

CHAPTER 2

RESEACH METHODOLOGY

2.1 INTRODUCTION

The introduction and problem statement have been presented in chapter one. The aim of this research is to explore the experiences and perceptions regarding postnatal care in Lesotho and reasons why women do not attend postnatal care services. Therefore, a complete account of how this research has been planned, structured and executed will be laid out in this chapter.

2.2 RESEARCH CONTEXT

The study will be undertaken at a specific hospital and some of the clinics under its supervision. The hospital is situated in the northern region of Lesotho. District has the total population of 294,516 whereby the hospital serves about 75% of the district population. The district has 25 health facilities 1 filter clinic and 2 more minor hospitals. The clinics are approximately 12 kilometres away from the hospital. Not all the births take place at the hospital some are conducted at the clinics. The total number of deliveries conducted was 3290 per year (Lesotho Ministry of Health and Social Welfare, 2010). Common health services are provided in filter clinics but major or complicated conditions are transferred to a hospital.

2.3 RESEARCH DESIGN

A multi-step explorative, descriptive and contextual research design which is qualitative in nature was used to guide the planning and execution of the study. Descriptive and explorative studies are conducted when little is known about the phenomenon. To the researches knowledge there has been no research conducted on strategies to improve postnatal care in Lesotho. Therefore this study attempted to explore and describe the real experiences of women, perceptions of women and health care providers as well as reasons why women attended only well-baby clinic and not postnatal care. According to Polit and Beck (2004:20) qualitative research designs are intended to describe the dimension of the phenomenon of interest as well as explore its nature and the manner in which it is manifested.

2.4 RESEARCH METHOD

According to Polit and Beck (2004:731) the research method is the technique used to organize and structure a study in a systematic manner from the beginning to the end - that is from data collection to data analysis.

The discussion of the method in this chapter includes population and sample, the data collection as well as the data analysis, rigour and ethical consideration of the first, second, and the third steps.

Table 2.1: Objectives, participants, data collection and data analysis of the study

Step & Objective	Participants	Data-collection	Data-analysis
<p>Step 1</p> <p>To explore and describe the experiences and perspectives of women regarding care provided at postnatal services in Lesotho.</p>	<p>Women who attended postnatal services in a specific district in Lesotho</p>	<p>Individual semi-structured interviews</p>	<p>Data were analysed according to Creswell's method (2009:185)</p>
<p>Step 2</p> <p>To explore and describe the perspectives of midwives of the ways to improve postnatal care in Lesotho.</p>	<p>Midwives working in specific district in Lesotho</p>	<p>Focus group interviews</p>	<p>Data were analysed according to Creswell's method (2009:185)</p>
<p>Step 3</p> <p>To explore the reasons why women did not attend postnatal care.</p>	<p>Women who brought their babies for well-baby services but did not attend postnatal services</p>	<p>Individual semi-structured interviews</p>	<p>Data were analysed according to Creswell's method (2009:185)</p>

2.4.1 Step 1: Women's experience of postnatal care and their perceptions and recommendations to improve care

The population and sampling, data-collection and data-analysis of the first step will now be discussed.

2.4.1.1 Step 1: Population and Sampling

- **Population**

Population refers to the total set of individuals who meet the sampling criteria (Burns & Grove, 2009:343-344). Parahoo (2006:256) describes the population as the entire aggregate of people who meet designed set criteria. For step 1 of this study, the population of interest were women who came for postnatal care at certain district hospital facilities. The hospital facilities were selected because this health care facility is the second largest district hospital that offers maternal neonatal child health services and was accessible to the researcher.

- **Sampling**

In the study purposive sampling was done. Purposive sampling is a judgmental sampling of the participants that involves a conscious selection by the researcher on certain subjects to be included in a study (Burns & Grove, 2009:355). In this study, the purposive sampling technique was used to select the women who came for postnatal care services. Purposive sampling was used to obtain participants that best inform the researcher about the research problem (Creswell, 2009:118). The women who brought their babies for postnatal check -up were selected.

Participants were recruited by the midwives working in the selected health facilities. The midwives were briefed about the nature of the study a week before the data-collection date and asked to assist the researcher in selecting participants who best suited the criteria. As the women came for postnatal care they were invited to the waiting room and briefed about the study, then invited to participate.

- **Sampling criteria**

Sampling criteria refers to the criteria for selection of the population that has the required characteristics for the phenomenon under study (Burns & Grove, 2009:344). In the study women who came with their babies for the postnatal care were the eligible population. In

order to obtain the best possible data the following selection criterion was used to select participants who:

- were willing to participate;
- gave live birth less than 12 month ago;
- were able to communicate well in local language (Sesotho) as that was the language used in the interviews, and;
- were physically well enough to communicate without hindering their full participation.

The willingness of the participants to participate in the research with the signing of the consent form indicated that they were willing to share their experiences and perceptions without being forced or threatened in any way. Their willingness to provide information was very important as the research was focusing on the feelings and emotions and to obtain rich descriptions. Therefore they had to feel free to talk about their sensitive, private and sometimes very intimate information. The participants should have their live babies not more than 12 months before as it is a reasonable time to recall their experiences and perceptions on postnatal care. The participants had to be able to communicate well in Sesotho as the study was conducted in Lesotho. Data saturation was reached after seventeen (n=17) women were interviewed.

2.4.1.2 Step 1: Data collection

There are four basic ways to collect information in qualitative research which are: observations, interviews, documents and audio-visual materials (Burns & Grove, 2009:556). The data collection method used for this study's first step was individual semi-structured interviews. Open and closed questions were used. This type of interviews can be classified as semi-structured according to Gillham (2000:6).

Table 2.2 Different types of research interviews according to Gillham (2000:6)

Unstructured				Structured		
Listening to conversation	Conversation	Open-ended interviews	Semi-structured interviews	Recording schedules	Semi-structured questionnaires	Structured questionnaires
Verbal observation	Using 'natural' conversation to ask research questions	Using a few key open questions	Using open and closed questions	Verbally administered questionnaires	Multiple choice and open questions	Simple, specific closed questions

- **Pilot testing**

The pilot testing was done before the formal data-collection commenced, to determine the practical aspects of the research study. The purpose of the pilot study was to determine if the interviewer conducted the interviews as the researcher has planned it, to test the research questions and to ascertain if the selection of the setting and time was feasible. Finally it was used to detect if there were possible problems in the data collection instruments and analysis plan (Brink *et al.*, 2006:166, Burns & Grove, 2009:404).

An explorative interview was done by asking one central question. Two women who met the sampling criteria were interviewed. The participants were pleased to participate in the study. They were willing to give the information.

It was decided to include the interviews conducted during the pilot study, as part of the collected data because within the qualitative paradigm it is not necessary that all the interviews must be conducted exactly the same way and because the interview included valuable data.

- **Preparation**

The rooms utilized for interviewing the women were private and free from interruptions and provided comfort which facilitated interviews. This practice is supported by Brink *et al.* (2006:153) who states that regardless of the setting, the interviewer must attempt to seek privacy as possible for the interview.

The three clinics within the same uptake area were used for data-collection. One clinic was within the hospital where individual interviews were conducted with some women, however because the anticipated sample was not reached in this clinic, a second clinic was utilized.

A meeting room was used for the interviews. The room was chosen because of its nearness to postnatal clinic, however it was quiet and no interruptions occurred. It provided privacy and comfort which facilitated interviews to the women.

On the days of interviews the researcher arrived on the hospital premises where the interviews were conducted before arrival of the participants to organize the rooms, check equipment to be used and prepare the room accordingly. The researcher had organized two tape recorders and additional batteries as a backup system in case of power failure.

The researcher reported to the nursing service director and hospital superintendent. The nursing staff in postnatal clinic introduced the researcher and interviewer to women explaining the researcher's mission.

All the women who came for Maternal and Child Health care in the waiting room were briefed about the research and invited to participate. They were told that they were not bound to participate if they do not wish so. Women who indicated that they would be willing to participate in the study were taken for individual interviews.

The researcher and interviewer welcomed the participants in the formal interviews. The researcher explained and stressed the importance of ethical considerations such as confidentiality and the right to withdraw from the research anytime the participant felt like without being bound to explain to the researcher, or be penalised. The participants were asked if they had any questions about the research. Some questions were asked by participants and answered, and then the audio-recorders were introduced and shown to them. After this information was given the participants were asked to give their consent in writing.

The tape recorders were switched on after permission was obtained from the participant and then interview commenced.

- **Conducting of individual interviews**

The interviewer sat face to face and close to the interviewee with no obstacle between them. The table was placed on the right side of the interviewer to facilitate writing and placement of paper work and tape recorders.

During the interviews with the participants, the interviewer kept the objective in mind, to explore the experiences regarding care provided at postnatal care in mind and directed the interview when essential. Moule and Goodman (2009:297) stressed the character of semi-structured interview as to seek out the participant's perceptions, experiences and opinions and to allow the participant to drive the interview direction.

The following questions were asked:

- Please tell me about your experiences while receiving postnatal care from the health care providers in the hospital, clinic and in the community

- What suggestions do you have to improve the services?

This was followed up with questions like:

- What kind of services do you receive in postnatal care? Are you satisfied?
- Did I understand you correctly?

The researcher allowed participants to talk freely about their experiences and perceptions. Probing questions such as “do you mean....” and “did I hear you well....” were also used. This was to stimulate discussion and clarity on what was said by the participant. The interviewer used verbal response technique such as mmh or yes, in order to create an atmosphere of comfort, and to stimulate a flow of communication, the researcher employed interpersonal and communication techniques like occasional nodding of the head, listening attentively, maintaining eye contact. The interviewer directed the questions according to interview schedule and ensured that she heard and understood what she heard participants were saying by summarizing.

The interview was terminated by thanking the participants for taking part in the investigation and promising them to provide feedback of the results of the whole study. The researcher plans to provide feedback to the hospital management, who will be requested to provide information to the women who come back to seek for feedback of the research study.

After the interviews they were transcribed verbatim and translated in English (See Appendix G, H and I).

- **Field notes**

The interviewer started with a few general biographical questions in all the three steps, such as information about gender and, age. The information was recorded as part of the field notes.

During and after conduction of the semi-structured interviews, field notes were recorded by the researcher, as recommended by Burns and Grove (2009:521). Field notes were read through by the researcher before organizing into more coherent notes, the field notes were typed, marked and attached to each transcription and made ready for data analysis

According to De Vos *et al.* (2007:285) field notes encompass all the observations done during the process of data collection. They contain a comprehensive account of the

participants, the events taking place, the feelings and perceptions. Field notes contain a chronological order of what happened in the setting. A day to day report on what happen was recorded on the notes. Polit and Beck (2004:384) divide field notes into four types, namely observational notes, theoretical notes, methodological notes and personal notes. They will be discussed below:

- **Observational Notes**

Polit and Beck (2004:382), describe observational notes as descriptions of what happened in the field, notes deemed to be important to the researcher such as events and conversations, information about each dialogue or interview.

- **Theoretical Notes**

According to Polit and Beck (2004:383), theoretical notes are referred to as researcher's efforts to attain meaning to observations and experiences that occur in the field that will form as a starting point for subsequent analysis.

- **Methodological Notes**

Methodological notes are critiques of one's tactics, instructions and reflections about approaches and the methods used to collect data (Polit & Beck, 2004:383).

- **Personal Notes**

Polit and Beck (2004:383) describe personal notes as notes about one's own reflections, emotional feelings and experiences while in the field which challenge the researcher's assumptions.

2.4.1.3 Step 1: Data analysis

Burns and Grove (2009:544) indicate that the aim of data analysis is to organize and structure data in such a way that meaningful conclusions are drawn. Data analysis involves breaking down of data into manageable themes and categories.

The transcription of the interviews were analysed by both the researcher and the interviewer, who is also experienced in qualitative research as co-analyst. She was selected on the basis of her experience in analysing interviews of this nature to ensure trustworthiness.

- **Preliminary data-analysis**

The informal data-analysis was conducted by means of reflection as discussed by Creswell, (2009:184) that data analysis is an on-going process involving reflection about data, asking analytic questions, and writing memos throughout the study. The first part of the analysis occurred in an informal way and each analyst recorded her ideas on dated memos as records of insights (Burns & Grove, 2009:74). As soon as all the transcripts were available formal data analysis commenced.

- **Formal data-analysis**

The general principles of handling qualitative data and the steps of content analysis as discussed by Creswell (2009:185) were used as a guide for the two analysts during data analysis. The researcher developed an analyse guide which both she and the co-coder used. Creswell mentioned six (6) steps in data analysis.

- The first step was to organize and prepare the data for analysis. This involved typing up field notes, transcribing interviews and reading all the transcripts without locating topics within the scripts.
- During the second step all the interviews were read to obtain a general sense of the information, to illuminate what was being said and to reflect on its overall meaning. All the transcripts were read repeatedly to ensure that all significant statements were identified.
- During the third step the researcher began a detailed analysis with a coding process. All significant statements were extracted and organized to make it ready to be categorized into themes and arranged in columns.
- In the fourth step the coding process was used to generate a description of the themes for analysis. At this stage the two analysts compared their work and discussed the differences in order to reach the consensus.
- In step five, the most descriptive wording for each theme was selected and themes divided into main themes and sub-themes. The themes were reconsidered and changed where necessary.
- The sixth was a final step in data analysis that involves interpreting the data. The co- analysts had a discussion about final themes.

Lastly all the data that belonged to each category were combined. The statements were marked with the interview number and the page number within the interview to enable reference back to the original transcription.

The findings of this study were also reviewed between the interviews with other studies. Few adjustments were made. Once again all the categorized themes and codes were revised, keeping the research objective in mind. Data that was irrelevant to the research question and objectives were not taken into consideration.

Finally the findings were compared with the existing body of knowledge. After the conclusion was reached on major and sub- themes, the literature was scrutinized to compare and contrast the findings and identify unique findings. According to Moule and Goodman (2009:206) this process is suitable for the inductive process of qualitative research, as the literature does not direct the study but provide supporting evidence.

Studies where researchers reach similar findings will be identified. In case where findings in the literature were not substantiated in this study, this study's unique findings were pointed out.

2.4.2 Step 2: Midwives perceptions of postnatal care and recommendations to improve it

2.4.2.1 Step 2: Population and sampling

Participants in this step of the study were professional midwives working in one of the districts health hospitals, its nearby health clinic and a filter clinic that are about 12 kilometres from the hospital. The midwives were the target population (n=15) as they are actively providing postnatal care in the health facilities.

The sampling was also purposive and according to the following selection criteria:

- Midwives working at Mother Child Health Services (MCH)
- who have at least 2 to 25 years of clinical experience and a diploma in midwifery, and
- who were willing to participate.

2.4.2.2 Step 2: Data collection

Focus group interviews were selected as data collection method for the second step of the study. According to Polit and Beck (2004:462) a focus group interview is an interview with a group of participants assembled to respond and discuss questions on a proposed research topic. Each focus group should include six to ten participants to collect adequate information. Burns and Grove (2009:513) as well as Moule and Goodman (2009:298) consider this type of data collection to have the potential benefit of encouraging participants to express and clarify their views as contribution may increase as part of the discussion.

In step 2, two focus groups interview were done, first group consisted of seven and the second group of eight midwives.(n=15) The two groups were used to explore the perceptions of midwives on postnatal care. One group was conducted during the day shift in the selected hospital and the second was done in a filter clinic the following day. The first focus group was carried out in a room within maternity ward away from labour room to ensure confidentiality of the responses and convenience of the participants, particularly those who were on duty and the second in one in a quiet room in the clinic.

The researcher introduced herself to midwives. The researcher clarified the aim of the focus group to the participants before the group session commenced. The researcher encouraged all the participants to contribute their ideas in a discussion.

The interview schedule for the focus groups with the health care providers included questions like:

- *"Please explain to me your perceptions on postnatal care in the hospital, clinics and community?"*
- *Please describe your perspective regarding how the postnatal services in this health facility can be improved?"*

The questions were also followed up to stimulate discussion and get clarity.

All the participants agreed to be audio-taped and the focus groups were audio-recorded. Communication and group facilitation techniques were utilized by the trained expert interviewer. The verbal and non-verbal communication techniques were enhanced by trained experienced interviewer's demonstration of further non-verbal behaviour to show that she was listening and interested, Facilitation techniques were utilized in all the discussion,

making sure one person is not taking over other participants, bringing the discussion back to the interviews schedule if participants get side tracked (Burns & Grove, 2009:510).

The first focus group interview lasted for fifty five minutes and the second one lasted for an hour. The length of the focus groups discussions were determined by data saturation as it was terminated when data reached redundancy. An experienced interviewer conducted the focus groups while the researcher was present and took field notes. The audio taped data were transcribed in verbatim and translated in English before data analysis.

2.4.2.3 Step 2: Data analysis

A similar data analysis approach as in step 1 was used (see 2.4.1.3).

2.4.3 Step 3: Reasons for women not attending postnatal care

2.4.3.1 Step 3 Population and sampling

In this step the aim of the purposive sampling was to select participants that were the best source of information about the reasons some women do not attend postnatal care services.

In order to obtain the best possible data, the inclusion criteria for the sample dictated that the participants had to be;

- Women who brought their babies for well-baby clinic services and immunizations but who did not attend postnatal services;
- Willing to participate;
- Women that gave live birth less than 12 month ago;
- Able to communicate well in Sesotho because that was the medium of communication;
- Physically well enough to communicate without hindering full participation.

All the mothers who did not attend for postnatal services but came for well-baby services were asked to participate. However it was not easy to get the mothers because such mothers do not always come for health services easily unless they have problems. Eventually ten women were willing to be interviewed (n=10).

2.4.3.2 Step 3 Data collection

A similar approach to data-collection was followed as during step 1 (see 2.4.1.2).

Interview schedule:

- *“Please explain to me the reasons that prevented you from coming for postnatal care?”*
- *“What are your suggestions to improve postnatal care?”*

2.4.3.3 Step 3 Data analysis

A similar data analysis is approached as in Step 1 was used (see 2.4.1.3).

2.5 ROLE OF THE RESEARCHER

The researcher was directly involved at certain stages of the research and made use of experts at other stages.

2.5.1 Obtaining permission to collect data

Before data-collection commenced, the research was approved by the Human Research Ethics Committee of North-West University, Potchefstroom Campus (See Appendix A). Letters were written to request to data-collection from the Director General Ministry of Health and Social Welfare (Appendix B). Approval was granted (Appendix C).

2.5.2 The communication with the manager

The Nursing Service Manager under whose authority the selected hospital and clinics fall was notified by letter explaining the study purpose, the research procedures planned at the facilities and the fact that the Director General of Ministry of Health had permitted the study to be conducted in the hospital and its selected clinics (Appendix D).

2.5.3 The selection of the interviewer

When interviewing is selected as data collection method, the interviewer must be skilled in interview techniques. The researcher planned the interviews herself but used a trained, experienced interviewer, who was familiar with the context, to conduct the interviews. The researcher discussed the objectives and research method in detail to ensure that the interviewer is knowledgeable about the study and what was expected of her. The researcher was present throughout to provide guidance and recorded field notes.

2.5.4 The arrangements for data-collection

The registered nurses in charge of the clinics were notified of the research, where permission was obtained and asked to assist with recruitment of the women. Suitable dates to collect data were agreed upon.

Preparations for the interviews were as follows:

After showing interest to participate, before the interview commenced, informed consent was obtained from all participants (See Appendix E).

The document consists of the following:

- Information about the research and the researcher;
- An consent form for participating in an interview and allowing the interview to be recorded;
- A detachable page on which the participant could indicate her contact details if she wanted feedback after the research.

2.5.5 Preparation of the environment

During the week before the interviews commenced, the researcher and skilled, experienced interviewer visited the hospital to meet with the matron and registered nurses in charge and to become familiar with the rooms in which the interviews were to be conducted.

2.6 RIGOUR

The rigour in qualitative research is associated with openness, thoroughness in collecting data and inclusion of all data in the theory development phase (Burns & Grove, 2009:54). The researcher decided to use the criteria of maintaining and judging the rigour and quality of research according to

According to Guba and Lincoln (1981) in Krefting (1991:215) and Klopper (2008) rigour includes ensuring accurate data collection, data analysis and good report writing. Use of triangulation of sources data, external auditors and sufficient member checking are also necessary to monitor the accuracy of the conducted research as a solid product. The following four criteria are used to ensure trustworthiness: Credibility, transferability, dependability and conformability.

The strategies that were used to establish trustworthiness are presented in table 2.3

Table 2.3 Strategies to ensure trustworthiness

Strategy	Criteria	Applications in this study
Credibility indicates whether the researcher has established confidence that the findings are of a true reflection of the participants experiences (Brink <i>et al.</i> , 2006:118)	Prolonged engagement	<p>The researcher spent sufficient time with the participants so as to build trust and rapport</p> <p>To obtain credibility, participants were interviewed until saturation was reached.</p>
	Triangulation	Interviews with women and focus groups with midwives were used for gathering data to gain perspectives from different view points
		Review of local and international literature to validate the data and compare information obtained in the interview
Transferability is concerned with the extent to which findings from the data can be transferred	Thick/thorough description	The researcher established transferability of findings by providing detailed descriptions of the settings and the context and by providing verbatim experts in the research report so that other researchers can compare the descriptions with their own contexts.
Dependability is concerned with stability of the findings over time. According to <i>Brink et al.</i> (2006:119), dependability requires an audit trail of documentation of data, methods and decisions about the research which can be laid open to external scrutiny.	Code-recode	This was achieved by a complete description of methodology to maintain clarity in the use of independent coder skilled in the field of research
Conformability indicates to which extend the findings are a function of participants experiences / opinion and conditions of research and not biases. In qualitative research the focus is on neutrality of the data and not neutrality of the researcher	Audit trail	The researcher kept the original recording of interviews, the transcripts and field notes, analysis products to provide an audit trail.
	Reflexivity	The researcher's assumptions were stated clearly. She continuously reflected on her own characteristics, experiences, knowledge and examined how they can influence the data collection and analysis and tried to avoid being biased (Polit & Beck, 2004:228).

2.7 ETHICAL CONSIDERATIONS

Burns and Grove (2005:181) maintain that participants' rights have to be protected. The following ethical considerations were observed:

2.7.1 Permission to conduct the study

Before the researcher began her data collection the study /proposal went through several processes before permission was obtained.

Permission to conduct the study was obtained from the Human Research Ethics Committee of the Faculty of Health Sciences of the North-West University (Appendix A), The Director General of the Ministry of Health and Social Welfare in Lesotho through its ethics committee gave written permission to enter the hospital and its health centres (Appendix C). The Hospital Management was provided with the permission letter from the Ethical committee in Lesotho to grant the researcher to conduct the study in their hospital premises and health centres.

2.7.2 Informed consent

In this study the interviews were mandatory and could raise sensitive issues. It was absolutely essential that the researcher should seek voluntary informed consent (Burns & Grove, 2009:201)

Individual participants were informed of their rights and the following aspects were addressed:

- Purpose and nature of the study
- Why the participants were chosen
- What the research entails
- What the participants would get from the research
- Participant rights

Participants, who voluntarily agreed to participate in this study, signed the Informed consent form (See Appendix E).

2.7.3 Confidentiality and anonymity

Confidentiality was assured throughout the data collection.

The researcher explained to the participants that their anonymity and confidentiality were respected and that they have the right to withdraw at any stage without being discriminated against, were introduced prior to commencement of data collection. Members of the focus

group were asked to keep the discussions they heard within the group (shared confidentiality).

The researcher conducted the research project with integrity and in a scientific manner. Pseudonyms were used on all transcriptions and real names remained confidential. Information provided by participants will be kept under lock and key at the School of Nursing Science for a period of five years.

2.7.4 Protection from harm and discomfort

The researcher kept in mind that the interviews may be upsetting for participants with unresolved issues. Arrangements were made with the counsellors working in the hospital and centres to assist the participants if necessary. Some participants had to be supported and referred for counselling by the counsellors after the interview sessions.

2.8 SUMMARY

The study used an explorative, descriptive, and contextual research design consisting of three steps. The study setting was conducted in one district hospital, one filter clinic and one health clinic in Lesotho. In step 1, the study sample comprised of seventeen women who attended postnatal care, residing in study area and had a live baby in the previous twelve months. (n=17). Step 2, fifteen (n=15) midwives participated in the focus groups (seven and eight), Step 3, sample of women who did not attend postnatal care were 10 (n=10) and the babies had to be 1 year old. Semi-structured interview and focus groups were used to collect data. The interviews were conducted by an experienced interviewer while the researcher made notes during the interviews. Data was transcribed and analysed according to Creswell (2009:185).

In Chapter 3, the findings and literature control will be discussed.