

AN OVERVIEW OF COMPLETENESS OF MATERNAL RECORDS:
DOCUMENTATION OF MATERNAL NURSING CARE RENDERED
TO WOMEN DURING THE FOUR STAGES OF LABOUR
IN OSHAKATI INTERMEDIATE HOSPITAL

AN OVERVIEW OF COMPLETENESS OF MATERNAL RECORDS:
DOCUMENTATION OF MATERNAL NURSING CARE RENDERED
TO WOMEN DURING THE FOUR STAGES OF LABOUR
IN OSHAKATI INTERMEDIATE HOSPITAL

DISSERTATION SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF NURSING SCIENCE

OF
THE UNIVERSITY OF NAMIBIA

BY

EVA-ANGELINA NDAUANA VELIKOSHI

SUPERVISORS: PROF A. VAN DYK

DR. K. HOFNIE-//HOËBES

NOVEMBER 2007

DEDICATIONS

For my late mother, Lady B.V. Velikoshi (1952-1997), who brought me up in a manner I still appreciate. I love you Mom. My husband Tylvas, and my children, Leonard and Lianna, you brighten every day of my life!

My brothers Benardt, Ndjudo, Patrau and my sister, Efeni, this research should serve as an inspiration to you, I am going further; I took the lead and you should follow. Special thanks to Ndjudo for his educational challenge to me; otherwise I could have been lazy.

Also for those who were there for me when I needed mental and physical support after my mother's death – Aunt Suzzan, Mrs Magudu (Pretorius), my neighbours and my cousin, Elina. The world would have been dark if you had not lent me a helping hand when I needed it. Thank you very much.

DECLARATIONS

I, Eva-Angelina Ndauna Velikoshi, hereby declare that this dissertation “An overview of completeness of maternal records: Documentation of maternal nursing care during the four stages of labour at Oshakati Intermediate Hospital” is a true reflection of my own research, and that this work or part thereof has not been submitted for degree purposes to any other institution of higher learning.

ACKNOWLEDGEMENTS

Firstly, I would like to thank God for giving me the talent to go this far. May I sincerely also thank Professor Agnes van Dyk and Dr Käthe Hofnie-//Hoëbes of the University of Namibia for their guidance and words of encouragement during my studies.

Special thanks to the following lecturers, professors, doctors, midwives and researchers at different universities, institutions and hospitals internationally, who helped me and participated willingly in the evaluation, adjustment and modification of the data collection instrument: Professor Soo Doowe (Director, Midwifery Studies Research Unit, University of Central Lancashire, England), Devane Declan (Midwifery Research Assistant, School of Nursing and Midwifery, Trinity College, Dublin, Ireland), Professor Jane Mashburn (Clinical Associate Professor, Intern Programme Director for Nurse – Midwifery, Emory School of Nursing, England), Kitty MacFarlane (United States Public Health Services, WHO Collaborative Center for Reproductive Health), Dr Ria Durrheim (Senior Lecturer – Department of Health, University of South Africa), Professor Joeri Vermulen (Head of Midwifery, Erasmushogeschool, Belgium), Dr Magret Chesney (Director of Midwifery, Directorate Midwifery, Salford University), Professor Caroline Homer (Professor of Midwifery & Director, Centre for Midwifery and Family Health, University of Technology, Sydney, Australia), Adegoke Adetoro (Adegoke University of Manchester, School of Nursing, Midwifery and Doctoral Student, Social Work, England) and Anne Maranta (Associate Project Manager – Multidisciplinary Collaborative Primary Maternity

Care Project, Ottawa, Canada). Sincere thanks also to Dr Adedayo Ogunmukon and Ms Anna Kaduma of the University of Namibia for their statistical assistance.

My thanks also to the Ministry of Health for granting me permission to conduct research in their institution. Finally, my thanks to my husband for his words of encouragement and for understanding for the reason why, at times, he was neglected.

ABSTRACT

Nursing documentation continues to be criticised by professional, community and regulatory bodies because of incomplete, substandard charting practices. Poor documentation may have adverse consequences for care providers because data collection through auditing could create the impression that care was not provided, that is, the impression that what was not documented was not in fact done for the patient. Documentation of the actions of nurses and midwives provide evidence of the quality of care they have rendered, and anything written or printed is a record or proof of activities carried out. Hence good documentation reflects the quality of care and also provides evidence of the accountability of each health care member.

This research was conducted in the maternity department of the Oshakati Intermediate Hospital. The purpose of this study was to describe the completeness of the documentation of nursing care rendered during the four stages of labour at the Oshakati Intermediate Hospital. The study was a quantitative, retrospective audit of the maternal records of women who delivered from January to December 2005.

A checklist was developed by the researcher and was then used to collect data. Adherence to policy and guidelines of documentation was determined by auditing the documented entries in the progress notes of maternal records as to whether they were dated, timed, had entry modes, were coherent, legible and were signed by the documenter.

It is recommended that the controlling body of nursing and midwifery, the Interim Council of Nursing, should formulate a guideline or manual on the proper documentation of nursing care, which could serve as a practical guideline for nurses/midwives and students in the clinical setting. Currently there are no national Manuals of Documentation or Procedures of Documentation guidelines. Maternity department staff should also attend workshops on ways to improve documentation and the importance of documentation in the quality of maternal nursing care, both nationally and internationally.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION TO THE STUDY	7
1.1 BACKGROUND.....	7
1.2 STATEMENT OF PROBLEM	16
1.3 SIGNIFICANCE OF THE STUDY	17
1.4 PURPOSE OF STUDY.....	18
1.5 OBJECTIVES OF THE STUDY	18
1.6 DEFINITION OF CONCEPTS	19

CHAPTER 2

LITERATURE REVIEW.....	22
2.1 INTRODUCTION.....	22
2.2 DOCUMENTATION.....	22
2.3 STAGES OF LABOUR.....	30
2.4 AUDITING.....	45

CHAPTER 3

RESEARCH METHODOLOGY	49
3.1 INTRODUCTION.....	49
3.2 RESEARCH DESIGN	49
3.3 POPULATION DESCRIPTION AND SAMPLING	50

3.4 DATA COLLECTION: DEVELOPMENT OF THE INSTRUMENT (CHECKLIST) AND PILOT STUDY	51
3.5 ETHICAL ISSUES	55
3.6 STRATEGIES TO ENSURE RELIABILITY AND VALIDITY	55
CHAPTER 4	
DATA PRESENTATION, ANALYSIS AND DISCUSSION	58
4.1 INTRODUCTION.....	58
4.2 SECTION 1: PROGRESS NOTES: ADHERENCE TO LEGAL REQUIRE- MENTS AND TO THE POLICY OF DOCUMENTATION	58
4.3 SECTIONS 2-6: COMPLETENESS OF MATERNAL RECORDS.....	63
4.3.1 Section 2: Admission Assessment and History taking	64
4.3.2 Section 3: The second stage of labour – documentation of delivery.....	82
4.3.3 Section 4: The third stage of labour – management of placenta, perineum and postpartum bleeding.....	85
4.3.4 Section 5: Immediate management of the baby.....	94
4.3.5 Section 6: Fourth stage of labour - assessment of mother and baby post delivery.....	96
CHAPTER 5	
CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	100
5.1 INTRODUCTION.....	100
5.2 CONCLUSIONS.....	100

5.3 LIMITATIONS OF THE STUDY	107
5.4 RECOMMENDATIONS	108
REFERENCES	111
ANNEXURES	122
ANNEXURE A: DATA COLLECTION INSTRUMENT	123
ANNEXURE B: PERMISSION FROM THE MINISTRY OF HEALTH AND SOCIAL SERVICES.....	125
ANNEXURE C: PERMISSION FROM OSHAKATI INTERMEDIATE HOSPITAL .	126
ANNEXURE D: OSHAKATI INTERMEDIATE HOSPITAL MATERNITY DEPARTMENT POLICY.....	127

LIST OF TABLES

<i>Table number</i>	<i>Page</i>
Table 1 Re-auditing of the maternal records	56
Table 2 Test retest statistics.....	56
Table 3 Legal requirements and adherence to the policy or guidelines of documentation	60
Table 4 Documentation of admission assessment	65
Table 5 Documentation of vaginal examination on the partogram	74
Table 6 Documentation of assessment and monitoring of vital signs, contractions and foetal heart rate until delivery.....	76
Table 7 Documentation of medicine administration, fluid intake and output.....	79
Table 8 Documentation of the second stage of labour	83
Table 9 Documentation: management of the third stage of labour.....	86
Table 10 Documentation of estimated blood loss, status of uterus and perineum management.....	88
Table 11 Documentation of immediate management of baby and bonding.....	95
Table 12 Documentation: Assessment of mother and baby during the fourth stage of labour.....	97

LIST OF FIGURES

<i>Figure number</i>	<i>Page</i>
Figure 1 Documentation of vital signs on admission	69
Figure 2 Documentation of abdominal examination during first stage	70
Figure 3 Documentation of vaginal examination on admission	71
Figure 4 Foetal heart rate documentation on admission.....	72
Figure 5 Contractions assessment on admission	72
Figure 6 Documentation of vaginal examination findings on the partogram.....	75
Figure 7 Documentation of placenta examination.....	92

ABBREVIATIONS

↑	Above
↓	Below
AIDS	Acquired immuno-deficiency syndrome
ANC	Antenatal care
C/section	Caesarean section
CTG	Cardiotocograph
FHR	Foetal heart rate
Hb	Haemoglobin
HIV	Human immunodeficiency virus
IE	Interim entry
IUFD	Intrauterine foetal death
PMTC	Prevention of Mother to Child Transmission Programme
PRN	As necessary or as needed
RH	Rhesus factor
RPR	Rapid plasma reagin
SANC	South African Nursing Council
SOIP	Subjective, Objective, Interpretation, Planning
WHO	World Health Organisation

CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 BACKGROUND

Maternal nursing care is carried out according to the nursing process, which is a systematic way of planning and providing individualised care. The purpose of the nursing process is to identify a client's health needs, actual and potential problems, as well ways of addressing those problems. This is implemented by using the five phases of the nursing process: assessment, diagnosis, planning, implementation and evaluation.

The quality of the care planned will depend, amongst other things, on how thoroughly the nurse has documented the given information. The client's medical record should describe his or her health status from the time of admission to the time of discharge and should reflect the entire nursing process. Information that has been accurately and thoroughly documented provides the bases or foundations necessary to plan individualised patient care. If the data obtained has been properly documented, this documentation will constitute a vital tool in the nursing and midwifery care provision. In cases where the documentation has been improperly or poorly carried out problems such as the duplication or omissions of nursing interventions, poor patient progress monitoring or evaluation, as well as poor healthcare coordination, are likely to be encountered.

During the assessment phase, the nurse/midwife collects, organises, validates and documents the client's health data, in order to obtain baseline data or a database relating to the client's health problems and illness, as well as the ability of the patient to attend to his or her healthcare needs. When a woman arrives in the maternity department the nurse/midwife performs a screening assessment by means of both an interview and physical examination. The laboratory and diagnostic findings will then be reviewed in order to determine the health status of the mother and foetus and, subsequently, the progress of labour.

The general information obtained from the above assessments assists in planning the care of the patient, since it provides a baseline or clear picture of the woman, that is, problems and health needs are identified and direction is given on what the nurse will do for the client/patient. This general information also serves as a baseline for the assessment of progress of labour from admission until delivery.

Diagnosis, which constitutes the second phase, involves the analysis and synthesis of data with the purpose of developing a list of nursing and collaborative problems. Data obtained from the assessment phase are used to identify the situation to which the nurse/midwife must respond – this is known as a nursing problem. For instance, information such as a blood pressure of 160/100 would reflect that the mother is suffering from hypertension, a

condition which requires prompt attention because it could cause maternal fits and, subsequently, maternal death if not controlled.

During the third phase, planning, the nurse/midwife develops a plan of maternal nursing care that prescribes specific nursing and midwifery interventions aimed at preventing, reducing or solving problems that have been identified. These interventions should be aimed at attaining specific goals or expected outcomes, that is, to attend to the health problems identified. However, interventions should be prioritised in terms of their immediacy – this means that life-threatening health problems should be attended to first while problems which are less urgent may be attended to at a later stage. For example, for a woman who has high blood pressure the midwife may plan to monitor the mother's blood pressure hourly, she may give anti-hypertensive drugs, or she may inform the obstetrician in charge of the unit.

Implementation, the fourth phase, involves the execution of the plans formulated during phase three in order to assist the client to reach the desired goals or outcomes, promote wellness, and prevent illness, as well as restore health. For example, a woman whose baby was diagnosed as experiencing foetal distress will be given oxygen via a facemask in order to correct the oxygen needs of the mother and baby. This does not mean that a nurse merely implements the plan, as she should also monitor and observe the patient's responses, re-assess the patient in order to update the database, and communicate the

nursing actions that were implemented. Therefore, the nurse will monitor the foetal heart rate continuously in order to evaluate whether she is achieving the predetermined goal of correcting the oxygen need. Hence, the interventions implemented must be recorded in the client's medical records, so that a basis for communication for other healthcare providers is created.

The last phase, evaluation, entails determining the degree to which the outcomes have been achieved. This evaluation is done chiefly to determine whether to continue, modify, adjust or terminate the plan of care, as well as to identify factors that positively or negatively influence goal attainment. For example, evaluation of maternal nursing care helps in deciding whether the labour was prolonged or obstructed, and this in turn leads to decisions on the part of the nurse and physicians whether to perform a Caesarean section, vacuum extraction or another procedure, in order to save the mother and baby (Kozier, 2004, p. 260, Basford, 2003, pp. 463–466, Alfaro-LeFevre, 1998, pp. 5–6).

Documentation of maternal nursing care is important for several reasons. Data documented in the patient's medical record should describe the client's health status from admission to discharge, and should reflect the entire nursing process. Hence, records are referral sources to which those involved in patient care may refer to if they wish to have an overview of what was done or not done for the patient concerned.

Documentation also facilitates effective communication among nurses, midwives and other healthcare providers from different health disciplines. For instance, a mother might be admitted to the maternity department for delivery, but she could be suffering from other health problems, which may be medical, social or psychological. In order to attend to all the other problems that are not maternity related the interventions of the other departments would be needed so that the woman may receive medical or psychological care. These other healthcare team members might require information on the patient, and therefore they would have to make use of the patient's maternity record. A nurse or a midwife who does not keep proper records breaks the chain of effective communication and continuity in the provision of quality care. Ensuring continuity of care is a vital function of record keeping, whereby information should be readily available to all other health team members who see the patient once or twice a day.

The only way in which this continuity may be maintained is via accurate and complete records which are available to the other health team members at all times. This means that all pertinent data arising from nurse-patient interactions should be recorded – physical examinations and observations, vital signs, response of the patient to the treatment/nursing care, actions taken and their effectiveness, patient needs and problems which have been identified, as well as the patient's demographic data.

The Namibia Nursing Profession Act No. 10 of 1999 stipulates the contents of records kept by registered/enrolled nurses and midwives. Failure to maintain clear and accurate records constitutes improper conduct and misconduct. The section of the Act entitled "Rules relating to acts or omissions by registered or enrolled persons constituting improper conduct or misconduct" states in section 2(c) and section 4(c): the following acts and omissions by a registered nurse and a registered midwife shall constitute improper conduct or misconduct – omitting or neglecting to keep clear and accurate records of all actions that he/she performs in connection with a patient, and omitting or neglecting to keep clear and accurate records of the progress of pregnancy, labour and puerperium, and all actions which he/she performs in connection with a mother and child respectively.

Patients' records may serve as a valuable teaching tool whereby healthcare team members may learn patterns relating to patients with specific problems, apply these to other patients with similar problems, and be in a position to anticipate the type of care patients may require. This means that a record may constitute a referral document and a guideline in providing healthcare to patients suffering from problems previously encountered, and thus enable healthcare providers to attempt to manage such patients by referring to similar cases. In addition, records may be used to identify the inservice training needs of nurses/midwives, especially in areas needing improvement. Much of the teaching of healthcare professionals takes place in the clinical situation: the more complete and accurate the records the greater their facilitation of the education process.

Lawsuits may be filed after weeks, months or even years, and it is not always possible for the nurse/midwife or other health team members to remember exactly what happened during the care of the patient filing the lawsuit. Proper records may protect the staff in legal action that may be taken against them, since the data relating to the nursing care provided would have been fully documented. Records act as legal documents that may be used in a court of law in cases where the recipient of healthcare may demand a detailed and open explanation for their care.

For example, cases of neonatal and maternal deaths due to negligence may arise, and the family or mother of the stillborn baby may accuse the nurses/midwives of not carrying out a specific action to save the life of the baby or the mother. Thus, it is upon these records that the details of the care rendered will be determined. Hence, the records that nurses maintain are one of the most important sources of evidence on which nurses may have to rely when asked to account for the care they provided. To a greater extent the reputation of healthcare institutions may be adversely affected since records reflect what was done (or not done) for the client/patient.

Cases of malpractice and litigations heard in disciplinary and civil courts of hearing have been internationally reported. In these cases nurses and midwives were compromised by their own documentation, which was improperly recorded. As a result, the nurses/midwives concerned, as well as the healthcare institutions have been sued, with the

plaintiff claiming monetary recompense for the damages. Improper and poor documentation has also led to the incorrect billing of patient care rendered as well as medical aid fraud in the form of forgery and excessive charging for the recorded service rendered.

After the completion of the nursing assessment and an initial nursing care plan the progress notes should be used to record the health status of the patient and track changes in his/her condition. Progress notes describe in chronological order the individual needs of the patient, problems, pertinent nursing observations, reassessments and interventions as well as patients' responses in meeting expected outcomes. The advantage of recording in progress notes is that the retrieval of information is facilitated, and the progress notes may contain significant information because the documenter feels compelled to fill in the spaces.

When it is necessary to evaluate the quality of nursing care rendered, patient records should be audited on a regular basis. Nursing documentation has become an auditing tool that assists in measuring the degree of compliance of the nursing care with pre-agreed standards. This means that the auditing of records provides information on those areas in which improvement is necessary. It also reflects and reports on the problems experienced in the provision of healthcare, as well as actions either taken or to be taken in order to solve the problem.

In addition, patient records are also of great value in research studies because of the data they provide. Therefore, the accuracy of the data documented contributes largely to the reliability of the relevant data (BBC News, 2001a,b; Booyens, 2001, p. 246; Goba & Goredema, 2001, pp. 3, 4; Goodner, 1999, p. 14; Hogston & Simpson, 1999, pp. 4, 18; Holmes, 1999, p. 110; Potter & Perry, 1999, pp. 224–229; Sheehan, 2005, pp. 4–5)

The importance of proper documentation in maternal nursing care must not be underestimated. Incomplete and substandard documentation, as well as the absence of recorded documentation may have far-reaching consequences, namely, important information relating to patients may be lost, information needed for follow-up mislaid, it is not possible to monitor and evaluate properly the condition/progress of patients due to the absence of data on the patients' progress/response to treatment, poor health service coordination and duplication of work. Consequently, when records are audited for quality evaluation purposes the real quality of the actual nursing care provided may not be reflected (SANC, 1994, p. 53; Muller, 2002, p. 63).

All pertinent data from the nurse-client/patient interaction or from the nursing process should be recorded so that maternal records serve their proper purpose – that of a communication medium, educational tool and a basis for financial billing. These data include assessment findings, physical examinations and observation, vital signs, patient response to treatment/nursing care, interventions and their effectiveness, patient needs and

problems identified (including gynaecological, surgical and medical history) as well as consultations on the part of other healthcare providers. All these interactions and interventions should be recorded in the progress notes so that data may be easily retrieved when needed (Goodner, 1999, p. 14; Holmes, 1999, p. 219; Sheehan, 2005, pp. 4–5).

1.2 STATEMENT OF THE PROBLEM

Nursing documentation continues to be the subject of criticism on the part of professional, community and regulatory bodies because of incomplete, substandard charting practices. It is assumed that good record keeping promotes good quality patient care. Documentation of the actions of nurses and midwives provides evidence of the quality of care they have rendered, and anything written or printed is a record or proof of activities carried out. Hence good documentation reflects the quality of care and evidence of accountability on the part of each healthcare member. Poor documentation may have adverse effects for care providers because data collection through auditing will create the impression that care was not provided, that is, it will be assumed that what was not documented was in actual fact not provided (Walsh, Crumbie & Reveley, 1999, p. 280; Ellis & Hartley, 2003, p. 78).

In a minor study carried out in 2005 by a researcher at the Nursing Care Quality Improvement Department at Oshakati Intermediate Hospital, it was found that, of the 15 patient records studied, the overall quality of nursing care average (provided from client admission till discharge) score was between 30 and 60 percent, with some below 30

percent and even as low as 7 percent. This provides clear proof that the documentation of nursing care rendered to the patients was poorly executed, and the overall score of quality of care could probably have been higher if the documentation were of a good standard.

The second concern was that Oshakati Intermediate Hospital does not have a specific data collection instrument designed to evaluate maternal nursing care during the four stages of labour. The hospital is using an instrument designed for Windhoek Central Hospital, which is outdated, that is, has not been evaluated to match the maternity records currently being used by the Ministry of Health and Social Services.

It is against this background that this study aimed, firstly, to develop an auditing instrument that could be used to audit maternal nursing care during the four stages of labour; and, secondly, using this auditing instrument, to describe the comprehensiveness of the documentation on maternal nursing care rendered to women during the four stages of labour at Oshakati Intermediate Hospital,.

1.3 SIGNIFICANCE OF THE STUDY

According to Polit, Beck and Hungler (2001, pp. 110–111) there are significant attributes to consider when identifying the significance of a study problem. One such attribute is the implication of the study in terms of nursing practice, which evaluates whether the research has the potential to produce findings that could improve nursing practice. Bearing this

particular attribute in mind this study is significant because the outcomes could be used by nurses, midwives and nurse managers to assess their overall performance in midwifery and to improve or strengthen their performances. It also allows the nurses and midwives involved in providing maternity care to learn their strengths and weaknesses as regards documentation, and eventually on quality care provision.

1.4 PURPOSE OF THE STUDY

The purpose of this study was to describe the comprehensiveness of the documentation on the nursing care rendered during the four stages of labour at Oshakati Intermediate Hospital.

1.5 THE OBJECTIVES OF THE RESEARCH

The objectives of the study are

1. to develop an audit instrument (checklist) that could be used to evaluate documentation in the maternity section
2. to identify whether nurses/midwives adhere to the policy of documentation during the four stages of labour
3. to describe the completeness/incompleteness of the documentation of data in maternal records during nursing care delivery in the four stages of labour

1.6 DEFINITION OF CONCEPTS

In this study the concepts used may be defined as follows:

1.6.1 Patient record

Patient record is a written form of communication that permanently documents information relevant to the care of patient (Como, 2002, p. 1473). In this study, maternal records are patient records, used to document maternal nursing care rendered to women during the stages of labour.

1.6.2 Documentation

Documentation is a nursing intervention defined as a recording of pertinent data in a clinical record (Como, 2002, p. 541). In this study the term documentation may be interchanged with the term record keeping.

1.6.3 Auditing (of nursing records)

Auditing of nursing records is an evaluation method for assessing the quality of nursing as reflected in hospital documents (Booyens, 1998, p. 610).

1.6.4 Quality of care

Quality of care (according to the World Health Organization [WHO]) is defined as “the extent to which the care provided, within a given economic framework, achieves the most

favourable outcome when balancing the risks and benefits. The quality of care consists of the proper performance of interventions that are known to be safe and affordable to the society in question, and have the ability to produce an impact on mortality, morbidity, disability and malnutrition (Thompson, 1998(a), p. 67, 1998(b), 197-198). Quality of care in this study will mean the degree of excellence of the maternal nursing care rendered.

1.6.5 Labour

Labour is the process by which the foetus, placenta and membranes are expelled through the birth canal (Bennett & Brown, 1999, p. 392, London, Ladewig, Ball & Binder, 2003, p. 326, Lowdermilk & Perry, 2003, p. 481).

a) First stage of labour

The first stage of labour denotes the beginning of regular uterine contractions until the cervix is fully dilated (Bennett, 1999, p. 392, London *et al.*, 2003, p.326, Lowdermilk & Perry, 2003, p. 481).

b) Second stage of labour

The second stage of labour is the stage during which the foetus is expelled, and begins when the cervix is fully dilated and concludes when the baby is completely born (Bennett & Brown, 1999, p. 392; London *et al.*, 2003, p. 326, Lowdermilk & Perry, 2003, p. 481).

c) Third stage of labour

The third stage of labour is the stage during which the placenta and membranes are separated and expelled, and bleeding is controlled. This stage lasts from the birth of the baby until the placenta and membranes have been expelled (Bennett & Brown, 1999, p. 392; London *et al.*, 2003, p. 326, Lowdermilk & Perry, 2003, p. 481).

d) Fourth stage of labour

The fourth stage of labour refers to the period within the first hour after birth during which a good parent-infant relationship is fostered and the mother and baby may be observed (Bennett & Brown, 1999, p. 620; London *et al.*, 2003, p. 326, Lowdermilk & Perry, 2003, p. 481).

1.6.6 Intermediate hospital/Facility

It's a health care facility that provides medically related services to persons with a variety of physical or emotional conditions requiring institutional facilities but without the degree of care provided by a hospital or skilled nursing facility. It is merely a hospital that forms a bridge between relatively low cost, yet cost-effective, district health services and the expensive, specialised healthcare offered at the national hospital (Hofnie-Hoebës, Van Dyk & Moloji, 2005, p. 73, Anderson, 2002, p 909).

CHAPTER 2

LITERATURE STUDY

2.1 Introduction

In the previous chapter the background and rationale for the study were presented. In this chapter the researcher presents the literature review, which was carried out with the purpose of obtaining additional information as well as studying related research carried out previously. Various books, articles, and journals, as well as internet websites, containing information on documentation, auditing, and the stages of labour, as well as nursing and general research, were studied with a view to gaining greater insight into the problem (Mateo & Kirchhoff, 1999, pp. 201–202; Brink, 2006, p. 67).

2.2 Documentation

Documentation is an essential aspect of nursing and midwifery practices. As defined earlier documentation involves recording and charting all the interventions, acts, and omissions that occurred during patient care. Thus documentation reveals and reflects what has been going on during the interaction of nurses, midwives, health care providers from other departments and their client.

In her study on documentation Brooks (1998, pp. 1–2) points out that nursing documentation continues to be criticised by professional, community and regulatory bodies because of incomplete, substandard charting practices. She voices the concern that

nurses may be less able or willing to document in ways that reflect the holistic nature of their practice and work. According to her it would appear that nurses document what they regard as important or in anticipation of a problem. Her study suggests that nurses do not clearly document their knowledge and practice. If nursing documentation does not accurately reflect the actual work done then nurses are minimising their contribution to healthcare.

In another study conducted by Enhorfs (1996, p. 1) to categorise and quantify the contents of documentation and to consider the comprehensiveness of the recording for individual nursing problems the results showed that admission assessment was missing in approximately half of all the records. Only one third of the patients' medical records contained information about the progress of the patient's problem, thus creating the impression that documentation of nursing interventions is substandard.

According to Walsh, Crumbie and Reveley (1999, p. 280) and Ellis and Hartley (2003, p. 78), good record keeping promotes good quality patient care. Poor documentation may have adverse implications for care providers because data collection through auditing will make it appear that the care was not provided. Therefore, it is imperative that healthcare providers document their acts and omissions.

There are a number of reasons why documentation is a vital tool in nursing care.

Communication: The most important aspect of documentation is that it forms a platform for communications whereby healthcare team members communicate the needs of the patients and contributions to the care of patients. Therefore documentation serves as a guideline of where to start and where to continue in providing healthcare and meeting the needs of the clients/patients. The reason for this is that available information informs the healthcare team about the treatment required as well as the patients' responses to treatment. Patients' records provide information related to all significant consultations, assessments, observations, decisions, and interventions, as well as outcomes of these interventions.

Continuity: Recording and documentation maintains a chronological record of events regarding the care of patients from admission to discharge, thereby enhancing continuity in the provision of nursing care. This provides concise and comprehensive information on the condition and care of patients in an accurate manner. The advantage of recording in progress notes is that the retrieval of information is facilitated, and the progress notes may also contain significant information because the documenter feels compelled to fill in the spaces. Nurses and other healthcare providers are able to note on the patient's records changes from previous assessments, make informed choices regarding planning, and implement the planned nursing care.

Financial billing: As regards financial matters patients' records show the extent to which healthcare agencies should be reimbursed by patients for services rendered. Furthermore, records are used to determine the cost involved in caring for patients (that is, consumption per patient), planning for healthcare services (budgeting) as well as for statistical purposes. Furthermore the information entered on the patients' records may also be used to determine payments by insurance companies and to determine the settlement of lawsuits when monetary values are required.

Auditing: A regular review of the information contained in patients' records (auditing) provides a baseline for the evaluation of the quality and effectiveness of patient care. This means that auditing of the records provides information on areas in which improvement is necessary, and also reflects and reports the problems experienced in the provision of healthcare as well as actions taken or to be taken to solve these problems.

Education: Records may be used as a teaching tool for staff in the unit. They may serve as an educational instrument: healthcare team members are able to learn patterns of information as regards patients with a specific problem and apply this knowledge to other patients with similar problems. This will also enable them to anticipate the type of care a patient may require. This means that a record may act as a referral document and a guideline in providing healthcare to patients who are suffering from problems previously encountered. Healthcare providers may use this to manage patients with similar health

problems. Patient records may also be used for inservice training purposes, especially when improvements in the provision of healthcare are required, Since much learning takes place in the clinical setting in view of the fact that records contain information on patients' illnesses, the interventions as well as the outcomes of the interventions, these records may provide a comprehensive overview of patients. This will assist students in the healthcare disciplines to learn more effectively.

Testimony in courts of law: A breach in documentation standards may lead to a successful claim of negligence and to lawsuits. Thus the documentation maintained by nurses and midwives may either assist or prejudice them – well-documented records provide a good defence when malpractice claims are alleged. Records act as legal documents that may be used in a court of law when the recipients of healthcare demand a detailed and open explanation for the care provided to them. Therefore, good documentation protects staff from legal actions being taken against them. In certain instances it may be several years before a case (by the recipient of care), whether criminal or civil, is brought before the courts of law and nurses are asked to state what transpired. Thus it is upon the contents of these records that the level of care rendered will be determined.

In a survey conducted in Scotland in 1998 (Thompson, 2000(a), pp. 11–13), it was noted that there is a link between documentation and nursing care. Two thousand midwives and obstetricians were requested to give their views on the rate of litigation and medical

claims, which were thought to be increasing. Their opinions regarding what may be changed in clinical practice revealed that documentation was second on the list, with 41 percent of respondents proposing that, in fear of litigation, documentation should improve.

Research: Patient records provide statistical data/information that may be used for a variety of purposes, for example, budgeting and epidemiology. A nurse may also use a patient's record during research to collect information describing a patient's problem. Records may be used to identify the trends of a specific disease – the disease patterns as well as the effectiveness of preventive and curative programmes. For example, records may be used to identify the rate of an outbreak of, for instance, malaria in a specific area, plan outbreak responses and evaluate the effectiveness of malaria prevention programmes (Alexander, Fawcet, & Runciman, 2000, p. 847; Booyens, 2001, p. 246; Delaune & Ladner 2002, p. 505; Ellis & Hartley, 2003, p. 78; Hegner & Needham, 2002, p. 56; Hogston & Simpson, 1999, pp. 4, 18; Holmes, 1999, p. 3; Perry & Potter, 2002, p. 505; Potter & Perry, 1999, pp. 224–22; Pyne, 1998, p. 218; Thompson,2000(a), pp. 11–13;).

In order for the documentation on maternal nursing care to be accurate, coherent and useful certain standards, legal requirements or guidelines should be followed. This means that all nurses and midwives should have a standard format of documenting.

The following guidelines should be followed when documenting:

- All patient records should contain the name and identity of the patient, that is, personal particulars and hospital registration number. Information recorded should be clear, understandable and factual. Illegibility, sloppy handwriting wastes time and may place the patient's life in jeopardy if critical information is misinterpreted. It also makes it difficult to understand exactly what the documenter intends to communicate to the reader. As a result the patient may not receive adequate attention since the message being communicated is not clear.
- Rumours should not be recorded. Any entry or recorded data must have a date and time, and should be written in ink for the purpose of upholding permanence. Timing the entries in patients' records makes it easy to keep a chronological chart of patients' problems or history over time and reveals exactly when an event took place, for example, change in condition of patients, doctors' visits and nursing actions. This is important in evaluating patients' progress.
- Recording should be carried out after an intervention has been completed. Recording before an action has been completed may lead to litigation and a disciplinary hearing. Late entries should be made only if there is a legitimate reason for the late entry or if vital information was omitted. However, this should be carried out according to the hospital policy on documentation. The person who makes an entry on a patient's records should sign using a legible, full signature. A

signature renders the documenter responsible for everything documented in the patient record, that is, it makes the documenter an author of entries made in the patient record. This means that it is possible to identify who was responsible for the recording, thus rendering such a person accountable for his acts.

- No initials should appear as signatures. A single line should be drawn through an incorrect statement and the recording person should initial above the error. Errors made while recording must not be erased or completely obliterated, neither must correction fluid be used. Blank spaces must not be left in notes, as anybody could add any comments at will.
- It is not wise to write retaliatory comments about clients/patients or other health workers. The nurse/midwife concerned must chart only that for which she is responsible, and not chart for others or let others chart for her.
- Records should be up to date and complete, that is, they should reflect the progress of patients through their time in hospital (SANC, 1994, pp. 48–49; Ambrose & Witting, 1998, pp. 189–191, 197; Holmes, 1999, p. 110; Perry & Potter 2002, 37–57; Potter & Perry 1999, 225; SANC, 1994, pp. 48–49; Searle, 200, 249; Walsh et al, 1999, 281)

Despite the importance of documentation there are nevertheless problems that may be encountered during record keeping. In many instances all or part of the records may be

missing (e.g. a blood pressure chart was never submitted for a patient suffering from severe hypertension), the records may have been altered, no documentation done at all (i.e. absence of documentation), information inadequately or incompletely documented, or a client's records may have been falsified or fabricated (Muller, 2002, p. 63).

2.3 Stages of labour

Labour consists of four stages – the first, second, third and fourth stage of labour. Each stage demands specific nursing interventions and management. Labour starts with the assessment of the patient on admission, followed by the delivery of the baby and the delivery of the placenta, and concludes with the observation and monitoring of the mother and baby after delivery. Proper documentation of patient/client records is important in order to assess the progress of labour and subsequent abnormalities that may arise during the stages of labour. All interventions performed in respect of the mother as well as the baby should be documented for the purposes of ensuring continuity of care and communication between the healthcare providers.

2.3.1 The first stage of labour

This stage starts with the onset of regular uterine contractions until full dilatation of the cervix. The first stage consists of two phases. The first phase, known as the latent phase begins with regular, mild contractions until the cervix is 3-4cm dilated. This phase lasts for approximately eight hours (average) in primigravida and an average of five hours in

multiparous women. It should be noted that, according to different authors, there are variations in the duration of the stages of labour.

The second phase, the active phase, starts from 4cm cervical dilatation until 10 cm or full dilatation. This phase lasts about three hours in primigravida and less than an hour in multiparous women. The first stage of labour should not exceed 20 hours in primigravida and 14 hours in multiparous women (London *et al.*, 2003, p. 322; Lowdermilk & Perry, 2003, p. 481).

When a woman arrives in the maternal department the nurse/midwife will perform a screening assessment by means of an interview and physical examination. The nurse/midwife will review the laboratory and diagnostic findings to determine the health status of the mother and foetus and, subsequently, the progress of labour.

General information helps in planning the care of the client, since it provides a baseline or clear picture of what the nurse intends to do in respect of the client/patient, while the findings on admission serve as a baseline for assessing progress from admission until delivery. This assessment should include demographic and descriptive data, health history, and reasons for admission: pattern of contractions, and frequency, duration, intensity, and change in pattern. It should be identified whether the patient is at risk of complications, bloods taken, past and present medical and surgical as well as gynaecological history. A

complete abdominal examination should be carried out (Bennett & Brown, 1999, 220–231; Ladewig *et al.*, 2002; London *et al.*, 2003, pp. 161–179; Lowdermilk & Perry, 2003, pp. 543, 544).

Personal particulars, for example, name and age, help to identify the patient. Age is particularly important since it helps to identify whether the patient is a minor (under 18 years) and thus would need consent for certain health care procedures such as Caesarean section, or whether the patient is at risk (teenage and elderly primigravida), so that prompt nursing interventions may be planned and carried out as dictated by the patient's risk level.

Home address and telephone numbers, as well as next of kin, are necessary in terms of the support system of the client/patient. This information may be used to trace the relatives of the patient, for instance, in cases in which a minor patient needs consent to operation, the patient is seriously ill has missed a follow-up appointment, or there was an error in treatment which needs urgent rectification. Descriptive (personal data) and demographic data are important because they assist nurses/midwives in viewing the patient from a cultural and social point of view (i.e. from a holistic view), assist in follow up or in cases where the patients need to be traced for follow up reasons. Aspects such as age may assist in the planning and monitoring of maternal care in instances, such as teenage pregnancy and elderly primigravida, where constant monitoring is needed.

Obtaining the patient's history not only provides personal and demographic data, but it also helps in identifying the ability of the patient to cope with healthcare interventions and the patient's expectations regarding the treatment outcome. The patient's history also provides information about the patient's lifestyles and family relationships.

This information also prepares the nurse psychologically, in the sense that she will be ready to deal with potential problems associated with teenagers, elderly primigravida, and patients from cultures, which may be similar or different to hers. However, there are no specific archives or literature that outlines the reasons why descriptive particulars and demographic data are so important in the planning of nursing care (SANC, 1994, p. 62; Goodner, 1999, p. 14; Holmes, 1999, p. 219; Williams, 2001, pp. 4, 5; Lowdermilk & Perry, 2003, p. 554; Sheehan, 2005, pp. 4-5).

A patient's medical history forms a baseline for treatment and prepares the nurse/midwife psychologically for what to expect, or to anticipate a problem, which makes it easy for the nurse/midwife to plan possible interventions. For example, a history of hypertension will alert the nurse to plan on hourly blood pressure assessment since there is a link between pregnancy induced hypertension (PIH) and eclampsia. Another example is that of HIV/AIDS; where mothers register for PMTC while others take Anti-Retro Viral Therapy. Certain medication (such as epileptic treatment and antiviral drugs) that the mother may have been taking could cause congenital abnormalities, others may cause allergies, for

example penicillin, and hence there is a need to obtain such information. Thus the nurse/midwife will have information on the way in which to treat each specific case.

Surgical history provides information on operations carried out on the patient. It is important to obtain information related to the type of operation, the date when the operation was carried out and the reason why it was carried out, because certain operations, specifically uterine and vaginal operations, may affect the progress of labour. For instance, previous uterine scars may rupture, especially if the operation was carried out recently.

Obstetric and gynaecologic history provides a picture of the status of the patient's reproductive organs. The client may have experienced hormonal problems, sexually transmitted diseases or vaginal discharges, which may, or may not, have been treated, and this could have an effect on the baby. Similarly, it is important to know the number of pregnancies (gravidity), stillbirths and abortions, as well as premature deliveries, which the patient may have experienced, because these may place the patient at risk. For example, premature labour tend to re-occur in subsequent pregnancies, while a history of repeated abortions (habitual abortions) may be a cause of grave concern to the mother, and this may, in turn, create other conditions such as hypertension.

An antenatal review provides a snapshot of the patient throughout the gestation period. It provides information about the last menstrual period as well as the expected date of delivery. This information may be used to identify whether the mother is full term or is experiencing premature labour, depending on the correlation between the last menstrual period, expected date of delivery, and the height of the fundus. It also provides information on problems encountered by the mother during pregnancy: treatments, admissions, and blood tests carried out. These give a direction on treatment for the patient. For example, a mother who had RPR positive, but was not treated, will need treatment, and a cord blood sample will have to be taken for treatment purposes. The mother with a blood haemoglobin level of 7g/dl may need the haemoglobin test to be repeated after delivery because of intra-partum haemorrhage (The normal laboratory haemoglobin levels of a woman ranges between 12-14g/dl, but this vary with different authors).

Vital signs indicate the normalcy, as well as the well-being, of the patient and documenting these vital signs on admission helps form a baseline for comparison with subsequent values. Temperature should be monitored every 4 hours, but, in cases where it is above 37.7° C, it should be monitored hourly. Blood pressure, pulse and respiration should be monitored hourly, except in cases where there are abnormalities, such as high blood pressure. A blood pressure level of above 140/90 is regarded as hypertension (which is a standard definition of hypertension according to WHO) while a temperature level of higher than 37.5° C indicates the patient is suffering from either a bacterial or viral

infection (Bennett & Brown, 1999, pp. 216–217, Sherwen, Scoloveno & Wiengarten, 1999, p. 685; Williams, 2001, pp. 4–8; London *et al.*, 2003, pp. 161–167, 366; Lowdermilk & Perry, 2003, p. 556, Oshakati Intermediate Hospital Maternity section policy).

A full vaginal examination should be performed depending on the mother's condition since there are certain conditions that require that the vaginal examination be carried out by a gynaecologist (e.g. vaginal bleeding). A full vaginal examination includes an inspection of external genitalia, condition of the vagina (moist, warm, hot, or dry), examination of the cervix for effacement degree, consistency and application to presenting, as well as dilatation, amniotic membranes status, that is, ruptured or intact, colour, odour and/or anything unusual. The level of presentation, part, position and moulding should be identified. The midwife/ nurse should assess any bleeding or “show” for colour, amount and consistency, and should ascertain the time of onset of the bleeding or “show”. An assessment of the contractions will enable the nurse/midwife to ascertain whether they are powerful and frequent enough to facilitate delivery (Bennett & Brown, 1999, pp. 416–418; WHO, 1999, pp. 10-13; Lowdermilk & Perry, 2003, p. 563).

The aims of a vaginal examination are the following:

- to differentiate between true and false labour (true labour is accompanied by cervical dilatation)

- to monitor cervical dilatation and the progress of labour
- diagnose prolonged first and second stage of labour
- confirm the presenting part and the presentation
- determine the engagement of the descending part
- determine status of membranes and colour of amniotic fluid (meconium stained amniotic fluid indicates foetal distress) and
- identify possible prolapse of the cord after the membranes rupture

Therefore, vaginal examination information forms the basis of labour monitoring and evaluation (Sellers, 1993, p. 392; Bennett & Brown, 1999, pp. 225–228, 401; Williams, 2001, pp. 11–16, 79–80, 83–84).

The foetus must be monitored in order to determine its well-being. The state of liquor has to be assessed for colour, and consistency, and whether it is odour i.e. if it has an offensive smell. The foetal heart rate should be monitored hourly in the latent phase to establish the bases for the monitoring and evaluation of foetal well-being In cases where the foetal heart rate is below 120 beats per minute (bradycardia) or above 160 beats per minute (tachycardia) the heart rate should be monitored every 15 to 30 minutes because foetal distress is indicated. Meconium staining also indicates foetal distress and may be associated with intrapartum stillbirth, and neonatal morbidity or death. The foetal heart rate should be investigated or assessed either by intermittent auscultation or by continuous

electronic surveillance – also known as continuous recording (Bennett & Brown, 1999, pp. 418, 423; WHO, 1999, pp. 19–20; London *et al.*, 2003, p. 366). According to the WHO website, the mother should not be shaved nor should an enema be administered because of the risk of HIV and Hepatitis infection, and the risk of damage to the bowels. Both shaving and an enema should be carried out only at the request of the patient.

Since labour requires inordinate amounts of energy the mother's sources of energy need to be replenished in order to maintain and ensure foetal and maternal well-being. Traditionally, women are prohibited from taking anything orally during the active phase of labour, with the aim of preventing the risk of anaesthesia complications, for example aspiration from gastric contents should the need for emergency surgical intervention arise. However, this practice is being challenged because of the increased use of a local anaesthetic rather than a general anaesthetic. Intravenous fluids may be used to rehydrate or to maintain hydration, especially in cases where the woman has been in labour for a sustained period of time. All fluids and meals taken should be recorded (WHO, 1999, p. 12, Bennett & Brown, 1999, p. 415, Oshakati Intermediate Hospital maternity section policy, Lowdermilk & Perry, 2003, pp. 569, 572).

All women undergoing labour experience pain, but those who experience abnormal labour, prolonged labour or induced/augmented labour seem to suffer more pain than others. However, reaction to pain is influenced mainly by cultural attitudes or beliefs about the normalcy and conduct of labour, perceptions of child birth, expectations regarding the

behaviour of the mother during labour, social support available and physiological processes involved. Pain may be relieved naturally, for example cold massages or by pharmacological analgesics. Thus any pain relief method used should be entered on the patient's record because, although pharmacological analgesics may provide relief to the mother, they may also cause problems to the foetus, for example Pethidine may cause depressed respiration in the baby (WHO, 1999, p. 16; London *et al.*, 2003, p. 382; Lowdermilk & Perry, 2003, p. 489).

A partogram is a depiction of the most important aspect that influences the progress of labour, thus making it easy to evaluate the progress of labour. This type of graphic charting assists in the early identification of any deviation from expected labour patterns. The partogram allows for a 15 – 30 minute interval between assessments and documentation of the FHR, maternal temperature, pulse and blood pressure, and strength of uterine contractions (number of occurrence in a span of 10 minutes). It provides information on fluid balance, urinalysis and drugs administered, as well as details of vaginal examination).

The partogram is preferred for the following reasons:

- allows accurate observations of patient during labour
- saves time

- increases safety of mother and baby because trends in their conditions are being constantly monitored, and
- reduces incidences of prolonged labour because interventions may be carried out as a matter of urgency, if needed, merely by taking note of the graphical depiction of the progress of labour.

The partogram facilitates the assessment of the progress of labour by evaluating cervical dilatation, rate of descent of the presenting part, as well as duration and frequency of uterine contractions. Any delay in these factors causes prolonged labour and thus results in an abnormal partogram (Bennett & Brown, 1999, p. 406; Williams, 2001, pp. 134–137; Lowdermilk & Perry, 2003, p. 563; Thompson, 2000(b), 82-85).

2.3.2 The second stage of labour

The second stage of labour commences with full dilatation of the cervix and ends with the actual birth of the baby. It last for two hours in primigravida women and about 15 to 30 minutes, but not longer than one hour, in multiparous women (London *et al.*, 2003, p. 322; Lowdermilk & Perry, 2003, p. 481).

The following procedures should be carried out in respect of the newborn immediately after birth: care of airways, for example suctioning, intubation, Apgar scoring in the first minute after birth and after five minutes, monitoring of vital signs, and bonding (skin to skin contact with the mother if the condition of the mother and baby allows it). The baby

should be dried immediately and kept warm by either covering with warm blankets, using radiant heated baby units or the baby may be placed in direct contact with the mother in order to absorb direct body heat. Furthermore, the baby should be assessed for colour, reflexes, respiration and heart rate. The umbilical cord should be clamped with a plastic Hollister cord clamp, but the skin around the cord should not be clamped because this could lead to tissue necrosis. However, care and clamping of the cord should be carried out in accordance with the prevailing policies in respect of clamping procedures and treatment/cleaning agents. Unfortunately, there are no policies governing the care of the cord in Oshakati Intermediate Hospital. The baby should be registered as stipulated in the registration of births policy (WHO, 1999, pp. 36, 37; Melson, Jaffe, Kenner & Amlung, 1999, pp. 150–151; Johnson, 1999, pp. 247–249, Thompson, 2000(c), p. 238; London *et al.*, 2003p. 376; Mason & Whitehead, 2003, p. 184).

According to Mason and Whitehead (2003, p.184) the first step in recording the birth of a baby is carried out by the doctor or midwife who attended the delivery. This involves filling in the Notification of Birth – a procedure that varies from country to country. In certain hospitals in Namibia, especially private institutions, the Notification of Birth form is filled in by the attendant doctor and taken to the Ministry of Home Affairs for registration. The baby then receives a birth certificate.

The time of delivery, type of delivery and sex of the baby should be documented for statistical purposes. Similarly, the name and rank of the delivery attendant should be

documented since this makes it possible to identify the person responsible for what transpired during the delivery process. Furthermore, the maternal condition should be assessed and documented as well as documentation of perineal and cervical tears – degree of tear, sutures and the name of the person who carried out the suturing.

In accordance with the International Baby–Mother Friendly Initiative, the baby should be breastfed within half an hour of birth. However, there are certain contraindications to immediate breastfeeding – acute illness of the mother, chronic illness of the mother (e.g. exhausted mother who is suffering from pulmonary tuberculosis or AIDS) drugs therapy (for example, iodine therapy) and breast problems (e.g. breast abscesses and cancer) (WHO, 1999, pp. 31–32, Ministry of Health and Social Services maternity record, Bennett & Brown, 1999, pp. 452–453; Williams, 2001, p. 265).

2.3.3 The third stage of labour

The third stage of labour comprises separation and expulsion of placenta and membranes, as well as the control of bleeding. This stage extends from the birth of the baby until the placenta and membranes have been expelled. The following need to be recorded – any oxytocic agent administered, time of delivery of placenta, method of placenta delivery, findings from examination of placenta and cord, status of perineum (tears, sutures), status of uterus (contracted or not), estimated blood loss, and vital signs (Bennett & Brown,

1999, pp. 467–478; Ministry of Health and Social Services Maternity Record; WHO, 1999, pp. 34–36; London *et al.*, 2003, p. 376; Lowdermilk & Perry, 2003, p. 481).

It is important to document whether the perineum is intact, or has torn, and whether an episiotomy was carried out. Episiotomies and tears need to be sutured to prevent postpartum bleeding (from tears and/or the episiotomy wound). This must be taken into account in the post delivery care of the mother, for example sitz bath and care of episiotomy. When the episiotomy wound is sutured further vulval lacerations and labial tears should be repaired. The suture area should be inspected to confirm that there is no longer active bleeding.

A post vaginal repair examination is essential to ensure that the introitus has not been narrowed. A post perineal rectal examination should be carried out to check whether there are sutures in the rectum. Should there be sutures in the rectum the wound should be re-opened and re-sutured because a suture in the rectum may cause a recto-vaginal fistula (Sellers, 1993, p. 559; Bennett & Brown, 1999, pp. 460–461, 467–470; William, 2001, p. 162). Entries for transfer from one unit to the other are equally important and should be documented.

2.3.4 The fourth stage of labour

The fourth stage of labour refers to the first hour after the birth. This period allows the fostering of a good parent–infant relationship and facilitates observations of mother and baby (Bennett & Brown, 1999, p. 620; London *et al.*, 2003, p. 326; Lowdermilk & Perry, 2003, p. 481).

Various problems may arise after delivery. The mother should be closely monitored during the first hour postpartum, especially for vaginal bleeding. The mother should also be observed for pain and discomfort, fainting, convulsions, and fatigue. Vital signs need also to be monitored because fainting, fatigue and convulsions may be caused by a drop in blood pressure resulting from excessive bleeding, and an increase in blood pressure may cause convulsions. The midwife should check the status of the uterus every 15 to 30 minutes (whether contracted or not). The status of the bladder (whether full or empty), vital signs, general condition and psychological status of the mother should also be checked and recorded.

The Apgar scoring system should be used to assess the baby within the first minute of birth and after five minutes after birth to determine adaptability to the extra-uterine environment, any change in the baby's condition, and for cord bleeding. Any change in the condition of the baby should be promptly addressed with correct midwifery/nursing actions. For example, a baby that develops cyanosis after delivery should be given oxygen

and/or suctioned to clear the airways (Sellers, 1993, pp. 529–535; Williams, 2001, pp. 170, 182–185; London *et al.*, 2003, pp. 376–377).

2.4 Auditing

All nursing care activities should be evaluated in order to determine the quality of healthcare provided by the relevant institution within a specific period and to assess the performance of the members of the institution. This is the process whereby performance may be compared with predetermined standards of care in order to assess and measure the quality of care through the systematic examination of records, processes, structures or environments. According to Brooker and Nicol (2003, pp. 34, 35), Marquis and Huston (2003, p. 447) and Booyens (2001, p. 327) auditing is carried out in order to reveal shortcomings and institute changes should any improvement (in patient care or treatment) be indicated. Auditing is also defined as the means of assessing and measuring quality of care and changing practice when improvement to care or treatment is required.

Grant and Massey (1999, pp. 80, 81) categorise audits as a means of evaluating patient care, and define audits as quality assurance tools. Quality assurance tools initially focused on the cost and quality of care received by patients in the medical care and maternal-child health programs. Therefore, one may conclude that auditing provides those concerned with healthcare administration or with controlling healthcare delivery in healthcare

institutions with information on the performance of the institution as revealed by the shortcomings and strengths in the provision of healthcare.

According to Thompson (1998(b), p. 203) and Quinn (1998, p. 7), auditing is important for several reasons. Audits as quality control tools provide healthcare managers with a means of applying the control process to determine the quality of service rendered. Patients' care auditing provides an opportunity for professionals who provide healthcare services to work together to set standards for services to patients, to measure their actual practice against the preset standards and to effect improvements in the service rendered. For example information from clinical audits may serve as a foundation for in-service training to concerned health professionals and may be used as the agenda for meetings aimed at improving healthcare.

Nowadays, the provision of health services has become one of the important commodities in both the public and the private sectors. Thus, in the health market it is important that each member of the healthcare providing institution should be accountable for the quality and costs of the healthcare rendered by the institution. Therefore, auditing serves as an important tool of quality evaluation and improvement because it provides information related to the strengths and weaknesses in the provision of nursing care as well as giving direction of areas where improvements are needed and the actions necessary to resolve the weaknesses that have been identified.

In view of the fact that healthcare has become a marketable and profit-making business the importance of service quality and satisfaction to customers has led to the integration of auditing and quality assurance that provides a framework that aims to evaluate the quality of service and satisfaction of the service recipients. Therefore, it is important that managers determine the current status and past trends of the quality of care, price, and the level of satisfaction with the clinical services and operation systems (Grant & Massey, 1999, pp. 80–81, Marsh & Renfrew, 1999, pp. 139–140; Smith, 1998, p. 15; Sommers, 1999, 125–129; Swansburg & Swansburg, 1999, p. 659; Hyde, 2001, p. 235; Brooker & Nicol, 2003, pp. 34–35; Merson, Black & Mills, 2005, p. 608).

Lastly, auditing may be used as a determinant of healthcare quality when the value of the healthcare provided is being judged. As a result, healthcare recipients opt for lawsuits when they have doubts about the quality of health care that they received. Studies have shown a reliable correlation between malpractices history and poor quality of care (Gervais, Priester, Vawter, Otte & Solberg, 1999, p. 163). This underlines the role the documentation of maternal care may play in terms of service evaluation, assessment and improvement. The information documented by nurses/midwives during the four stages of labour may be used to obtain an overview of the performance of the health institution in question, to provide statistical data and to act as proof of evidence in healthcare law suits. It may also serve as a platform to plan in-service training or workshops for the nurses/midwives.

There are three categories of auditing. Concurrent auditing (also called open chart review) involves the auditing of patients' records while the patients are still receiving healthcare. Retrospective auditing is performed after the patients have received care, that is, the patients have been discharged, while prospective auditing attempts to identify the way in which future performance may be affected by current or prior interventions. Both concurrent and retrospective audits serve to identify strengths and weaknesses in the healthcare provided. It is upon these strengths and weaknesses that managers and healthcare providers base their efforts for improvement so that they are able to provide acceptable, if not optimal quality, service (Booyens, 2001, 327, 328; Marquis & Huston, 2003, p. 447).

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

In the previous chapter literature relevant to the topic of the study was discussed. The purpose of this study is to describe the comprehensiveness of the documentation of nursing care rendered to women during the four stages of labour at Oshakati Intermediate Hospital. The research design and strategy, sampling procedures, data collection methods and population description, development of the instrument, and strategies to ensure reliability and validity of the instrument will be fully discussed in this chapter.

3.2 Research design

A quantitative research approach was used for this study. The quantitative approach was selected because the researcher attempted to draw statistical conclusions from the study, and the study contained a series of items that needed to be tested numerically to determine the completeness of the maternal records. The study was basically descriptive research aimed at detecting and explaining the documentation of acts and omission on the part of nurses and midwives. The findings were reported as a summary of statistics and their subsequent analysis (Leddy & Pepper, 1998, p. 150; Berglund, 2001, p. 175; Ogden & Goldberg, 2002, p. 101; Schneider, Elliot, LoBiondo-Wood & Haber, 2004, p. 251; Polit & Beck, 2004, p. 192, Holland & Campbell, 2005, p.98).

3.3. Population description and sampling

3.3.1. Population description

The population consisted of the records of 3 660 women who delivered from January to December 2005 in Oshakati Intermediate Hospital. This hospital was selected because it is a referral hospital to district hospitals, health centres and clinics of the North-West Health Region (consisting of the Oshana, Omusati, Oshikoto and Ohangwena regions) and also because it is a training hospital. The district hospitals are Engela, Eenhana, Onandjokwe, Tsumeb, Tsandi, Okahao, Ombalantu Oshikuku, Okatana Health Centre, Ongwediva Clinic, Oshakati Health Centre and Eluwa Clinic. The hospital was also selected because of its status in the country – it is the third largest hospital in the country.

3.3.2 Sample size and sampling method

a) Sample size

Since it is desired that the accuracy of the results be reported with 95% percent confidence, the sample size was calculated using the following formulae:

$$n_0 = \frac{z^2 pq}{e^2} \quad \text{and} \quad nR = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$
$$\Rightarrow \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} \quad nR = \frac{384.16}{1 + \frac{(384.16 - 1)}{3660}}$$
$$= 384.16 \quad \Rightarrow \frac{384.16}{1.1047} \Leftrightarrow 348 \text{ maternal records}$$

Where:

n_0 – initial sample size

z^2 – confidence level at 95 percent (standard value of 1.96)

p – maximum variability at 5 percent

$q = 1-p$

e^2 – margins of error at 5 percent (standard value of 0.05)

N – population size

n_R – final refined sample (available at <http://edis.ifas.ufl.edu/PD006> accessed 03/10/2005)

b) Sampling method

The sample was selected using probability sampling; particularly simple random sampling. Maternal records were allocated numbers from 1 to 3660, and the Microsoft Excel computer package was used to generate 348 random numbers from 1 to 3660. Thus, 348 random maternal records were selected for the study (Levy & Lameshow, 1999, p. 20; De Vos, Strydom, Fouche & Delport, 2003, p. 205).

3.4 Data collection: Development of the instrument (checklist) and pilot study

3.4.1 (a) Development of the instrument (checklist)

After the literature review a checklist was developed in order to collect data. Information from an auditing instrument that had been used in Oshakati Intermediate Hospital as well as information acquired through the Internet and from various midwifery books, journals

and articles were used to develop the checklist. This information contained critical items that were identified as part of maternal nursing care during the labour process - from admission of the mother to the maternity department until delivery.

The checklist was divided into two parts. The first part dealt with the adherence to legal requirements or to policy/guidelines on documentation by those who carried out the documentation process. The entries were audited, whether the entries were legible, coherent, had mode of entry (that is, whether documenters indicated if entries were made as emergency, interim entry, SOIP or evaluation), were dated, timed, signed, (including rank/grade) by the person who entered the data in the progress notes, and, in cases of student documented entries, whether the entries were co signed by a registered person (nurse/midwife). The second part consisted of sections two (2) to six (6) and focused on the comprehensiveness of the documentation in the maternal records in those sections that required that data be filled in the spaces provided. The instrument contained scores to be allocated to the status of comprehensiveness of the documentation by the nurses and midwives: 2 points for complete documentation, 1 for incomplete documentation and 0 for absence of data/documentation. The instrument also contained grades to quantify the degree of comprehensiveness (see Annexure A).

3.4.1 (b) Pre-testing the checklist: pilot study

The checklist developed was tested during a pilot study, in which two problems were identified. The first problem was that certain maternal records contained more documented entries in the space for the progress notes than others. This made it impossible to audit all records. Thus, the researcher decided to use the first entry in the progress notes only, regardless of who made the entry (no matter if it was a student nurse, doctor, nurse or midwife). Documented data in the progress notes was audited if it was dated and timed, legible, coherent, and contained a mode of entry and the signature and rank of the documenter(s).

The second problem was that certain maternal records contained documented entries made by either student nurses and/or pupil enrolled nurses alone that is, documentation was carried out by students/pupil enrolled nurses when they were training at the maternity department. In view of the fact that students are not yet independent practitioners the responsibility lies with the nurses or midwives, (as per policy on the maternity department wall of Oshakati Intermediate Hospital, see Annexure D) since the nurses and midwives are responsible for supervising and thus teaching and providing clinical guidance to the students. Therefore, a standard was developed to accommodate the records of students and was provided for by the item “counter-signature of registered nurse if entries made by students”, although there is no actual regulation that compels the registered nurses/midwives to countersign the documented notes of students.

The instrument was also subjected to the test-retest to determine its reliability and also its validity. An instrument is reliable if it provides consistent scores under comparative conditions. This means that no matter who is using the instrument the instrument should yield similar results that is, accurate, stable, homogeneous, and equivalent results. Validity is the degree to which an instrument does what it is intended to do that is, it measures what it intended to measure (Fain, 1999, pp. 92–94; Mateo & Kirchhoff, 1999, pp. 263–264; De Vos *et al.*, 2002, p. 167; Brooker & Nicol, 2003, p. 34). The instrument was adopted for data collection. This will be discussed later in the chapter.

3.4.2 Data collection procedure

Data was collected using the structured and in-direct observational methods. Observational method involves collecting data through visual means and using a schedule or checklist to record observations. Using the checklist developed, the researcher studied the documentation by nurses and midwives after they did documentation. Indirect observation (also called meditated observation) was chosen because it has an advantage of providing a record of what occurred that can be reviewed form time to time, to ensure that data collected is not mistaken. Another advantage of in-direct observation is that the researcher is not present to influence the documenting behaviours of the nurses/midwives (Thomas, 2003, p.60, p.62, Polit et al, 2001, pp. 283-284, Hek et al, 2000, pp. 84-85).

Data were collected over a period of three months, during which maternal records were audited whether they had been completely or incompletely documented by allocating

marks as follows: 2 for complete documentation, 1 for incomplete documentation and 0 for absence of documentation. In situations in which documentation of a particular intervention was not applicable then the tick (√) was allocated in the not applicable (N/A) space. In addition the mean, mode and median of adherence to legal requirements and policy/guidelines on documentation were determined using Windows Excel.

3.5 Ethical issues

Although there was no direct contact with the owners, that is, women whose maternal records were studied, there is a need for privacy and confidentiality with the result that the maternal records were not exposed to anybody who did not have permission to access them. The anonymity principle was adhered to so that no data was linked to the owner of the record by using register numbers in the checklist. Permission to conduct the research was obtained from the Ministry of Health and Social Services as well as from the Superintendent of Oshakati Intermediate Hospital (Polit *et al.*, 2001, p. 82, Hek *et al.*, 2002, p. 109).

3.6 Strategies to ensure reliability and validity

A good data-collecting instrument displays both reliability and validity. An instrument is reliable if it provides consistent scores under comparative conditions. This means that no matter who is using the instrument it should yield similar results that is, accurate, stable, homogeneous, and equivalent results.

In order to ensure reliability the checklist was subjected to a test-retest process, in terms of which ten maternal records were audited in May and re-audited in August 2006 using the same data collecting instrument. This was done to ascertain whether it was possible to obtain similar scores (or grade) of completeness of documentation in May and in August, so that the research was able to evaluate how close or how distant the scores were in relation to each other. The test- retest revealed that there were no significant differences between the two sets of scores. The scores had a strong correlation(r) of 0.975, that is, they were not distant from one another, and hence the instrument was perceived as reliable for data collection. (Fain, 1999, pp. 92–94; Mateo & Kirchhoff, 1999, pp. 263–264; De Vos *et al.*, 2002, p. 167; Brooker & Nicol, 2003, p. 34). The test-retest data was computed as follows:

Tables 1 and 2: Paired samples statistics: reliability of the data collecting instrument

Table 1: Auditing and re-auditing of maternal records scores of ten files

Maternal record auditing results	1	2	3	4	5	6	7	8	9	10
May 2006 scores	49	50	45	46	48	49	45	50	30	34
August 2006 scores	48	49	48	47	46	48	47	49	31	35

Table 2: Test- retests statistics

		Mean	N	Std. Deviation	Std. Error Mean	Correlation
Pair 1	First Auditing	44.6000	10	6.96340	2.20202	.975
	Re- auditing	44.8000	10	6.35610	2.00998	

Validity is the degree to which an instrument does what it is intended to do, that is, it measures what it is supposed to measure. As a means of ensuring validity the instrument developed was sent via the internet to midwifery experts, both nationally and internationally. These experts included lecturers, professors, advisors, consultants and doctors. They critically analysed and evaluated the instrument, and submitted their suggestions. For instance, initial assessment on admission some asked and suggested: fetal and abdominal assessment “What do you think about this being here? Would it be more appropriate if you group it separately under initial assessment on admission”. All those who were involved in the evaluation of the instrument were satisfied, and the instrument was deemed valid for data collection (Fain, 1999, pp. 92–94, Mateo & Kirchhoff, 1999, pp. 263–264; De Vos *et al.*, 2002, p. 167; Brooker & Nicol, 2003, p. 34).

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

The previous chapter of this study focused on the research design and data collection method. This chapter deals with data presentation, analysis and discussion. The data was organised into frequency tables and pie charts using Microsoft Windows Excel. The data in the table and charts was then discussed. The checklist contained six sections – section 1 dealt with “Adherence to legal requirements and to the policy of documentation” (includes dating, timing, mode of entry, coherence, legibility, signature and rank of documented entries) while sections 2 to section 6 entailed the auditing of the “Completeness of maternal records” that required the allocation of scores (2 for completeness, 1 for incompleteness and 0 for absence of documented data). Each section in the checklist was individually analysed, and statistical data was presented in percentages (Tarling & Crofts, 1998, p. 140; De Vos *et al.*, 2002, pp. 225, 226).

4.2 Section 1: Progress notes – adherence to legal requirements and to the policy of documentation during the four stages of labour

Progress notes describe in chronological order the patients’/client’s individual needs and problems, pertinent nursing observations, reassessments and interventions, as well as the patients’ response to meeting expected outcomes. The advantage of recording in progress

notes is that information may be easily retrieved, and the progress notes may contain significant information because the documenter feels compelled to fill in the spaces (Holmes, 1999, p. 3). Thus it is important that nurses keep notes in the progress notes spaces provided in maternal records.

It is a legal requirement that all the documented nursing interventions be dated, timed, have entry modes, and are signed and ranked by the documenter as per hospital documentation policy. Nurses, midwives and other health care providers should document their interventions after they have interacted with patients. Entries should be made according to relevant hospital policy, because different hospitals have different policies regarding documentation in-patient records that detail the exact way in which documentation must be done.

Hence, documentation in progress notes was audited to determine whether the entries contained dates, times, modes of entry, were legible and coherent, as well as whether they had the signature and rank of the documenter. The central tendencies for documentation that is, the mean, mode and median, were also calculated.

Table 3: Legal requirements and adherence to the policy or guidelines of documentation (N=348)

Item	Frequency	Percentages
1. Documentation in the progress notes		
Maternal records with documentation in progress notes	127	36
Maternal records without documentation in progress notes	221	64
Total	348	100
2. Adherence to legal requirements and guidelines of documentation		
Complete documentation with date, time, coherent, legible, signature and rank	10	3
Incomplete documentation either with no date, time, illegible, no signature or rank	117	33
No documentation in progress notes	221	64
Total	348	100
3. Documentation of date and time		
Date and time documented	94	27
No date documented	0	0
No time documented	21	6
No date or time documented	12	3
No documentation in progress notes	221	64
Total	348	100
4. Legibility and coherence		
Documented entries legible and coherent	116	33
Documented entries incoherent and illegible	11	3
No entries in progress notes	221	64
Total	348	100
5. Documentation of mode of entry		
Entries mode made correctly (Interim entries, evaluation, SOIP)	70	20
No entry mode	57	16
No entries in progress notes	221	64
Total	348	100
6. Signature and rank documentation		
Signature and rank documented	117	33
No signature	0	0
No rank	10	3
No documentation in progress notes	221	64
Total	348	100
7. Documentation by student nurses/pupil enrolled nurses		
Documented entries countersigned by registered person	0	0
No counter signature	10	3
Not applicable (no documentation in progress notes or documentation done by other health workers)	338	97
Total	348	100

Among the 348 maternal records 36 percent (n=127) had notes while 64 percent (n=221) had no documentation in the progress notes. A small number 3 percent (n=10) of the documented notes were complete, and 33 percent (n=117) were incompletely documented. Of the incomplete maternal records 27 percent (n=94) had time and date only documented, 6 percent (n=21) had no time documentation, 3 percent (n=12) had neither time nor date. Signature and rank was documented in entries made in 33 percent (n=117) of the maternal records, while 3 percent (n=10) had no rank documented. Furthermore, 33 percent (n=116) had legible and coherent notes, while 3 percent (n=11) had illegible and incoherent (not understandable) documented notes. Twenty percent of the maternal records (20%, n=70) had entries documented correctly, with modes such as SOIP, Evaluation, or Interim/Emergency entries, and 16 percent (n=57) had no entry mode documented. The remaining 64 percent (n=221) had no entries in progress notes. Only 3 percent (n=10) had records made by students, but none of these records had been co-signed by a registered nurse/midwife. The rest 97 percent (n=338) had no records made by students.

The records that had documentation notes in the progress notes space revealed that the adherence to legal requirements and the relevant policy of documentation were of an acceptable standard. Documentation of date, time, entry mode, signature and rank of the documenter was satisfactory. This was also proven when the central tendencies measurements were calculated and the scores from the adherence to legal requirement section showed a mean of 80 percent, a median of 79.7 percent and a mode of 80 percent.

However, documented notes by students were not co-signed by the registered nurses/midwives who are responsible for the actions and omissions of these students during their clinical allocation to the labour unit (as per policy of the department writings of the Oshakati Intermediate Hospital Maternity Section).

It is thus obvious that the documenters adhered to the guidelines of documentation. The timing of entries made in the patients' records makes it easy to maintain a chronological record of the problems and history of patients over time and reveals exactly when an event occurred, for example, change in condition of patient, doctors' visits and nursing interventions. This is important in evaluating the progress of the patient. Sloppy and illegible handwriting wastes time and could place the life of the patient in jeopardy if critical information is misinterpreted or it is difficult to understand exactly what the documenter wishes to communicate to the reader. Thus the patient may not receive adequate attention since the message communicated was not clear. A signature makes the documenter responsible for everything documented in the patient's record – it makes a documenter the author of the entries he/she made in the patient's record. This means that it is possible to identify who recorded the information, thus rendering such a person accountable for her acts or omissions (SANC, 1994, pp. 48–49; Ambrose & Witting, 1998, p. 189–191, 197).

It is also interesting to note that certain of the entries made in the progress report (in 20% of the maternal records, n=68 records) were made on subsequent contact, meaning they were made later at a time when the patient had been already in the ward for some time. These subsequent records were made because midwives/nurses thought a problem was likely to occur that is, in anticipation of the problem. It would appear that the documenter did this in order to protect himself/herself in the courts of law. Subsequent documentation in the progress notes was done because of the following reasons: liquor meconium stained, uncooperative mother (jumping up and down or does not want to lie on bed), pushing with every contraction, doctor informed to see the patient. Therefore, one must agree with previous researchers that nurses/midwives do document their practices out of fear of litigation (Thompson, 2000(a), pp. 11–13).

4.3 Sections 2-6: Completeness/incompleteness of maternal records

Maternal records consist of several sections that have to be filled in fully by nurses/midwives. These sections include the front page that consists of personal and demographic data, first stage, partogram, second stage/delivery notes, third stage management as well as the fourth stage of labour.

Maternal records were audited to determine the comprehensiveness of the information documented in the maternal records during admission. This included documentation on the front page (demographic and geographic data) and during the first stage (assessment of

vital signs, abdominal examination, contractions, FHR and vaginal examinations). Medicine administered was audited to determine whether medicine was dated, timed, signed and had rank of the documenter. Maternal records were also audited to determine the documentation of the intake and output of fluids during labour.

4.3.1 Section 2: Admission assessment and history taking

4.3.1.1 General information and first stage of labour data

When a woman arrives in the maternity department the nurse/midwife performs a screening assessment by conducting an interview and carrying out a physical examination. The nurse/midwife also reviews the laboratory and diagnostic findings to determine the health status of the mother and foetus and, subsequently, the progress of labour.

General information helps in planning the care of the client, since it provides a baseline or clear picture of what the nurse will do for the client/patient, while the findings on admission serve as a baseline for assessing the mother's progress from the time of admission until delivery. This assessment should include demographic and descriptive data, health history, and reasons for admission – uterine contractions pattern, frequency, duration, intensity, and change in pattern. The mother should be identified if she is at risk of complications, bloods taken, and past and present medical, surgical as well as gynaecological history noted. A complete abdominal examination should be carried out

(Alfaro-LeFevre, 1998, pp. 5–6; Bennett & Brown, 1999, pp. 220–231; Ladewig *et al.*, 2002; London *et al.*, 2003, pp. 161–179; Lowdermilk & Perry, 2003, pp. 543, 544).

Table 4. Documentation of admission assessment (N=348)

Item	Frequency	Percentages
1. Front page: Documentation of demographic and geographic data		
Front page completely documented (name, address, phone, next of kin)	24	7
<i>Front page incomplete:</i>		
Name and next of kin only (no telephone numbers, no identity number, no postal address)	245	70
Telephone numbers documented	21	6
Identity number documented	18	5
Postal address documented	22	6
Only identity number and telephone numbers documented	9	3
No next of kin documented	9	3
Total	348	100
2. Documentation of surgical and medical history		
Surgical and medical history taken	31	9
No surgical and medical history taken	317	91
Total	348	100
3. Documentation of ANC data review		
ANC review information documented	240	69
No ANC review information documented	107	31
No ANC attendance by woman (indicated not attended ANC)	1	0
Total	348	100
Risk problems identification documented (teenage, high parity, hypertension)	3	1
Only bloods results review documented	200	57
Other problems identified (e.g. psychiatric, PMTC program,)	38	11
No ANC review data documented	107	31
Total	348	100
4. Documentation of reason for admission (main complaints)		
Main complaints noted	68	20
No main complaints noted	280	80
Total	348	100

Concerning personal particulars, demographic data and contact details, 7 percent (n=24) had front pages fully completed, that is, name, address, next of kin, telephone numbers, identity number as well as postal address filled in, the majority of maternal records, 93 percent (n=324), were incomplete: 70 percent (n=245) of those records had mainly name, address and next of kin, 3 percent (n=9) had no next of kin data, 6 percent (n=21) had telephone numbers only, 5 percent (n=18) had identity number only, 3 percent (n=9) had identity and telephone numbers, while 6 percent (n=22) had postal address documented.

Surgical and medical history was documented in 9 percent of the maternal records (n=31) under the section “Particulars of patient before operation”, while 91 percent (n=317) had no such documented data. Sixty-nine, that is, 69 percent of the maternal records (n=240) had ANC review data documented, whereas 31 percent (n=107) had no ANC review data documented and one maternal record had information that indicated no ANC had been attended by the mother. An ANC review yielded the following documented information: blood results review, RPR (blood tests for syphilis, HB, RH, and or HIV) accounts for 57 percent (n=200), risk identified was documented in 1 percent (n=3) of the records and other problems such as PMTC, poor hygienic condition of the mother and wasted mother were documented in 11 percent (n=38) of the maternal records.

The documentation of history taking and interaction with patients on initial contact was poorly done. When obtaining patient particulars it would appear that nurses/midwives documented what they probably thought was important – mainly name, age, address and next of kin while neglecting contact details and identity number. However, all other aspects are important- the need to call an immediate family member could arise if, for example, a teenager has to obtain consent for an operation, or in cases of maternal death. It would be impossible to contact the next of kin if there were no telephone numbers available.

The documentation of surgical and medical history, as well as the ANC review, was also very poor. Maternal records that did contain surgical-medical data were mainly in connection with a Caesarean Section, where the midwife had to fill in the “particulars of the patient before operation” form. Similarly, the ANC review focused mainly on the results of blood tests taken during ANC and which focused specifically on RPR, Rh, Hb, and, in certain cases, HIV. However risk identification was perceived as trivial.

One percent only (n=3) was assessed for risks, and these risks were due to teenage (pregnancy), psychiatric history and previous ectopic pregnancies. Health history is important because information may be used to identify patients’ problems that could dictate the nursing interventions of nurses and midwives, since the information given forms a platform/base for nursing care (e.g. for planning, implementing, monitoring and

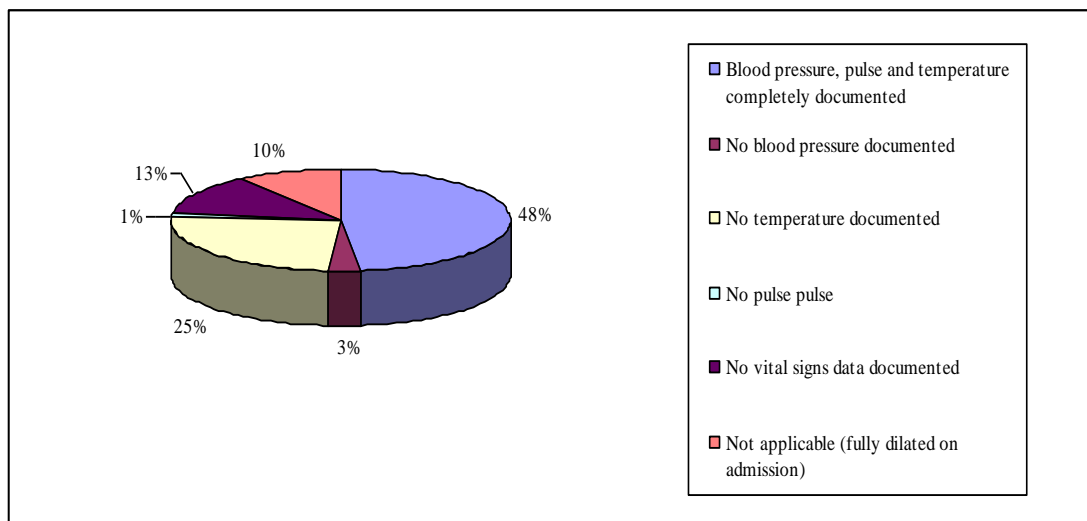
evaluation of nursing care interventions). If no ANC review was recorded or the blood tests only reviewed midwives and other health team members would be ignorant of what had been happening throughout the gestation period. Patients would not receive adequate care if neither past and present history, nor risk problems were considered. This information is not only needed during the labour process, but would lay a foundation for postnatal care, therefore it is of great importance that comprehensive information be obtained from patients. Twenty percent (n=68) had history and main complaints taken, while all other records (80%, n=280) had “in labour” or “for delivery” as the reason for admission. This hindered the adequate provision of healthcare because patients were not interviewed properly in order to be able to provide the correct and adequate information (subjective data) that forms the base for maternal nursing care.

An analysis of the above statistics indicated that the documentation of admission information was of a poor standard. The data obtained revealed information that agreed with the study by Enhorfs (1996:1) where the results showed that admission assessment was missing in approximately half of all records, and only one third of the records contained information about the progress of the patient’s problem, thus giving the impression that the documentation of nursing interventions is of a substandard level.

4.3.1.2 Admission during the first stage of labour: Documentation of vital signs, abdominal examinations, vaginal examinations, foetal heart rate and contractions assessment

This section dealt with the assessment and documentation of vital signs, abdominal examinations, contractions assessment, FHR assessment and vaginal examinations. The maternal records were audited to determine whether these interventions had been completely or incompletely documented or not at all.

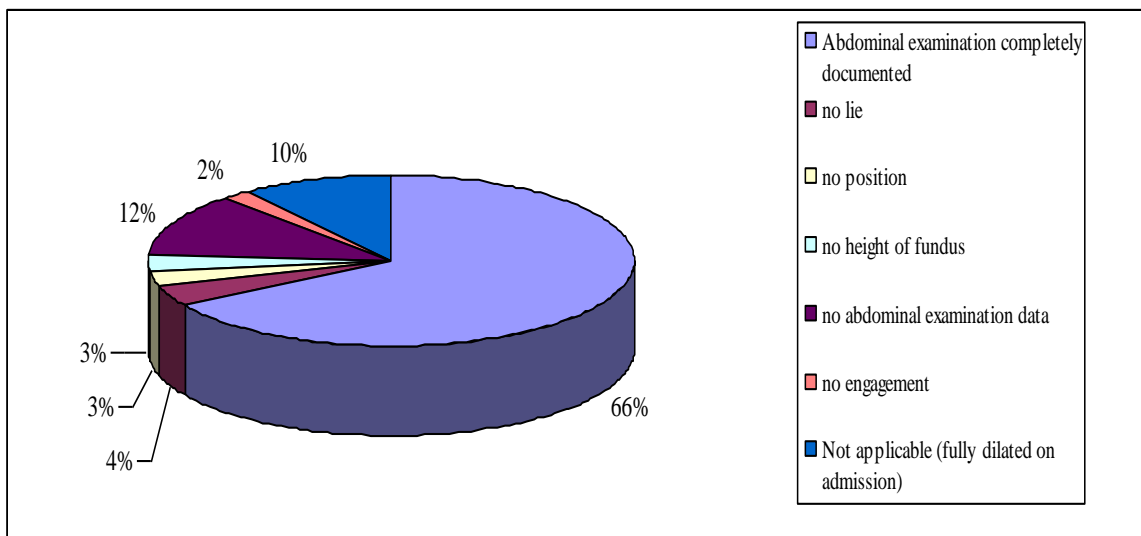
Fig 1. Documentation of vital signs on admission (N=348)



On admission vital signs had been completely documented (temperature, pulse and blood pressure) in 48 percent (n=167) of maternal records. More than one half of the maternal records, that is, 52 percent (n=181) had been incompletely documented in the following ways: no temperature 25 percent (n=86), no pulse 1 percent (n=5) and no blood pressure 3

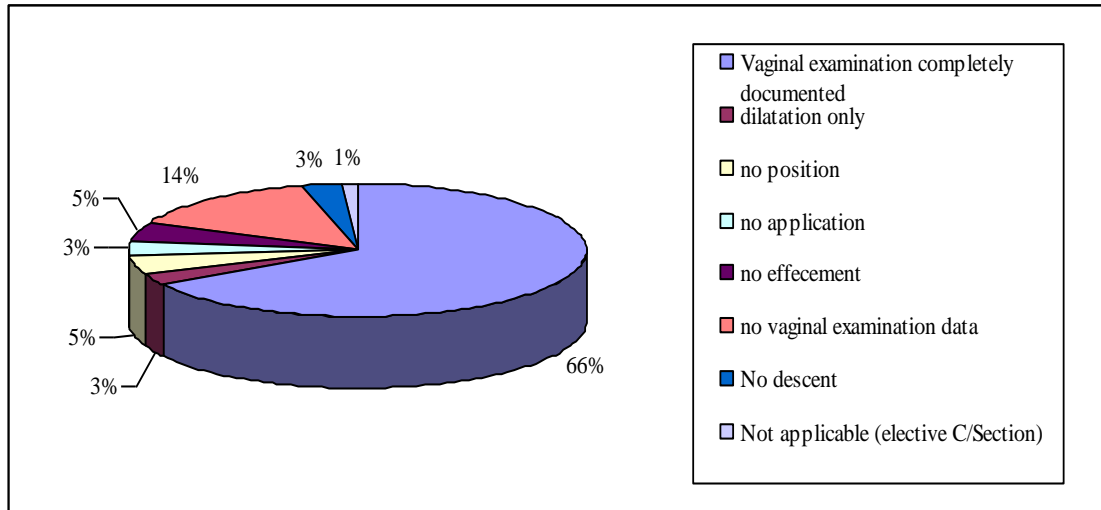
percent (n=12). Thirteen percent (13%) of the maternal records (n=44) had no documented notes on vital signs, while 10 percent (n=34) could not be assessed as they had been documented as fully dilated on admission.

Fig 2. Documentation of abdominal examination during first stage (N=348)



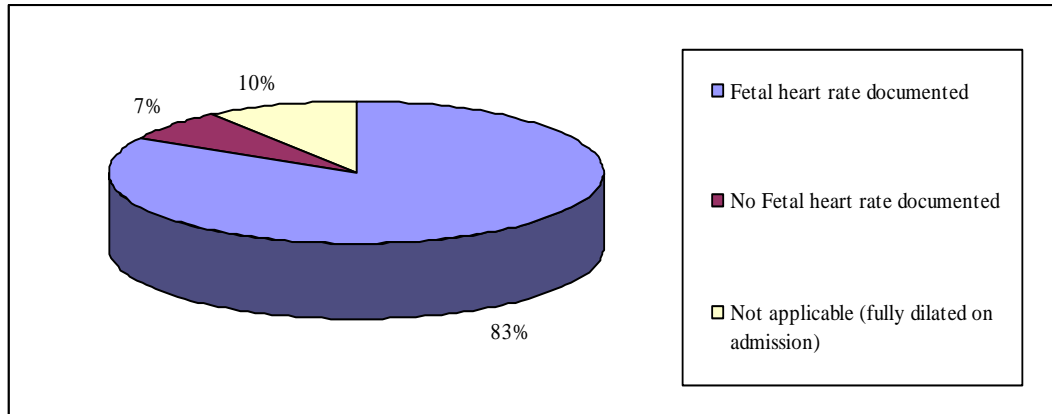
In the case of abdominal examinations 66 percent (n=230) of maternal records documented abdominal examination comprehensively, while 34 percent (n=118) had incompletely documented abdominal examinations in the following ways: no lie 4 percent (n=14), no position 3 percent (n=10), no height of fundus 3 percent (n=10) and no engagement 2 percent (n=7). No abdominal examination data had been documented in 12 percent of maternal records (n=43), while a minimal fraction of 10 percent (n=34) could not undergo abdominal palpation because they were fully dilated on admission.

Fig 3. Documentation of vaginal examination on admission (N=348)



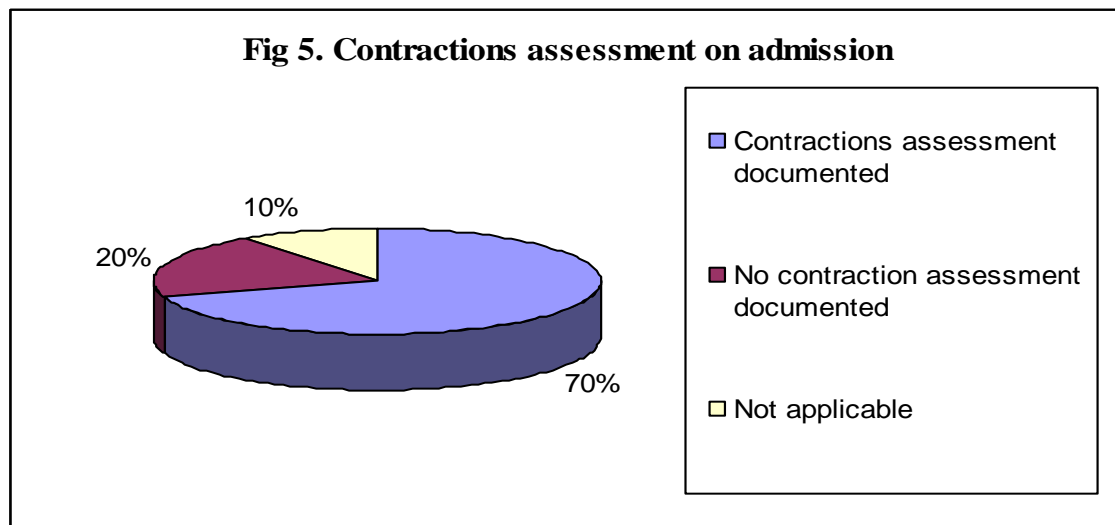
Vaginal examination was documented completely in 66 percent of the maternal records (n=230), while 33 percent (n=116) of maternal records were incompletely documented as follows: no documentation on position 5 percent (n=17), dilatation only 3 percent (n=11), no application 3 percent (n=11), no effacement 5 percent (n=17) and no descent 3 percent (n=10). No vaginal examination had been documented in 14 percent (n=50) while in one percent that is, (n=2) of cases documented the patients had been booked for an elective Caesarean section.

Fig 4. Foetal heart rate documentation on admission (N=348)



Fetal heart rate was documented in 83 percent of maternal records (n=290), 7 percent (n=24) contained no fetal heart data, while 9 percent (n=34) could not be assessed for fetal heart rate as they were fully dilated on admission.

Fig 5. Contractions assessment on admission (N=348)



In respect of contractions assessment 70 percent of the maternal records (n=246) contained contractions assessment data, 20 percent (n=68) had no contractions data documented, while 10 percent (n=34) could not be assessed because the women were fully dilated on admission.

Documentation on vital signs, abdominal examinations, vaginal examinations, FHR and contractions assessment on initial contact was carried out satisfactorily. This is revealed by the fact that 48 percent (n=167) of maternal records contained complete documentation of vital signs, 66 percent (n=230) complete documentation of abdominal examinations, 66 percent (n=230) complete documentation of vaginal examinations, 84 percent (n=290) complete documentation of FHR, while 70 percent (n=246) contained complete documentation of contractions assessed during admission. This creates the impression that the majority of women were at least attended to and base line information that would help in monitoring and evaluating the mother's condition and the progress of labour was documented.

4.3.1.3. Partogram in use

The partograms in the maternal records were audited for completeness of documentation of vital signs, FHR, and contractions in order to determine whether these factors had been documented from the active phase of labour until delivery. A partogram depicts, in a graphic form, important aspects that influence the progress of labour, thus making it easy

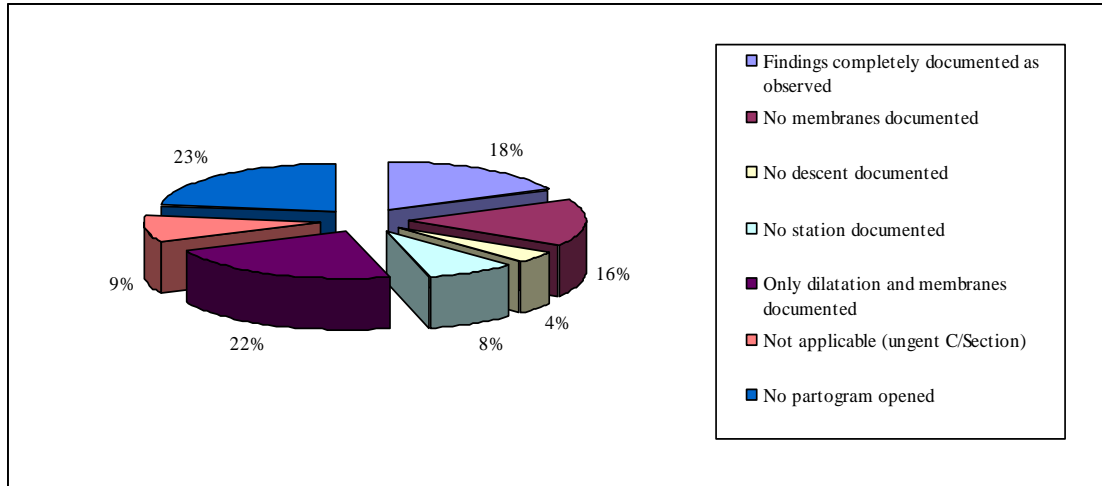
to evaluate progress. This type of graphic charting assists in the early identification of deviations from expected labour patterns, and in this way facilitates the assessment of the progress of labour by evaluating cervical dilatation, rate of descent of the presenting part, as well as duration and frequency of uterine contractions. A deviation in any of these factors brings about prolonged labour and causes the partogram to appear abnormal (Bennett & Brown, 1999, p. 406; Williams, 2001, pp. 134–137; Lowdermilk & Perry, 2003, p. 563).

Table 5. Documentation of vaginal examination on the partogram (N=348)

Item	Frequency	Percentages
Partograms with documented data (partograms opened)	237	68
No entries on partogram	80	23
Not applicable (urgent Caesarean section)	31	9
Total	348	100

There were partograms used in 68 percent (n=237) of cases. Twenty-three percent that is, 23 percent (n=80) revealed no documented notes on the partogram page. However, 9 percent (n=31) of the partograms could not be used because patients had been booked for urgent Caesarean section, for example, as a result of pre-eclampsia, foetal distress or previous Caesarean section.

Fig 6. Documentation of vaginal examination findings on the partogram (N=348)



Eighteen percent (n=62) of the maternal records containing partograms had partograms completely documented with cervix dilation, status of membranes and the descending part, whereas 50 percent (n=77) contained incomplete documentation on the partograms that is, 22 percent of maternal records (n=112) had dilatation and status of membranes only documented, no station was documented in 8 percent (n=28) of maternal records, no descent in 4 percent (n=14) while 16 percent (n=53) had no membranes status documented. In the remaining 9 percent (n=34) the use of partograms was not applicable because the women had been booked for urgent Caesarean sections and 23 percent (n=80) had no data on the partogram page.

Table 6. Documentation of assessment and monitoring of vital signs, contractions and foetal heart rate up to time of delivery (N=348)

Item	Frequency	Percentages
1. Documentation of monitoring of vital signs up to time of delivery		
Vital signs documented up to time of delivery	62	18
Vital signs not documented up to time of delivery	104	30
No data on partogram	82	23
Not applicable (C/sections, fully dilated on admission)	100	29
Total	348	100
2. Documentation of monitoring of contractions up to time of delivery		
Contractions documented up to time of delivery	62	18
Contractions not documented up to time of delivery	104	30
No data on partogram	82	23
Not applicable (C/sections, fully dilated on admission)	100	29
Total	348	100
3. Documentation of monitoring of FHR up to time of delivery		
FHR documented up to time of delivery	62	18
FHR not documented up to time of delivery	102	30
No data on partogram	82	23
Not applicable (IUFD, C/sections, fully dilated on admission)	102	29
Total	348	100

As regards the documentation of vital signs and contractions up to the time of delivery only a minimal number of maternal records, that is, 18 percent (n=62) contained partograms which comprehensively documented vital signs and contractions assessment data until the time of delivery, while 30 percent (n=104) contained incompletely documented vital signs and contractions assessment that is, data had not been documented until the time of delivery, and 23 percent (n=82) contained no documented data on vital signs and contractions assessment on the partogram. The remaining 29 percent (n=100) could not have contained documentation of vital signs and contractions assessment until the time of delivery because the mother had been booked for an emergency Caesarean section, prolonged or obstructed labour had led to a Caesarean section, or else the mother had been fully dilated on admission.

Foetal heart rate had been documented until the time of delivery in 18 percent of maternal records (n=62), while 29 percent (n=102) contained incompletely documented foetal heart rate data, that is, data had not documented until actual delivery, and 23 percent (n=82) had no documented data on foetal heart rate. The remaining 29 percent (n=102) could not have had foetal heart rate documented until the time of delivery because the mother had either been booked for an emergency Caesarean section, prolonged or obstructed labour had led to a Caesarean section, IUFD, or else the mother had been fully dilated on admission. Although it was indicated that CTG had been used in 1 percent (n=2) of maternal records no CTG print record had been included in the record.

These statistics generally imply the way in which nurses document the progress of labour or the monitoring of labour was poor. Only 18 percent (n=62) of the maternal records showed that vital signs, contractions and foetal heart rate had been assessed and documented up until delivery. As it has already been identified that records maintain a chronological sequence of the patient's progress it could be difficult to assess or evaluate whether the patient is progressing or not without documentation data readily available. The advantage of having a partogram opened is that partograms allow accurate observations of patients during labour, hence enhancing the greater safety of mother and baby because trends in their conditions are being constantly monitored. Also incidences of prolonged labour may be reduced since labour graphic interpretation allows interventions to be carried out urgently should the need arise.

Those partograms that were incompletely documented either contained first stage data only or these accounted for 5 percent of maternal records (n=19), while 25 percent (n=85) contained gaps in the partograms as documentation had been done 2 to 4 times only. Women were instructed to walk around the maternity department when they were 6cm dilated, and they returned only for delivery. This practice may make it difficult to assess the progress of labour as well as to assess condition of the mother and foetus, and this could be detrimental to their condition.

In cases where there is no partogram used the monitoring and evaluation of labour will be poor. For example, no foundation of evaluation makes it difficult to decide whether the patient is above or below the alert line, whether the labour is prolonged, whether the foetus is in distress or whether the mother is developing hypertension or fever. Problems such as maternal and/or foetal death, specifically fresh stillbirths as well as maternal exhaustion could be encountered, whereas they could have been avoided with meticulous documentation and subsequent applicable interventions.

Table 7. Documentation of administration of medicine, fluid intake and output (N=348)

Item	Frequency	Percentage
1. Documentation of medicine administered		
Medicine administered timed and signed	40	11
Medicine not timed	4	1
Medicine not signed	3	1
Prescription not applicable (no prescribed medicine)	301	87
Total	348	100
2. Documentation of fluid intake and output		
Intake and output documented (fluids, vomitus, urine)	32	9
Fluids only documented	10	3
No input and output records	306	88
Total	348	100

Many of the maternal records 87 percent (n=301) revealed that no medicine had evidently been prescribed. This means 13 percent (n=47) only had had medicine prescribed (by physicians). Among the 13 percent (47 records) medicine prescription charts used 11 percent (n=40) of the prescriptions had been completely documented with time and

signature, while 1 percent (n=4) had no time of administration documented, and 1 percent (n=3) had no signature documented.

In respect of fluid intake and output 88 percent (n=306), had no records of fluid intake and output documented (intravenous fluids, anything taken orally, vomitus, urine etc). Those records which did contain comprehensively documented intake and output were mainly the records of patients who had undergone Caesarean sections, that is, 9 percent (n=31) as, in such cases, there is a standing order that requires that a woman have intravenous infusion and be catheterised. A further 3 percent (n=10) documented those patients who had delivered normally in the labour room (vaginal delivery) but had had fluids administered for reasons such as induction of labour, thirst, prolonged labour, nausea, vomiting and dizziness.

The above statistics reveal that the documentation and timing of the administration of prescribed medicine was carried out satisfactorily. Of the 13 percent (n=47) of maternal records that dealt with prescribed medicine 11 percent (n=40) of the prescribed medicine had been completely documented, that is, dated, timed and signed, whilst an insignificant 2 percent (n=7) had no time and signature documented. It should be noted that these medicines had been administered before delivery (i.e. does not include post delivery administration of oxytocin). In many cases one would find a table drawn in the progress

notes with observations of the women on pitocin, but there were no records of when the pitocin had been initiated.

The timing of the nursing interventions in the patients' records makes it easy to maintain a chronological record of the problems or history of the patients over time and reveal exactly when an event occurred, for example change in condition of patient, doctors' visits and nursing actions. This is important in evaluating the progress of patients (SANC, 1994, p. 48; Ambrose & Witting, 1998, pp. 189–190). Similarly noting the time at which medicine is administered provides a platform for the evaluation of the reactions of the patient to the treatment/medicine in question.

It made it difficult to evaluate labour when no time of administration was recorded since there was no initiation time. If there is no time on which to base an evaluation it is difficult to assess the rate at which the woman is progressing. Timing is useful especially in cases of, for example, labour induction and augmentation, and controlling hypertension and fever, as it is necessary in such cases for the nurse or midwife to evaluate the effectiveness of the treatment as time passes. For instance, if the labour process has been speeded up a woman should deliver within a given period of time. The nurse or midwife bases her evaluation of the effectiveness of the medicine, and eventually the progress of labour, upon the time of administration.

4.3.2 Section 3: The second stage of labour – documentation of delivery

Data documented on delivery was audited in order to ascertain whether the delivery had been comprehensively or incompletely documented, or not documented at all. This included the documentation of date and time of delivery, name and rank of delivery attendant, as well as documentation of the delivery method, breast-feeding and Apgar scoring. The following should be carried out in respect of the newborn immediately after birth – care of airways, for example suctioning, intubation, and so on, Apgar scoring in the first minute and after five minutes, vital signs, bonding (skin to skin with mother).

Umbilical cord care and clamping should be carried out in accordance with prevailing policies pertaining to clamping procedures and treatment/cleaning agents, and the baby should be registered as stipulated in the registration of births policy. According to Mason and Whitehead (2003) the first step when recording the baby's birth is carried out by the doctor or midwife who attended the delivery and who fills in the Notification of Birth, but this varies from country to country (WHO, 1999, pp. 36, 37; Melson *et al.*, 1999, pp. 150–151; Johnson, 1999, pp. 247–249; Thompson, 2000, p. 238; Mason & Whitehead, 2003, p. 184).

Table 8. Documentation of the second stage of labour (N=348)

Item	Frequency	Percentages
1. Documentation of date and time of delivery and name of delivery attendant		
Date and time of delivery documented	348	100
Name and rank completely documented	342	98
No rank	6	2
Total	348	100
2. Documentation of method of delivery		
Method of delivery documented	348	100
3. Documentation of breastfeeding		
Breastfed within ½ hour	205	60
Not breastfeeding (documented/ticked at NO)	25	7
No breastfeeding data	54	16
Not applicable (low Apgar score and C/section)	64	17
Total	348	100
4. Documentation of bonding		
Skin-to-skin bonding information documented	0	0

In all maternal records, that is, 100 percent (n=348) the date and time of delivery had been documented. The majority of maternal records, that is, 98 percent, (n=342) contained the name and rank of the birth attendant documented while 2 percent (n=6) had no rank documented. All maternal records had the method of baby delivery documented. The documented data also showed that, in 60 percent of the maternal records (n=205), babies had been breastfed within half an hour of birth, 7 percent of maternal records (n=25) revealed no breastfeeding without a reason being indicated, and 16 percent of the maternal records (n=54) had no documented data on breastfeeding. In the remaining 17 percent of the maternal records (n=64) it had been documented that babies could not be breastfed within half an hour of birth, either because they had been delivered by Caesarean section, stillborn, IUFD, severe prematurity or a low Apgar score.

Documentation of the second stage of labour was of a high standard with all maternal records containing the date and time of delivery and mode of delivery. There was documentation of the details of birth attendants in 98 percent of the maternal records and documentation of breast feeding in 60 percent of the records. The time of delivery forms a base for the evaluation of the baby's condition within the first minute after birth and again five minutes later, while the type of delivery and sex of the baby should be documented for statistical purposes. A signature renders the documenter responsible for everything documented in the patient's record – it makes a documenter the author of the entries in the patient record. This means that it is possible to identify who did the recording, thus rendering such a person accountable for her acts (Ambrose & Witting, 1998, p. 197; SANC, 1994, p. 49). The act of documenting names as birth attendants indicates that those people have accepted accountability for the process of delivery. Therefore, if there are lawsuits the nurses, midwives and multi-disciplinary health members have documented proof of their actions.

However, despite the certificate of achievement of mother-baby friendly promotion in the maternal postnatal department in the Oshakati Intermediate Hospital there was not a single maternal record with notes on bonding, that is, whether babies were given skin-to-skin contact with their mothers and there were also cases of babies who were not breastfed without a reason being indicated. Absence of documented data will make it seem that baby-mother friendly initiative and breast feeding was not done. When no baby-mother-

friendly initiative is done, attachment and bonding process between the mother and child is delayed.

Early contact between mother and baby promotes good mother-child attachment (WHO 1999: 31-32). The Baby Friendly Hospital Initiative (BFHI) is now considered to be one of the most effective ways of creating strong commitment towards breastfeeding, and this has led to the establishment of 10 Steps of Successful Breastfeeding – an initiative on the part of the WHO. If the condition of both mother and baby permits babies should be put immediately to the breast, unless there are contra-indications to breastfeeding such as the acute illness of the mother, chronic illness of the mother (e.g. exhausted mother who is suffering from pulmonary tuberculosis, AIDS or PMTC programme) drugs therapy, for example, iodine therapy, or breast problems such as breast abscesses and cancer (WHO, 1999, pp. 31–32; Ministry of Health and Social Services, Bennett & Brown, 1999, pp. 59, 452–453; Williams, 2001, pp. 166, 265).

4.3.3 Section 4: The third stage of labour – management of placenta, perineum and postpartum bleeding.

The records were audited to ascertain whether documentation of placenta examination, perineum management and oxytocin administration, as well as estimated blood loss and status of uterus assessment, had been comprehensively or incompletely carried out, or not carried out at all. The midwife plays a role in preventing any risk of haemorrhage, infection, retained placenta and shock by utilising her physiologic knowledge of placenta

delivery and management. This includes the spontaneous management as well as active management of the placenta, management of the perineum, as well as the administration of oxytotic agents.

Table 9. Documentation: management of the third stage of labour (N=348)

Item	Frequency	Percentage
1. Documentation of method of placenta delivery		
Method of placenta delivery documented	328	94
No method of placenta delivery documented	20	6
Total	348	100
2. Documentation of 3rd stage time of completion		
Time of completion documented	307	88
No time of completion documented	41	12
Total	348	100
3. Documentation of oxytotic agent administered		
Oxytotic agent used comprehensively documented (timed)	2	1
Oxytotic agent incompletely documented (no time)	316	90
No documentation of oxytotic agent	30	9
Total	348	100
4. Documentation of blood loss		
Blood loss documented	340	98
No blood loss documented	8	2
Total	348	100

From table 9, it may be ascertained that 94 percent of the maternal records (n=328) contained documented data on the way in which the placenta was delivered (spontaneous, cord controlled traction or manual), while 6 percent of maternal records (n=20) contained no such data. The time taken to complete the third stage had been documented in 88 percent (n=307) of records, whilst 12 percent (n=41) contained no documentation on the time of completion. Nine percent (n=31) of the latter referred to Caesarean sections.

Oxytocic agents that were comprehensively documented comprised 1 percent only of the maternal records (n=2) in terms of which time of administration, route, and signature had been documented, 90 percent of the maternal records (n=316) relating to the administration of oxytocin were incompletely documented (had no time), and 9 percent of the maternal records (n=30) contained no documented data on the oxytocic agent administered.

Blood loss estimation was documented in 98 percent of the maternal records (n=340), while 2 percent (n=8) contained no documented data on blood loss estimation. Proper documentation of blood loss implied that nurses and midwives realised the importance of communicating blood loss amongst themselves. This was revealed by the large percentage of blood loss estimation documentation. One percent only of the maternal records (n=3) indicated bleeding in excess of 500mls, 700mls and 1000mls but no interventions had been documented. "Good homeostasis" only had been documented, but this does not explain clearly what had been done to achieve good homeostasis. There is no clear explanation of what was done and what needed to be done for the patient, and this could have led to the duplication or omission of interventions such as re-administration of blood and excessive administration of fluids in an attempt to prevent hypovolemic shock.

The incompleteness of the time of administration of medicine documentation always forms a barrier to evaluating how effective the medicine has been. Nurses and midwives

probably ignored the importance of timing the medicine administered, and this was an important factor in the evaluation of the effectiveness of any medicine administered (SANC, 1994, p. 48; Ambrose & Witting, 1998, pp. 189–190).

Table 10. Documentation of estimated blood loss, status of uterus and perineum management

Item	Frequency	Percentages
1. Documentation of status of uterus		
Status of uterus documented	287	82
No status of uterus documented	61	18
Total	348	100
2. Documentation of perineum assessment		
Perineum assessment comprehensively documented:	121	35
<i>Perineum assessment incompletely documented:</i>		
Episiotomy only documented	55	16
Tears only documented	34	10
No cervical assessment data documented	45	13
No documentation on status of perineum	62	17
Not applicable (Caesarean section)	31	9
Total	348	100
3. Documentation of status of perineum (sutures)		
Episiotomies and tears documented in maternal records	214	61
No episiotomies and tears (perineum intact and C/section)	72	21
No data on perineal status	62	18
Total	348	100
Episiotomy and tears sutured	153	44
No documentation whether tears sutured or not	62	18
No data on perineal status	62	18
Not applicable (Caesarean section, no tears and no episiotomy)	70	20
Refused (refusal of treatment form signed)	1	0
Total	348	100
4. Documentation of post delivery (perineal, rectal and vaginal) repair	0	0
5. Transfer report form labour unit to postnatal	0	0

The assessment of the status of the uterus was documented in 82 percent of the maternal records (n=287), while 18 percent (n=61) contained no documented data. Nine percent (n=31) of the latter referred to Caesarean sections. Perineum assessment had been documented comprehensively in 35 percent of the maternal records (n=121) – this means that the perineum was assessed for vaginal, cervical and perineal tears (degrees included). Thirty-nine percent of the maternal records (n=134) had been incompletely documented in the following ways: 16 percent (n=55) of documented maternal records documented episiotomy only, 13 percent (n=45) contained no cervical assessment, and 10 percent (n=34) had only perineal and vaginal tears documented. Approximately 17 percent of the maternal records (n=62) contained no documented data on the status of the perineum, while 9 percent (n=31) could not have contained documented data on the status of the perineum as a result of a Caesarean section being performed and therefore no vaginal delivery. No documentation of post delivery perineal and vaginal repair, and rectal examinations was found in the maternal records that documented vaginal and perineal tears.

In terms of the documentation of perineal sutures in maternal records it was documented that in 61 percent (n=214) women had either episiotomies performed or had vaginal and/or perineal tears, 18 percent (n=62) documented the perineum as intact (no tears, no episiotomy) and in 9 percent (n=31) there was no possibility of perineal sutures because the women had undergone Caesarean sections. The data revealed that 44 percent of the

maternal records (n=153) documented suturing of episiotomies, 18 percent (n=62) contained no documentation on whether the episiotomy and tears had been sutured or not, while 18 percent (n=62) contained no data on the status of the perineum. In 20 percent (n=70) sutures on the perineum were not applicable either because of Caesarean sections, or because of no tearing of the perineum and hence no episiotomy that is, the perineum was intact. In less than 1 percent (n=1) it was documented that the patient had refused suturing, and this refusal had been documented in the maternal record.

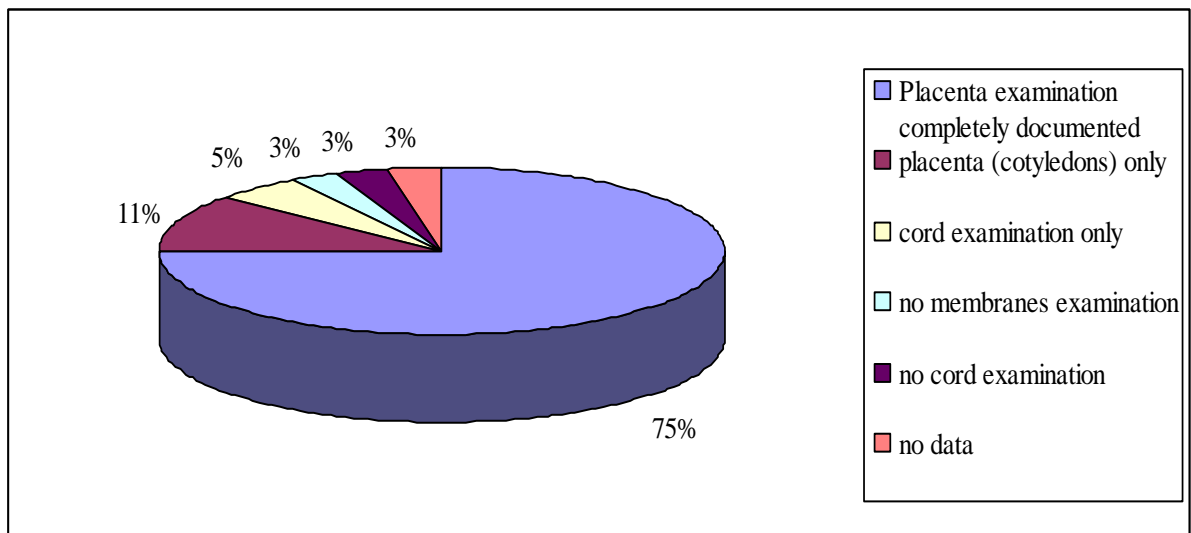
It is important to document whether the perineum was intact, had tears and whether an episiotomy was carried out. Episiotomy and tears need to be sutured to prevent postpartum bleeding (from tears and episiotomy wound), and to provide post delivery care to the mother, for example sitz bath and care of the episiotomy. When the episiotomy wound has been sutured a further examination of the vagina and vulva should be performed in order to ascertain whether all vulval lacerations and labial tears have been repaired. The sutured areas should be inspected to confirm that active bleeding is no longer present. A post vaginal repair examination is essential to ensure that the introitus has not been narrowed and a post perineal rectal examination should be carried out to check whether there are sutures in the rectum. If there are sutures in the rectum, the wound should be reopened and resutured because a suture in the rectum may cause recto-vaginal fistula (Sellers, 1993, p. 559; Bennett & Brown, 1999, pp. 460–461, 467–470; Williams, 2001, p. 162).

The above data on perineal assessment documentation indicated poor documentation of perineum assessment as 39 percent (n=134) of maternal records were incomplete and 17 percent (n=62) contained no perineal assessment at all. Where no records exist of interventions in respect of the episiotomy or perineal tear it would be difficult to differentiate whether bleeding were from the uterus, from the tears, or from the episiotomy. As a result the patient would have to be subjected to further vaginal and perineal explorations in the postnatal unit to identify the source of the bleeding, and this would be inconvenient and painful. In addition the absence of perineal assessment records could create a potential problem in that adequate health information may not be given to the patient on discharge as she might be perceived as having no episiotomy or tears, and infection could develop later.

Furthermore, the absence of post-perineal, vaginal and rectal examination records (after suturing) in all the records where suturing was done is a matter of concern. The problem in this instance would be how other nurses and midwives would be able to obtain information on the status of the rectum and vagina after delivery if there were no records. As has already been explained documentation in respect of the above would mean that information would be readily available when needed and hence continuity in nursing care and communication maintained.

Documentation relating to the transfer of the mother from the labour unit to the postnatal unit should include all actions and interventions carried in respect of the mother prior to the transfer to the postnatal unit, and the midwife receiving the patient should verify these details. This is one of the important functions of documentation as documentation constitutes a channel of communication between the midwifery team and the nursing team involved in the care of the patient and forms the basis for continuity of care of the patient. Therefore information should be readily available (Brown & Bennett, 1999, p. 478; Potter & Perry, 1999, pp. 224–229; Ellis & Hartley, 2003, p. 78).

Fig 7 Documentation of the examination of placenta (N=348)



Maternal records were audited to determine whether documentation relating to the examination of the placenta (including the cord and membranes) was complete, incomplete or absent. The purpose of placenta examination is to ascertain placenta completeness, completeness of membranes and to recognise abnormalities in the placenta. Incomplete placenta indicates that certain placental products may be retained in the uterus, and this could cause postpartum haemorrhage. Abnormalities of the placenta may suggest that there is something wrong with the mother, and hence that further physical and medical examinations might be required. For example a large, thick and pale placenta suggests the mother has syphilis, a large, oedematous placenta with a mass over 600 g suggests the mother is suffering from diabetes mellitus, whereas a small placenta indicates a decreased blood supply to the placenta possibly because of hypertensive disorders of the mother.

Placenta examination was comprehensively documented in 75 percent of the maternal records (n=261 records). In 25 percent (n=75) placenta examination was incompletely documented in the following respects: cord examination only 5 percent (n=16), placenta cotyledons only 11 percent (n=38), no examination of membranes 3 percent (n=10), no cord examination 3 percent (n=11), while the remaining 3 percent of the maternal records (n=12) contained no documented data in respect of the placenta, membranes and cord.

The above statistics indicate that the documentation of placenta examination was of an acceptable standard as 75 percent (n= 261) of the maternal records contained comprehensive documented of the placenta examination. This information is needed to establish a baseline in case postpartum haemorrhage or failure of the uterus to contract occurs after delivery.

4.3.4 Section 5: Immediate management of the baby

The maternal records were audited in order to determine the completeness of documentation in respect of Apgar scoring (both in the first minute and after five minutes had elapsed), documentation of midwifery interventions carried out in respect of the baby, and details of bonding (skin to skin). The following should be carried out for the newborn immediately after birth: care of airways, for example suctioning, intubation, Apgar scoring in the first minute and after five minutes, vital signs, and bonding (skin to skin with mother if the condition of the two so allows). The baby should be dried immediately and kept warm by covering with warm blankets, using radiant heated baby units or the baby may be placed in direct contact with the mother (skin-to-skin) to generate heat. Furthermore, the baby should be assessed in respect of respiration, muscle tone, reflexes, heart rate and colour. The umbilical cord should be clamped using a plastic Hollister cord clamp, but the skin around the cord should not be clamped because this could lead to tissue necrosis (Bennett & Brown, 1999, pp. 671, 672; WHO, 1999, pp. 36, 37; Melson *et*

al., 1999, pp. 150–151; Johnson & Weinstock, 1999, pp. 247–249; Thompson, 2000, p. 238; Williams, 2001, pp. 165, 168–169; London *et al.*, 2003, p. 376).

Table 11. Documentation of immediate management of baby and bonding (N=348)

Item	Frequency	Percentage
1. Documentation of Apgar scoring		
Apgar score documented (both in 1 st and 5 th minutes)	341	98
No Apgar score documented	7	2
Total	348	100
2. Documentation of midwifery interventions carried out		
Midwifery interventions documented	18	6
No midwifery interventions	5	1
Midwifery interventions not applicable	325	93
Total	348	100
3. Documentation of cord care		
Cord clamping method documented	0	0

Almost all maternal records, that is, 98 percent of the maternal records (n=341), contained documented data on Apgar scoring. Two percent only of the maternal records (n=7) contained no Apgar score data. Of the babies born 6 percent of the maternal records (n=18) had documented notes indicating that the babies had low Apgar scores, and action had been taken to improve the Apgar score and to rectify the babies' condition. However 1 percent of the maternal records (n=5) documented that babies had low Apgar scores, but there was no documentation of any interventions carried out. The remainder of the records – 93 percent (n=325), indicated no need for midwifery interventions, because babies had good Apgar scores or they were IUFD. These statistics attest to the fact that nurses and

midwives place a high value on the documentation of Apgar scoring and midwifery interventions.

4.3.5 Section 6: Fourth stage of labour-assessment of mother and baby post delivery

The records were audited in order to determine the status of documentation relating to the condition of the mother, condition of the baby, vital signs of the mother, as well as an assessment of bleeding post delivery, that is, within the first hour of birth, and whether these factors were comprehensively, or incompletely documented or not documented at all.

Various problems may arise after delivery. The mother should be closely monitored in the first hour postpartum, especially for bleeding, and observed for signs of pain and discomfort, vaginal bleeding, fainting, convulsions, fatigue and vital signs. The baby should be assessed five minutes after birth to determine whether there has been a change in the baby's condition and the ability of the baby to adapt to the extra uterine environment, as well as for cord bleeding. Any change in the condition of the baby should be promptly addressed with the correct midwifery or nursing interventions

Table 12 Documentation: assessment of mother and baby during the fourth stage of labour (N=348)

Item	Frequency	Percentages
1. Documentation of assessment of mother's condition		
Condition of the mother subjectively documented	34	10
Condition of the mother objectively documented	192	55
No information documented	122	35
Total	348	100
2. Documentation of assessment of baby's condition		
Condition of baby comprehensively documented	53	15
Condition of the baby incomprehensively documented	216	62
No information documented	68	20
Documented condition of baby irrelevant (not describing condition of baby)	11	3
Total	348	100
3. Documentation of vital signs		
Vital signs documented completely	210	60
No temperature documented	59	17
No blood pressure documented	47	14
No information documented	32	9
Total	348	100
4. Documentation of post delivery bleeding assessment		
Bleeding assessment documented	34	10
No bleeding assessment data documented	314	90
Total	348	100

Ten percent only of the maternal records (n=34) contained subjective documentation of the condition of the mother, where she had been asked “how she feels” after delivery, but certain of these (9%, n=31) were assessed and documented as a result of a Caesarean section having been performed. More than half, that is, 55 percent of the maternal records (n=192), contained incomplete records relating to the condition of the mother with objective observations (described as good, satisfactory or well) only, while 35 percent (n=122) contained no documentation of the condition of the mother after delivery.

Records relating to the assessment of the condition of the baby revealed that 15 percent of the maternal records (n=53) contained complete documentation of the condition of the baby, 62 percent of the maternity records (n=216) contained objective observations (good, satisfactory or well), and 20 percent of the maternal records (n=68) contained no documented data on the condition of the baby. The remaining, 3 percent (n=11) of the maternal records contained documentation of the condition of the baby, however, stating that, for instance, the baby was born from thick meconium or had the cord around the neck did little to cast light on the condition of the baby. Post delivery vital signs were comprehensively documented in 60 percent of the maternal records (n=210), 31 percent of maternal records (n=106) were incompletely documented as follows: no temperature 17 percent (n=59), no blood pressure 14 percent (n=47), while 9 percent (n=32) of the maternal records contained no documentation relating to vital signs.

Bleeding assessment was documented in 10 percent of the maternal records (n=34) of which 31 records related to Caesarean section cases and 3 to normal vaginal delivery in the labour unit. Ninety percent of the maternal records (n=314) contained no documentation of bleeding assessment data. None of the records contained documented data on the assessment of the cord for bleeding.

The fourth stage of labour was the most poorly documented stage. Documentation of the vital signs only was of an acceptable standard with 60 percent (n=210) being

comprehensively documented. Apart from Caesarean section cases, which involve assessment of general condition (as per recovery form records), the condition after delivery of those mothers who delivered in the labour wards was assessed objectively.

If no subjective data is presented it will be difficult, if not impossible, for nurses and midwives to know whether the patient has complained or how she is feeling. It is only through interaction that nurses and midwives are able to obtain information relating to the state of wellness of the patient. Furthermore, the adjectives used to describe the condition of the patient do not give an overview of the wellbeing of the patient. The records should reflect the condition of the patients so that correct interventions may be implemented. If there is no assessment of bleeding the patient may lose more blood than expected, which could, in fact, be dangerous. Furthermore, if there is no constant observation of bleeding, nurses and midwives may not be aware if and when the patient starts to bleed excessively. The documentation of the condition of the babies is of similar standards as the documentation of mothers' conditions, where objective data was mostly kept, while other descriptions of the condition of the baby did not provide a clear picture of the baby's condition.

CHAPTER 5

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1. Introduction

The conclusions and recommendations will be drawn on the basis of the purpose of the study and the objectives of the study. The purpose of this study was to describe the comprehensiveness of the documentation of maternal nursing care rendered during the four stages of labour at Oshakati Intermediate Hospital.

The objectives of the study were:

1. To develop an audit instrument (checklist) that could be used to evaluate documentation in the maternity section
2. To identify whether nurses/midwives adhere to the policy of documentation during the four stages of labour
3. To describe the completeness/incompleteness of documentation of the data in maternal records during nursing care delivery in the four stages of data

5.2 Conclusions

5.1 The first objective was met. After conducting a literature review of midwifery journals, books and articles the researcher developed a checklist. The validity and reliability of the checklist was ensured by submitting the instrument to midwifery experts

to analyse it critically and give their suggestions as well as subjecting the checklist to the test-retest method. If pre-tested it is possible to use a checklist to collect data at any other hospital. Accordingly the checklist developed by the researcher may be used by maternity sections in national hospitals to audit maternal records to ensure uniformity in auditing maternal care.

5.2 The second objective was met. Adherence to policy and guidelines on documentation was determined through auditing the documented entries in the progress notes of maternal records to ascertain whether they were dated, timed, had entry modes, were coherent and legible, whether they had been signed and the rank of the documenter indicated. Those staff members who documented in the progress notes adhered to the legal requirements and policy of documentation. When calculating the measurements of central tendencies, the results showed an average adherence level of 79.7 percent, a mode of 80 percent and a median of 80 percent. The timing of entries in the patients' records facilitates the maintenance of a chronological log of the problems and history of patients over time and indicates exactly when an event occurred e.g. change in condition of patient, doctor's visits and nursing actions. This is important in evaluating the progress of patients.

Legibility and coherence is important because careless handwriting wastes time and could place a patient's life in jeopardy if critical information is misinterpreted. It also makes it difficult to understand exactly what the documenter wishes to communicate to the reader.

Thus the patient may not receive adequate attention since the message communicated was not clear.

Signature and rank: A signature renders the documenter responsible for everything document in the patient records, that is, it makes the documenter the author of the entries in the patient record. This means that it is possible to identify who performed the recording, thus rendering the person accountable for her acts (SANC, 1994, pp. 48–49; Ambrose & Witting, 1998, pp. 189–191, 197).

5.3 Maternal records were audited to ascertain whether they contained comprehensive or incomplete documentation from the time of admission (front page included) until the fourth stage of labour, and hence the third objective was met. The auditing of findings regarding the completeness of maternal records suggests that maternal records had been incompletely documented. Thirty-six percent only of the maternal records (n=127) contained documented notes in the progress notes, while a large proportion of the records that is, 64 percent (n=221), revealed no data in the progress notes.

As regards admission to the maternity department documentation of personal particulars, demographic data and contact details was incomplete. In 7 percent (n=24) only of the records was the front page completely filled in, that is, name, address, next of kin, telephone numbers, identity number as well as postal address. Surgical-medical history

was documented in 9 percent of the maternal records (n=31) in the “Particulars of patient before operation” form.

Sixty-nine percent of the maternal records (n=240) documented ANC review data, whereas 31 percent (n=107) contained no documentation of ANC review data and one maternal record contained information indicating that the mother had not attended ANC.

Vital signs, abdominal examinations, vaginal examinations, FHR and contractions assessment performed on initial contact were satisfactorily documented. This was revealed by the fact that 48 percent (n=167) of maternal records contained comprehensive documentation of vital signs, 66 percent (n=230) comprehensive documentation of abdominal examinations, 66 percent (n=230) comprehensive documentation of vaginal examinations, 84 percent (n=290) comprehensive documentation of FHR while 70 percent (n=246) had comprehensive documentation of contractions assessed during admission.

As regards the use of partograms 18 percent (n=62) only of the maternal records had partograms fully documented with cervix dilatation, status of membranes and the descending part, whereas 73 percent (n=255) contained incomplete documentation on partograms and 23 percent (n=80) had no data on the partogram page.

As regards the documentation of vital signs and contractions until the time of delivery very few of the maternal records, that is, 18 percent (n=62), had partograms completely documented with vital signs and contractions assessment data until the women delivered, while 30 percent (n=104) contained incompletely documented vital signs and contractions assessment, that is, data was not documented until the actual delivery, and 23 percent (n=82) contained no documented data on vital signs and contractions assessment on the partogram.

Among the 13 percent (n= 47) medicine prescription charts used 11 percent (n=40) were fully documented with time and signature, while 1 percent (n=4) contained documentation relating to the times medicine was administered, and 1 percent (n=3) had no signature appended.

Documentation of the second stage of labour was of a satisfactory standard, with all maternal records containing the date and time of delivery and mode of delivery, 98 percent of the maternal records contained documentation relating to the birth attendants and 60 percent of the records documented details of breast-feeding.

Perineal assessment documentation proved to be poor, as 39 percent (n=134) of maternal records were incomplete while 17 percent (n=62) contained no perineal assessment records at all. Furthermore, the absence of post-perineal vaginal and rectal examination

records (after suturing) in cases where suturing had been necessary is a matter of grave concern.

Examination of placenta was comprehensively documented in 75 percent (n= 261) of maternal records. Documentation of the management of the baby immediately after birth was satisfactory with 98 percent (n=341) of the maternal records containing data on Apgar scoring, while 6 percent (n=18) documented midwifery actions taken in order to rectify the condition of the baby where such actions were deemed necessary.

The fourth stage of labour was the most poorly documented. Vital signs only had been documented satisfactorily with 60 percent (n=210) of maternal records comprehensively documented. Apart from Caesarean section deliveries in which case the general conditions of the mothers were assessed as per recovery form records, the condition after delivery of those mothers who delivered in the labour ward was objectively assessed and documented as well, good or satisfactory. The same objectives were used to document the condition of the babies.

The data collected revealed information that agreed with the study by Enhorfs (1996, p. 1) in which the results revealed that admission assessment was missing in approximately half of all records, while one third only provided information about the progress of the patient's problem, thus creating the impression that documentation of nursing

interventions is of substandard level. Certain of the entries in the progress report (in 20 percent of the maternal records, n=68 records) were made on subsequent contact – this means the entries were made later at a time when the patients had been already in the ward for some time. These subsequent records were made because midwives or nurses anticipated that a problem was likely to arise that is, in anticipation of a possible problem. This implies that the documentation was carried out in order to provide protection in the courts of law. Subsequent documentation in the progress notes was done for the following reasons: liquor meconium stained, uncooperative woman (jumping up and down or reluctant to lie on the bed), pushing with every contraction, or doctor requested to visit the patient. Therefore one has to with the previous researchers that nurses/midwives document their practices out of fear of litigation (Thompson, 2000(a), pp. 11–13).

The statistics also indicated that the documentation and charting carried out by nurses and midwives were incomplete, especially during the first and the fourth stages of labour. Brooks (1998, pp. 1–2) points out that nursing documentation continues to be criticised by professional, community and regulatory bodies because of incomplete and substandard charting practices. It would appear that this assertion is valid, and eventually poor maternal care is manifested. Poor documentation may have adverse effects for care providers because data collection through auditing will create the impression that the necessary care was not provided (Ellis & Hartley, 2003, p. 78) – also proved in this study.

5.3 Limitations

- The checklist has not yet been tested for both local and national use. Therefore, there might be certain important criteria that could have been added or removed had the instrument been extensively tested.
- It is the researcher only who would be able to conduct research using this specific instrument. Therefore, in-service training would be needed so that all those involved in the documentation of maternal nursing care would be able to make use the instrument.
- It was fairly difficult to assess how complete the files were in cases where patients had been referred from district hospitals. This was mainly because such patients are usually already in the second stage of labour when they arrive and they arrive bringing referral letters and their ANC passports instead of their maternal records so that the nurses and midwives are able to ascertain what has been happening from the time the patient was admitted to the district hospital until arrival at Oshakati Intermediate Hospital. Reasons for referrals include delayed labour, obstructed labour, pre-eclampsia and foetal distress. As a result it is not possible to audit accurately or indeed at all the first stage of labour documentation and the monitoring of labour using the partogram as this information might not be

available, because such patients often deliver almost immediately after arrival or are booked for urgent Caesarean sections.

- At times nurses and midwives may document interventions, which they have not actually carried out for patients. It is difficult to identify those nurses and midwives who documented what they actually did and those who documented what they did not do. Upon auditing the maternal records would appear to have been well documented.

5.4. Recommendations

- The controlling body of nursing and midwifery – the Interim Council of Nursing – should formulate guidelines or a manual on the procedures for the documentation of nursing care. This could serve as a practical guideline for nurses, midwives and students in the clinical setting. Currently there are no national Manuals of Documentation or Procedures of Documentation. Nurses and midwives carry out documentation based either on what they were probably taught at school or on information they have obtained through reading nursing/midwifery books. These guidelines could serve as an instrument/tool with which to audit nursing care in national hospitals.

- Since the instrument used was tested for reliability and validity and was designed specifically for maternity sections it could be used to collect data in national hospitals. However, there needs to be extensive discussion of the instrument, as well as workshops and in-service training for nurses and midwives in order to familiarise them with the instrument.
- Maternity department staff should attend workshops on ways in to improve documentation and the important role played by documentation in the quality of maternal nursing care, both nationally and internationally.
- The healthcare authorities at Oshakati Intermediate Hospital and at national level should implement a policy aimed at maintaining continuity in communication in maternal nursing care in cases where patients are referred from district hospitals, health centres and clinics. In practice this means that patients and mothers who have been referred should bring with them the maternal records that have been used since admission instead of a referral letter alone (which has limited information on the progress of labour) so that documented information will be available for planning and decision making. This would ensure that subsequent operative procedures would be carried out only when absolutely necessary,

- The use of codes instead of writing long sentences could be implemented. This would facilitate documentation. It would also be less time consuming to use specific codes related to maternity. This means that a codebook for maternity health information system should be designed, or alternatively implementation of the use of computerised nursing would make documentation much easier, especially during the first stage of labour.

REFERENCES

- Alexander, M. F., Fawcet, J. N., & Runciman, P. J. (2000). *Nursing practice: hospital and home – the adult*. 2nd edition. New York: Churchill Livingstone.
- Alfaro-LeFevre, R. (1998). *Applying nursing process: a step to step guide*. 4th edition. Philadelphia: JB Lippincott.
- Ambrose, M. L., & Witting, P. (1998). *Charting made incredibly easy*. Pennsylvania: Springhouse.
- Anderson, M.D. 2002. *Mosby's medical, nursing and allied health dictionary*. 6th. Edition. Missouri: CV Mosby
- Basford, L., & Slevin, O. (2003). *Theory and practice of nursing: an integrated approach to caring practice of nursing*. 2nd edition. London: Nelson Thornes.
- Bennett, V. R., & Brown, L. K. (1999). *Myles textbook for midwives*. 13th edition. New York: Churchill Livingstone.
- Berglund, C. A. (2001). *Health research*. New York: Oxford University Press.

Booyens, S. W. (1998). *Introduction to health services management*. Lansdowne: Juta.

Booyens, S. W. (2001). *Introduction to health services management*. 2nd edition.
Lansdowne: Juta.

Brink, H. (2006). *Fundamentals of research methodology for health care professionals*.
2nd edition. Cape Town: Juta & Co.

British Broadcasting News (BBC News). Friday, May, (2001a). *Doctor jailed for massive fraud*. Search BBC News on line. Available from:
<http://www31.bbc.co.uk/1/northern_ireland/1352133.stm> Retrieved on
3/10/2005.

British Broadcasting News (BBC News). Thursday, July, (2001b). *NHS fraud levels exposed*. Search BBC News on line. Available
from:<<http://www31.thny.bbc.co.uk/1/hi/health/1433926.stm>> Retrieved on
3/10/2005.

Brooker, C., & Nicol, M. (2003). *Nursing adults: the practice of caring*. London: Elsevier
Ltd.

Brooks, J. T. (1998). *Analysis of documentation as a reflection of actual nurse work*.

Available from:

<http://findarticles.com/p/articles/mi_m0FSS/is_n4_v7/ai_n18607882/pg_1>

Retrieved on 23/06/2007.

Como, D. (Ed.). (2002). *Mosby's medical nursing and allied health dictionary*. 6th edition. Missouri: CV Mosby.

Delaune, S., & Ladner, S. (2002). *Fundamentals of nursing: standards and practice*. 2nd edition. Albany: Thomson Delmar Learning.

De Vos, A. S., Strydom, H., Fouche, C. B., & Delport, C. S. L. (2002). *Research at grass roots: For social sciences and human service professions*. 2nd edition. Pretoria: Van Schaik.

Ellis, J. R., & Hartley, C. L. (2003). *Managing and coordinating nursing care*. 3rd edition. Philadelphia: JB Lippincott Williams & Wilkins.

Enhof, M. (1996). *Nursing care as documented in patient records*. Available online from: <http://www.pubmed.gov>. Retrieved on 20/12/2006.

Fain, J. A. (1999). *Reading, understanding and applying nursing research: A text and workbook*. Philadelphia: F.A. Davis.

Gervais, K. G., Priester, R., Vawter, D. E., Otte, K. K., & Solberg, M. (1999). *Ethical challenges in managed care: A casebook*. Washington: Georgetown University Press.

Goba, R. H., & Goredema, C. (2001). *Organised crime in Southern Africa: Assessing legislation*. Available online from:
<<http://www.iss.co.za/Pubs/Monographs/No56/chap6.htm>.> Retrieved on 3/10/2005.

Goodner, B. (1999). *Study guide to accompany foundations of nursing*. 3rd edition. Missouri: CV Mosby.

Grant, A. B., & Massey, H. V. (1999). *Nursing leadership, management and research*. Pennsylvania: Springhouse.

Hegner, B. R., & Needham, J. F. (2002). *Assisting in long-term care*. 4th edition. Albany: Delmar Thomson Learning.

- Hek, G., Judd, M., & Moule, P. (2002). *Making sense of research: An introduction for health and social care practitioners*. 2nd edition. London: Sage.
- Hofnie-Hoebës, K., Van Dyk, A., & Moloi, K. C. (2005). *Empowerment of nurse and managers to facilitate change management during Namibian Health Sector reforms*. Windhoek: University of Namibia.
- Hogston, R., & Simpson, A. (1999). *Foundations of nursing practice*. Hong Kong: Macmillan.
- Holland J., Campbell, J. 2005. *Methods in developing research: Combining qualitative and quantitative approaches*. United Kingdom: ITDG.
- Holmes, H. N. (1999). *Mastering documentation*. 2nd edition. Pennsylvania: Springhouse.
- Hyde, J., & Cooper, F. (2001). *Managing the business of health care*. London: Bailliere Tindall.
- Johnson, P. H., & Weinstock, D. (1999). *Nurse's illustrated handbook of home health procedures*. Pennsylvania: Springhouse.

- Kozier, B., Erb, G., Berman, A., & Snyder, S. (2004). *Fundamentals of nursing: concepts, process and practice*. 7th edition. New Jersey: Prentice Hall.
- Ladewig, P. W., London, M. L., Moberly, S., & Olds, S. B. (2002). *Contemporary maternal-newborn nursing care*. 5th edition. New Jersey: Prentice Hall.
- Leddy, S., & Pepper, J. M. (1998). *Conceptual bases of professional nursing*. 4th edition. New York: JB Lippincott.
- Levy, P.S., & Lameshow, S. 1999. *Sampling of populations: methods and application*. 3rd edition. New Jersey: John Willey& Sons.
- London, M. L., Ladewig, P. W., Ball, J. N., & Binder, R. C. (2003). *Maternal newborn and child nursing: family centered care*. New Jersey: Prentice Hall.
- Lowdermilk, D. L., & Perry, S. E. (2004). *Maternity and women's health care*. 8th edition. Missouri: CV Mosby.
- Marquis, B. L., & Huston, C. J. (2003). *Leadership roles and management functions in nursing: Theory and practice*. 4th edition. Philadelphia: JB Lippincott.

Marsh, G., & Renfrew, M. (1999). *Community based maternity care*. Oxford: Biddles.

Mason, T. & Whitehead, E. (2003). *Thinking nursing*. Glasgow: Bell and Bain.

Mateo, M. A., & Kirchhoff, K. T. (1999). *Using and conducting nursing research in the clinical setting*. 2nd edition. Pennsylvania: W.B. Saunders.

Melson, A. K., Jaffe, M. S., Kenner, C., & Amlung, S. (1999). *Maternal infant care planning*. 3rd edition. Pennsylvania: Springhouse.

Merson, M. H., Black, R. E., & Mills, A. J. (2005). *International public health: diseases, programs, systems and policies*. 2nd edition. London: Jones & Bartlett.

Muller, M. (2002). *Nursing dynamics*. 3rd edition. Cape Town: Clyson Printers.

Ogden, T. E., & Goldberg, I. A. (2002). *Research proposal: A Guide to success*. 3rd edition. London: Elsevier Science.

Perry, A. N., & Potter, P. A. (2002). *Clinical nursing skills and techniques*. 5th edition. Missouri: CV Mosby.

Polit, D. F., & Beck, C. T. (2004). *Nursing research: principles and methods*. 7th edition.

Philladelphia: JB Lippincott Williams & Wilkins.

Polit, D. F.; Beck, C. T., & Hungler, B. P. (2001). *Essentials of nursing research:*

Methods, appraisals and utilization. 5th edition. New York: JB Lippincott.

Potter, P. A., & Perry, A. G. (1999). *Basic nursing: A critical thinking approach*. 4th

edition. Missouri: CV Mosby.

Pyne, R. (1998). *Professional discipline in nursing, midwifery and health visiting*. 3rd

edition. London: Blackwell Science.

Quinn, F. M. (1998). *Continuing professional development in nursing: A guide for*

practitioners and educators. London: TJ International.

Schneider, Z., Elliot, D., LoBiondo-Wood, G. & Haber, J. (2004). *Nursing research:*

Methods, critical appraisal and utilization. 2nd edition. London: Elsevier.

Searle, C. (2004). *Professional practice: A Southern African nursing perspective*. 4th

edition. Pietermaritzburg: Interpack Books.

Sellers, P. M. (1993). *Midwifery: A textbook and reference book for midwives in Southern Africa*. Cape Town: Juta & Co.

Sheehan, J. (2005). *Navigating legal waters*. Available online from:

<http://nso.com/newsletter/advisors/2005/NSO0005_NP.pdf> Retrieved on 05/03/2006.

Sherwen, L. N., Scoloveno, M. A., & Wiengarten, C. T. (1999). *Maternity nursing care of childbearing family*. 3rd edition. Massachusetts: Appleton& Lange.

Smith, P. 1998. *Nursing Research: Setting new agendas*. London: Elsevier

Sommers, P. A. (1999). *Alignment: A provider's guide to managing the practice of health care*. New York: Haworth Press.

South African Nursing Council (SANC). (1994). *Record keeping: A self-study learning experience for nurses and midwives*. Pretoria: South Africa Nursing Council.

Swansburg, R. C., & Swansburg, R. J. (1999). *Introductory management and leadership for nurses*. 2nd edition. London: Jones & Bartlet.

Tarling, M., & Crofts, L. (1998). *The essential researchers handbook for nurses and health care professionals*. London: Baillier Tindall.

Thompson, A.M. (Ed.). (1998a). Quality of care in Reproductive Health Programs: Concepts, assessments, barriers and improvements: and overview. *Midwifery: An International Journal*, 14(2) June, 65-123.

Thompson, A. M. (Ed.). (1998b). Quality of care in reproductive health programs: Monitoring and evaluation of quality improvement. *Midwifery: An International Journal*, 14(4), December, 197-274.

Thompson, A. M. (Ed.). (2000a). Litigation and defensive clinical practice: Quantifying the problem. *Midwifery: An International Journal*, 16(1) March, 1–80.

Thompson, A. M. (Ed.). (2000b). Evaluation of an adopted model of the WHO used in by Angolan midwives in peripheral delivery units. *Midwifery: An International Journal*, 16(2) June, 81–170.

Thompson, A. M. (Ed.). (2000c). Cord care practice in Scotland. *Midwifery: An International Journal*, 16(3) September, 171–250.

Thompson, E. (2000). *Bibliographic references: The name-year method*. University of Namibia: Library Publications Series.

Walsh, M., Crumbie, A., & Reveley, S. (1999). *Nurse practitioners: Clinical skills and professional issues*. New Delhi: Butterworth Heinemann.

Williams, E. (2001). *Manuals of midwifery procedures*. 3rd edition. Cape Town: Kagiso Tertiary.

World Health Organization (WHO). 1999. *Care in normal birth: A practical guide*. Switzerland: Geneva. Available online at: <<http://www.umbicut.com/article2.htm>>
Retrieved on 08/06/2005.

ANNEXURES

ANNEXURE A

A checklist designed by E. Velikoshi to evaluate the comprehensiveness of documentation maternal care rendered to women during the four stages of labour by auditing the maternal records.

Registration Number _____

Item	C	I	A	N/A	
Section1. Progress notes: Legal requirements and policy of documentation adhered to:					
-documentation in progress notes done					
-no documentation in progress notes					
-date and time					
-coherence (understandable)					
-legibility					
-all entries made according to hospital polity (SOIP, IE etc)					
-signature and rank/grade of person who did recording					
-counter-signature of registered midwife if entries made by students					/12
Section 2-6: Completeness of maternal records					
2. Admission Assessment and History taking					
2.1 General information:					
-descriptive particulars (personal particulars such as age, sex, telephone, next of kin)					
-geographic data (address: village, location, street or town)					
-surgical and medical history					
-past and present gynaecological problems					
-ANC review e.g. identification of risk ANC problems etc.					/10
2.2. Initial assessment (First Stage data)					
-main complain(s) taken					
-vital signs taken					
-contractions assessment					
-foetal assessment.					
-abdominal examination done					
-vaginal examination fully done					/12
2.3. Partogram in use: the following done and recorded					
-vaginal examinations: findings charted as observed					
-contractions assessment recorded till delivery					
-foetal heart rate monitored regularly (every 15 to 30 min) till delivery					
-method of auscultation used					
-foetal heart rate charted in graphic form/CTG graph attached in records					

-vital signs taken till delivery					
-membranes status and characteristic of liquor					
-written prescription – drugs administered and time of administration					
- fluid intake and output					/18
3. Second stage carried out and charted as follows:					
-time and date					
-birth attendant (name, rank/grade)					
-method of delivery					
-state of perineum: intact, episiotomy, tears and sutures					
-bonding ensured : baby put skin to skin					
-baby breastfed within ½ hour of birth					
-signature and rank/grade of any person who did the suturing					/14
4. Third stage carried out and charted as follows					
-management method					
-time of completion					
-oxytocic agent administered and time of administration					
-estimated blood loss					
-actions taken if blood loss >500mls					
-full examination of placenta, membranes and cord					
-assessment for perineal and vaginal trauma performed					
-post perineal repair vaginal examination performed					
-post perineal repair rectal examination performed					
-state of uterus (contracted/not contracted)					
-actions taken if not contracted					
-transfer report from labour to post natal unit					/24
5. Immediate care of the new the newborn					
-Apgar scoring done: – in the first minute of birth					
-after 5 minutes of birth					
-midwifery intervention carried out on baby (as needed)					
-care of the cord (clamping)					/8
6. Fourth stage of labour: the following documented					
-observations done in the first hour post delivery (general well-being of mother)					
-vital signs					
-bleeding monitoring/assessment					
-cord bleeding					
-general condition of the baby					/10

Total _____ x 100= %
108

Field notes: _____

Points allocation

C- Complete = 2 I- Incomplete =1 A- absent = 0

Grading of the quality of documentation: In cases where there is N/A, the total should be

calculated as follows: Grand total of 108 - N/A = Total marks

Then total = marks obtained/ Total marks times 100%.

80% and above – excellent documentation

70- 79 % - very good 60-69 % - good

50-59 % -average/ better care below 50% -poor

ANNEXURE B

9-0/0001



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198
Windhoek
Namibia

Ministerial Building
Harvey Street
Windhoek

Tel: (061) 2032507
Fax: (061) 227607
E-mail: akulobone@mhss.gov.na
Date: 21 February 2006

Enquiries: Mr. A. Kulobone Ref.: 17/1/6

OFFICE OF THE PERMANENT SECRETARY

Ms. E.A.N. Velikoshi
PO Box 15271
Windhoek

Re: Documentation of the Four Stages of Labour and its impact on the Quality of Maternal Care rendered in Oshakati Intermediate Hospital.

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. Kindly be informed that approval has been granted under the following conditions:
 - 3.1 A quarterly progress report is to be submitted to the Ministry's Research Unit;
 - 3.2 Preliminary findings are to be submitted to the Ministry before the final report;
 - 3.3 Final report to be submitted upon completion of the study;
 - 3.4 Separate permission to be sought from the Ministry for the publication of the findings.

Wishing you success with your project.

Yours sincerely,


DR. K. SHANGULA
PERMANENT SECRETARY



Directorate: Policy, Planning and HRD
Subdivision: Management Information and Research

Forward with health for all Namibians by the year 2000 and beyond!

ANNEXURE C

4/04/06

Ms. E.A.N. Velikoshi
P.O. Box 15271
Oshakati
Tel: 2233383 (w)
Cell: 0812400185
11 April 2006

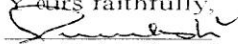
Ms. E.A.N. Velikoshi
P.O.Box 15271
Oshakati
Tel: 2233383 (w)
Cell: 0812400185
11 April 2006

The Superintendent
Oshakati Intermediate Hospital
P Bag 5501
Oshakati

Dear Sir/Madam,

Re: Permission to use maternity files

I, Ms E.A.N. Velikoshi, a Registered Nurse would like to request permission to use Oshakati Intermediate Hospital's maternity files for my academic research (MSc study) Attached find a letter of approval from the permanent secretary.

Yours faithfully,

Ms. E. Velikoshi

ANNEXURE D

Oshakati Intermediate Hospital Maternity Department Policy/Guidelines

1. Investigate ANC history of every woman in labour. Identify high risk patients and act accordingly.
2. Make sure that every woman in labour is on Ringer's Lactate intravenous [fluid].
3. Open the partogram for every woman in active phase of the first stage of labour.
4. Observe:
 - Blood pressure and pulse hourly
 - Contractions and FHR every 30 min
 - Vaginal examination:
 - * four (4) hourly if membranes intact
 - *two (2) hourly if membranes ruptured
 - Temperature four (4) hourly
5. Rupture membranes if presenting part is engage.
6. Report the following to doctor as soon as possible:
 - Maternal blood pressure diastolic \uparrow 140 and systolic \downarrow 90
 - Temperature \uparrow 37.5
 - Contractions \uparrow 3:10:45
 - Fetal heart rate \uparrow 160 or \downarrow 120
7. Consult the policy manual regarding orders on how to care for the following patients:
 - pre-medication of elective and emergency Caesarean section
 - Grand/multiparous after delivery
8. Assess the condition of the lower segment of the uterus after vaginal delivery of the following patients:
 - Previous scar in the uterus
 - Previous history of Abruptio Placenta
 - Previous forceps delivery
9. Notify doctor of every woman in labour with a complication(s).

10. Evaluate the cognitive, affective and psychomotor domain of student midwives and help them accordingly
11. Practice your independent, interdependent functions within your scope of practice [Nursing Act of 1978, Act 50 of 1978, Reg 1886 As Amended. Reg 777 Amended and others).