QUALITY CONTROL OF OBSTETRIC NURSING RECORDS IN A SELECTED REGIONAL HOSPITAL

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DECLARATION

I declare that **QUALITY CONTROL OF OBSTETRIC NURSING RECORDS** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any other institution.

RAMPFUMEDZI PD

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ABSTRACT

QUALITY CONTROL OF OBSTETRIC NURSING RECORDS

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Keeping records and statistics and writing reports are integral to delivering health service and to quality care. Medico legal risks resulting from omitting or duplicating medication or treatment can be costly to both the patient and the service, and patient care is compromised if records, reports and statistics are inaccurate. A quantitative approach with a retrospective, exploratory and descriptive design was conducted to establish the quality of obstetric nursing records of a selected regional hospital. Simple random sampling was used to select 100 obstetric nursing records of women whose labour had progressed normally and delivered vaginally. Available information contained in the selected records was used as source of data. Data analysis using computerised excel programme and calculators revealed complete, incomplete, or omitted information in the records. Record keeping is a matter of great concern as no obstetric nursing record was found to be totally correct and complete. Most of the records audited proved to be less than 80 percent complete.

Key terms: Quality, Control, Obstetric, Nursing and Nursing records.

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CHAPTER 1 ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Keeping of records and statistics and writing reports are integral to delivering health service and to quality care. Medico-legal risks resulting from omitting or duplicating medication or treatment can be costly to both the patient and the service, and patient care is compromised if records, reports and statistics are inaccurate (Booyens 2001:346).

The midwifery regimen includes recording the course of pregnancy, stages of labour, the puerperium, health problems experienced and treatment received by the mother and child while under the midwife's care. It is therefore crucial that patient records be clear, complete and comprehensive, in order to benefit the continuation of patient care and assist the midwife to testify in court if necessary (Geyer 2003:42).

1.2 BACKGROUND AND MOTIVATION

The local clinics of Vhembe district are situated around Mutale, Makhado, Musina and Thulamela Municipality in Limpopo Province. There are 103 clinics, 11 health centres and three community hospitals that function under the auspices of the district hospital. Statistics compiled for the past year indicate that 200 obstetric patients made use of the clinic services, 192 babies were delivered, and that no maternal deaths occurred, while only one foetal death occurred at one of the clinics. Each clinic is staffed with four professional nurses, two staff nurses and two auxiliary nurses, while a doctor visits the clinic once a week. The researcher's interest in conducting this study originated from attending a workshop conducted by the University of Natal on the topic*Towards Unity in Reproductive Care (T U R C)* from 2002 to 2003 in the Vhembe district. This workshop series was conducted during alternative months from February 2002 to November 2003 for two days at a time. During the workshops the facilitators asked the participants to collect at least twenty maternity records from their respective clinics or hospitals in order to determine the quality of record-keeping.

Poor record keeping was noted. For instance, some record entries were made in red ink without indicating any complications that occurred during the obstetric history. In one instance a woman delivered a live baby, and it was not indicated in the bed letter, the researcher felt that this discovery merited investigation of the quality of nursing records on a larger scale in the regional hospital concerned. A considerable caseload of about 250 normal deliveries has to be accommodated in this regional hospital monthly, because some clinics do not operate at night and during weekends.

Midwives are bound to operate within the professional ethical-legal frameworks that regulate their occupation and are held accountable for all documentation relating to patient care, particularly since it may be required as evidence before a court of law or during a professional conduct hearing of the South African Nursing Council (Booyens 2001:349). Accuracy is particularly important since litigation may arise more than a year after the event and records may be required as evidence to prove that a nurse was either negligent or that she exceeded her sphere of competence (Booyens 2001:349).

1.3 PROBLEM STATEMENT

A registered midwife is legally required to keep clear and accurate records of the progress of pregnancy, labour and the peuperium and all acts, including emergency acts which she performs in connection with the mother and a child (Government notice no. R2488, October 1990) (SANC1990b). In view of the facts stated above under “Background and motivation” and the implications for quality of service provision, it is important to do a quality control check of obstetric nursing records at the hospital concerned.

1.4 SIGNIFICANCE OF THE STUDY

This study on the quality of obstetric nursing records may raise the consciousness of doctors and midwives with regard to the quality of recording the care provided and thus improve the quality of obstetric nursing care provided. Also, the negative consequences of incomplete or incorrect record keeping to which nurses are exposed in disciplinary hearings may be reduced.

1.5 RESEARCH QUESTIONS

The research questions for this study are formulated as follows:

- What does obstetric documentation consist of?
- Which records are applicable in an obstetric ward?
- What are the current deficiencies in nursing records of obstetric patients?

1.6 PURPOSE

The purpose of this study is to determine the state of obstetric nursing records and consequently to improve the quality of these records so that they can provide current, comprehensive and concise information on the condition and care of obstetric patient.

1.7 OBJECTIVES

The objectives are to:

- Determine what obstetric documentation consist of
- Establish which nursing records are applicable in an obstetric ward
- Ascertain the current deficiencies in nursing records of obstetric patients
- Draw up an in-service training programme for all categories of nurses with a view to improving the quality of documentation in nursing records.

1.8 ASSUMPTION

This study is based on the assumption that accurate and complete nursing records are a means of enhancing the quality of nursing care.

1.9 DEFINITION OF CONCEPTS

The following concepts are relevant to this study:

Care

Care means to be concerned about or interested in, to have regard for, and to show solicitude for someone who is in need (Mellish & Paton 2000:3). In this study care means monitoring and managing the mother and baby during pregnancy, labour and pueperium. Documentation is done throughout.

Control

Control means to maintain influence over a situation (Glanze1990:940). According to Booyens (2001:294) control is a process which ensures that predetermined standards are attained and maintained, policies are adhered to as far as humanly possible, and preventive measures are employed where deviation from predetermined goals is a threat to safe patient care. Midwives control patient care to ensure that standards are attained and adhered to.

Foetus

Foetus is the term given to the fertilised ovum from the eighth week of conception until birth when it becomes a baby (Bennett & Brown 1999:118).

Labour

Labour is the process by which the fetus is expelled from the maternal uterus, also called childbirth, confinement or parturition (Olds, London & Landewig 2000:1044).

Nursing care

Nursing care includes showing a positive regard for the patient, supportive actions, two-way communication between the caregiver and the recipient of care, and the physical intervention of the nurse, commitment to the caring relationship, protection of the recipient of care, enhancement of caring actions, and the preservation of human dignity at all times (Booyens 1996:218).

Obstetrics

Obstetrics relates to childbirth and its antecedents and sequels as a branch of medicine and surgery (Delta 1995:832). Obstetric care is provided by a midwife, a person who assists women in childbirth, thus an obstetric unit is a facility where labour and delivery are conducted (Glanze 1990:758).

Obstetric nursing records

A record is a piece of evidence or information constituting an account of something that has occurred or has been said (Delter 1995:1148). Obstetric nursing records are a means of communication; firstly between nurses on different shifts for continuity of quality patient care and the progress the patient is making, or where her condition is concerned; secondly between the nurses and other members of the multidisciplinary health team (medical practitioners included), in the direct collaborative performance of their obstetric function (Geyer 2004:32).

Obstetric patient

Obstetric patient refers to any client in the care of a health service during pregnancy, labour and the puerperium.

Quality care

Quality care can be defined as care that meets acceptable standards as well as the needs and expectations of users and communities (de Kock & van der Watt 2004:3-2).

Quality control

Quality control is a process which ensures that predetermined standards are attained and maintained, policies are followed as far as humanly possible, and preventive measures are employed where deviation from predetermined goals is a threat to safe patient care (Booyens 1996:293).

Standards

Standards are statements of what quality nursing care should be. A nursing care standard is a description of the desired level of performance for judging the quality of nursing care (Booyens 1996:308).

1.10 RESEARCH METHODOLOGY

Research methodology relates to the research process, which includes the tools and procedures to be used with specific reference to individual steps and the most objective procedures to be employed in the research process (Mouton 2001:56).

1.10.1 Research design

A quantitative approach with a retrospective, exploratory and descriptive design will be utilised in this study. **Quantitative research** involves the systematic collection of numerical information, often under conditions of considerable control, and the use of statistical procedures to analyse that information (Polit & Hungler 1991:24).

This research complies with the main characteristics of the quantitative approach because it has a limited number of concepts such as *quality, control, obstetric nursing* and *records,* and aims to establish the current state of obstetric records.

A **retrospective study** is used as it focuses particularly on past events. Data will be collected from obstetric records of patients who have been discharged. Retrospective studies are fairly common in nursing research. Patients' well-being, recovery or satisfaction with nursing care have been linked retrospectively to different nursing interventions or modes of treatment. Many studies in the field of nursing education have also been of this type (Polit & Hungler 1991:179). Retrospective designs measure variables that have occurred in the past (Brink 1996:10). In retrospective studies both the proposed cause and the effect have already occurred, thus the quality of care and of record keeping have already taken place (Burns & Grove 1993:296).

Exploratory study is an extension of descriptive research that focuses more directly on the discovery of relationships. Researchers may use exploratory research for two basic purposes, firstly to gain a richer understanding of the phenomenon of interest than would be possible with a straight forward descriptive study could provide, and secondly, to estimate the feasibility and cost of undertaking a more rigorous or extensive research project on the same topic. In this study the researcher will focus on the quality of record keeping (Polit & Hungler 1991:19).

A **descriptive study** is a non-experimental design that collects descriptions of existing phenomenon in order to justify or assess current conditions or to make plans for improvement. Their purpose is to provide a picture of situations as they naturally happen. A descriptive design may be used for the purpose of developing theory, identifying problems attending current practice, justifying current practice, making judgments or determining what others are doing in similar situations (Burns & Grove 1999: 248).

A **survey** will be done to collect data from a targeted population regarding the prevalence, distribution and interrelations of variables within that population. Often, a survey focuses on what people do, how or what they eat, how they take care of their health needs, their compliance in taking prescribed medication, and so forth. An audit form will be developed to collect data relating to obstetric nursing records (Polit & Hungler 1999:191).

1.10.2 Population

A population is the totality of persons, events, organisation units, case records or other sampling units with which the research problem is concerned (de Vos, Strydom, Delport & Fouche 2002: 199). The population consists of all obstetric nursing records of women who had normal vaginal deliveries, during the period from 1st June 2003 to 31st May 2004 as identified by means of the maternity register in a particular regional hospital.

1.10.3 Sample design

A sample is a section of the population that is selected for a particular study, and the members of a sample are the subjects (Burns & Grove 1993:58). A sample defines the selected group of people or events. In this study the sample will consist of one hundred selected obstetric nursing records.

1.10.3.1 Simple random sampling

Simple random sampling is the most basic of the probability sampling methods. To achieve simple random sampling; elements are selected at random from the sampling frame. This can be accomplished in a variety of ways, limited only by the imagination of

the researcher. If the sampling frame is small, names can be written on slips of paper, placed in a container, mixed well, and then drawn out one at a time until the desired sample size has been reached. In large population sets, elements may already have been assigned numbers. For example, numbers are assigned to medical records, organizational memberships, and licenses. Numbers then are selected randomly to obtain a sample (Burns & Grove 1993:240). Records will be selected consecutively according to the order in which they occur in the maternity register. Specifically every fifth record of the women who had a normal vaginal delivery will be included in the study.

1.10.4 Data collection

Data collection is the process of selecting subjects and gathering data from these subjects. The actual steps in the process are specific to a study and are dependant on the research design and measurement methods. Data may be collected by observing, testing, measuring, questioning or recording. The researcher is actively involved in this process (Burns & Grove 1999:423).

1.10.4.1 Records and available data

Data will be taken from the information contained in the selected obstetric nursing records. This is an economic procedure that permits observation of trends over time without the need to gain participants' cooperation, and without the need to obtain new information (Brink 1996:161).

1.10.5 Data collection instrument

A retrospective obstetric records audit will be done to collect information. Auditing is an evaluation method for assessing the quality of recording as reflected in hospital documents. Since complete and accurate documentation of all nursing tasks is a professional and ethical requirement, nursing staff are required to document nursing actions so that the quality of nursing care can be monitored. In this study, retrospective auditing is carried out after the patient has been discharged. The auditing instrument will be based on the specific criteria formulated for obstetric nursing records (Booyens 2001:610).

1.10.5.1 Reliability and validity of the instrument

The reliability and validity of the research instrument are important to provide solid data for research purposes.

Reliability

Reliability is defined as the accuracy or precision of an instrument in the degree of consistency or agreement between two independently derived sets of scores, and the extent to which independent administrations of the same instrument yield the same results under comparable conditions. Thus an instrument is reliable to the extent that independent administrations of it, or a comparable instrument, consistently yield similar results (de Vos et al 2002:168).

Validity

A valid measuring instrument is described as measuring what it is intended to measure, and as yielding scores whose differences reflect the true differences of the variable being measured rather than random or constant errors (de Vos et al 2002:166). Validity in the study therefore refers to whether the instrument measures the quality of obstetric records or not. According to Burns and Grove (1999:260) content validity of an instrument is concerned with whether the major themes of the study are measured. Content validity is ensured by means of the literature study and by giving the instrument to experts from the local nursing college and hospital to analyse the items in terms of the objectives of this study.

1.11 DATA ANALYSIS

Data analysis consists of the categorising, ordering, manipulating and summarising of data to obtain answers to the research questions. Quantitative data in professional research can be analysed manually or by computer. In this study some statistical analysis was performed manually with calculators. However analysing research data is not sufficient in itself to provide answers to research questions because description and analysis of the raw data have to be followed by interpretation of the results (de Vos et al 2002:223).

1.12 ETHICAL CONSIDERATIONS

When people are used as subjects great care must be exercised to ensure that their human rights are protected (Polit & Hungler 1991:29). The following ethical issues will be discussed:

1.12.1 Protection of human rights

Researchers and reviewers of research have an ethical responsibility to uphold and protect the rights of human research subjects in order to preserve their self-respect, dignity and health.

The human rights that require protection in research are

- Right to self-determination
- Right to privacy
- Right to anonymity and confidentiality
- Right to fair treatment
- Protection from discomfort and harm (Burns & Grove 1999:196).

Because this study involves patients' records some of the above-mentioned rights will not be at risk, however security of the records will be paramount. Records will not be removed from the hospital setting and information about women will be treated as strictly confidential by numbering records instead of using names to preserve anonymity and confidentiality. In reviewing patients' records there is no direct interaction with patients. There is a potential risk of invading a subject's privacy while checking through the records, however professional secrecy will be maintained throughout the study (Burns & Grove 1999:203).

1.12.2 Rights of institution where research is based

A letter requesting permission to conduct the study will be directed to the research committee of the relevant provincial department of health, district office and the institution concerned. The researcher should abide by the guidelines of the institution,

which has the right to terminate the study if the safety and confidentiality of patients' records are compromised (Polit & Hungler 1999:80).

1.12.3 Scientific honesty

The researcher will avoid fabrication and forgery of results. The information obtained from patients' records will be recorded as such. The design will not be manipulated as the purpose of the study is purely to ascertain the current deficiencies in obstetric records in order to conduct in-service training for personnel to improve the quality of record keeping (Burns & Grove 1999:216).

1.13 SCOPE AND LIMITATION OF THE STUDY

The study will be conducted in a regional hospital in the Thulamela Municipality that serves as a referral hospital for the six community hospitals, 11 health centres and 103 clinics in the Vhembe district Limpopo Province. One hundred records will be audited.

1.14 OUTLAY OF THE DISSERTATION

The dissertation will contain the following five chapters:

- Chapter 1: Orientation to the study
- Chapter 2: Literature review
- Chapter 3: Research methodology
- Chapter 4: Data analysis
- Chapter 5: Findings and recommendation

1.15 SUMMARY

Registered midwives are legally required to keep clear and accurate records of the progress of pregnancy, labour and puerperium and all acts, including emergency acts performed in connection with the mother and child. The objectives of the study are to determine what obstetric documentation entails, establish which nursing records are relevant, and ascertain the current deficiencies in record keeping. Concepts are defined for clarity. A quantitative approach with a retrospective, exploratory and descriptive design is used to audit the obstetric records. Throughout the study professional secrecy will be maintained in the handling of patients' records. A literature review will be done in chapter 2.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

A literature review enables the selection of, and focusing on a topic, and reduces the chances of selecting an irrelevant or outdated topic by investigating what has already been done in a particular problem area (de Vos et al 2002:128). Literature is studied from journals and relevant textbooks.

This chapter examines literature on the essence of documentation. The essence of documentation includes the meaning of documentation, the manner of documentation as well as the types of documentation. Different obstetric nursing records used when caring for an obstetric patient are discussed. Deficiencies in obstetric nursing records are identified and the ways in which they can be corrected.

2.2 THE ESSENCE OF DOCUMENTATION

Obstetric records are created to give current, comprehensive and concise information regarding the obstetric patient's observations, her physical, psychological and sociological state and any problem that arises as well as the midwife's response to that problem, including any interventions. These records serve the interest of the woman and demonstrate that the midwife has understood and carried out her duty of care as a reasonable midwife should (Fraser & Cooper 2003:449).

2.2.1 Meaning of documentation / records

Records are legal documents and must be kept meticulously. The midwives' rules, codes of practice and guidelines for records and record keeping reiterate that records should be as contemporaneous as reasonable and must be authenticated with the midwife's full signature, it is good practice to print the author's name under the signature (Fraser & Cooper 2003:449).

Records include any information (including information stored in a computer) that may be used to document the nature, delivery, progress or results of obstetric services; records can be reviewed and duplicated. Records are retained based on their value

and not on their creation, transmission, or storage format. Criteria for determining the retention period are operational, legal, administrative and historical. Records' retention criteria need to apply equally to paper and electronic information (Naude, Meyer & van Niekerk 2000:62).

Records of a patient constitute legal documents that may be used in a court of law. All documents should therefore be clearly written, dated and signed at all times. The person's name must be printed where a signature is not clear as well as on any prescription for medication (Naude et al 2000:59).

Documentation is an integral part of all aspects of the nursing process. It forms the basis for assessment of a patient's condition, her care, responses to treatment and care, the nature of diagnostic process, the treatment and care received, the persons who provided the care, when, where, how and why (Searle 2000:410).

2.2.2 Importance of documentation

An accurate record during labour provides the basis from which clinical improvements, progress or deterioration of the mother or fetus can be judged, for this reason the notes should be kept in chronological order (Fraser & Cooper 2003:449).

Before the nurse's first meeting with the woman who is in labour, a review of the woman's prenatal record is made, significant items are noted. If the woman has not had any prenatal care, the needed information must be obtained on admission. It is best to complete her database before active labour begins. Patient's information on the present pregnancy includes the date of the last normal menstrual period, date of quickening, growth of height of the fundus and estimated weight of the fetus; this data is used to confirm the expected date of delivery.

The woman's vital signs, blood pressure, weight and pattern of weight gain and results of urinalysis help to confirm the normality of pregnancy. The fetal heart rate and its location provide a baseline against which the nurse can compare findings with the initial assessment. Data noted include the gestation week of initial visit, diagnostic studies done and problems encountered, medications used during this pregnancy are also carefully documented (Bobak & Jensen 1991:369).

Maternity records are shared between the midwife and the obstetrician. The obstetrician makes notes of his or her findings, timing of visits and any prescriptions made. The midwife usually enters the summary of labour and initial details about the baby (Fraser & Cooper 2003:449).

A complete and accurate account of the labour process including the documentation of all drugs and observations is the midwife's responsibility. This should also include details of examination of the placenta, membranes and cord with attention drawn to any abnormalities. The volume of blood loss is particularly important. The records not only provide information that may be critical in the future care of both mother and infant but are also legal documents that may be used as evidence of the care given. Signatures are therefore essential with co-signatories where necessary. Many mothers now carry their own notes related to pregnancy and details of the birth. Wright and Khadin (1990:22) discuss how their nursing development unit approached patient's access to nursing records in a positive, innovative and organized fashion. Results suggest that while few patients take up the opportunity of reading their notes, having the power to access them encourages a sense of satisfaction. The completed records are a vital communication link between the midwife responsible for the delivery and other care givers, particularly those who take over care and provide ongoing community support services once the woman returns home (Fraser & Cooper 2003:520).

Data documentation is the last part of the patient's assessment and a very important part thereof. All the data gathered must be recorded, whether or not this is within normal boundries. The data provides a baseline to evaluate changes in the patient's condition later on.

Thoroughness and accuracy is imperative to enhance the possibility of diagnosing the patient's needs accurately, and to be able to nurse the patient with a scientific knowledge base as guidance. Apart from the importance of accurate record keeping in enhancing the quality of patient care, records are legal documents and recording is a legal and professional responsibility of every nurse. Records should be kept to make it possible for each health care worker to use the records in rendering comprehensive quality health care (Naude et al 2000:43).

Record keeping is always a fundamentally important part of the midwife's role but in grieving it becomes even more significant. This is because of the importance of communication in ensuring consistent care, which will facilitate the mother's grieving. Although far from ideal, it may be difficult to avoid this care being provided by a number of personnel. Thus it is crucial that each midwife should be able to learn from the mother's records about decisions and actions already taken. Large numbers of personnel who are likely to be involved in grieving mothers' care emphasizes the need for good communication. A checklist may be helpful to ensure good continuity but health workers are advised that such devices may impede individualized care at the time of this most uniquely individual experience (Fraser & Cooper 2003:703).

Following are some of the most important reasons for keeping records for domiciliary midwifery, the clinic and the hospital ward:

- To accurately assess the progress of labour.
- To assess why, when and how the woman should be managed during labour and thereafter, and to assist in deciding what the specific treatment should be.
- To assist in making an early diagnosis of any complication which may occur before, during and after labour.
- To ensure that midwives, doctors and other staff reading these records will know exactly what treatment was given to the woman or the baby, when it was given and the outcome of the treatment.
- To ensure that an overdose of medication is not given.
- In order to effect efficient hand-over from a hospital to a home or from one ward, clinic or hospital to another (Sellers 1993:563).
- Obstetric records and those of children must be retained until the child is twenty five years old or for eight years from the death of the child. All nursing and medical records must be retained by the hospital for eight years after completing treatment or three years after the death of the patient (Matthews & Whelan 1993:254).

Some of the possible problems that could lead to the need to refer to these records are:

  - In order to verify the birth of a child not registered at birth or where the registration cannot be found.

- In order to be able to refer to the records of labour, should any complications occur in future which could be blamed on the labour process or on the treatment during labour.
- In order to be able to refer to the records of labour in the calamitous and unfortunate occurrence of babies having been mixed up and given to the wrong mother (Sellers 1993:563).
- In the event of any lawsuit being brought upon any midwife or member of staff attending to the woman and baby during and after the delivery, that is, “for any improper or disgraceful conduct” for example “negligence” (Sellers 1993:563).

It is fair to suggest that the midwife also has rights and responsibilities in the very litigious environment in which they practice, documentation is extremely important particularly in areas where evidence-based information is relied upon to assess whether due care has been delivered. In the case of the third stage management of labour an example might be in the circumstance where a woman specifically requests that uterotonic drugs be withheld from routine use in her third stage care, the midwife should clarify the circumstances in which this decision may be reversed. If an uterotonic drug is not to be used, the woman’s preference for care must be recorded in her notes antenataly (Fraser & Cooper 2003:511).

Obstetric documentation is also necessary because it

- Provides information for all patient care providers about the patient’s clinical condition.
- Provides a basis for planning and assuring continuity of care.
- Provides the basis for evaluation of care.
- Establishes accountability for care.
- Serves as a legal document.
- Provides information for research and education.
- Provides information for calculating patient acuity.
- Records the quantifiable nursing activities for workload measurement (Sullivan & Decker 1992:3).
- Nursing records complement each other, when the in-patient treatment record is reviewed the documentation should reflect the nursing process beginning when

the patient is admitted to the hospital and continuing until the patient is discharged (Sullivan & Decker 1992:3)

2.2.3 Format of documentation

Clear and accurate records of any observation that has been undertaken are essential tools to competent practice. They provide a reference point of information for those providing subsequent care and the contemporaneous nature of the written report is of sufficient importance that it is viewed as a legal document in the case of any forthcoming litigation (Fraser & Cooper 2003:630).

According to the South African Nursing Council regulation R2488, a registered midwife shall keep clear and accurate records of the progress of pregnancy, labour and the peurperium and of all acts including emergency acts, which she performs in connection with the mother and child. Such records shall be in accordance with the details set out in annexure A of chapter 2 of regulations relating to the conditions under which registered midwives and enrolled midwives may carry on their profession (Government notice No.R 2488 of 26 October 1990). A registered midwife shall retain the records for at least three years and shall produce the records to the Council when required to do so (SANC 1990 a. Par 4.1).

The midwife must ensure that all records are accurate, complete and that they meet the policy requirement of the specific institution and the South African Nursing Council. Accurate record keeping is one of the most important functions of the midwife as it serves as evidence of the midwifery care that was administered. Midwives make complex decisions about the woman's care and unfortunately documentation does not always reflect these decision-making processes. Documentation must clearly communicate the midwives' judgment and evaluation. It is also used to inform other professionals involved in the woman's care.

From a legal perspective it is important that the midwife knows that any record documenting a patient's care may be used as evidence in a court of law or as part of an investigation or disciplinary procedure (de Kock & van der Watt 2004:1-7).

2.2.4 Types of documentation

Documentation can be handwritten, typed or e-mailed. The person who does the recording must ensure that all information is accurate and that it will help the patient to make informed decisions, legible and indelible writing will ensure that everyone who makes use of the records will be able to read them and that the erasure of entries will be prevented. The use of correction fluid is not permitted, a single line can be drawn to rule out changes and this must be signed (Booyens 1996:347).

The types of documentation relevant to obstetric are as follows:

2.2.4.1Bed statistics

Reports and statistics are sent on a daily basis to the administrative officers to assist them in planning the services and to keep them informed of the patients' condition and discharge. They also help the administrative staff to determine the daily bed-occupancy of the different units (Booyens 2001:354). The managers are made aware of the number of beds available in specific units for admission of patients.

2.2.4.2 Daily returns

Daily returns are written reports on all admissions, discharges, deaths and transfers. This daily return forms are sent to the nurse manager's office in the evening before takeover by night staff and again in the morning before the day staff take over the day shift. In this way management is kept informed of the number of patients in the unit (Booyens 1996:354).

2.2.4.3 Day and night handover

The time set aside for these activities can be referred to as the handover or daily ward report. This is a two way process, enabling the sister or charge nurse to obtain essential feedback from the nurses delivering the bedside care (Matthew & Whelan 1993:33). During the daily ward report most ward nursing staff should be present so that each nurse is given the opportunity to keep herself or himself fully informed. When discussing patients all the nurses must bare in mind that there will be some nurses

present who have retuned from holiday or days-off, and they must emphasize what has occurred in their absence, guidance from the charge nurse may be necessary (Matthews & Whelan 1993:34).

2.2.4.4 Nursing records

Written nursing communication is essential as there is a continuing team of nurses concerned with patient care, with many more nurses involved in the patients care over a period of time, for example stoma nurses, advanced midwives, community nurse and ward nurse. As communication is at risk everything relating to each patient must be well documented, so that all nurses are aware of what has been done and what is to be done for each patient. Every nurse needs to be aware of the patient's background, so that his or her needs will be known when plans are being made for his or her care and discharge home. Efficient and adequate documentation leads to good communication and aids the delivery and continuity of a high standard of care (Matthews & Whelan 1993:37).

2.2.4.5 Medical records

The consultants are extremely influential members of the health team by virtue of their concept of clinical responsibility and their influence on other groups. The doctor has, however the authority to delegate aspects of care to the other team members, as long as those team members are competent (Mathews & Whelan 1993:162). Medical records to indicate that the patient has been admitted, treatment that are to be given to the patient, and investigations to be done are the medical doctors' responsibility and should be recorded in the patient's records. When the patient has recovered the doctor should indicate in writing and prescribe the care to be given at home if any (Booyens 2001:350).

2.3 OBSTETRIC NURSING RECORDS

Obstetric nursing records are firstly a means of communication between the nurses of different shifts for continuity of patient care and indicates the progress the patient

is making, or not, as far as her condition is concerned. Secondly it serves as a link between the nurses and the other members of the multi-disciplinary health care (Geyer 2004:32).

2.3.1 Midwifery practice

Midwifery practice is controlled by the Nursing Act of 1978 (Act 50 of 1978)(SANC 1978). Regulation of midwifery is about public welfare through the improvement of standards of education, standards of practice for patient care and by ensuring that those who nurse or practice midwifery have the knowledge, skills and ethical preparation through appropriate education to provide the quality care the nation needs (Searle 2000:6). It is in the interest of the health of the public and the safety and welfare of the citizens of a country that laws be enacted to regulate and control the practice of health professionals so that the public is protected against unauthorized, unqualified and improper practices by health care employees (Searle 2000:7).

According to certain requirements of the scope of practice regulation (R2598) regarding the specific needs of the particular patient, the midwife shall diagnose the health needs of the mother and child during pregnancy, labor and peuperium. Record the course of the health problem, the health care received by the patient, and its outcome whilst a patient is in the charge of the midwife (SANC 1990 b). The data collected during the assessment, actions implemented and the eventual evaluation of the action must be recorded in the patient's file, as well as the patient's advocacy that has been done (Naude et al 2000:75).

While most American nursing texts dealing with the nursing process refer to five components of the process namely assessment, diagnosis, planning, implementation and evaluation, the South African Nursing Council has directed that recording in the South African context must not be taken for granted, or be implied in the actions constituting the components of the process but must be taught as an integral part of the process, as practice in a developing country needs this stipulation. It is interesting to note that the Joint Commission Accreditation of Hospital Standards mandated that documentation communicate the care provided by the professional nurse and the patient's response to that care (Searle 2000:140).

Regulation number R2488 is the regulation relating to the conditions under which the registered and enrolled midwives may carry out their profession. This regulation stipulates that a registered midwife shall carry out her profession under the conditions set out in this regulation. In the course of her practice a registered midwife shall at all times have available the equipment and materials required for the practice of midwifery. A registered midwife shall keep clear and accurate records of the progress of pregnancy, labour and the peuperium and of all acts including emergency acts which he/she performs in connection with the mother and child (SANC 1990 b Par 2.2).

Government notices, as amended from time to time, deal with the acts and omission of which the Council may take cognisance. The important principle, irrespective of how many times such regulations are amended, is that those governing the scope of practice should always be read in conjunction with acts and omission and the conditions of practice. This principle underlines the accountability of the nurse and highlights the fact that the nurse functions as a member of the health team even if she is in private practice. She must have a clear understanding of what professional interdependence means and how she remains accountable for her actions within the interdependent situation (Searle 2000:119).

2.3.2 Obstetric unit documentation

Midwives in the unit are responsible for keeping records, writing reports and keeping statistics on patient's clinical records (Naude et al 2000: 56). The following obstetric, nursing records are required in the South African context:

2.3.2.1 The bed chart

The bed chart is a permanent, comprehensive account of information about the patient's health care. It includes records with regard to medical care, nursing care, laboratory reports and X Ray reports.

Nursing documentation in this record include:

- The individualized nursing care plan
- The initial assessment record
- Nursing progress notes flow sheets
- Discharge records (Naude et al 2000:57).

2.3.2.2 Admission records

Admission records may differ considerably, depending on the institution. Personal information should be recorded on admission. When the patient is received in the unit an accurate description of the patient's condition and complaints should be entered into the record (Booyens 2001:350).

2.3.2.2.1 Personal information

The patient's full name, address both residential and postal, age, next of kin, date of birth, race, occupation and religion, should be obtained and recorded. Although an admission clerk usually obtains this information, it should be checked by the nurse receiving the patient in the unit (Booyens 2001:350).

2.3.2.2.2 History taking

History taking is an extremely important part of antenatal care and serves as a screening procedure. Social history includes her level of education, support system and financial status. Family history is useful in identifying or predicting genetic conditions. The woman is asked about a history of multiple pregnancies, presence of any abnormal conditions such as hypertension, diabetes and cardiac condition. History of congenital disease and deformities should be obtained. The woman's personal history such as medical-surgical history should be obtained. Gynecological and past obstetrical history will assist in the management of the woman. Gravida and parity should be obtained, history of previous pregnancies and children, mass at birth of previous children. History of previous labour and peuperium. Any other illness, complication or abnormalities. Any medication taken in the course of this pregnancy (SANC 1990b:5). History of the current pregnancy such as the date of the first day of the last menstrual period will facilitate the estimation of the height of fundus (Sellers 1993:173).

2.3.2.3 Cardex

When the patient is received in the unit, an accurate description of the patient's condition and complaints should be entered into the record. Matters such as bruises, injuries, rashes and mental state must be carefully recorded. This is important should

the patient claim damages for negligence incurred while in the unit. The manner in which the patient was brought into the unit should be recorded for example did she walk into the unit or was she brought in by an ambulance and who accompanied the woman. History of allergies and medications should be written in the cardex, also note information given to the patient on food or drink intake. The date and time the doctor was notified of the woman's admission to the unit is noted, all observations done for example temperature, pulse and respiration should be recorded (Booyens 2001:350).

2.3.2.4 *Partogram*

The partogram is generaly used for recording the progress of labour, as this provides for easier and more accurate assessment and evaluation of the progress of labour the following information can be recorded on a partogram:

- Personal particulars such as name and surname, gravida and parity, any risk factor and date and time of admission to labour room.
- Information regarding labour such as timing of uterus contractions, cervical effacement and dilation, descent of the presenting part, the time of rupture of membrane whether spontaneous or artificial and the condition of the liquor, moulding of the fetal head and caput succedaneum, the presentation, position of the fetal head and the degree of flexion (Sellers 1993:404).

2.3.2.5 Labour records

Labour records are used to document the stages and the progress of labour
After delivery the following should be recorded:

- Average length of the stages of labour
- Date and time of birth of the child
- Date and time of completion of the third stage
- Blood pressure, pulse rate and temperature on completion of the third stage
- Method of expulsion of the placenta
- Condition of the placenta and membrane
- Amount of blood loss
- Any complication during labour
- Episiotomy, perineal tears and suturing

- Details of and reasons for medication and treatment given to the mother and child, including any emergency action taken (SANC 1990 b:6).

2.3.2.6 *The child*

After the baby is born the following concerning him/her should be recorded:
sex,whether full term, premature or miscarriage, alive or still birth, mass at birth, apgar rating at one minute and five minutes after birth, medication or other nursing or medical care done for the child, any physical abnormalities and any deviation from the normal at birth or during peuperium. Name of medical practitioner if called with the date, time and reason for calling him/her in. Discharge or last visit date, mass and condition, method of feeding, emergencies and action taken (SANC 1990b:6).

2.3.2.7 The mother

The following information should be recorded that concern the mother after delivery:

- Signature of the patient if advise not accepted
- Name of medical practitioner if called in with the date, time and reason for calling him/her
- If medical practitioner is not available or if the patient refuses to call in a medical practitioner, state reason for requiring, the date and time and whether the medical practitioner was not available or was refused by the patient in case of the latter. The patient to attach her signature
- Record of daily pulse rate, temperature, showing also daily progress of involution of the uterus and state of lochia
- Signature of patient/witness if any treatment or referral is refused
- Condition of the mother on discharge or last visit
- Signature of the registered midwife (SANC 1990 a:7).

2.3.2.8 Temperature pulse and respiration

In the obstetric unit when the woman is not in labour, temperature, pulse and respiration is taken every four hours or twice a day and recorded. If the woman is in labour a partogram is used to monitor the maternal and fetal status and the progress of labour. The following are considered when monitoring the fetal condition: Fetal heart rate, the

amount and colour of liquor, caput and moulding. On maternal admission the blood pressure and pulse is checked and recorded. Urine is obtained, measured and tested for albumin and ketones. The progress of labour is assessed by checking the cervical dilation, descent of the fetal head into the pelvis and the contractions (Sellers 1993:397).

2.3.2.9 Intake and output

The intake and output chart is used to record what the patient has taken as well as the urinary output and bowel action, the ability to pass urine, the amount passed, and urine tested for ketones and protein. The amount of fluid and glucose taken whether orally or intravenously is recorded and any vomiting noted. Intake and output chart assists in determining the balance between fluid taken and fluid lost (Sellers 1993:403).

2.3.2.10 Flow sheets

A flow sheet is used to record interventions of the same kind, such as the administration of medication. The flow sheet usually makes provision for the prescription of medication to prevent the necessity of rewriting prescriptions, with the possible danger of mistakes being made. A flow sheet can be used to record routine observations, such as vital signs, weight or urine analysis in pregnancy, labour and peuperium (Naude et al 2000:57).

2.3.2.11 Nursing care plan

Nursing care plans involve the nursing management of patient care. It is based on correct identification, meticulous history taking, careful physical examination, consideration of the medical diagnosis and treatment and professional judgement (Searle 2000:200). Assessment helps nurses to focus their attention on specific patients, their needs and potential problems. Care plans should be individual to every patient's needs, although standard care plans may be used where problems can be foreseen because of their known association with a particular disease. There are specific activities the nurse engages in when planning patient care:

- The nurse must decide which of the patient problems needs individual planning and which can be addressed by existing standards of care and procedures.
- Where it is the policy of the institution to use standard care plans, these plans need to be adjusted to fit the patient's specific needs.
- Formulate objectives for problems that need individualised care, and which are not already included in the routine patient care plan. The components of a nursing care plan include the problems or needs as identified, the objectives set for care and the nursing interventions planned to achieve the set objectives (Naude et al 2000:43).

2.3.2.12 Nursing progress notes

Progress notes are a narrative description of the patient's progress, as indicated in the nursing care plan. Progress notes should include:

- The assessment of the patient's emotional and physical condition.
- Nursing or midwifery interventions and the patient's response to treatment or interventions.
- Treatment or prescription by other health care workers.
- As well as the support or absence thereof by relatives and friends. The nursing progress notes should refer to the content in the flow sheets and not necessarily rep-eat the data (Naude et al 2000:57).

2.3.2.13 Discharge records

The discharge record is written when the patient is discharged and should include the current status of each identified problem as well as any relevant health information or education given to the patient. Any medication or continuation of treatment is to be included and referred to other support systems such as health centers or clinics. The mode of discharge is indicated namely walking or by wheelchair, as well as the person who accompanies the patient on discharge. Ineffective discharging of patients or incomplete records can lead to liability problems for the institution and the individual nurse (Naude et al 2000:59).

2.4 DEFICIENCIES IN OBSTETRIC NURSING RECORDS

Deficiencies in record keeping may be reflecting deficiencies in the nursing care provided to the patient. Nursing records should serve as permanent, continuous and accurate records of the individual patient's state of health from the time of nursing intervention until nursing is discontinued. Deficiencies in obstetric nursing records could be incomplete or inaccurate recordings, or mistakes and dishonesty in record keeping. The effectiveness of nursing records can only be measured by their ability to fulfil its prime function. Finally it must be stated that while nursing records cannot in themselves guarantee good nursing care, they will probably do more than anything else to expose bad nursing care (Davis 1981:49).

2.4.1 Common problems with obstetric nursing records

Common problems with regard to the keeping of obstetric nursing records have been identified. Of the identified problems were:
The documentation of the patient's problem, plans for treatment, and changes in the treatment plan in the nursing record are often neglected. Changes in the condition of patients as indicated on flow charts are frequently not reflected on the progress records of the patient. This is a risky practice in terms of medico-legal problems, since the flow sheets are often discarded and do not become part of the permanent record (Booyens & Uys 1989a:27), thus an omission is created of important data.

The key source of information about the process of care and its immediate outcome is no doubt the medical and obstetric nursing records, but it is known that these records are often incomplete in what it documents, frequently omitting significant elements of technical care and including next to nothing about the interpersonal process. Furthermore, some of the information recorded is inaccurate because of errors in diagnostic testing, clinical observation, clinical assessment, recording and in coding. Another handicap is that any given set of records usually covers only a limited segment of care, that relevant to the hospital for example, providing no information about what comes before or after the hospital admission. Appropriate and accurate recording, supplemented by an ability to collate records from various sites, is a fundamental necessity for accurate, complete, quality assessment (Donabedian 1988:1747).

All nursing actions must be recorded. If a nursing action has not been recorded it is difficult to prove that it has been implemented. Personnel should remember that another professional may not be criticized in patients records (Naude et al 2000:244). Record-keeping is an area holding many risks for example if the records

- are inaccurate and not comprehensive
- are written in pencil
- are not clearly readable and has no signature
- are not corrected in a lawful manner when mistakes are made
- are tampered with

The retrospective use of routine records of service delivery for research, follow up, and auditing purposes is based on the assumption that the clinical notes were recorded in an accurate and complete manner. In practice this assumption is not necessarily true, it is vulnerable to the following two types of error:

- Failure to record procedures carried out and observations made
- Recording of procedures that were not carried out and recording of observations that were not made (Adeyi & Morrow 1996:131).

2.4.2 Strategies for improving record keeping

The staff members of a health care institution are its most valuable asset, and the quality of patient care rendered by the staff can be directly related to their knowledge and skills. Strategies for improving record keeping are orientation, supervision, control and in-service training for personnel (Booyens 1998:381).

2.4.2.1 Orientation

Orientation is the personalised training of the individual employee so that she/he becomes acquainted with the requirements of the job itself. The aim is to achieve effective and productive work performance by the new employee as soon as possible. The newcomer is introduced to her/his supervisor, fellow workers, to the nursing department where she/he will work and to her/his job responsibilities. Aspects that should be covered when a midwife is orientated to an obstetric unit include inter alia the

policy and procedure manual, maternity care records and maternity register (Booyens 1998:382).

2.4.2.2 Supervision

The essence of supervision lies in evaluating the effectiveness of the organisation, both vertically and horizontally and ensuring that resources are used adequately and correctly, errors are rectified, standards maintained and objectives attained. Supervision should be a democratic process during which nurses are given help and encouragement by the ward sisters or supervisors. Supervision is aimed at ensuring that work is done well, and at directing the activities of those engaged in nursing practice towards safe, efficient and compassionate care. Supervision starts at the top of the hierarchy of any health care institution, but has a more direct and personalised function in the unit as this is where the patient receives care (Booyens 2001:286).

The supervisor as the leader should direct the work of her personnel towards attaining the objectives of quality nursing care. This should include planning, coordinating, guiding, instructing and regulating their activities. She should monitor the work activities of employees and encourage them towards attaining the set goals and standards (Booyens 2001:287).

2.4.2.3 Control

Control is a process which ensures that predetermined standards are attained and maintained, policies are adhered to as far as is humanly possible, and preventive measures are employed where deviation from predetermined goals is a threat to safe patient care. During the control process, corrective measures are applied when it becomes necessary to ensure that finances, labour, resources and time are utilised effectively. The control process ensures that signs of possible deviation from set standards and norms are detected in time and that reliable information is obtained upon which future planning can be based. The exercise of control in the obstetric unit includes checking the nursing methods and procedures which are used to carry out the allocated and delegated work activities including correct and accurate record keeping (Booyens 2001:294).

2.4.2.4 In-service education

In-service education is education of an employee while he/she is doing his/her job or rendering a service to clients in an organisation. It implies updating, training, educating, and informing the person about the present requirements of the job. Because jobs in the health care services are never static and are subject to rapid change, there is a need for continuous in-service education of health care workers. In-service education programmes are usually directed towards bringing employees up to date about new diagnostic and treatment techniques, the care and operation of new equipment, the optimal use of supplies and new institutional policy decisions. In-service education is that form of education, which is designed to fill in gaps in learning or to remedy deficiencies in the skills and knowledge of the employee (Booyens 1998:384).

In view of record keeping, the aim of in-service education is to educate staff to prepare and complete all patient care records as if someone was looking over their shoulder scrutinising them. They should be taught to assume that these documents would be scrutinised some time in future. Educate staff to call for help when they realise they are out of their depth and to report whenever a problem or potential claim arises, or whenever they are criticised or feel they might be criticised for what they have done (Chappel & Attorneys 1997:51).

Managers should ensure that there is an effective system of reviewing client care records to ensure an early warning of potential problems. Avoid post event comments and alterations or additions to the records. If done, such comments or alterations should be clearly noted as such and dated at the time they were made. As far as possible, record factual details and avoid all unnecessary comments and gratuitous opinions (Chappel & Attorneys 1997:51).

2.5. SUMMARY

The literature review involves the process of identifying literature relevant to the topic of research, studying the relevant literature and actually writing the review. The literature review provided an overview of current knowledge regarding the topic. Literature reviewed indicated that the essence of documentation is to serve as permanent,

continuous and accurate record of the individual patient's state of health, from the time of nursing intervention until nursing is discontinued. Documentation should be clear and accurate. Obstetric nursing records have been identified, certain deficiencies are observed and strategies to remedy the deficiencies have been discussed. In the next chapter the research methodology will be discussed.

CHAPTER 3 RESEARCH METHODOLOGY

3.1. INTRODUCTION

Research methodology focuses on the research process and the kind of tools and procedures to be used. It focuses on the individual steps in the research process and the most objective procedures to be employed.Research methodology refers to the entire strategy of the study from problem identification to the final plans for data collection (Burns & Grove 1993:361). Methodology is an operational framework within which the data are placed so that their meaning may be seen more clearly.

In this chapter the components of the research method will be discussed, such as research design, population, sampling technique, instrument, data collecting and analysis as well as ethical considerations.

3.2 RESEACH DESIGN

Research design is used to describe the intendend overall research approach (Cormack 1996:44). A quantitative approach with a retrospective, exploratory and descriptive design will be utilised in the study. **Quantitative research** involves the systematic collection of numerical information, often under conditions of considerable control, and the analysis of that information by means of statistical procedures (Polit & Hungler 1991:24).

The quantitative approach is chosen because it:

- focuses on a relatively small number of specific concepts
- begins with preconceived ideas about how the concepts are interrelated
- uses structured procedures and formal instruments to collect information
- collects the information under the conditions of control
- emphasizes objectivity in the collection and analysis of information
- analyses numerical information through statistical procedures (Polit & Hungler 1991: 24).

This research complies with the main characteristics of the quantitative approach because it has a limited number of concepts such as quality, control, obstetric nursing records, and aims to establish the current state of obstetric records. An audit form will be developed to collect data pertaining to the obstetric records.

In a **retrospective study** both the proposed cause and the proposed effect have already occurred (Burns & Grove 1999:250). Retrospective studies are ex post facto investigations in which the manifestation of some phenomenon in the present is linked to other phenomenon occurring in the past. That is, the investigator is interested in a specific outcome and attempts to shed light on the antecedent factors that have caused it (Polit & Hungler 1997:166).

A retrospective study is used as it focuses particularly on past event. Data will be sourced from obstetric records of patients who have been discharged (Polit & Hungler 1991:179). In retrospective research, the researcher has to depend on information that may have been recorded by a large variety of people who did not know it was likely to be needed for research purposes (Cormack 1996:14). In this study the quality of care provision and record keeping have already taken place.

Exploratory study is an extension of descriptive research that focuses more directly on the discovery of relationships. Exploratory studies are not intended for generalization to large a population. They are designed to increase knowledge of the field of study. For example, pilot or preliminary studies to test a methodology or provide estimates of an effective size and are often conducted before a large study (Burns & Grove1999:374)

Descriptive study is a type of non experimental design that collects descriptions of existing phenomenon in order to justify or assess current conditions or to make plans for improvement (LoBiondo–Wood & Haber 2002:491). Descriptive studies are used to gain more information about characteristics within a particular field of study. Their purpose is to provide a picture of situations as they naturally happen. A descriptive design may be used for the purpose of developing theory, identifying problems attending current practice, justifying current practice, making judgments or determining what others are doing in similar situations. No manipulation of variables is involved. Dependent and independent variables should not be used within a descriptive design,

because the design involves no attempt to establish causality (Burns & Grove 1999:248).

3.3 POPULATION

Burns and Grove (1999:366), LoBiondo-Wood and Haber (2002:240), de Vos et al (2002 :199) and Polit and Hungler (1991: 254) define a population as an entire group of persons or objects that are of interest to the researcher or that meets the criteria the researcher is interested in studying. Population is sometimes referred to as a target population. In this study the population consists of all obstetric nursing records of women who had normal vaginal deliveries during the period from 1 June 2003 to 31 May 2004 as identified by means of the maternity register. The population size is one hundred obstetric nursing records.

3.4 SAMPLE

A sample is a set of elements that make up the population; an element is the basic unit about which information is collected, and sampling refers to the process of selecting a portion of the population so that the elements in the sample represent the entire population (LoBiondo-Wood & Haber 2002: 242). In this study the sample consists of one hundred selected obstetric nursing records.

3.4.1 Sampling design

Simple random sampling is the most basic of the probability sampling methods. To achieve simple random sampling, element are selected at random from the sampling frame. This can be accomplished in a variety of ways, limited only by the imagination of the researcher. If the sampling frame is small, names can be written on slips of paper, placed in a container, mixed well, and then drawn out one at a time until the desired sample size has been reached. In large population sets, elements may already have assigned numbers. For example, numbers are assigned to medical records, organizational membership, and licenses. Numbers then are selected randomly to obtain a sample (Burns & Grove 1993:240).

Simple random sampling is appropriate for this study because to select a sample the researcher can:

- assign a number to each member of the population and utilize a table of random numbers
- with eyes closed use a pencil to point on a number in the maternity register
- move in a systematic way choosing the sample by picking those subject whose numbers correspond to the maternity register
- stop when the desired sample size is obtained.
- Other methods of random selection can be used as long as they ensure that each subject has an equal chance of selection (Wilson 1993:175).

In this study a sample is obtained by choosing every fifth record in the maternity register

3.5 DATA COLLECTION

Data collection is the process of gathering data from the selected subjects. The actual steps of data collection are specific to each study and are dependent on the research design and measurement methods. Data may be collected by observing, testing, measuring, questioning or recording, or by using any combination of these methods. The researcher is actively involved, either by collecting data himself or herself or by supervising the data collectors (Burns & Grove 1999:460).

The major difference between the data collected when performing patient care and the data collected for the purpose of research is that the data-collection methods employed by the researcher need to be objective and systematic.

The objectivity of data means that the data must not be influenced by another who collects the information, and systematic means that the data must be collected in the same way by everyone who is involved in the collection procedure (LoBiondo-Wood & Haber 2002:294).

3.6 RECORDS AND AVAILAIBLE DATA

Polit and Hungler (1991:352) LoBiondo-Wood and Haber (2002:304) and Brink (1996:161) indicate that not all studies require a researcher to acquire new information.

A wealth of data is gathered for non-research purpose in the everyday functioning of a health care service, which can be fruitfully explored to answer research questions. Nurse researchers are particularly fortunate in the amount and quality of existing data available to them for exploitation. Hospital records, patients' charts, physicians' order sheets and care plan statements constitute rich data sources to which nurse researchers may have access. What sets these studies apart from a literature review is that the available data are examined in a new way, are not merely summarized, and answer specific research questions (LoBiondo-Wood & Haber 2002:304). In this study the available information contained in the selected obstetric nursing records was used as a source of data. The use of records is an economical source of information because they permit examination of trends over time and the investigator does not have to be concerned about obtaining co-operation from participants. The selected method is appropriate because the quality of record keeping will be checked by means of the actual existing obstetric records, hence no new information is required.

3.7 DATA COLLECTION INSTRUMENT

An instrument is the device or technique that a researcher uses to collect data (Polit & Hungler 1991:646). An obstetric nursing record audit checklist has been developed to collect information see Annexure D. Auditing is an evaluation method for assessing the quality of recording as reflected in hospital documents. Since complete and accurate documentation of all nursing actions is a professional and ethical requirement, it is imperative that the nursing staff do indeed document all nursing actions so that the quality of nursing care can be assessed (Booyens 2001:610).

In this study retrospective auditing is carried out after the patients have been discharged. The auditing instrument is based on the specific criteria formulated for obstetric nursing records. Checklists are techniques to indicate whether a behavior has occurred. Tally marks are generally placed on a data-collection form whenever the behaviour is observed. Behaviour other than that on the checklist is ignored (Burns & Grove 1999: 419).

The checklist used in this study is a non-exhaustive system which is sometimes referred to as a science system. It begins with a listing of categories of behaviour that may or may not be manifested by the subjects. With this type of checklist the observer does

not classify all the behaviors or characteristics of the individuals being observed but rather identifies the occurrence and frequency of particular behaviours (Polit & Hungler 1991:328).

The checklist designed for this study includes the following items:

- biographical information
- previous admissions for current pregnancy
- antenatal details
- family history
- previous pregnancy
- examination findings
- interpretation and decisions
- observation chart if labour is doubtful
- initial labour assessment
- partogram
- summary of labour
- discharge summary

A four-point scale is used in the checklist indicating complete, incomplete, not done and not applicable. When checking the record on personal information, for example, name, the recording is ticked off as complete if the name and surname of the patient are given, incomplete without a surname, and not done if neither appears. Not applicable was recorded if the item in the checklist was irrelevant to the patient concerned e.g. previous obstetric record is not applicable to a primigravid.

3.7.1 Reliability and validity of the instrument

Reliability and validity of the instrument has to be ensured to obtain accurate results. The instrument has to measure what it is intended to measure, and should produce the same results if the behaviour is measured again by the same scale.

Reliability

de Vos et al (2002:168), LoBiondo-Wood and Haber (2002:319) define reliability of a research instrument as the extent to which it yields the same results on repeated measures. Reliability is thus concerned with consistency, accuracy, precision stability, equivalence, and homogeneity. A reliable measure is one that can produce the same results if the behaviour is measured again by the same scale. Reliability refers to the proportion of accuracy to inaccuracy in measurement. In other words, if the same or comparable instruments are used on more than one occasion to measure a set of behaviours that ordinarily remain relatively constant, similar results are expected if the tools are reliable.The stability of an instrument refers to the instrument's ability to produce the same results with repeated testing. Homogeneity of an instrument means that all the items in a tool measure the same concept or characteristic. An instrument is said to exhibit equivalence if the tool produces the same results when equivalent or parallel instruments or procedures are used. In this study same results were obtained after measuring same behavior with same scale.

Validity

Polit and Hungler (1991:374), de Vos et al (2002:166), Burns and Grove (1999:260) and LoBiondo-Wood and Haber (2002: 314) describe a valid measuring instrument as an instrument that measures what it is intended to measure, and as yielding scores whose differences reflect the true differences of the variable being measured rather than random or constant errors. Validity in this study therefore refers to whether the instrument has measured the quality of obstetric records or not. Content validity of an instrument is concerned with whether the major themes under the study are measured. Content validity was ensured by means of the literature review and face validity by giving the instrument to experts from the local nursing college and hospital to analyze the appropriateness and adequacy of the included items. Face validity is a rudimentary type of validity that basically verifies that the instrument gives the appearance of measuring the relevant concept. Colleagues were asked to read the instrument and evaluate the content in terms of whether it appeared to reflect the concept the researcher intended to measure.

3.8 PILOT STUDY

A pilot study is a small scale version, or trial run, of the major study. The function of the pilot study is to obtain information with a view to improving the project or assessing its feasibility. The pilot study may reveal that revisions are needed of one or more aspects of the project (Polit & Hungler 1999:62). In this study twenty obstetric nursing records were used to conduct a pilot study. The records were obtained from the local health centre around Vhembe district. No field workers participated in the pilot study, which was done exclusively by the researcher. The checklist was clear but had not included the column indicating not applicable, the checklist initially had three columns for recording that were complete, incomplete and not done. A not applicable column had to be included because for example history of previous pregnancy is not applicable to a primigravida. The checklist was then corrected by adding the fourth column indicating not applicable. Reliability and validity of the instrument were considered during the pilot study and it was found that the instrument was able to measure what it was supposed to measure.The instrument consistently yielded similar results because if the information was complete, incomplete, not done or not applicable it would remain as it is.

3.9 DATA ANALYSIS

Analysis means the categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. In this study data was entered by computer using an excel program, and doing manual calculations. The analysis of research data however does not in itself provide the answers to research questions. Interpretation of data is necessary (de Vos et al 2002:223)

3.10 ETHICAL CONSIDERATIONS

A letter requesting permission to conduct the study was written to the Provincial Research Committee. The authorities granted permission see Annexure A, B and C. The study involves patients' records and human rights are not affected; however, security of the records was of paramount importance. Records were not removed from the hospital setting and information regarding the female patient was treated in the strictest confidence. Registration numbers instead of patient name were used to preserve anonymity and confidentiality. Records were reviewed without interacting

directly with patients' however, professional secrecy was maintained throughout the study. The institution supported the study as the safety and confidentiality of the patient's records were guaranteed (Polit & Hungler 1999:80).

3.11 SUMMARY

The research methodology clarified the design for which a quantitative approach with a retrospective, exploratory and descriptive design was used in the study. The population included the obstetric nursing records of women who had normal vaginal deliveries over a specific period. Simple random sampling was used to select the obstetric records. Data were collected from the obstetric records by means of an auditing checklist based on the specific criteria formulated for obstetric nursing records. Reliability and validity of the instrument used were considered. Records were not removed from the hospital setting and information regarding the women was treated with the strictest confidence. Permission letters were obtained from the Provincial Ethical Committee and the institution concerned. Data analysis will be discussed in the next chapter.

CHAPTER 4 DATA ANALYSIS

4.1. INTRODUCTION

Data analysis is the manipulation of numerical data through statistical procedures for the purpose of describing phenomena or assessing the magnitude and reliability of relationships among them (Polit & Hungler 1997:652). This chapter aims to analyse, interpret and describe the data collected. The statistical information presented is derived from 100 obstetric nursing records of normal vaginal deliveries drawn from 3759 deliveries over a specific period of time that were audited by means of a checklist. The data will be discussed in terms of the main items on the checklist, namely biographical information, previous admission in the current pregnancy, antenatal details, family history, previous pregnancies, examination findings, interpretation and decisions, observation chart if labour is doubtful, labour initial assessment, partogram, summary of labour and discharge summary. As 100 records were used the frequencies would always correspond with the percentages, therefore only the percentages will be used in the discussion.

4.2. BIOGRAPHICAL INFORMATION

According to table 4.1 it is evident that in the majority of cases the name of the patient (96%) and age (93%) were adequately recorded. Addresses given were either incomplete or not done in 41 percent of cases. Likewise only 39 percent gave a complete address of a contact person and only 43 percent gave the contact person's telephone number.

Table 4.1 Biographical information of patients recorded on obstetric records (n=100)

Biographical items	Complete		Incomplete		Not done		Total	
	n	%	n	%	n	%	n	%
1. Name of client	96	96	2	2	2	2	100	100
2. Age	93	93			7	7	100	100
3. Address	59	59	30	30	11	11	100	100
4. Marital status	71	71	1	1	28	28	100	100
5. Occupation	62	62	3	3	35	35	100	100
6. Religion	70	70			30	30	100	100
7. Contact person	71	71			29	29	100	100
7.1 Relation to patient	63	63			31	31	100	100
7.2 Address of contact person	39	39	21	21	40	40	100	100
7.3 Telephone number of contact person	43	43	1	1	56	56	100	100

It is thus evident that the unsatisfactory recording of most of the basic identifying information of patients would present difficulties if relatives had to be contacted or if patients with similar names had to be dealt with.

4.3. PREVIOUS ADMISSIONS DURING CURRENT PREGNANCY

The data pertaining to previous admissions during current pregnancy are presented in table 4.2. It is evident that only 54 percent of the records were complete regarding hospital, date admitted, and diagnosis and treatment while omissions were evident for 46 percent of cases and information was irrelevant for 29 percent.

Table 4.2 Presentation of previous admissions during current pregnancy (n=100).

Previous admission items	Complete		Not done		Not applicable		Total	
	n	%	n	%	n	%	n	%
1. Hospital	27	54	44	46	29	29	100	100
2. Date admitted	27	54	44	46	29	29	100	100
3. Data discharged	27	54	44	46	29	29	100	100
4. Diagnosis & treatment	27	54	44	46	29	29	100	100

It is evident that complete information was given for only 54 percent of the records. This can lead to mismanagement of the patient when admitted for labour and delivery, especially if possible complications are indicated by previous diagnosis and treatment regimes.

4.4. ANTENATAL DETAILS

With regard to antenatal details presented in table 4.3 parity and gravity items were mostly indicated (93%), as were bookings, and number of visits to the clinic (91%). The cycle regularity and length of cycle were mostly not indicated (77%), but last menstrual period and expected date of delivery were indicated in 84 percent of the cases, omitted in14 percent and incomplete in 2 percent of the cases. Date of quickening was indicated in 68 percent and omitted in 32 percent. Omissions amounted to 77 percent for the following items: pregnancy planned/unplanned, previous caesarian section, type of caesarian section, reasons for caesarian section, complications during caesarian section and other operations. Previous/current illness, medication present and past, and allergy and substance abuse were mostly indicated (93%).

Table 4.3 Presentation of recorded antenatal details (n=100)

Items	Complete		Incomplete		Not done		Not applicable		Total	
	n	%	n	%	n	%	n	%	n	%
1. Parity and gravity	93	93			7	7			100	100
2. Booking clinic and number of visits	91	91			9	9			100	100
3. Cycle regular, and length	23	23			77	77			100	100
4. Last menstrual period and expected date of delivery	84	84	2	2	14	14			100	100
5. Date of quickening	68	68			32	32			100	100
6. Pregnancy planned/unplanned caesarian section	23	23			77	77			100	100
7. Previous/current illness :medication, present and past, allergy and substance abuse	93	93			7	7	6	6	100	100

4.5 FAMILY HISTORY

Family history information is presented in table 4.4. With regard to the three listed items, 91 percent of the records were complete, which indicates that nurses give serious attention to family history. Only 7 percent were not done and 2 percent were incomplete.

Table 4.4 Presentation of family history documentation (n=100)

Family Items	Complete		Incomplete		Not done		Total	
	n	%	n	%	n	%	n	%
1. Obstetric history (e.g.multiple pregnancy)	91	91	2	2	7	7	100	100
2. Socioeconomic history	91	91	2	2	7	7	100	100
3. Illness (e.g. Diabetes)	91	91	2	2	7	7	100	100

4.6 PREVIOUS PREGNANCIES

In table 4.5 it is evident that previous pregnancies were not applicable in 49 percent of the records. Of the rest, 96 percent were complete on number and history of children. Completion of other items such as place of delivery, weight, duration of feeding, reason for admission of mother and name of midwife obtaining history ranged between 76 and 86 percent. Information on previous pregnancies was mostly indicated.

Table 4.5 Indication of previous pregnancies in obstetric records (n=100)

Items	Complete		Not done		Not Applicable		Total	
	n	%	n	%	n	%	n	%
1. Number and history of children	45	88	6	12	49	49	100	100
2. Place of Delivery	39	76	12	24	49	49	100	100
3 Weight	44	86	7	14	49	49	100	100
4. Duration of breast feeding	32	63	19	37	49	49	100	100
5. Reason for admission of mother	30	59	21	41	49	49	100	100
6. Name of Midwife obtaining history	39	76	12	24	49	49	100	100

4.7 EXAMINATION FINDINGS

Records of physical examinations: maternal weight (92%), blood pressure (93%), estimation of height of fundus (93%), fetal presentation, position, lie and heart rate (94%) and urinalysis (93%) were satisfactory. Heart and lung data (56%) and blood test (56%) recordings were unsatisfactory.

Table 4.6 Physical examination findings reflected in obstetric nursing records (n=100)

Items	Complete		Incomplete		Not done		Total	
	n	%	n	%	n	%	n	%
1. Maternal weight	92	92	2	2	6	6	100	100
2. Blood pressure	93	93	2	2	5	5	100	100
3. Examination of heart and lung	35	35	9	9	56	56	100	100
4. Estimation of height of fundus	93	93	2	2	5	5	100	100
5. Fetal presentation, position, lie and heart rate	94	94	2	2	4	4	100	100
6. Urinalysis	93	93	2	2	5	5	100	100
7. Blood test	42	42	2	2	56	56	100	100
8. Counseling for HIV	11	11	1	1	88	88	100	100
9. Tetanus toxoid	77	77	4	4	19	19	100	100

Counseling for Human Immunodeficiency Virus (HIV) testing was not recorded or incomplete for 89 percent of records.This raises the question whether testing was actually done.

4.8 INTERPRETATION AND DECISIONS

Identification and recording of risk factor was done for 58 percent, was not done for 40 percent, and was incomplete for only 2 percent of the records. Recording of the action plan for identified risk factors as well as intervention, referral and decision on the place

of delivery ranged between 44 and 49 percent, which means some risk factors were not managed. Recording of transport arrangements for woman in labour was done for 28 percent and not done for 72 percent. Ninety-two percent of mothers' decisions regarding future family planning were not recorded, which indicate that it might not have been discussed with them. Recordings of findings at first visit and of date of next visit was done for 82 and 89 percent respectively. Recording of findings at 36 weeks was done for 33 percent (complete), and not done for 67 percent of the records. Recording of double-checked visits countersigned by an advanced midwife was done for 19 percent (complete) and not done for 81 percent. Recording of date of the next visit was done for 89 percent (complete), refer to table 4.7.

Table 4.7 Documentation of interpretation and decisions (n=100)

Items	**Complete**		**Incomplete**		**Not done**		**Total**	
	N	%	n	%	n	%	n	%
1. Identification and recording of risk factor	58	58	2	2	40	40	100	100
2. Record of action plan referral if indicated	44	44	1	1	55	55	100	100
3. Decision on place for delivery	49	49			51	51	100	100
4. Transport arrangement for when she goes to labour	28	28			72	72	100	100
5. Decision taken by mother on future family planning	8	8			92	92	100	100
6. Findings at first visits	82	82			18	18	100	100
7. Finding at 36 weeks	33	33			67	67	100	100
8. Visit double-checked and signed by advanced midwife	19	19			81	81	100	100
9. Date of next visit	89	89			11	11	100	100

4.9 OBSERVATION CHART IF LABOUR IS DOUBTFUL

Labour is doubtful if the woman presents with pain that is related to backache, urinary and pelvic infections. On observation pain is not associated with contraction and dilatation of the cervix. True and false labour can be ruled out during these observations.

For 59 records, this item 'if labour is doubtful' was not applicable. Fourty-one percent of records were applicable. For the 41 applicable records four-hourly observations were done and recorded for 66 percent, date and fetal heart rate for 73 percent, maternal vital signs for 71 percent, and contraction strength and frequency for 61 percent (complete).

Table 4.8 Documentation of observation chart if labour is doubtful (n=41)

Items	**Complete**		**Incomplete**		**Not done**		**Not applicable**		**Total**	
	N	%	n	%	n	%	n	%	n	%
1. Four-hourly observation	27	66	4	10	10	24	59	59	100	100
2. Date	30	73	1	2	10	24	59	59	100	100
3. Contraction strength and Frequency	25	61	1	2	15	37	59	59	100	100
4. Liquor clear/ Meconium	24	59	1	2	16	39	59	59	100	100
5. Fetal heart rate	30	73	1	2	10	25	59	59	100	100
6. Maternal condition	29	71	1	2	11	27	59	59	100	100
7. Urinalysis	22	54	1	2	18	44	59	59	100	100
8. Vaginal examination	23	56	1	2	17	42	59	59	100	100
9. Drugs dose and route	14	35	1	2	26	63	59	59	100	100
10. Signature of midwife	20	49	1	2	20	49	59	59	100	100

Forty- one percent of applicable records needed to be observed to rule out false or true labour.

4.10 INITIAL LABOUR ASSESSMENT

Initial labour assessment is done when a woman reports labour pains. Date and time of reported labour were recorded for 72 percent as complete, with midwife's signature. Referral from, reason and time for referral recorded for 53 percent and time of admission for 71 percent (complete). No cases were reported of not booking, that is why reasons for not booking were not given. Seventy-four percent of booked cases were recorded (complete-see table 4.9).

Table 4.9 Initial labour assessment (n=100)

Items	Complete		Incomplete		Not done		Not applicable		Total	
	N	%	n	%	n	%	n	%	n	%
1. Date and time of assessment	72	72			28	28			100	100
2. Assessed by	72	72			28	28			100	100
3. Referred from, reason for referral and time of onset of labour	53	53			47	47			100	100
4. Time of admission, date and time of onset of labour	71	71			29	29			100	100
5. Date and time of rupture of membrane	58	58			42	42			100	100
6. Date and time of bleeding	30	30			70	70			100	100
7. Booked	74	74			26	26			100	100
8. If not booked, reason given							100	100	100	100
9. Name of clinic, gestation at first visit and number of visit	68	68			32	32			100	100
10. Haemoglobin, blood group and RPR at first visit	16	16			84	84			100	100
11. HIV test	6	6			94	94			100	100
12. Problem at ANC	26	26			74	74			100	100
13. Current examination of vital signs	70	70			30	30			100	100

Items	Complete		Incomplete		Not done		Not applicable		Total	
14. Appearance	64	54			36	36			100	100
15. Chest and central nervous system	6	6			94	94			100	100
16. Abdorminal examination	73	73			27	27			100	100
17. Liquor volume and estimated fetal weight	51	51			49	49			100	100
18. Contractions/ duration	71	71			29	29			100	100
19. Speculum vaginal examination	2	2			96	98	2	2	100	100
20. Digital vaginal examination	63	63	1	1	36	36			100	100
21. Risk factors (fetal and maternal)	20	20			80	80			100	100

Recorded percentages were low for some items: Human Immunodeficiency Virus (HIV) six percent, chest and central nervous system six percent; vaginal speculum examination two percent, risk factors 20 percent, date and time of bleeding 30 percent and blood tests 16 percent, which indicates a large lack of attention to this items. The use of vaginal speculum is restricted to doctors and advanced midwives but the small number of recorded HIV testing is a matter of concern.

4.11 PARTOGRAM

Complete recording of general information on the partogram (name, parity, age and date) was done for 72 percent, pelvic and estimated fetal weight were recorded for 45 percent as complete; duration of labour on admission and rupture of membrane were recorded for only two percent; low/high risk was recorded for 32 percent; 17 percent for fetal condition; 17 percent for progress of labour, 17 percent for maternal condition and ten percent for management of identified problems. Thus very serious limitations in recording of partogram variables were encountered, emphasizing the need for in-service training. Refer to table 4.10.

Table 4.10 Documentation of partogram (n=100)

Items	Complete		Incomplete		Not done		Total	
	N	%	n	%	n	%	n	%
1. General information	72	72			28	28	100	100
2. Pelvic and estimated fetal weight	45	45	1	1	54	54	100	100
3. Duration of labour and rupture of membranes on admission	2	2	1	1	97	97	100	100
4. Low/high risk of pregnancy	32	32	1	1	67	67	100	100
5. Fetal condition	17	17	50	50	33	33	100	100
6. Progress of labour	17	17	20	20	63	63	100	100
7. Maternal condition	17	17	38	38	45	45	100	100
8. Management of problems identified	10	10	4	4	86	86	100	100

According to table 4.10 it is clear that general information was the only item that received fair attention as 72 percent was recorded as complete which the duration of labour and rupture of membrane on admission received the least attention (two percent complete).

4.12 SUMMARY OF LABOUR

The summary of labour includes second stage, apgar assessment, anesthesia, duration of labour, third stage, fourth stage and peuperium. Refer to table 4.11.

Table 4.11 Documentation of summary of labour (n=100)

Items	Complete		Incomplete		Not done		Not applicable		Total	
	n	%	n	%	n	%	n	%	n	%
1. Time fully dilated and delivery	92	92			8	8			100	100
2. Method of delivery and delivered by	90	90			10	10			100	100
3. Assisted by, comments and complications	35	35			65	65			100	100
4. Neonatal care at birth	91	91			9	9			100	100
5. Apgar assessment	98	98			2	2			100	100
6. General / epidural given by	19	27	2	3	50	70	29	29	100	100
7. Summary of duration of labour										
7.1 First stage	79	79			21	21			100	100
7.2 Second stage	84	84			16	16			100	100
7.3 Third stage	83	83			17	17			100	100
7.4 Fourth stage	84	84			16	16			100	100
8. Perineum tear/ episiotomy/ intact	95	95			5	5			100	100
9. Blood loss	83	83			17	17			100	100
10. Post partum details	3	30			7	70	90	90	100	100
11. Breast feeding initiated	90	91			9	9	1	1	100	100
12. Transferred to post natal by	54	54			46	46			100	100
13. Received in the ward by	98	98			2	2			100	100
14. Time of transfer	2	2			98	98			100	100
15. Peuperium										
15.1 Day, date and time	25	25			75	75			100	100
15.2 Vital signs	25	25			75	75			100	100
15.3 Height of fundus	24	24			76	76			100	100
15.4 Breast	25	25			75	75			100	100
15.5 Legs, perinium, lochia, urine and bowel action	25	25			75	75			100	100
15.6 Midwife's signature	25	25			75	75			100	100

According to table 4.11 recording (complete) of fully dilated and delivery was done for 92 percent, method of delivery and delivered by 90 percent, neonatal care at birth 91 percent, apgar assessment 98 percent, first stage of labour 79 percent, second stage 84 percent, third stage 83 percent, fourth stage 84 percent, perineal tear episiotomy or intact 95 percent, blood loss 83 percent, breast feeding initiated 91 percent, and received in the ward 98 percent. These high percentages indicate serious attention to recording of most items. Complete recording of assisted by, comments and complications was done for only 35 percent, general and local anesthesia for 19

percent, and details of post partum haemorrhage management for 30 percent. Only 25 percent recording indicates a low level of attention to puerperium.

4.13 DISCHARGE SUMMARY

The discharge summary helps the district nurse to familiarise herself with the mother and baby at district level, specifically with regard to date and type of delivery, medical, surgical and obstetric problems present and discharge medication, family planning, and condition of the mother and baby. The type of advice given on discharge should be documented and will serve as a base line for future interaction and health education. The required signature and rank of the midwife can assist in case of enquiries.

Table 4.12 Documentation of discharge summary (n=100)

Items	**Complete**		**Incomplete**		**Total**	
	n	%	n	%	n	%
1. Mother's name	34	34	66	66	100	100
2. Hospital number	6	6	94	94	100	100
3. Date and type of delivery	42	42	58	58	100	100
4. Medical surgical obstetric problems	40	40	60	60	100	100
5. Present and discharge medication	45	45	55	55	100	100
6. Examination of discharge	43	43	57	57	100	100
7. Family planning	24	24	76	76	100	100
8. Condition of the baby on discharge	24	24	76	76	100	100
9. Post natal advice on discharge	12	12	88	88	100	100
10. Signature of midwife	38	38	72	72	100	100
11. Rank of the midwife	28	28	72	72	100	100

As shown in table 4.12 overall complete recording for all items was less than 45 percent and reflect inadequate attention overall. The hospital number received the least attention namely 6 percent, and the figures for advice to the mother regarding family planning (24%), and postnatal (12%) were also much too low. Recording of present and discharge medication in 45 percent of the cases could be due to the fact that clients enquired about medication to take at home.

4.14 SUMMARY

Data was analyzed and tabulated in percentages (n=100). The tables reflect items on the checklist. Items recorded at the same level were combined. It is difficult to conclude whether the items in certain tables reflected comprehensive recording or not because percentages varied considerably from high to very low see table 4.11. None of the items were rated at 100 percent. The quality of obstetric nursing records was determined as reflected in the different tables. The next chapter will cover the findings, conclusions and recommendations.

CHAPTER 5 FINDINGS AND RECOMMENDATIONS

5.1. INTRODUCTION

Conclusions will be drawn from the findings. A quantitative, retrospective, exploratory and descriptive study was done using 100 selected obstetric nursing records as subjects. The objectives of the study were to:

- Determine what documentation entails
- Establish which nursing records are applicable in an obstetric ward
- Ascertain the current deficiencies in nursing records of obstetric patients
- Draw up an in-service training programme for all categories of nurses with a view to improving the quality of documentation in nursing records

In this chapter the following will be covered: findings, conclusions, recommendations, limitations for the study and recommendations for further research. The findings and conclusions will be dealt with under the following headings as they appear on the checklist.

- Biographical information
- Previous admission for the current pregnancy
- Antenatal details
- Family history
- Previous pregnancies
- Examination findings
- Interpretation and decisions
- Observation chart if labour is doubtful
- Initial labour assessment
- Partogram
- Summary of labour
- Discharge summary

5.2 FINDINGS

Findings were recorded based on the information listed on the checklist.

5.2.1 Biographical information

Recording of information such as name of client, age, marital status, occupation, religion and contact person were almost complete. Address and telephone number of the contact person were omitted in most cases. Overall recording level for biographical information was 60 percent.

5.2.2 Previous admission for current pregnancy

Apart from 29 percent where previous admissions for the current pregnancy were not applicable, 62 percent of recording was not done.

5.2.3 Antenatal details

Antenatal details were recorded in most cases, as follows: parity and gravity 93 percent, booking clinic and number of visits 91 percent, last menstrual period 84 percent, date of quickening 68 percent and previous or current illness 87 percent. Recording of regular menstrual cycles (length) and planned pregnancies was much too low at 25 percent.

5.2.4 Family history

Recording of all items under family history received serious attention as follows: Obstetric, socio-economic and illness 91 percent (2 percent incomplete).

5.2.5 Previous pregnancies

Recording of previous pregnancies was not applicable for 49 percent of the cases, which reflect the proportion of first pregnancies (primigravida 51%). Recording of number and history of children was done in 88 percent, place of delivery and history obtain by the midwife 76 percent, weight 86 percent, duration of breast feeding 63 percent, and reason for admission 59 percent.

5.2.6 Examination findings

Recording of physical examination particulars: maternal weight 92 percent, blood pressure 93 percent, estimation of height of fundus 93 percent and tetanus toxoid 77 percent got serious attention and were complete. Recording of cardiac and pulmonary examination was done for only 35 percent. Blood tests were recorded for only 42 percent, and HIV counselling was recorded for only 11 percent.

5.2.7 Interpretation and decisions

Recording of findings at first visit and date of next visit was relatively high at 82 and 89 percent respectively. Recording of action plan if referral is indicated, decision on place of delivery, transport arrangement for when she goes into labour, decision taken by the mother on future family planning, findings at 36 weeks, and visit double checked and countersigned was not done for high proportions ranging from 51 to 92 percent.

5.2.8 Observation chart if labour is doubtful

Doubtful labour was recorded for only 41 percent of the cases while the rest were shown as not applicable. For doubtful cases recording of observations such as labour progress and maternal condition ranged between 61 and 71 percent, while recording of urine analysis was done for 54 percent. Recording of drug dose and route and signature of midwife were done for 35 and 49 percent respectively.

5.2.9 Initial labour assessment

Recording for items under this heading (i.e. initial assessment) ranged between 70 and 74 percent, which is fair. The items are: date and time of assessment, asses by date and time of onset of labour, booked, current examination of vital signs, abdominal examination and duration of contractions. Recording of speculum vaginal examination was not done for 98 percent while Human Immunodeficiency virus (HIV) recording was done for 6 percent. Recording of haemoglobin, blood group and rapid plasma reagin (RPR) at first visit was not done for 84 percent.

5.2.10 Partogram

Recording of general information was done for 72 percent. Recording of other items as indicated by the following percentages were unsatisfactory, pelvic and estimated fetal weight 45 percent, duration of labour and rupture of membrane 2 percent, high/low risk client 32 percent, fetal condition, progress of labour and maternal condition 17 percent, and management of problem identified 10 percent.

5.2.11 Summary of labour

Recording of most items under summary of labour, namely time fully dilated and delivery, method of delivery and delivered by, neonatal care, apgar assessment, summary of duration of all four stages of labour, perineal tear or episiotomy, blood loss, breast feeding initiated, and midwife who received the patient ranged from 79 to 98 percent. Recorded observations of mother, during puerperium, (i.e. vital sign, height of fundus, breast, perineum, lochia, urine and bowel action) were complete in 24 to 25 percent of cases.

5.2.12 Discharge summary

Recording of most items under this heading were not done. Recording of time of delivery, medical and surgical problem, present and discharge medications, and examinations on discharge was not done at rates ranging between 55 and 60 percent. Recording of mother's name was done for only 34 percent, family planning and condition of baby on discharge for only 24 percent, signature and rank of midwife for only 38 and 27 percent respectively postnatal advice and hospital number for only 12 and 6 percent respectively. This means that the discharge summary was the most neglected of all forms of obstetric records.

5.3 CONCLUSIONS

The following conclusions can be drawn from the findings: Biographical items, antenatal details, family history, examination findings and summary of labour received the most attention as indicated by percentages ranging from 60 percent upwards. Recording of previous admissions in the current pregnancy, interpretation and decisions, initial labour

assessment, partogram and discharge summary was incomplete or not done. Less than 50 percent of obstetric records were complete, doubtful labour was not applicable for 59 percent of cases, which left 41 percent of doubtful cases. Recording for 55 percent and above of these 41 records was complete. Previous pregnancies are irrelevant for (first pregnancies) of primigravida.

Incomplete and absent documentation was noted in all subsections of the checklist. According to the literature this could be due to the following:

- Lack of knowledge and inexperience, hence importance may not be realised (Naude et al 2000:244).
- Staff shortage and a busy maternity ward (Adeyi & Morrow 1996:131).
- Lack of supervision and control (Donabedian 1988:1747).

5.4 RECOMMANDATIONS

In view of the stated conclusions, the following recommendations are made as a means of improving the documentation of obstetric records. The recommendations will be discussed under the following heading:

5.4.1 Underestimation of importance of records

The unit manager should conduct in-service education on documentation and the importance of documentation. Recording should be clear, accurate and complete. In-service education should be conducted within the hospital at least twice monthly. All midwives allocated to the maternity unit and the local clinics should attend. In-service education can be used, as a means towards improving quality of record keeping and at least the following topics should be included:

- Quality documentation e.g. format of documentation, records should be clear complete and accurate and they should meet policy requirement of the specific institution
- The importance of documentation that is its uses such as providing the basis from which clinical improvements, progress or deterioration of the mother and baby can be judged.

- The effects of inaccurate documentation. Midwives should be made aware that inaccurate documentation might be reflecting deficiencies in the care provided. It can lead to liability problems of the institution and the individual nurse.

5.4.2 Staff shortage and busy maternity ward

Staff shortages may be the reason for incomplete and inaccurate record keeping. The hospital management should provide enough staff in the maternity ward according to the staff establishment. Vacant posts should be filled to facilitate effective record keeping of care given to patient. Retired and deceased staff members should be replaced. Staffing norms should be maintained throughout.

5.4.3 Lack of supervision and control

The senior manager of the hospital should supervise the work of managers, deputy managers and unit managers once a month. Managers, deputy managers and unit managers should supervise their subordinates at least daily. Supervision and control ensure support of staff members. On the sport teaching can be done during supervision.

5.5 LIMITATION OF THE STUDY

The limitations of the study that were identified were as follows:

- The study was conducted in one hospital and the results cannot be generalised for the whole Vhembe District Hospital.
- Some of the records contained loose papers; hence information could have been lost.

5.6 RECOMMENDATIONS FOR FURTHER RESEARCH

Recommendation for further research is as follows:

- It is recommended that a study of this nature be repeated in Vhembe District Hospital, using a broader sample. This will benefit the whole district, nursing personnel and patients because recording skills will improve after each study.

5.7 CONCLUSION

A quantitative study with a retrospective, exploratory and descriptive design was conducted on the quality control of obstetric nursing records. Simple random sampling was used to select 100 obstetric records of women whose labour had progressed normally and delivered vaginally. The available information contained in the selected obstetric records was used as source of data, and a checklist based on the specific criteria of obstetric nursing records was designed. Reliability and validity of the instrument were taken into consideration. Data analysis revealed complete, and incomplete records, as well as aspects not done or not applicable. Record keeping is a matter of great concern because no obstetric records were 100 percent complete, and in most instances recording was done for less than 80 percent of cases.

It is therefore recommended that in-service education be conducted to improve the record keeping knowledge and skill of staff members. Supervision and control should be continuous and the management should increase staff in the maternity ward with a view to effective nursing care and record keeping. Since the study was conducted in one hospital in the Vhembe District a broader study should be conducted to enable generalisation of the results.

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Annexure A

Box 477
SIBASA
0970

18 JANUARY 2005

Head of Department
Health and Social Development
Limpopo Province

PERMISSION TO CONDUCT RESEARCH FOR MA (CUR)

TOPIC: QUALITY CONTROL OF OBSTETRIC NURSING RECORDS IN A SELECTED REGINAL HOSPITAL.

The researcher is the nurse educator at Thohoyandou Campus doing MA (CUR) with UNISA.

The purpose of the study is to determine the state of obstetric records and consequently to improve the quality of the records so that they can provide current, comprehensive and concise information on the condition and care of the patient in an accurate manner.

Data will be collected from selected obstetric records.

Enclosed is a copy of the proposal.

Thank you.

RAMPFUMEDZI P.D

Cell: 0828786863
Work: 0159641516
Fax: 0159641517

ANNEXURE B

FROM THE CONCERNED HOSPITAL

Limpopo Province
DEPARTMENT OF HEALTH AND
WELFARE
TSHILIDZINI HOSPITAL

TEL: (015) 964 1061/8
FAX: (015) 964 1492
or (015) 9641072

PRIVATE BAG X 924
SHAYANDIMA
0945
18/09/2005

Enquiry Mabuda T B

Mrs Rampfumedzi
P O BOX477
SIBASA

Re: QUALITY CONTROL OF OBSTETRIC RECORDS IN SELECTED REGIONAL HOSPITAL

1. Permission is hereby granted, for you to conduct the above-mentioned study.
2. Hoping that your study will assist us in our quest to improve service delivery.
3. Best wishes in your studies.

.....
CHIEF EXECUTIVE OFFICER 19/09/2005

Annexure C

Limpopo
PROVINCIAL GOVERNMENT

Private Bag X9302
POLOKWANE 0700
Dr. Jan Moolman Building
34 Hans van Rensburg Street
POLOKWANE 0700
Tel.: (015) 290 9000
(015) 290 9001
Fax.: (015) 291 5961
(015) 291 5146

Enquiries: Malomane EL

Ref: 4/2/2

8 September, 2005.

Ms Rampfumedzi P.D
P.O Box 477
Sibasa

Dear Ms Rampfumedzi P.D

Quality Control of Obstetric Nursing Records in a selected Regional Hospital

- Permission is hereby granted to Ms Rampfumedzi to conduct the study as mentioned above in a selected Regional Hospital in Limpopo Province.
- The Department of Health and Social Development will expect a copy of the completed research for its own resource centre after completion of the study.
- The Researcher should be prepared to assist in interpretation and implementation of the recommendations where possible
- The Institution management where the study is being conducted should made aware of this,
- A copy of the permission letter can be forwarded to Management of Institution concerned

HEAD OF DEPARTMENT
HEALTH AND SOCIAL DEVELOPMENT
LIMPOPO PROVINCE
Date:
Cc Dr Nkadimeng M

ANNEXURE D

OBSTETRIC NURSING RECORDS CHECK LIST

TITLE

QUALITY CONTROL OF OBSTETRIC NURSING RECORDS IN A SELECTED REGIONAL HOSPITAL

PURPOSE

The purpose of this study is to determine the state of obstetric records and consequently to improve the quality of these records so that they can provide current, comprehensive and concise information on the condition and care of the patient in an accurate manner.

UNDERSTANDING

Obstetric records are subject's personal profiles; security of these records will be paramount. Records will not be removed from the hospital setting and information regarding women will be treated in the strictest confidence.
The registration number will be used on the audit form instead of the women's name.

INSTRUCTIONS FOR FIELD WORKERS

- Study the obstetric records of each woman included in the study.
- Using the audit form give one point for each item listed which has been recorded correctly.
- Half a point can be given where the record is incomplete, and zero if the item is not recorded.
- Items not applicable should be indicated in the appropriate column.

	Complete	Incomplete	Not done	Not applicable
1. **BIOGRAPHICAL INFORMATION**				
1.1. Name of the client				
1.2. Age				
1.3. Address				
1.4. Marital status				
1.5. Occupation				
1.6. Religion				
1.7. Contact person				
1.7.1. Relation to patient				
1.7.2. Address				
1.7.3. Tel: Home/work/cell				
2. **PREVIOUS ADMISSIONS IN THE CURRENT PREGNANCY**				
2.1. Hospital				
2.2. Date Admitted				
2.3. Date discharged				
2.4. Diagnosis and treatment				
3. **ANTENATAL DETAILS**				
3.1. Parity				
3.2. Gravity				
3.3. Booking clinic				
3.4. Number of visits				
3.5. Cycle regular				
3.6. Length of cycle				
3.7. Last normal menstrual period				
3.8. Expected date of delivery				
3.9. Date of quickening				
3.10. Pregnancy planned/unplanned				
3.11 Previous caesarian section(c/s)				
3.12. Type of caesarian section				
3.13. Reason for caesarian section				
3.14. Complications during C/S				
3.15. Other operations				
3.16. Previous/current illness e.g. Diabetes				
3.17. Medication present and past				
3.18. Allergy				
3.19. Substance abuse				
4. FAMILY HISTORY				
4.1 Obstetric e.g. multiple pregnancy				
4.2 Socio-economic history				
4.3 Illness e.g. diabetes				

	Complete	Incomplete	Not done	Not applicable
5. PREVIOUS PREGNANCIES				
5.1. Number of children				
5.2 Delivery year of each child				
5.3 Gestation in weeks of each child at birth				
5.4 Duration of each labour				
5.5 Mode of each delivery				
5.6 Place of delivery				
5.7 Born alive/stillbirth				
5.8 Condition at delivery				
5.9 Gender				
5.10 Weight				
5.11 Duration of breastfed				
5.12 Complications if any				
5.13 Reason for admission of mother				
5.14 Mother referred from and by whom				
5.15 Risk factors (from history)				
5.16 Name and signature of midwife obtaining history				
6. EXAMINATION FINDINGS				
6.1 Maternal weight				
6.2 Blood pressure				
6.3 Examination of heart and lungs				
6.4 Estimation of height of fundus				
6.5 Fetal presentation				
6.6 Fetal position				
6.7 Fetal lie				
6.8 Fetal heart rate				
6.9 Urinalysis				
6.9.1 Protein				
6.9.2 Ketone				
6.9.3 Sugar				
6.10 Blood for hemoglobin				
6.11 Blood for Rhesus factor				
6.12 Blood for Wasserman test				
6.13 Has the client been counseled for HIV testing?				
6.14 Has tetanus toxoid been given?				
7. INTERPRETATION AND DECISIONS				
7.1 Identification and recording of risk factors.				

	Complete	Incomplete	Not done	Not applicable
7.2 Record of action plan				
7.3 Record of intervention				
7.4 Record of referral if indicated				
7.5 Decision on place for delivery				
7.6 Transport arrangement for when she goes into labour discussed with mother				
7.7 Decision taken by mother i.e. future family planning				
7.8 The findings at first visit				
7.9 Findings at 36 weeks				
7.10 Visit has been double checked				
7.11 and countersigned by an advanced midwife or doctor				
7. 12 Date of next visit				
8. OBSERVATION CHART IF LABOUR IS DOUBTFUL				
8.1 Four hourly observation until labour is established				
8.2 Date				
8.3 Contraction strength and frequency				
8.4 Liquor: Clear /Meconium/Blood stained				
8.5 Fetal heart rate				
8.6 Maternal condition				
8.6.1 Pulse and respiration				
8.6.2 Temperature				
8.6.3 Blood pressure				
8.7 Urine				
8.7.1 Protein				
8.7.2 Ketones				
8.7.3 Glucose				
8.7.4 Volume				
8.8 Vaginal examination				
8.8.1 Dilatation				
8.8.2 Effacement				
8.9 Drugs				
8.9.1 Dose and route				
8.9.2 Drops per minute				
8.10 Signature of the midwife				

	Complete	Incomplete	Not done	Not applicable
9. LABOUR INITIAL ASSESSMENT				
9.1 Clinical history				
9.1.1 Date				
9.1.2 Time				
9.1.3 Assessed by				
9.1.4 If referred from				
9.1.5 Time of referral				
9.1.6 Time of admission				
9.1.7 Reason for referral				
9.1.8 Date and time of onset of labour				
9.1.9 Date and time of rupture of membrane				
9.1.10 Date and time of bleeding				
9.1.11 Booked				
9.1.12 If not, give reason				
9.1.13 Name of clinic				
9.1.14 Gestational age at first booking				
9.1.15 Number of visits				
9.1.16 Hemoglobin at first booking				
9.1.17 Blood group				
9.1.18 RPR/VDRL				
9.1.19 HIV				
9.1.20 Problems at ANC				
9.1.21 Main problems				
9.2 Current examination				
9.2.1 Pulse				
9.2.2 Blood pressure				
9.2.3 Temperature				
9.2.4 Appearance				
9.2.5 Chest				
9.2.6 Central nervous system				
9.3 Abdominal examination				
9.3.1 Gestational age by dates/by palpation/symphysis fundul height/ sonar				
9.3.2 Lie				
9.3.3 Level of head in fifth				
9.3.4 Presentation				
9.3.5 Attitude				
9.3.6 Liquor volume				
9.3.7 Estimated fetal weight				
9.3.8 Contractions/duration				
9.3.9 Fetal heart rate/normal/abnormal/ absent				

	Complete	Incomplete	Not done	Not applicable
9.4 Vaginal examination				
9.4.1 Speculum				
9.4.1.1 Liquor				
9.4.1.2 Blood present?				
9.4.1.3 Cervix				
9.4.2 Digital examination				
9.4.2.1 Cervix/ thin/ thick/ edematous/ not felt				
9.4.2.2 Application/good or poor				
9.4.2.3 Cervical dilatation				
9.4.2.4 Effacement				
9.4.2.5 Position of the cervix				
9.4.2.6 Presentation				
9.4.2.7 Position of fetal skull				
9.4.2.8 Moulding				
9.4.2.9 Attitude				
9.4.2.10 Caput				
9.4.2.11 Liquor				
9.4.2.12 Pelvic assessment				
9.5 Risk factors				
9.5.1 Maternal				
9.5.2 Fetal				
9.5.3 Labour				
9.5.4 Summary/diagnosis/management				
9.5.5 Patient to be managed at clinic/ hospital				
10. PARTOGRAM				
10.1 General information				
10.1.1 Name				
10.1.2 Parity				
10.1.3 Age				
10.1.4 Date				
10.1.5 Pelvic				
10.1.6 Estimated fetal height				
10.1.7 Duration of labour on admission				
10.1.8 Duration of rupture of membrane on admission				
10.1.9 Low/high risk				
10.2 Fetal condition				
10.2.1 Fetal heart rate 1/2 hourly				
10.2.2 Liquor 2 hourly				
10.2.3 Moulding 2 hourly				
10.2.4 Caput 2 hourly				

	Complete	Incomplete	Not done	Not applicable
10.3 Progress of labour				
10.3.1 Denote position				
10.3.2 Cervical length				
10.3.3 Cervical dilatation and effacement				
10.3.4 Level of the head				
10.3.5 Time				
10.3.6 Contraction strength and duration				
10.3.7 Drugs and intravenous fluids				
10.3.8 Name and signature of person examining				
10.4 Maternal condition				
10.4.1 Blood pressure				
10.4.2 Pulse				
10.4.3 Urine volume				
10.4.3.1 Protein				
10.4.3.2 Ketones				
10.4.3.3 Glucose				
10.4.4 Temperature				
10.4.5 Initials of the midwife				
10.5 Management				
10.5.1 Assessment time				
10.5.2 Problems identified				
10.5.3 Plan				
11. SUMMARY OF LABOUR				
11.1 Second stage				
11.1.1 Time fully dilated				
11.1.2 Bearing down began at				
11.1.3 Time of delivery				
11.1.4 Method of delivery				
11.1.5 Delivered by				
11.1.6 Assisted by				
11.1.7 Comments				
11.1.8 Complications				
11.1.9 Neonate				
11.1.9.1 Male/ Female				
11.1.9.2 Alive / SB / MSB				
11.1.9.3 Weight				
11.1.9.4 ID band on				
11.1.9.5 Cord clamped				
11.1.9.6 Konakion administered				
11.1.9.7 Eye drops / ointment				

		Complete	Incomplete	Not done	Not applicable
11.1.9.8	Given by				
11.2	Apgar assessment				
11.2.1	Heart rate				
11.2.2	Respiration				
11.2.3	Muscle tone				
11.2.4	Response to stimulation				
11.2.5	Colour				
11.2.6	Apgar score				
11.3	Anesthesia				
11.3.1	General / regional epidural etc.				
11.3.2	Given by				
11.4	Summary of duration of labour				
11.4.1	Onset of first stage of labour				
11.4.2	Duration of first stage of labour				
11.4.3	Time of rapture of membranes				
11.4.4	Onset of second stage				
11.4.5	Duration of second stage				
11.4.6	Time of delivery				
11.4.7	Onset of third stage				
11.4.8	Duration of third stage				
11.4.9	Duration of rupture of membrane				
11.4.10	Total duration of labour				
11.4.11	Blood loss in mls.				
11.5	Third stage				
11.5.1	Method of placenta delivery				
11.5.2	Placenta normal/ abnormal/ incomplete or complete				
11.5.3	Umbilical cord normal/abnormal				
11.5.4	Membranes complete/incomplete				
11.5.5	Details of third stage given				
11.5.6	Number of vessels in the cord				
11.5.7	Retro placental clot				
11.6	Fourth stage				
11.6.1	Time of observation				
11.6.2	Observed by				
11.6.3	Temperature				
11.6.4	Respiration and pulse				
11.6.5	Blood pressure				
11.6.6	Urine passed				
11.6.7	Uterus contracted				
11.6.8	Cord / maternal blood taken				

	Complete	Incomplete	Not done	Not applicable
11.6.9 Cervical tears				
11.6.10 Perineum tear/ episiotomy / intact				
11.6.11 Repaired by				
11.6.12 Blood loss				
11.6.13 If post partum hemorrhage is present details of management given				
11.6.14 Breast feeding initiated				
11.6.15 If not, give reasons				
11.6.16 Transferred to postnatal ward by				
11.6.17 Received in the ward by				
11.6.18 Time of transfer				
11.6.19 Condition of the mother				
11.6.20 Condition of the baby				
11.6.21 Further management of mother / baby				
11.7 Pueperium				
11.7.1 Day e.g. 1, 2 ect.				
11.7.2 Date				
11.7.3 Time				
11.7.4 Temperature				
11.7.5 Pulse				
11.7.6 Blood pressure				
11.7.7 Respiration				
11.7.8 Fundal height				
11.7.9 Breast				
11.7.10 Uterus				
11.7.11 Perineum				
11.7.12 Lochia				
11.7.13 Urine				
11.7.14 Bowel action				
11.7.15 Legs				
11.7.16 Signature of the midwife				
12. DISCHARGE SUMMARY				
12.1 Mother				
12.1.1 Mother's name				
12.1.2 Hospital number				
12.1.3 Delivery date				
12.1.4 Type of delivery				
12.1.5 Medical problems				
12.1.6 Surgical problems				
12.1.7 Obstetric problems				
12.1.8 Present medication				

		Complete	Incomplete	Not done	Not applicable
12.1.9	Discharge medication				
12.2	Examination on discharge				
12.2.1	Looks well/ ill				
12.2.2	Pulse				
12.2.3	BP				
12.2.4	Temperature				
12.2.5	Breast				
12.2.6	Height of fundus				
12.2.7	Vaginal bleeding mild/ moderate				
12.2.8	Perineum clean/ septic				
12.2.9	Urinary output good/ poor/ nil				
12.2.10	Remarks if any				
12.3	Family planning				
12.3.1	Method discussed				
12.3.2	Method accepted				
12.3.3	Breast feeding discussed				
12.3.4	Initiated successfully				
12.3.5	Contraceptives given by				
12.3.6	Remarks				
12.4	Baby				
12.4.1	Sex				
12.4.2	Weight				
12.4.3	Head circumference				
12.4.4	Length				
12.4.5	BCG				
12.4.6	Polio				
12.4.7	Method of feeding				
12.4.8	Remarks				
12.5	Post Natal advice on discharge				
12.5.1	Future pregnancies				
12.5.2	Perinatal care				
12.5.3	Future ANC				
12.5.4	Future mode of delivery				
12.5.5	Future Pap smear				
12.5.6	Future breast examination				
12.5.7	Post natal exercises of the mother				
12.5.8	Breast feeding				
12.5.9	Care of the baby				
12.5.10	Immunization of the baby				
12.5.11	Post natal visit date & clinic				

	Complete	Incomplete	Not done	Not applicable
12.5.12 Notification/Registration of birth				
12.5.13 Name of the midwife				
12.5.14 Rank				
12.5.15 Signature of the midwife				