n=130(61%) of the audited discharged patient files assessed for the family history to determine the risk factor of exposure were compliant with recording.

Variable 6 (n=214): The results in table 4.3 show that the audited discharged patient files n=101(47%) were not compliant in recording a name of a next of kin or relative while n=109 (51%) were compliant.

Variable 25 (n=214): Table 4.3 shows that the audited discharged patient files n=77(35%) were not compliant with regards to whether the family was informed of the patient's admission while n=125(54%) was compliant.

The results for all the above variables which assessed the socio-economic status and social network of the patient were below 60% compliance. The importance of communicating and knowing the social background of the patient are two essential elements contributing to the success rate of TB. Knowing the patient's social background will not only assist the nurse in preparing the patients for their discharge from the outset but is part of participative and integrative management of TB, including the tracing and follow-up contacts of people that were in close contact with the patient who has been infected (Stellenberg and Bruce, 2007: 590).

The contact person, such as a relative or friend is important for the patient's support and assistance after hospitalization. People living in poor communities who delay or fail in seeking health care when they have symptoms are classified as a group that need to be reached to ensure the success of TB control. The patient's social habits and lifestyle habits such as drug and alcohol tendencies can have an impact on the taking of medication. These people have different reasons for not visiting health facilities such as distance, inadequate transport, and lack of finances or lack of confidence in modern medicine (International Hospital Federation Training Manual, 2006:28). Furthermore, Smeltzer and Bare (2004:161), explain that the functionary role of the family includes the affective, socialization, socio-economic, provision of physical necessities and assisting the patient with the maintenance of the patient's health care. The employment and unemployment status will also be an indicator to assess the reason for people to miss their treatment due to work commitment or migrant labour.

Table 4.3: Assessment of the patient's socio-economic status and social network

Variable 3: Assessment of the patient's socio-economic background	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	71 (50%)	54 (74%)	125 (58%)
Partial-Compliance	4(3%)	9 (13%)	13(6%)
Non-Compliance	67 (47%)	9 (13%)	76(36%)
Variable 5: Recording of a contact person, family member	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	67 (47%)	63 (88%)	130 (61%)
Partial-Compliance	5 (3%)	4 (5%)	9 (4%)
Compliance	70 (50%)	5 (7%)	75 (35%)
Variable 6: Is there a contact person such as the name of the next of kin or relative provided	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	61 (43%)	48 (66%)	109 (43%)
Partial-Compliance	0 (0%)	4 (6%)	4 (0%)
Non-Compliance	81 (57%)	20 (28%)	101(57%)
Variable 25: An entry was made of a family, relative who was informed of the admission and during admission	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	76 (54%)	49 (67 %)	125 (54%)
Partial-Compliance	4 (3%)	8 (12 %)	12(3%)
Non-Compliance	62 (43)	15 (21%)	77(43%)

Assessment of the patient's understanding of their condition (Variables 8 and 23) (table 4.4).

Variable 8 (n=214): Table 4.4 shows a poor result in compliance in the recording of the assessment of whether the patients understand the medical regime and taking of their medication. The audited nursing documents in the discharged patient files n=151(72%) were not compliant with the recording.

Variable 23 (n=214): The results in table 4.4 show a non-compliance n=167(78%) in assessing whether the patient is at risk to default in taking his/her medication.

It is important that the patient must have insight and an understanding of the illness to ensure compliance or adherence to therapy (Stellenberg and Bruce, 2007:589). Kozier et al.

(2004:452), affirm the importance of the client's perception and understanding of her/his health problems and concerns. The nurse's role in supporting patients in the control of adherence to TB treatment is emphasised by the ICN (2007:53) as described in paragraph 2.5.1.6. It is critical to ensure that patients comply in taking their TB treatment as prescribed to improve the cure rates and to prevent MDR-TB and XDR-TB (Paragraph 2.2). The recording of the assessment of the patient's level of understanding will give the health practitioners who are assisting the patient an overview of the patient's communicative level and at what level to communicate with the patient.

Table 4.4: Assessment of the patient's understanding of their disease and medication adherence

Variable 8: Assessment about whether the patient understands the medical regime/taking of medicine is recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	4 (3%)	55 (76%)	59 (26%)
Partial-Compliance	0 (0%)	4 (6%)	4 (2%)
Non-Compliance	138 (97%)	13 (18%)	151 (72%)
Variable 23: Assess patient's rate of taking their medication to establish a risk of non-compliance and their understanding of their condition for which recording was done	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	9 (6%)	31 (43%)	40 (19%)
Partial-Compliance	0 (0%)	7 (10%)	7 (3%)
Non-Compliance	133 (94%)	34 (47%)	167 (78%)

Assessment of the patient's physical condition (Variables 9, 10, 12, 14, 22) (table 4.5).

Variable 9 (n=214): The results in table 4.5 show that the audited discharged patient files n=163(76%) showed compliance in recording the assessment of the patient's physical condition. The results show a very low non-compliance n=15(7%) in recording the patient's physical condition.

Variable 10 (n=214): Table 4.5 shows that the audited discharged patient files showed only n=71(32%) were compliant in recording of the assessment of any immune-suppressed condition that places the patient at risk. Furthermore, the results indicated that the audited discharged patient files n=132(62%) showed a non-compliance in the recording of the immune-suppressed conditions.

Variable 12 (n=214): According to table 4.5 results show that the audited discharged patient files n=142(66%) showed compliance in clearly recording and marking the risk conditions such as allergies for the attention of other practitioners which were dated and signed.

Variable 14 (n=214): Table 4.5 shows a compliance rate n=101(47%) of the audited discharged patient files in the recording of patients being assessed for any surgical procedures.

Variable 22 (n=214): The results in table 4.5 show that the audited discharged patient files n=118(55%) were compliant in the recording of the patients being assessed for bodily abnormalities such as skin ulcers and pressure sores.

Despite the fact that a standardised assessment check list is available for the nursing staff to complete, evidence show that it was not done as prescribed. The importance of an adequate physical assessment is critical as an underlying disease such as HIV/AIDS, diabetes mellitus may be present which may compromise the management of the TB patient (Phipps, Monahan, Sands, Marek and Neighbors, 2003: 539).

Table 4.5: Assessment of the physical condition of the patient

Variable 9: Assessment of the patient's physical ... and recording of the presenting symptoms of the condition	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	98 (69%)	65 (90%)	163 (76%)
Partial-Compliance	29 (20%)	7 (10%)	36 (17%)
Non-Compliance	15 (11%)	0 (0%)	15 (7%)
Variable 10: Assessment for any immune – suppressed condition that places them at risk	Hospital A N=142	Hospital B n=72	Hospital A and B n=214
Compliance	31 (22%)	40 (56 %)	71 (32%)
Partial-Compliance	0 (0 %)	11 (15 %)	11 (6%)
Non-Compliance	111 (78%)	21 (29%)	132 (62%)
Variable 12: Risk conditions such as allergies, were clearly marked for the attention of other practitioners, dated and signed	Hospital A n=142	Hospital B n=72	Hospital A and b n=214
Compliance	74 (52%)	68 (94%)	142 (66%)
Partial-Compliance	0(0%)	0 (0%)	0(0%)
Non-Compliance	68 (48%)	4 (6%)	72 (34%)

Variable 14: Assessment of any surgical procedure done to the patient and recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	58(41%)	43(60%)	101(47%)
Partial-Compliance	0 (0%)	2(3%)	2(1%)
Non-Compliance	84(59%)	27(37%)	111(52%)
Variable 22: Assess for bodily abnormalities, such as skin ulcers and pressure sores for which recording was done	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	68 (48%)	50 (70%)	118 (55%)
Partial-Compliance	18 (13%)	1 (1%)	19 (9%)
Non-Compliance	56 (39%)	21 (29%)	77 (36%)

Recording of tests done (Variables 11, 13) (table 4.6)

Variable 11 (n=214): The results show in table 4.6 that the audited discharged patient files n=194(91%) were not compliant with regards to the recording of the assessment about diagnostic tests done prior to admission.

Variable 13 (n=214): Table 4.6 shows that the documented nursing activities audited in the audited discharged patient files were compliant in only n=102(48%) and n=95(44%) were not compliant in recording of the assessment of the outstanding tests, that were still required or to be done. The success of effective and efficient management of the patient with TB is dependent on accurate documentation of when and what type of diagnostic tests were done (Phipps et al., 2003:540).

Table 4.6: Recording of tests done

Variable 11: Assessment of tests done by the referring agent such as bacteriological smears	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	16 (11%)	4 (6%)	20 (9%)
Non-Compliance	126 (89%)	68 (94%)	194 (91%)
Variable 13: Assessment of the outstanding test to be done and recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	52 (37%)	50 (69%)	102 (48%)
Partial-Compliance	7 (5%)	10 (14%)	17 (8%)
Non-Compliance	83 (58%)	12 (17%)	95 (44%)

Assessment of the patient's basic needs (Variables 15, 16, 17, 18, 19, 20, 24) (table 4.7)

Table 4.7 shows that the results related to the assessment of the basic needs of the patient. The results indicated a tendency to compliance in recording the data of the patient's basic needs.

Variable 15 (n=214): The results show that n=127(59%) of the audited discharged patient files were compliant in the recording of the assessment of the patient's psycho-social needs and non compliant n=86(41%).

Variable 16 and 17 (n=214): Furthermore, the compliance rate of the audited discharged patient files n=119(56%) were shown in the recording of the assessment of safety, security and protection and a non-compliance rate of n=139(65%) for the assessment of the comfort and warmth needs of the patient.

Variable 18 (n=214): The assessment of the basic hygiene needs showed a compliance rate of n=203(95%) of the audited discharged patient files.

Variable 19 and 20 (n=214): The results show that the audited discharged patient files were compliant in assessing the patient's intake n=199(93%) and output n=188(88%).

Variable 21 (n=214): The results in table 4.7 show that n=207(97%) of the audited discharged patient files were compliant in the recording of the assessment of the patient's mobility.

Variable 24 (n=214): Table 4.7 shows a compliance rate of only n=90(42%) of the audited discharged patient files which showed that the registered professional nurse checks, signs and dates the initial assessment of the patient within 48 hours of admission.

The theorist, Abdellah in George (2002:178), stated that the 21 nursing problems, which focus on the identification of the physical, biological and socio-psychological needs of the patient, are useful in the assessment phase. Florence Nightingale's environmental theory, further stress the assessment of the patient in the environment (George 2002:50). The importance of the assessment of the patient in their totality is cited by Maslow's scientific philosophy, according to his conception of man as a "holistic, functioning, adjusting individual", which focuses on Maslow's hierarchy of basic human needs: physiological, safety and security, belongingness, esteem and self-actualization needs (Kozier et al., 2004:249).

Furthermore, Virginia Henderson based her theory about nursing care on the human needs, the physical and emotional aspects of the individual (George, 2002:105). Considering the views of theorists as described above, the importance of the assessment of the patient holistically is pivotal.

Table 4.7: Assessment of the patient's basic needs

Variable 15: Assessment of the patient's psycho-social needs	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	63 (44%)	64 (89%)	127(59%)
Partial-Compliance	0 (0%)	1 (1%)	1(0%)
Non Compliance	79 (56%)	7 (10%)	86 (41%)
Variable 16 : Assess needs for safety, security and protection	Hospital A n=142	Hospital B n= 72	Hospital A and B n= 214
Compliance	63 (44%)	56 (78%)	119(56%)
Partial-Compliance	0 (0 %)	2 (3%)	2 (1%)
Non-Compliance	9 (56%)	14 (19%)	93 (43%)
Variable 17: Needs for comfort and warmth were recorded	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	81 (57%)	58 (81%)	139 (65%)
Partial-Compliance	0 (0%)	1 (1%)	1 (0%)
Non-Compliance	61 (43)%	13 (18%)	74 (35%)
Variable 18: Needs for hygiene were recorded	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	n=132 (93%)	n=71 (99%)	n= 203 (95%)
Partial Compliance	n= 0 (0%)	n=0 (0%)	n= 0(0%)
Non Compliance	n=10 (7%)	n=1 (1%)	n= 11(5%)
Variable 19: Needs for intake were recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	136 (96%)	63 (87%)	199 (93%)
Partial-Compliance	6 (4%)	5 (7%)	11(5%)
Non-Compliance	0 (0%)	4 (6%)	4(2%)
Variable 20: The patient's output needs were assessed and recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	131 (92%)	57 (79%)	188 (88%)
Partial-Compliance	1 (1%)	4 (6%)	5 (2%)
Non-Compliance	10 (7%)	11 (15%)	21 (10%)

Variable 21: Assessment of the patient's mobility was recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	137 (96%)	70 (98%)	207 (97%)
Partial-Compliance	0 (0%)	1 (1%)	1 (0%)
Non-Compliance	5 (4%)	1 (1%)	6 (3%)
Variable 24: The initial assessment was checked, dated and signed by the registered nurse within 48 hours of admission	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	44 (31%)	46 (64%)	90 (42%)
Partial-Compliance	1 (1%)	6 (8%)	7 (3%)
Non-Compliance	97 (68%)	20 (28%)	117 (55%)

4.4.2 Nursing diagnosis (Variable 26)

The nursing diagnosis is based on the client's assessment made by the nurse. A nursing diagnosis is based on the assessed and validated data, coupled with nursing, scientific and humanistic concepts and theories (George, 2002:29).

The nursing diagnosis was made based on the subjective and objective information obtained during the assessment phase (table 4.8)

Variable 26 (n=214): The results show that only n=143(67%) of the audited discharged patient files were compliant in making a nursing diagnosis. These results were poor as a nursing diagnosis based on the assessment of the patient is essential for the planning of nursing interventions.

Axelsson, Bjorvell, Mattiasson & Randers (2006: 941), state that it is imperative that a nursing diagnosis is made based on the assessment findings in order to plan effective and efficient care as described in paragraph 2.6.4. A nursing diagnosis helps to clarify the patient's individual needs, and therefore facilitates planning of more specific interventions. Furthermore, the nursing diagnosis facilitated better communication between the members of the multidisciplinary team to promote the continuity of patient care. The results obtained in this section are statistically significant and it shows that deficiencies exist in the management of the TB patient.

Table 4.8: The nursing diagnosis formulation

Variable 26: A specific Nursing Diagnosis was made based on all the information	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	79 (56%)	64 (89%)	143 (67%)
Partial-Compliance	0 (0%)	0 (0%)	0 (0%)
Non-Compliance	63 (44%)	8(11%)	71 (33%)

4.4.3 Planning phase (Variables 27-34)

Individual care plans are referred to as care plans that are designed for a specific patient with a specific disease condition. The patient with a medical diagnosis of TB will have a specific care plan to manage him or her according to their personal disease profile and needs. The standardised care plan is designed for a specific disease or medical condition. The plan is structured according to a set clinical pathway. The multi-disciplinary team approach should be captured in the care plan of the individual patient. The scientific planning of the caring provided by the nurse to the patient during the patient's hospitalization is essential.

Critical thinking and technical skills are required from the nursing practitioner at this phase of documentation. The application of decision-making, observation and communication skills will ensure the success of the planned care interventions. During this phase the registered professional nurse must continue to collect data about the condition, problems encountered, their reactions and interactions of the patients. The applications of intelligent nursing judgments are required at this stage (Kozier et al., 2004:127).

Formulation of a nursing care plan (Variables 27 and 28) (table 4.9)

Variable 27 (n=214): The results in table 4.9 show that most of the audited discharged patient files were non-compliant n=90(43%) in providing additional care plans for other diseases. A not-applicable result was shown of n=84(39%) of the audited discharged patients' files.

Variable 28 (n=214): An equal number of the audited discharged patient files were both compliant n=104(49%) and non-compliant n=104(49%) in recording the provision of nursing prescriptive orders according to the needs of the patient.

Specific care plans for underlying diseases such as diabetes mellitus and HIV/AIDS are critical in the management of the patient with TB as it may seriously compromise the efficacy of the TB treatment (Phipps et al., 2003:539).

Table 4.9: Formulation of a nursing care plan

Variable 27: Additional care plan included for other diseases e.g. Diabetes	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	25 (18%)	15 (21%)	40 (18%)
Non-Compliance	77(54%)	13 (18%)	90 (43%)
Not Applicable	39(28%)	44 (61%)	84 (39%)
Variable 28: Nursing orders are prescriptive as per the need of the patient	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	49 (35%)	55 (77%)	104 (49%)
Partial-Compliance	0 (0%)	6 (8%)	6 (2%)
Non-Compliance	93 (65%)	11(15%)	104 (49%)

The completeness of the nursing care plan (Variables 29, 30, 31, 32, 33, 34) (Tables 4.10 and 4.11)

Variable 29 (n=214): The results shown in table 4.10 indicate that only n=66 (31%) of the audited discharged patient files were compliant regarding the registered professional nurses countersigning the nursing care plan.

Variable 30 (n=214): Furthermore, the results as shown in table 4.10 indicate that the audited discharged patient files were almost equally rated as to be compliant n=100(47%) and non-compliant n=103(48%) in stating the assessment times, the evaluation dates and times.

Variable 31 (n= 214): The audited discharged patient files showed a low compliance rate of n=97(45%) in documenting the nursing prescriptions with the date and signature when achieved.

Table 4.10: Completeness of the nursing care plans

Variable 29: Termination of a nursing prescription is countersigned by the registered professional nurse	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	36(25%)	30 (42%)	66 (31%)
Partial-Compliance	0 (0%)	5 (6%)	5 (2%)
Non-Compliance	106(75%)	37(52%)	144(67%)
Variable 30: Assessment times are clearly stated and the evaluation dates and times stipulated	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	51 (36%)	49 (68 %)	100 (47%)
Partial-Compliance	1(1 %)	10 (14 %)	11 (5%)
Non-Compliance	90 (63%)	13 (18%)	103 (48%)
Variable 31: Nursing prescriptions are ticked, dated and signed when achieved	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	48 (34%)	49 (68%)	97 (45%)
Partial-Compliance	3 (2%)	8 (11%)	11 (5%)
Non-Compliance	91 (64%)	15 (21%)	106 (50%)

Variable 32 (n=214): Table 4.11 shows that the audited discharged patient files indicated a low compliance rate of n=81(35%) in the completion of the records where the nursing prescription was discontinued.

Variable 33 (n=214): A compliance rate of only n=86(40%) of the audited discharged patient files showed the recording of the prioritised problems as identified, stated as short-term and planned accordingly.

Variable 34 (n=214): The results in table 4.11 also shows a compliance rate of only n=98(46%) of the audited discharged patient files with reference to recording of action plans with the date and signature.

Table 4.11: Completeness of the nursing care plans (Continued)

Variable 32: Records are completed when a nursing prescription was discontinued	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	40 (28%)	41 (57%)	81 (38%)
Partial-Compliance	1(1%)	7 (10%)	8 (4%)
Non-Compliance	101 (71%)	24 (33%)	125 (58%)
Variable 33: Problems as identified are prioritised, stated as short term and planned accordingly	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	39 (27%)	47(65.2%)	86 (40%)
Partial-Compliance	0 (0%)	6 (8.3%)	6 (3%)
Non-Compliance	103 (73%)	19(27.3%)	122 (57%)
Variable 34: Action plans clearly reflected, dated and signed, stated as taken future actions	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	50 (35%)	48 (67%)	98 (46%)
Partial-Compliance	0 (0%)	0 (0%)	0 (0%)
Non-Compliance	92 (65%)	24 (33%)	116 (54%)

The results obtained about the planning phase has shown that a deficit exists in the management of the patient with TB. Furthermore, a nursing care plan may only be prescribed according to the scope of practice (R2598) by a registered professional nurse as promulgated by the Nursing Act 50 of 1978. According to a study by Lee and Chang (2004:34), nurses perceive the development of care plans as time-consuming, the care plan content design not user-friendly, it constitutes more paperwork and is not patient-centred.

4.4.4 Implementation phase (variables 35-47) (Tables 12-13)

The implementation phase of the nursing process refers to implementation of the interventions as prescribed in the planning phase which are carried out and documented. The action plans are formulated and the patient's reactions and responses are recorded.

Variable 35 (n=214): The audited discharged patient files indicated a compliance rate of only n=117(55%) in the implementation of a specific care plan for the TB patient while in hospital.

Variable 36 (n=214): A similar compliance result was obtained n=117(55%) of the audited discharged patient files in writing a care plan within 24 hours while in hospital.

Variable 37 (n=214): The recording of a clear date, month, year and time showed a compliance rate of n=112 (52%) of the audited discharged patient files.

Variable 38 (n=214): Furthermore, the results in table 4.12 show that the audited discharged patient files n=119(56%) were compliant in implementing the observations as planned.

Variable 39 (n=214): Table 4.12 also shows a compliance rate of n=119(56%) of an implemented dated and signed medication plan.

Variable 40 (n=214): Only n=111(52%) of the audited discharged patient files were compliant in listing expected outcomes for each problem.

Variable 41 (n=214): Results showed a compliance rate of n=113(53%) of the audited discharged patient files for the recording of realistic expected outcomes.

Table 4.12: Implementation of the nursing care plans

Variable 35: A specific care plan for TB was implemented	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	54 (38%)	63 (88%)	117 (55%)
Partial-Compliance	0 (0%)	0(0%)	0 (0%)
Non-Compliance	88 (62%)	9 (12%)	97 (45%)
Variable 36: Implementation done in 24 hours of admission	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	54 (38%)	63 (88%)	117 (55%)
Partial-Compliance	0 (0%)	0 (0%)	0 (0%)
Non-Compliance	88 (62%)	9 (12%)	97(45%)
Variable 37: The date, month, year and time clearly recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	53 (37%)	59 (82%)	112 (53%)
Partial-Compliance	1 (1%)	2 (3%)	3 (1%)
Non-Compliance	88 (62%)	11(15%)	99 (46%)
Variable 38: The observations as planned were implemented	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	56 (39%)	63 (88%)	119 (56%)
Partial-Compliance	0 (0%)	0 (0%)	0 (0%)
Non-Compliance	86 (61%)	9 (12%)	95 (44%)

Variable 39: Medication plan was implemented, dated and signed (n=214)	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	57 (40%)	62 (86%)	119 (56%)
Partial-Compliance	84 (59%)	10 (14%)	94 (44%)
Non-Compliance	1 (1%)	0 (0%)	1 (0%)
Variable 40: An expected outcome is listed for each problem	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	54 (38%)	57 (79%)	111 (52%)
Partial-Compliance	0 (0%)	4 (6%)	4 (2%)
Non-Compliance	88 (62%)	11 (15%)	99 (46%)
Variable 41: The expected outcome is realistic in the TB specific care plan	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	52 (37%)	61 (85%)	113 (53%)
Partial-Compliance	2 (1%)	1 (1%)	3 (1%)
Non-Compliance	88 (62%)	10 (14%)	98 (46%)

Variable 42 (n=214): Writing clear detailed notes in the continuous records of additional information about the patient, dated and signed showed a compliance rate of only n=123(57%) of the audited discharged patient files.

Variable 43 (n=214): Table 4.13 shows that the audited discharged patient files n=93(68%) were non-compliant in implementing care plans for other physical conditions.

Variable 44 (n=214): The recording of an expected outcome as listed for the additional problems shows a compliance rate of only n=101(47%) of the audited discharged patient files.

Variable 45 (n=214): More than half of the audited discharged patient files n=110(51%) showed a tendency of non compliance of the recorded nursing actions that could not be compared with the nursing actions as prescribed in the care plans for other conditions.

Variable 46 (n=214): Table 4.13 shows a non compliance rate of n=112(52%) of the audited discharged patient files for the recording of the expected outcomes of the additional care plan.

Variable 47 (n=214): The audited discharged patient files showed a compliance rate of n=138(64%) for registered professional nurses to check and sign the care plans.

Table 4.13: Implementation of the nursing care plans (Continued)

Variable 42: Clear detailed notes were written in the continuous records.....	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	64 (45%)	59 (82%)	123 (57%)
Partial-Compliance	74 (52%)	13 (18%)	87 (41%)
Non-Compliance	4 (3%)	0 (0%)	4 (2%)
Variable 43: Additional care plans were implemented for other physical conditions....	Hospital A n=103	Hospital B n=33	Hospital A and B n=136
Compliance	25 (24%)	16 (48%)	41 (30%)
Partial-Compliance	0 (0%)	2 (6%)	2 (2%)
Non-Compliance	78 (76%)	15 (45%)	93 (68%)
Variable 44: An expected outcome is listed for the additional	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	51 (36%)	50 (69%)	101 (47%)
Partial-Compliance	0 (0%)	5 (7%)	5 (2%)
Non-Compliance	91 (64%)	17 (24%)	108 (51%)
Variable 45: All recorded nursing actions can be compared with the nursing actions	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	40 (28%)	35 (49%)	75 (35%)
Partial-Compliance	12 (9%)	17 (24%)	29 (14%)
Non-Compliance	90 (63%)	20 (27%)	110 (51%)
Variable 46: The expected outcome in the additional care plan is realistic	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	49 (35%)	51 (71%)	100 (47%)
Partial-Compliance	0 (0%)	2 (3%)	2 (1%)
Non-Compliance	93 (65%)	19 (26%)	112 (52%)
Variable 47: The nursing care plan was checked and signed by the registered nurse	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	38 (27%)	36 (50%)	74 (35%)
Partial-Compliance	0 (0%)	2 (3%)	2 (1%)
Non-Compliance	104 (73%)	34 (47%)	138 (64%)

The implementation of the care plan is important as described in paragraph 2.3.2.6, it is in this phase where the specific intervention is required. It provides the measures needed to determine care outcomes and resources. According to Smeltzer and Bare (2004:40), implementation focuses on resolving the patient's nursing diagnosis and achieving expected outcomes, thus meeting the patient's health needs.

It is also important that the nurse must keep re-examining the previous phases such as assessment, planning and the implementation to establish the effectiveness of the care provided. The implementation phase is not only about implementing the planned actions, but also recording these actions. Therefore, the quality of the nursing records regarding the accuracy, completeness and relevance, as well as what the registered professional nurse documents will indicate whether the goals were achieved and how effectively the patient was treated (Kozier et al., 2004:317).

4.4.5 Evaluation phase (Variables 48-64) (Tables 4.14-4.15)

The evaluation phase evaluates the care plan and allows for the adjustment of the care plans as required based on any changes in the patient's condition and it also provides feedback about the care given to the patient. The determination of the appropriateness and acceptability of the care plans were evaluated and if this was executed at least twice in twenty-four hours. For this study the evaluation of the patient's progress was done according to the formulated care plan, and whether it was adjusted, reviewed and evaluated at set time frames.

The evaluation of the patient's progress was done according to the formulated care plan. It was adjusted, reviewed and evaluated at set time frames. (Variables 48, 49, 52, 53, 59, 61, 62, 63, 64, 65) (Tables 4.14 and 4.15)

Variable 48 (n=214): A compliance rate of n=145(68%) of the audited discharged patient files showed that the nursing interventions were followed up and countersigned by the registered professional nurse.

Variable 49 (n=214): The audited discharged patient files n=172 (80%) were non-compliant as shown in table 4.14. with reference to the recording of any changes to the nursing care plan or as problems were resolved or identified, indicating the effectiveness of the care provided.

Variable 52 (n=214): Only n=85(40%) of the audited discharged patient files were compliant regarding prescriptions being carried out at the correct time.

Variable 53 (n=214): The majority n=160(75%) of the audited discharged patient files indicated a non-compliance rate in the introduction of short term interventions and reaching specific outcomes.

Table 4.14: The evaluation of the patient's progress

Variable 48: Nursing interventions are followed up and countersigned by the registered nurse	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	30 (21%)	38 (53%)	68 (32%)
Partial-Compliance	1 (1%)	0 (0%)	1 (0%)
Non-Compliance	111 (78%)	34 (47%)	145 (68%)
Variable 49: Nursing care plan changes as the patient problems are resolved and new problems are identified	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	22 (15%)	20 (28%)	42 (20%)
Partial-Compliance	0 (0%)	0 (0%)	0 (0%)
Non-Compliance	120 (85%)	52 (72%)	172 (80%)
Variable 52: Every prescription is carried out at the correct time...	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	41 (29%)	44 (61%)	85 (40%)
Partial-Compliance	56 (39%)	19 (26%)	75 (35%)
Non-Compliance	45 (32%)	9 (13%)	54 (25%)
Variable 53: Short term interventions were reached and signed off	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	21 (15%)	30 (42%)	51 (24%)
Partial-Compliance	1 (1%)	2 (2%)	3 (1%)
Non-Compliance	120 (84%)	40 (56%)	160 (75%)

Variable 59 (n=214): Reviewing and adjusting the care plan as the patient's condition changes showed a non-compliance rate of n=172(80%) in the audited discharged patient files.

Variable 61 (n=214): Only n=123(57%) of the audited discharged patient files were compliant in evaluating the problem-orientated patient progress at least twice in a 24 hour period.

Variable 62 (n=214): The recording, reviewing and adjustment of the care plans shows a non-compliance rate of n=154(72%) of the audited discharged patient files.

Variable 63 (n=214): Only n=87(41%) of the audited discharged patient files were compliant showing that nursing activities, as well as their effects were carried out.

Variable 64 (n=214): Table 4.15 show that only n=63(29%) of the audited discharged patient files were compliant in recording evaluation times as set out in the care plans.

Variable 65 (n=214): The results in table 4.15 show that the nursing documents revealed a high rate n=160(74%) of non-compliance of where the registered professional nurses signed the nursing records within 24 hours.

The importance of the evaluation of the nursing care plans are emphasised by Young et al. (2003:194), that the nursing care plans should be revised if the expected outcome is not achieved or only partially achieved.

The results obtained from the hospitals show that both hospitals were most likely to adversely influence the management of the TB patient. All care plans are required to be evaluated and adjusted when necessary as described in paragraph 2.3.2.7.

The needs of the patient infected with TB are so complex that when they are discharged from the institution due consideration should be given to the complex discharge requirements. The recording of all the elements for the continuation of a quality life should be captured in the notes. In the instance where the patient is readmitted then the patient's records will indicate all aspects of service requirements. The discharge criteria should ensure for the safe and timeous discharge to the most appropriate setting, such as a convalescent service, or his/her own previous environment. The nursing practitioner should consider the appropriate package of care, inclusive with the multidisciplinary team to meet the patient's needs on discharge to the community. The provision of discharge notes and information, and liaison advice to health practitioners at the next level should be recorded (Young et al., 2003:195).

Table 4.15: The evaluation of the patient's progress (Continued)

Variable 59: The care plan was reviewed and adjusted when the patient condition changes	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	27 (19%)	15 (21%)	42 (20%)
Partial-Compliance	0 (0)	0 (0%)	0 (0%)
Non-Compliance	115 (81%)	57 (79%)	172 (80%)
Variable 61: Problem orientated patient progress notes reflect that the patient's progress was evaluated at least twice in a 24 hour period	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	16 (11%)	33 (46%)	49 (23%)
Partial- Compliance	14 (10%)	28 (39%)	42 (20%)
Non –Compliance	112 (79%)	11 (15%)	123 (57%)
Variable 62: Nursing Plan reviewed and adjusted	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	16 (12%)	26 (36%)	42 (20%)
Partial-Compliance	2 (1%)	16 (22%)	18 (8%)
Non –Compliance	124 (87%)	30 (42%)	154 (72%)
Variable 63: Carried out nursing activities are recorded, as well as the effects	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	43 (30%)	44 (61%)	87 (41%)
Partial-Compliance	30 (21%)	17 (24%)	47 (22%)
Non-Compliance	69 (49%)	11 (15%)	80 (37%)
Variable 64: Evaluation times clearly recorded	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	26 (18%)	37 (51%)	63 (29%)
Partial-Compliance	15 (11%)	19 (27%)	34 (16%)
Non-Compliance	101 (71%)	16 (22%)	117 (55%)
Variable 65: The registered nurses have signed the nursing records within 24 hours	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	21 (15%)	30 (42%)	51(24%)
Partial-Compliance	1(1%)	2 (3%)	3 (1%)
Non-Compliance	120(84%)	40 (55%)	160 (75%)

Patients should be enrolled in a DOTS programme upon discharge to the community health centre. The assessment of the patient's health and social care needs should be indicated in the pre-discharge notes. Pre-discharge education of the patient helps to ensure adherence to treatment and risk-reduction behaviour. The content and date of this education should be documented (Stellenberg and Bruce, 2007:960). The importance of the evaluation phase of the nursing process phases are explained by the Rodgers methodology (1988) as cited in George (2002:269). The evaluation phase is based on two fundamental phases: the evaluative and diagnostic phase and the interventive phase.

Evaluation phase: Interaction with the multidisciplinary team recorded (Variable 54, 56, 57) (Table 4.16)

The recording of the interaction with the multidisciplinary team in the nursing documents are routinely done after a visit to the patient by one of the members of the multidisciplinary team or after a ward round discussion of the patient's condition.

Variable 54 (n=214): A compliance rate of n=168 (79%) of the audited discharged patient files were shown in recording that the multi-disciplinary team were kept informed of changes in the patient's condition.

Variable 56 (n=214): Table 4.16 shows that the audited discharged patient files n=172(81%) were compliant in the completion of the patient's continuous progress regarding the interaction with the multidisciplinary team members such as the doctor's visits.

Variable 57 (n=214): The audited discharged patient files n=144(67%) were compliant with the recording of the patient's prescriptions as prescribed by the multi-disciplinary team.

The interaction between nursing and the multidisciplinary team should be included in the care plan because the careplans are needed to treat each diagnostic condition and/or patient problem which has been assessed and requiring care (Kozier et al., 2004:298).

Table 4.16: Evaluation: Interaction with the multidisciplinary team

Variable 54: Multi-disciplinary team is kept informed of the patient's sudden changes such as social, psychological, physical or crises	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	116 (82%)	52 (72%)	168 (79%)
Partial-Compliance	23 (16%)	15 (21%)	38 (17%)
Non-Compliance	3 (2%)	5 (7%)	8 (4%)
Variable 56: The patient's continuous progress records include all elements of the care activities, such as the doctor's visits.	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	117 (83%)	55 (71%)	172 (81%)
Partial-Compliance	23 (16%)	16 (28%)	39 (18%)
Non-Compliance	2 (1%)	1 (1%)	3 (1%)
Variable 57: Records include the prescriptions from the multi-disciplinary team, entry dated and signed	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	103 (72%)	41 (57%)	144 (67%)
Partial-Compliance	38 (27%)	23 (32%)	61 (29%)
Non-Compliance	1 (1%)	8 (11%)	9 (4%)

Evaluation : Evaluation of the recording of medication (Variables 51, 60) (Table 4.17)

Variable 51 (n=214): Table 4.17 shows that the audited discharged patient files n=176(82) were compliant in recording the medication plan, dated and signed.

Variable 60 (n=214): The recording of non-TB drugs or other medication was shown to be compliant in n=198(92%) of the audited discharged patient files. Evaluation of the patient is critical to ensure the continuity of care, identify complications and introduce interventions to improve the patient's condition, stabilize the condition and prevent further deterioration (Paragraph 2.6.7).

Table 4.17: Evaluation of the recording of medication

Variable 51: Medication Plan recorded, dated and signed	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	110 (78%)	66 (92%)	176 (82%)
Partial-Compliance	30 (21%)	6 (8%)	36 (17%)
Non-Compliance	2 (1%)	0 (0%)	2 (1%)
Variable 60: Other medication was recorded clearly, dated and signed	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	135 (95%)	63 (88%)	198 (92%)
Partial-Compliance	4 (3%)	6 (8%)	10 (5%)
Non-Compliance	3 (2%)	3 (4%)	6 (3%)

Evaluation : Recording of the continuous reports in chronological order (Variables: 42,50,55,58) (table 4.18)

Variable 42 (n=214): The recording of clear detail notes, dated and signed in the continuous records showed a compliance rate of only n=123(57%) of the audited discharged patient files.

Variable 50 (n=214): Table 4.18 further shows that the audited discharged patient files n=131(61%) were compliant in recording the patient's vital signs, dated and signed as required on the continuous record.

Variable 55 (n=214): The recording of the interventions, progress of the patient's condition, signed and dated were compliant in n=172(81%) of the audited discharged patient files.

Variable 58 (n=214): The recording of a major crisis or unexpected event which is dated, signed and the action clearly stated were found to be only compliant in n=118(55%) of the audited discharged patient files.

Table 4.18: Evaluation: Recording of continuous reports

Variable 42: Detail notes were written in the continuous progress report.....	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	64 (45%)	59 (82%)	123 (57%)
Partial-Compliance	74 (52%)	13 (18%)	87(41%)
Non-Compliance	4 (3%)	0 (0%)	4 (2%)
Variable 50: Recording of the patient's vital signs was done as per requirements on the continuous record, dated and signed	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	70 (49%)	61 (85%)	131 (61%)
Partial-Compliance	72 (51%)	11 (15%)	83 (39%)
Non-Compliance	0 (0%)	0 (0%)	0 (0%)
Variable 55: The interventions and progress of the patient's condition are clearly recorded, dated and signed in the continuous progress report	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	117 (83%)	55 (77%)	172 (81%)
Partial-Compliance	23 (16%)	16 (22%)	39 (18%)
Non-Compliance	2 (1%)	1 (1%)	3(1%)
Variable 58: A major crisis or unexpected event is dated and signed, and the action clearly stated	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	70 (49%)	17 (24%)	87 (41%)
Partial-Compliance	68 (48%)	50 (69%)	118 (55%)
Non-Compliance	4 (3%)	5 (7%)	9 (4%)

4.4.6 Discharge phase (Variables 66-77)

The discharge of the patient should reflect a final written report recorded when the patient was discharged, on the death of a patient or when discharged to his/her place of residence, step-down facility or prison. Patients were sometimes transferred to another health facility which included hospitals or a primary health care facility.

Final entry and assessment was made and recorded (Variables 66, 67, 68) (Table 4.19)

Variable 66 (n=214): The audited discharged patient files n=201(94%), showed a compliance rate in recording of a final entry whether it was a discharge, transfer or death including the date, month, year and time.

Variable 67 (n=214): Table 4.19 shows that the audited discharged patient files n=202(94%) were non-compliant in not recording a final diagnosis.

Variable 68 (n=214): The audited discharged patient files n=130(61%) showed a non-compliance rate in giving the patient a discharge assessment. Results further show that hospital A was more likely to be non compliant n=106(75%).

Table 4.19: Final entry and assessment

Variable 66: Date, month, year and time of discharge, transfer or death was recorded	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	135 (95%)	66 (92%)	201 (94%)
Partial-Compliance	1 (1%)	6 (8%)	7 (3%)
Non-Compliance	6 (4%)	0 (0%)	6 (3%)
Variable 67: Entry of final diagnosis was done	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	11 (8%)	0 (0%)	11 (5%)
Partial-Compliance	1 (1%)	0 (0%)	1 (1%)
Non-Compliance	130 (91%)	72 (100%)	202 (94%)
Variable 68: Patient was given a discharge assessment which was recorded	Hospital A n= 142	Hospital B n= 72	Hospitals A and B n= 214
Compliance	15 (10%)	22 (30%)	37 (17%)
Partial-Compliance	21 (15%)	26 (38%)	47 (22%)
Non-Compliance	106 (75%)	24 (32%)	130 (61%)

Abscndment protocol followed (variable 69) (Table 4.20)

The data obtained from the nursing documents of the audited discharged patient files revealed that n=14(6.5%) of the total research sample of patients had absconded.

Variable 69 (n=14): Table 4.20 shows that the audited discharged patient files n=9(64%) were compliant in the recording of patient abscondment, n=1(7%) partially compliant and n=4(29%) recordings were non-compliant.

Table 4.20: Abscondment recording

Variable 69: Protocol was followed with regards to abscondment, a detailed recording was made and signed	Hospital A n= 13	Hospital B n= 1	Hospital A and B n= 14
Compliance	8 (61%)	1 (100%)	9 (64%)
Partial-Compliance	1 (8%)	0 (0%)	1 (7%)
Non-Compliance	4 (31%)	0 (0%)	4 (29%)

Death entry recording Variable 70 (Table 4.21)

The data obtained from the audited discharged patient files revealed that n=48(22%) of the total research sample of patients have died.

Variable 70 (n=48): The audited discharged patient files showed a compliance rate of n=33(69%) in recording death entries.

Table 4.21: Death entry recorded

Variable 70: Final discharge entry at the death of a patient, recorded time, date and signed	Hospital A n= 38	Hospital B n= 10	Hospital A and B n= 48
Compliance	24 (63%)	9 (90%)	33 (69%)
Partial-Compliance	13 (34%)	1 (10%)	14 (29%)
Non-Compliance	1 (3%)	0 (0%)	1 (2%)

General discharge of a patient variables 71-77 (Tables 4.22 and 4.23)

Variable 71 (n=214): Table 4.22 shows a compliance rate of the audited discharged patient files n=66 (33%) in following the protocol with regard to the recording of the final discharge entry, family informed and advice given.

Variable 72 (n=15): The recording of the place of discharge such as clinic, home and other hospital showed a compliance rate of n=103(67%) as shown in the audited discharged patient files.

Variable 73 (n=156): Table 4.22 shows that the audited discharged patient files n=113(72%) showed a non-compliance in indicating that health education was given to the patient and or the family.

Variable 74 (n=156): Table 4.22 shows that only n=53(34%) of the audited discharged patient files comply with recording of all the referral documentation to the follow-up clinic.

Table 4.22: General discharge of a patient

Variable 71: Protocol was followed with regards to the final discharge entry, family informed and advice given	Hospital A n=142	Hospital B n=72	Hospital A and B n=214
Compliance	41 (29%)	25 (35%)	66 (33%)
Partial-Compliance	70 (49%)	33 (45%)	103 (51%)
Non-Compliance	31 (22%)	14 (20%)	35 (16%)
Variable 72: Recording was made of the place of discharge such as clinic, home and other hospital	Hospital A n=99	Hospital B n=56	Hospital A and B n=155
Compliance	75 (76%)	28 (50%)	103 (67%)
Partial-Compliance	9 (9%)	18 (32%)	27 (17%)
Non-Compliance	15 (15%)	10 (18%)	25 (16%)
Variable 73: Health education was given to the patient and or the family 58=not applicable	Hospital A n=95	Hospital B n=61	Hospital A and B n= 156
Compliance	13 (14%)	18 (30%)	31 (20%)
Partial-Compliance	5 (5%)	7 (11%)	12 (8%)
Non-Compliance	77 (81%)	36 (59%)	113 (72)
Variable 74: A recording was made of all referral documentation to the follow-up clinic	Hospital A n= 95	Hospital B n=61	Hospital A and B n= 156
Compliance	22 (23%)	31 (51%)	53 (34%)
Partial-Compliance	50 (53%)	21 (34%)	71(45%)
Non-Compliance	23 (24%)	9 (15%)	32 (21%)

Variable 75 (n=156): Table 4.23 shows that the audited discharged patient files show a poor compliance rate n=53(34%) in recording the patient's physical condition at discharge.

Variable 76 (n=156): The compliance of n=90(59%) of the audited discharged patient files showed the recording of the mode of transport at discharge.

Variable 77 (n=214): The audited discharged patient files showed a non-compliance rate of n=132(64%) for the registered professional nurse who checks, signs and dates the final discharge form of the patients.

In South Africa the incidence of TB is one of the highest in the world. According to the WHO Report 2009 South Africa is rated at number 6 (See paragraph 2.2). Results obtained in this section show that health education is not a priority and educating patients about their condition will improve the cure rates, result in early detection and prevention of the disease (National Tuberculosis Plan, 2007-2011). The discharge criteria include the integration of the patients into their environment. The Orem theory on self care supported this focus (George 2002:102). In addition the Rodger's 'holistic health' theory stresses the importance of continuation of health living.

Table 4.23: General discharge of a patient (Continued)

Variable 75: An entry was made of the physical condition of the patient at discharge	Hospital A n=95	Hospital B n= 61	Hospital A and B n= 156
Compliance	28 (29%)	25 (41%)	53 (34)
Partial-Compliance	50 (53%)	27 (44%)	77 (50%)
Non-Compliance	17 (18%)	9 (15%)	26 (16%)
Variable 76: An entry of the mode of transport at discharge was made	Hospital A n=95	Hospital B n=61	Hospital A and B n= 156
Compliance	53 (56%)	37 (61%)	90 (59%)
Partial-Compliance	13 (14%)	7 (11%)	20 (13%)
Non-Compliance	29(30%)	17 (28%)	46 (28%)
Variable 77: The final discharge form checked signed and dated by the registered nurse	Hospital A n= 142	Hospital B n= 72	Hospital A and B n= 214
Compliance	33 (23%)	42 (58%)	75 (33%)
Partial-Compliance	0 (0%)	7 (10%)	7 (3%)
Non-Compliance	109 (77%)	23 (32%)	132 (64%)

4.5 Conclusion

In this chapter the data collected with reference to the objectives that were set were analysed and interpreted with the support of the literature and statistician. Data was expressed as frequencies and in tables.

The results have revealed the shortcomings in the nursing records, such as the difficulties in finding important information with regards to the care provided to the patient. Results of a study conducted in hospitals in Brazil which evaluated the quality of nursing documents of

patients, found that the nursing records failed to be accurately completed. Serious shortcomings in the documentation of nursing care in patient records included the communication of information between health professionals in and outside the health facilities. Problems were encountered in the records which included misspellings, illegibility, incorrect use of terminology and acronyms not standardised (Ehrenberg and Ehnfors, 2001; Setz and D'Innocenza, 2009). According to Setz and D'Innocenza (2009:315), the shortcomings observed included incidents that were not clearly reported such as deaths, gaps in recording administration of medicines as well as lack of pointing out achievement of time schedules to measure outcomes of care planning.

4.5.1 The goal and objectives

The goal and objectives set for this study were successfully achieved. The results show that patients were inadequately assessed, diagnosed, care plans were inadequately formulated, implemented and evaluated, including discharged planning.

CHAPTER 5:

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter conclusions and specific recommendations based on the findings of the study will be described. A descriptive quantitative study was conducted by using a pretested instrument to audit the discharged patient's files of n=214 patients from two hospitals, (hospital A) and (hospital B), specialising in the management of patients with TB in the WCDoH.

The purpose set for this study was reached as documents were audited and it was determined whether the documents were adequately assessed, nursing diagnosis made, relevant care plans formulated, care plans implemented and evaluated, as well as the discharge criteria adhered to. The research question which guided the study was answered. According to the results it can be concluded that the management of patients infected with TB is seriously compromised as reflected in the documentation. It can thus be contextualized, according to the written documentation principles "if it is not written it was not given".

5.2 Recommendations

The management of care to patients infected with TB is seriously compromised as reflected in the documentation through inaccurate and incomplete documentation as shown by the scientific evidence obtained in this study. In the light of this the following recommendations are made with reference to nursing practice, nursing education, human resource management and nursing research. The implementation of a feasible, relevant and practical nursing documentation system is important and it requires the support from institutional management. Nurses should therefore be allowed to enhance their knowledge and skills in areas relevant to documentation and recording. These skills should include knowledge regarding the nursing process and medico-legal principles with regard to recording.

5.2.1 Quality improvement programme

A quality improvement programme (QIP) should be introduced, be implemented, evaluated regularly and maintained within the institutions and the WCDoH Service TB Platform. QIP should be emphasised within the ward environment as supported by Muller (2009:262). It will

be recommended that nursing documentation should be audited on a weekly basis to improve completeness. Cognizance should be taken that documentation is an indicator for measuring quality care.

5.2.1.1 Standardisation of documents

The introduction of a more concise, relevant and standardised documentation for the nursing process should be implemented. The assessment and care plans should be focused and less time consuming. Considering the aforementioned will encourage and motivate nurses to understand and use their problem-solving ability to address the patient's needs. Uniformity and standardization of documents linked to the nursing process should be user friendly, simplified and less cumbersome. The use of paper should be minimized. Research done by Törnvall and Wilhemsson (2009:611), looked at the implementation and evaluation of a standardized nursing record to prevent the lack of notes on nursing assessment, nursing diagnosis and nursing outcomes. The study has shown that the standardized nursing record was experienced to be more difficult and time-consuming but, it led to an increased reflection over the care of the patient, being more informative, comprehensive and knowledge intensive.

Electronic documentation should be considered and be aligned with international standards. A unified language acceptable to all staff will simplify documentation. English being the internationally acceptable language and the everyday business language should be considered. Consultation in revising documentation should not be done without the input of staff on operational level. In the light of a shortage of the registered professional nurse who is responsible for the actual adherence to the completeness of documentation, a more concise and practical document may be designed.

5.2.1.2 Auditing of patient documentation

An auditing programme should be introduced in which patient documents are audited at least weekly by the nursing operational manager and monthly by the area manager. A random sample of discharged patient files should be drawn and audited at least annually by the WCDoH. This will reflect the care given to patients and remedial action could be introduced sooner when problems are identified.

Institutional and provincial level peer review committees should be introduced to monitor and evaluate the accuracy of documents. Documents should be revised on a three year basis to determine its relevancy (Kozier et al., 2004:232).

5.2.1.3 Case management of patients

According to the Patient Rights Charter, the patient has a right to be seen by a named nurse. This in essence is a practice that causes far more involvement than the patient treatment, as well as the nursing clinician to be accountable for the overall well being of the patient from admission to discharge (Department of Health, 2006). The International Council of Nursing (2007) believes that one of the best practices for nursing is the concept of case management by primary nurses.

The researcher suggests that hospitals specialising in patients diagnosed with TB, need to adopt the case management model of care that gives the nurse the responsibility and related authority for patient care.

The model of care involves the following principles:

- the nurse assuming responsibility for a designated patient caseload
- accountability of the nurse for the patient from admission to discharge of the patient
- direct care by the nurse whenever the nurse is present
- case management by the primary nurse who uses written plans that have a multidisciplinary team approach
- the encouragement of networking and nurses to work in close collaboration and partnership with each other such as hospital and community nurses
- the registered nurses should play the leading role in care management.

5.2.2 Education and training

Lee and Chang (2004:39), cited although substantial amounts of funds are spent training nurses, careful examination should be done of the nurse's experiences in using care plans. Nurses should be assisted in care plan development, which have effects on improved patient care (Lee and Chang, 2004:39).

The training in the quality approach to patient documentation as well as the management in TB will enhance the knowledge of nurses. Training should be given at different levels from orientation, induction and in-service training to the continuous professional development programmes (Muller, 2009:268). The individual should be held responsible for his/her own

development with specific reference to patient quality improvement and managers should be responsible for the identification of training needs which have an effect on patient care. The empowerment of staff through various processes such as staff peer review meetings and journal clubs have been an effective discussion method to ensure uniformity and consistency through the sharing of best practices within the institution with specific reference to documentation. The shortcomings as identified in all the phases of the nursing process require concerted efforts to ensure that the staff is more motivated, knowledgeable and competent to execute the recording function.

5.2.3 Mentorship, Preceptors and Role models

The performance and quality of the health system ultimately depend on the quality and motivation of the health care providers (Young et al., 2003:306). Therefore, there is a need to have role models, mentors and preceptors that should be utilized to reaffirm the professional role of the nurses involved with record-keeping. These people are examples of experience, competent employees and the interaction in the educational and practice environment will add value and make it purposeful. A preceptor's role is an experienced nurse who provides emotional support and is a strong clinical role model for the new nurse. It is expected that the nurse preceptors have an adequate knowledge of adult learning to ensure the process is effective.

5.2.4 Rewarding of staff

Positive reinforcement such as rewards is to be used as motivational strategies. It is also important that the reward should not be given as routine, but for the accomplishment of an achievement. Nursing staff that have proven to adhere to the standards of professional and legal standards of documentation completion, and do it continuously and on an excellent level should be acknowledged and rewarded. This will reinforce the motivation to improve on standards. Also during performance appraisal appreciation can be shown and can be an important entry point for staff motivation. Awards (money, certificates or other tokens) are given to people who are assessed as excellent workers. Although its value has decreased over the years, the award system is still appreciated by the health workers. Apart from the award system, strategies to motivate staff should be considered. Awards should be considered on an individual and collective basis.

5.2.5 Professional responsibility and accountability

Searle (2005:198), cited in the results of their study that nurses who formulated care plans were more aware of their professional duty. To ensure that nurses remain committed and motivated to do their task at a high level the following should be considered:

The nursing supervisors and managers must be skilled to provide leadership, support and guidance to the junior staff in areas of recordkeeping and knowledge of the disease.

According to legislation the registered professional nurse is responsible and accountable for the care management of the patient which is reflected in record keeping (Regulation 2598 as promulgated by the Nursing Act 50 of 1978).

5.2.6 Generating and building an evidence based practice

An evidence based practice should be built to ensure that the best practice is implemented for safe practice for the patient. The quality and the accuracy of documentation are critical in ensuring the continuity of care. Further research should be undertaken to identify the factors influencing documentation in nursing practice in the TB hospitals of the Western Cape.

The analysis according to the study shows that nursing documentation is not completed adequately during all the phases of the nursing process. It is evident that documentation reveals evidence of the care that was provided. It is therefore recommended that further research to establish the reasons for poor documentation is undertaken. According to Verschoor et al. (2005:45), recordkeeping is evidence that treatment details were recorded on the patient's charts at the time and that the notes made on the patient chart are accurate and complete. In a court of law recordkeeping may simplify matters considerably for nurses and their employers.

5.3 Conclusion

An audit was conducted to determine the shortcomings in the compliance of patient documentation in hospitals specialising in the management of patients with TB. It was envisaged to determine whether the discharged patient's documents according to the phases of the nursing care process were adequately documented. As described above in paragraph 5.2.9 inadequate documentation is a reflection of patient care not provided. The study revealed that the patients were inadequately assessed, ultimately influencing the diagnosis,

the planning and implementation of care plans, and evaluation which includes discharge planning.

The results obtained in this study are substantiated by Tornvall and Wilhelmsson (2008:2116), who identified that the nursing documents lacked details of the patients status, assessments and patient reaction to treatment. In addition the results revealed that the nursing records are used as a source of information for treatment and follow-up. The unit manager used the records for statistical purposes.

Furthermore, Tornvall and Wilhelmsson (2008:2120), indicated that the nursing documentation was valuable and necessary as an indicator to measure patient care and used as a tool for communication by nurses, managers and other health practitioners.

In conclusion guided by the research question "Are the audited discharged patient files at hospitals specialising in the management of patients with TB in the WCDoh compliant?" The researcher concludes that the discharged patient files are not compliant.

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ANNEXURES

Annexure A: Instrument

QUESTIONNAIRE: FOR USE IN AN AUDIT OF DISCHARGED PATIENTS' FILES MANAGED IN HOSPITALS SPECIALISING IN TB

A. Introduction

The questionnaire will be the measuring instrument that the researcher will utilize to conduct an audit of the discharged patient files. These patients were discharged from hospital A and hospital B during the period 1 January 2007 and 31 December 2007.

B. Scoring

The scoring will be done in relation to the area of compliance. The rating is as follows:

1. The written information in the patient records Comply with the standard and will be given a rating of 2 points.
2. In the case where the information in the patient record is incomplete e.g. dates, signature and incomplete, it will be evaluated as Partial-Compliance and it will be given a rating of 1.
3. If there is no recording done in the patient records as per the set criteria it will be evaluated as Non-Compliance and it will be given a rating of 0 point.

Item	Score	Comments
Compliance	2	Total (100%) compliance with correct recording
Partial-Compliance	1	Partial compliance (50%) Patient record without dates, signature and incomplete
Non-Compliance	0	Limited recording
Not Applicable (NA)		Not applicable to the specific variable

PHASE1: ASSESSMENT					
Assessment entails the collection of patient primary information/data in essence to make an appropriate and accurate nursing diagnosis					
No	Criteria	C	PC	NC	NA
1.	Assessment was done and record completed within 24 hours of admission with clear date, month, year and patient day documented				
2.	Admission record with clear identification of patient's name and ward				
3.	Assess the patient's socio-economic background to determine whether the patient comes from a potentially high risk area (poverty related e.g. shelters, informal settlement)				
4.	Assess whether the biographical data was completed such as the address and contact number				
5.	Assess the family history to determine the risk of exposure				
6.	Is there a contact person such as the name of the next of kin or relative provided?				
7.	Assess patient's source of referral on admissions e.g. a private doctor or public institution or home				
8.	Assess whether the patient understands the medical regime/taking of medication. Patient's understanding of the disease is recorded				
9.	Assessment of patient's physical status in relation to the sick pattern. Recording of the presenting symptoms of the condition				
10.	Assess patient for any other immune-suppressed condition that places him/her at risk and record				
11.	Assessment of tests done by the referring agent such as bacteriological smears and recording of the results				
12.	Risk conditions such as allergies, were clearly marked for the attention of other practitioners, dated and signed				
13.	Assessment of the outstanding test to be done and recorded				

14	Assessment of any surgical procedure done to patient and recorded				
15	Assessment of the patient's psycho-social needs				
16	Assess need for safety, security and protection				
17.	Patient's needs for comfort and warmth were recorded				
18.	Needs for hygiene were recorded				
19.	Needs for intake were assessed and recorded				
20.	The patient's output needs were assessed and recorded				
21	Assessment of the patient's mobility was recorded				
22.	Assessment for bodily abnormalities such as skin ulcers and pressure sores for which recording was done				
23.	Assess patient's rate of taking their medication to establish a risk of non-compliance and their understanding of their condition, for which recording was done				
24.	The initial assessment document was checked, dated and signed by a registered nurse within 48 hours of admission				
25.	An entry was made of the patient's family member or friend who was informed of the patient's admission				

PHASE 2: NURSING DIAGNOSIS

The nursing diagnosis is made based on the subjective and objective information obtained from the assessment phase

No	Criteria	C	PC	NC	NA
26.	A specific nursing diagnosis was made based on all the information				

PHASE 3: PLANNING

Nursing interventions are prescribed for each problem identified

No	Criteria	C	PC	NC	NA
27	Additional care plan included for other diseases e.g. Diabetes				

28.	Nursing orders are prescriptive as per the need of the patient				
29.	Termination of a nursing prescription is counter-signed by a registered nurse				
30.	Assessment times are clearly stated and the evaluation dates and times stipulated				
31.	Nursing prescriptions are ticked, dated and signed when achieved				
32.	Records are completed when a nursing prescription was discontinued				
33.	Problems identified and prioritized stated as short term and planned accordingly				
34.	Action plans are clearly reflected, dated and signed, stated as taken future actions or no future action required				

PHASE 4: IMPLEMENTATION

The implementation phase is when the interventions as prescribed in the planning phases are carried out and documented. The action plans are formulated and the patient's reactions and responses are recorded

NO	Criteria	C	PC	NC	NA
35.	A specific care plan has been implemented for the TB disease				
36.	The care plan has been written within 24 hrs of admission				
37.	The date, month, year and time are clearly recorded				
38.	The observations as planned were implemented				
39.	Medication plan was implemented, dated and signed				
40.	An expected outcome is listed for each problem				
41.	The expected outcome is realistic in the TB specific care plan				
42.	Clear detailed notes were written in the continuous progress report of additional information regarding the patient, dated and signed				
43.	Additional care plans were implemented for other physical conditions e.g. Diabetes and Hypertension				

44.	An expected outcome is listed for each additional problem				
45.	All recorded nursing actions can be compared with the nursing actions as prescribed in the nursing care plan for other conditions				
46.	The expected outcome in the additional care plan is realistic				
47.	The nursing care plan was checked and signed by a registered nurse				

PHASE 5: EVALUATION

The evaluation entails the patient's progress in accordance to the formulated care plan. The evaluation phase allows for the adjustment of the care plans as well as serves for feedback regarding the care given to the patient. The determination of the appropriateness and acceptability of the care plans are evaluated and it is done at least twice in 24 hours.

	Criteria	C	PC	NC	NA
48.	Nursing interventions are followed up and counter-signed by the registered nurse				
49.	The nursing care plan changes as problems are resolved and new problems are identified, indicating the effectiveness of the care provided				
50.	Recording of the patient's vital signs was done as per requirements on the continuous record, dated and signed				
51.	Medication plan was recorded, dated and signed				
52.	Every prescription is carried out at the correct time and documented				
53.	The patient has short term interventions that were reached and signed off				
54.	Multidisciplinary team is kept informed of patient's sudden change such as social, psychological, physical or crises				
55.	The interventions and progress of the patient's condition is clearly recorded, dated and signed in the continuous progress record				

56.	The patients continuous progress record include all elements of the care activities such as doctors' visits				
57.	Records include the prescripts from the multidisciplinary team. Entry dated, and clearly signed				
58.	A major crisis or unexpected event, date and signed. Action clearly stated				
59.	The patient's care plan was reviewed and adjusted when patient conditions changes				
60.	Other medication, such as non-TB drugs were recorded clearly, dated and signed				
61.	Problem-oriented patient progress notes reflect that the patient's progress is evaluated at least twice in a 24 hour period				
62.	Nursing care plan reviewed, adjusted and ticked that it is clearly recorded				
63.	Carried out nursing activities are recorded, as well as their effects				
64.	Evaluation times are clearly recorded as set out in the care plans				
65.	A registered nurse has signed the nursing records within 24 hours				

DISCHARGE, TRANSFER OR DEATH

A final written report is recorded when patient is discharged. Discharge can be written as final on the death of a patient. Discharge can be a discharge to the patient's place of residence, step-down facility or prison. Patients are a transfer, when they are transferred to another health care facility such as a primary health care facility or to a hospital. Patient will be discharged after registered as discharged followed by an abscond from hospital. Patients who signed a refusal of hospital treatment are also included in the discharge category.

	Criteria	C	PC	NC	NA
66.	Date, month and year and time of discharge, transfer or death was recorded				
67.	Entry of a final diagnosis was done				
68.	Patient was given a discharge assessment, which was recorded				
69.	Protocol was followed with regards to the abscondment. Detail recording was made and signed				
70.	Final discharge entry completed at the death of a patient. Recorded according to time, date and clearly signed				
71.	Protocol followed with regards to the final discharge entry; family informed and advice was give				
72.	Recording was made of the place of transfer such as clinic, home, and other hospital				
73.	Health education was given to patient and or the family				
74.	A recording was made of all referral documentation to the follow-up clinic				
75.	An entry was made of the physical condition of the patient at discharge				
76.	An entry of the mode of transport at discharge was made				

77.	The final discharge form was checked, signed and dated by the registered nurse				
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VOLENE JOY WERELY

June 2008

Annexure B: Letter of consent Stellenbosch University



STELLENBOSCH UNIVERSITY
 Faculty of Health Sciences
 Department of Interdisciplinary Health Sciences

22 October 2008

Ms VJ Werely
 Division of Nursing
 Dept of Interdisciplinary Health Sciences

Dear Ms Werely

RESEARCH PROJECT : "A RETROSPECTIVE AUDIT OF NURSING DOCUMENTATION IN HOSPITALS SPECIALIZING IN THE MANAGEMENT OF PATIENTS WITH TUBERCULOSIS"
PROJECT NUMBER : N08/09/268

It is my pleasure to inform you that the abovementioned project has been provisionally approved on 20 October 2008 for a period of one year from this date, on the condition that if any data is disclosed to the department/ management, it will not contain any personalised information. You may start with the project, but this approval will however be submitted at the next meeting of the Committee for Human Research for ratification, after which we will contact you again.

Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary to make their final decision.

Please quote the abovementioned project number in all future correspondence.

Please note that a progress report (obtainable on the website of our Division) should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Federal Wide Assurance Number: 00001372
 Institutional Review Board (IRB) Number: IRB0005239

The Committee for Human Research complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Kind regards

PP
Prof PJT de Villiers
Chairperson: Committee for Human Research
RESEARCH DEVELOPMENT AND SUPPORT (TYGERBERG)
 Tel: +27 21 938 9207 / E-mail: mertrude@sun.ac.za

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Annexure C: Letter of consent – committee for human research



UNIVERSITEIT STELLENBOSCH
UNIVERSITY OF STELLENBOSCH

14 November 2008

Ms VJ Weryly
Division of Nursing
Dept of Interdisciplinary Health Sciences

Dear Ms Weryly

**RESEARCH PROJECT: "A RETROSPECTIVE AUDIT OF NURSING
DOCUMENTATION IN HOSPITALS SPECIALIZING IN THE
MANAGEMENT OF PATIENTS WITH TUBERCULOSIS"**
PROJECT NUMBER : N08/09/268

My letter dated 22 October 2008 refers.

At a meeting that was held on 10 November 2008, the Committee for Human Research ratified the approval of the above project by the Chairperson.

Kind regards

PP
Prof PJT de Villiers
Chairperson: Committee for Human Research
RESEARCH DEVELOPMENT AND SUPPORT (TYGERBERG)
Tel: +27 21 938 9207/ E-mail: mertrude@sun.ac.za

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Ekeleleli Gesondheidswetenskap - Faculty of Health Sciences

Verbind tot Optimale Gesondheid • Committed to Optimal Health
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Annexure D: Letter of consent hospital A



Departement van Gesondheid
Department of Health
iSebe lezeMpilo



Verwysing
Reference
Isalathiso

Navrae
Enquiries DR E MOSTERT

Imibuzo

To Whom it may concern

Hereby Hospitalgrants permission to Mrs Volene Werely to perform a study at the institution on:

A Retrospective Audit of Nursing Documents of Patients in Hospitals Specialising in the Management of Patients with Tuberculosis in 2008 through the University of Stellenbosch.

As part of the agreement the hospital will be officially informed of the outcome of the research.

Patient confidentiality will be maintained throughout the study.

Dr E Mostert
Senior Medical Superintendent
Hospital
Date: 30 November 2009

Annexure E: Letter of consent hospital B



Navrae
Enquiries : Mrs. R van Rooyen
Imibuzo

Telefoon
Telephone : (023) 348 1309

Ifowuni

Verwysing
Reference :
Isalathiso

**Brewelskloof Hospitaal/Hospital
Departement van Gesondheid
Department of Health
Isebe lezeMpilo**

Mrs V Werely
Department Health
Head Office
CAPE TOWN
8000

Here with permission is granted for Mrs Volene Werely to do her study at our institution during 2008. Study : Retrospective audit of nursing documentation of patients in hospitals, specializing in the mangement of patients with Tuberculosis.

Thanks

Regards

.....
DR. D THERON
SENIOR MEDICAL SUPERINTENDENT

DATE: 10 / 9 / 2008

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