

Methodology and research design

3.1 INTRODUCTION

This chapter describes the research design, research methodology comprising the selection of the sample and the population, establishment of trustworthiness, ethical considerations, and data collection and analysis.

3.2 RESEARCH DESIGN

In this study the main focus was on the beliefs and practices of Sotho antenatal women. The researcher adopted a qualitative approach. Polit and Hungler (1993:36) describe a research design as an overall plan for obtaining answers to questions under study and handling difficulties encountered during the study.

3.1.1 Qualitative research

According to Wilson (1993:216), qualitative research methods and qualitative analysis aspire to capture what people and their lives are about. In qualitative research, preconceived ideas are put aside. Moody (1990:31) cites Munhall (1982) who states that qualitative research methods are consistent with the philosophy of nursing in which subjectivity, shared experience, interrelatedness and human interpretation of reality are considered. Streubert and Carpenter (1995:10) contend that the fundamental belief of qualitative research is that, to create meaning for individuals studied, multiple realities exist. Instead of searching for one reality, the researcher in qualitative research believes that informants of the study actively participate in social actions and thus understand the phenomena under study in different ways. The researcher supports the notion of multiple realities and this study is aimed at describing such beliefs and practices of Sotho women regarding antenatal care.

According to Holloway and Wheeler (1996:188), the qualitative researcher seeks understanding of human thought and behaviour and its interpretation, and Morse (1992:1-2) asserts that in

qualitative research a holistic perspective to the phenomena of interest is considered by including the underlying values and the context as part of the phenomena. Crookes and Davies (1998:119) contend that in qualitative research, phenomena are investigated in detail, providing a considerable amount of rich data from a relatively small number of people. In view of the above, the researcher used a qualitative research method to investigate multiple realities regarding the beliefs and practices of Sotho antenatal women because these people understand such beliefs more than the nurses involved in their care. A holistic perspective on the phenomenon of interest was considered in this study, which includes the underlying values of Sotho antenatal women and their context as part of their beliefs and practices during the antenatal period.

3.2.1.1 Characteristics of qualitative research

Streubert and Carpenter (1995:10-12) describe the characteristics of qualitative research as follows:

- A belief in multiple realities.
- A commitment to identifying an approach to understanding that will support the phenomenon under study.
- Commitment to the participants' point of view.
- Conduct of inquiry in a way that does not disturb the natural context of the phenomena of interest.
- Acknowledged participation of the researcher in the research.
- Conveyance of the understanding of phenomena by reporting in a literary style, rich with participants' commentary.

Morse (1992:1-3) describes the important characteristics of qualitative research as:

- The emic perspective, that is eliciting meaning experience or perception from the participants' point of view rather than the researcher's perspective (the etic view). Morse asserts that using the emic perspective involves identifying the informant's beliefs and values that underlie the phenomenon and does not impose the researcher's beliefs and theoretical perspectives on the data.
- A holistic perspective on the phenomena of interest is considered by including the underlying values and the context as part of the phenomena.

- An inductive and interactive process of inquiry between the researchers and the data in that the researchers analyse data as they gain comprehension and insight into the phenomena of interest. They do not have a predetermined conceptual framework (Morse 1992:1-3).

Maykut and Morehouse (1994:43-47) discuss six characteristics of qualitative research:

(1) *An exploratory and descriptive focus*

Qualitative research is designed to discover what can be learned about social phenomena where people are informants. In this study, the researcher used a qualitative approach in order to uncover the meanings of Sotho antenatal women on the phenomenon under study as well as to describe such meanings.

(2) *Emergent design*

An emergent design means that in the early phases of data analysis, important leads are identified and pursued by asking new questions. Holloway and Wheeler (1996:93) state that in qualitative design there is an emerging picture whose outline researchers can only imagine and which can change during the process of assembly. In this study, the researcher made up follow-up questions from the informants' clues during interviews. In this case, the research questions took shape as the data collection was in progress. This is the emergent design, which is a peculiar characteristic of qualitative research. According to Glesne and Peshkin (1992:6), qualitative research is open and emergent which means that it lacks standardisation. They go on to say that this type of research is evolutionary and has no pre specified intent. This is also true in the case of this study because the researcher's intention was to interview pregnant women only, but later traditional birth attendants were also interviewed. The need to interview traditional birth attendants emerged during data collection and the early phases of analysis.

(3) *Data collection in the natural setting*

Because qualitative researchers are interested in understanding people's experiences in context, data collection is done in a natural environment. This characteristic reflects the philosophic

underpinnings of this type of paradigm that personal meaning is tied to context. The researcher also collected data in a natural setting, namely the clinic.

(4) *Emphasis on human as instrument*

The first and most important instrument used is the "human instrument". The researcher asked questions and followed up the respondents' answers (Kvale 1996:124-126; Lincoln & Guba 1985:236-238).

The researcher is a Mosotho by origin, a descendent of the Basia Tribe in Lesotho. She was born and grew up among the Xhosas in the Eastern Cape, in a town called Aliwal North. In this area the Xhosas outnumber the Sothos and the predominant culture in the area is Xhosa. The researcher attended secondary school at Herschel in the Eastern Cape (formerly known as Transkei). She attended high school in Bloemfontein. As a student nurse, the researcher trained in Qwa-Qwa, a place that is predominantly Sotho (i.e. most people are Sotho).

The researcher's training was Western. Books used in her training were Eurocentric rather than Afrocentric. European values were upheld during the researcher's training because the training was Western. Many people in Qwa-Qwa, especially in the rural areas, still adhere to the beliefs and practices of their culture.

Having grown up in a township (Aliwal North), the researcher does not fully understand the Basotho practices during pregnancy. She does understand some of the practices, however, because she is married into the Bafokeng tribe, who still observe some of the practices during pregnancy.

In qualitative research the researcher is both the collector and the analyser of data. The researcher also attaches meaning to the data as the study proceeds and as the data itself changes relevance. This is also true in this study, because the researcher was the sole instrument of data collection. Le Compte et al (1993:91) emphasise that the investigator is the essential research instrument.

(5) *Early and ongoing inductive data analysis*

In the case of qualitative research, this means that important leads are identified in the early phases of data analysis and pursued by asking new questions. As stated earlier, qualitative research is an emergent design, which means that it is an ongoing research activity. It is also primarily inductive because analysis begins after a researcher has accumulated a subset of data to provide an opportunity for the salient aspects of the phenomenon under study to begin to emerge. Therefore the researcher builds more data on the data collected at first.

(6) *A case study approach to research outcomes*

The results of qualitative research are presented in a narrative or case study form. The researcher in this case, provided many excerpts from the actual data collected from the participants. The above gives the reader sufficient information for understanding the research outcomes.

Maykut and Morehouse (1994:43-47), Morse (1992:1-3) and Streubert and Carpenter (1995:10-12) emphasise that this type of research requires in-depth understanding of the informants' view as well as going into the research site without preconceived ideas about the phenomenon under study. The data collected in qualitative research is not context free, and prompts the researcher in a certain direction during questioning.

3.2.1.2 Purposes of qualitative research

According to Wilson (1993:217), the purposes of qualitative research are to

- explore, describe and explain social psychological processes and themes
- patterns of a social world, culture, or setting
- interpret lived experiences in their natural context
- analyse case studies or historical data to understand the flow of events
- analyse communication patterns

3.2.1.3 Types of qualitative research

According to Glesne and Peshkin (1992:9), qualitative research encompasses the following types of research: ethnography, case study and educational criticism. Burns and Grove (1999:340-350) and Lo-Biondo-Wood and Haber (1994:261-272) describe the types of qualitative research as phenomenological research, grounded theory, ethnographic research and historical research.

The researcher had three phases in the research process. The first was the conceptual phase where the background of the problem, research question and objectives were formulated. A literature review was done to acquire a global understanding of the phenomenon under study. Bracketing was then done to retain all that the researcher had studied regarding the phenomenon under study.

The second phase was the research design and planning. A purposive sampling was done to obtain the informants who met the eligibility criteria in preparation for the interviews.

The third phase included the empirical research that involved the collection, analysis and interpretation of data.

3.3 CONCEPTUAL PHASE

The conceptual, or thinking and planning, phase included the thoughts, readings and questions the researcher had about the phenomenon under study. According to Brink (1999:57-60), conceptualisation refers to the process of developing and refining abstract ideas of research.

The conceptual phase consisted of the following steps: identifying the problem and purpose of the study, formulating the research question and objectives, reviewing relevant literature, reflecting on the data to increase objectivity, bracketing, and intuiting.

3.3.1 Identifying the problem

The researcher identified the problem in the clinical area while working at Bolata Clinic in Qwa-Qwa. A broad topic was first selected and later narrowed down with the help of the supervisor and co-supervisor. The field of interest in this study is midwifery.

The researcher observed the nurses and midwives caring for Sotho antenatal clients and realised that these women adhered to certain cultural beliefs and practices not understood by the midwives. This necessitated the exploration of their beliefs and practices.

3.3.2 Stating the purpose of the study

The purpose of this study is to explore the beliefs and practices of Sotho antenatal women.

3.3.3 Formulating the research question and objectives

The research question set was:

What are the beliefs and practices of Sotho antenatal women?

The research objectives are to

- explore and describe the beliefs and practices of Sotho antenatal women
- acquire an understanding of Sotho women's beliefs and practices in the antenatal period and make midwives aware of them

3.3.4 Review of related literature

The researcher reviewed professional literature in order to locate similar or related studies on which to base the current study. Literature on transcultural nursing in general and the beliefs and practices of different cultural groups nationally and internationally was selected. A computer search was done to locate relevant literature both in OASIS and in Magnet for interlibrary loans.

The literature review, reading and re-reading were done in the conceptual and all the other phases.

3.3.5 Reflecting

Qualitative researchers are part of and not divorced from the phenomenon under study, and must constantly take their position as main research tool into account (Holloway & Wheeler 1996:13). Because the researchers are the main research instruments, who hear, feel, see and interpret the responses (words) of informants, they may only report on information in which they have an interest. This may thus create bias and subjectivity. The researchers should therefore be reflective and aware of personal assumptions to increase objectivity.

Reflectivity helps the researcher with

- self-monitoring
- analysis of data and finding a way through the masses of data
- self-justification

3.3.6 Bracketing

The researcher bracketed all the information she knew about Sotho antenatal women, as well as all that she learned from the literature. Information from one focus group was also bracketed as the researcher interviewed the other focus groups. The researcher stored and retained all she learned about the phenomenon under study even during confirmation of the data with the traditional birth attendants. The researcher described her personal experience regarding the phenomenon under study and analysed it. The analysis of her experience made the researcher aware of possible biases and preconceived ideas. Bracketing was implemented throughout the study and each phase of the research process was approached carefully, using bracketing and intuition in order to avoid bias and approach the phenomenon with an open mind.

Bracketing was done as follows:

- The researcher recorded all the information she knew about the phenomenon under study, exposed and then bracketed this information during the interview.
- Questions asked during the interview were unstructured and took shape as the interview progressed.

- Information from one focus group to another was bracketed during the interview as well as upon confirmation with the traditional birth attendants.

3.3.7 Intuiting

Intuiting occurs when researchers remain open to the meaning attributed to the phenomenon by those who have experienced it (Polit & Hungler 1995:198). It requires concentration and complete absorption from the researcher to focus on the phenomenon under study (Massey 1995:56). The researcher was continuously aware of keeping an open mind, looking at how informants experience the phenomenon, and trying not to be influenced by her own experience that could lead to bias.

3.4 DESIGN AND PLANNING PHASE

3.4.1 Research design

Polit and Hungler (1997:36) describe a research design as the overall plan for collecting and analysing data, including specifications for enhancing the trustworthiness of the data. Careful planning was done for the actual collection of data.

The researcher adopted a qualitative approach. The study is descriptive and explorative because it describes and explores the beliefs and practices of Sotho antenatal patients. The researcher selected this method because it conveys a broader understanding of the people's views on a particular phenomenon (Burns & Grove 1999:348-350; Lo-Biondo-Wood & Haber 1994:258-260; Shi 1997:140). According to Moch and Gates (2000:36), qualitative inquiry seeks to understand the experience of people living in their natural environment.

3.4.2 Context

According to Brink (1999:13), qualitative research does not attempt to control the context of the research, but attempts to capture the context in entirety. This means that the context is of great importance in qualitative research. The researcher therefore conducted the interviews at the clinic where the Sotho women attended antenatal care. The phenomenon was observed as it took place

at the clinic; that is, as the women were seen in their cultural protective clothing as well as wearing pendants prescribed by their different cultures.

3.4.3 Descriptive

In this design accurate information was collected through the use of interviews. The informants described the phenomenon to enable the researcher to understand it better. The purpose of the description was to portray the beliefs and practices of the antenatal women of the Sotho culture (Polit & Hungler 1995:640).

3.4.4 Exploratory

An exploratory study begins with the phenomenon of interest with the aim of exploring the dimensions of the phenomenon, about which little information has been found. Exploratory research focuses on the “what” and everything about the phenomenon is important. Facts related to the phenomenon are identified (Brink 1999:11; Polit & Hungler 1995:11).

The researcher explored the literature throughout the study to gain information about the phenomenon. Although the researcher is a Mosotho by birth, she approached the study with an open mind, without preconceived ideas and with the aim of increasing knowledge and providing new data about the phenomenon of interest.

3.4.5 Data collection instrument

The first and most important instrument used is the “human instrument”. The researcher asked questions and followed up the respondents’ answers (Lincoln & Guba 1985:236-238; Kvale 1996:124-126).

An unstructured interview was used to collect data. The researcher started with a general guiding question (a “grand tour” question), “What are your beliefs and practices during pregnancy?” and allowed the respondents to talk freely (Polit & Hungler 1991:253-254). Later the interview took shape as themes emerged from the information given by the informants. A topic guide, which

included themes to be covered, was designed (Polit & Hungler 1991:278-279) and the informants were then asked questions pertaining to the guide, although these were completely unstructured.

An unstructured method was used because the purpose of a qualitative interview is to “obtain qualitative descriptions of the life-world of the subjects with respect to the interpretation of their meaning”(Kvale 1996:125). The interview in this study was done in such a way that changes of sequence and forms of questions were open (Kvale 1996:126). See annexure E for an overview of questions with themes that could be addressed.

According to Wilson (1993:224), an unstructured interview may be either spontaneous or scheduled but its identifying characteristic is that respondents are encouraged to talk about whatever they wish that is relevant to the researcher's interest. All questions were open-ended in this study.

3.4.6 Sampling

The researcher made use of purposive sampling. Holloway and Wheeler (1996:74) describe *purposive sampling* as sampling where individuals or groups with special knowledge of the topic are chosen. These individuals can also be referred to as useful informants. Streubert and Carpenter (1995:23) point out that in ethnographic studies, informants should be people who have experience and participate in the study. Streubert and Carpenter also term this subjective sampling in which researchers use their judgement to decide who is representative of the population under study. Le Compte et al (1993:70) equate purposive sampling with criterion-based selection in the sense that ethnographers use specific criteria in choosing a group to be studied. The researcher should establish in advance the attributes that the units for study should possess, and search for exemplars that match the specified array.

3.4.7 Criteria for purposive sampling

Firstly, purposive sampling was done because it is suitable for studying people's culture. The participants are chosen because they understand their culture and have experience of this phenomenon (Brink 1999:133; Le Compte et al 1993:69-70; Morse 1989:123-125). Polit and Hungler (1997:229) assert that purposive sampling is based on the assumption that because the

researcher knows the population under study she might decide purposefully to select informants whom she considers suitable for the study. Lo-Biondo Wood and Haber (1994:294) also confirm that the researcher's knowledge of the population is used to pick the cases to be included in the sample. Maykut and Morehouse (1994:56) state that qualitative researchers purposefully select people or settings for study because they acknowledge the complexity that characterises humans.

Secondly, this type of sampling was chosen because the study is qualitative and an unbiased sample, perhaps chosen randomly, would violate the qualitative principle of obtaining information from experts and of sample size adequacy (Morse 1989:125; Polit & Hungler 1991:260).

Sotho antenatal women in all gestational periods were chosen. The reason is that these women might have different beliefs and practices during different times in the gestational period. These women were chosen because they have knowledge of the phenomenon under study. For verification of data obtained from pregnant women, traditional birth attendants were also included as a sample of the study.

3.4.8 Criteria for the selection of the informants

Antenatal Sotho women were chosen because the researcher's aim is to investigate the beliefs and practices of such women. The researcher adhered to the inclusion and exclusion criteria in the study. This means that not all other Sotho women were chosen. Traditional birth attendants were later interviewed in order to confirm data collected from the antenatal women. This was done because of their experience in dealing with pregnant women and they know the customs and practise them (Talbot 1995:468; Woods & Catanzaro 1988:372).

Antenatal Sotho women were purposefully selected as the key informants to give the information sought. Twenty key informants were selected, representing all gestational periods. Lo-Biondo-Wood and Haber (1994:269) describe key informants as individuals with special knowledge willing to teach the researcher about the phenomenon under study. These women were divided into groups of five. The women were chosen because they have culturally congruent behaviour changes in certain periods of gestation. The number was limited to 20 to be able to gather detailed data on a smaller scale, which is one of the characteristics of qualitative research. (Streubert & Carpenter 1995:10-12; Talbot 1995: 89).

It should be noted that traditional birth attendants were interviewed to obtain more information on the phenomenon under study.

3.4.9 Target population

A population consists of all cases that meet the designated criteria. In this study, the target population consists of all pregnant Sotho women living at Bolata Village (De Vos 1998:190; Polit & Hungler 1993:173; Thomson 1997:227). The population is an accessible population under study and is bounded because the target population lives in the same geographical area. They are people with the same characteristics, namely pregnant and of Sotho culture.

3.4.10 Sample

A sample consists of the elements and units of analysis that compose the population (Polit & Hungler 1995:230). Streubert and Carpenter (1995:23) stress that in qualitative research there is no need to determine the number of informants to be interviewed because the goal is not to generalise the findings. The sample in qualitative research depends on the collection of data, and when particular ideas or themes in the study were expressed repeatedly in the study. Field and Morse (1990:94) state that the researcher does not predict the sample beforehand.

The sample comprised twenty antenatal women who came from Bolata Village, near the researcher's place of residence.

The women were divided into five groups. Focus group interviews were conducted and each respondent/informant was given a label. The labels were done alphabetically. Alphabetical letters were given to each informant and their clinic cards labelled as such. Each focus group was interviewed twice and later individual interviews were done.

3.5 EMPIRICAL PHASE

In the empirical phase, the actual data collection is done as well as preparation for the analytical phase.

3.5.1 Data collection

The researcher followed Kvale (1996:125) in formulating the research question:

“What are your beliefs and practices during pregnancy? I want to know what you know and the way that you know it, and the meaning of the practices you do during pregnancy as well as things that are prohibited in pregnancy.”

The respondents were allowed to tell their stories in a free flowing manner because they gave each other a chance to talk. An interview guide was later used, depending on the respondents' responses for clues (see annexure E). A tape recorder was used to gather data and field notes were written. (Morse & Field 1996:73; Polit & Hungler 1991:254-255; Shi 1997:136-137). Field notes were kept in order to confirm the data on the audiotape and also because there were occasional power failures (outages) at the two clinics used, and not all the information could be recorded on the tape.

An unstructured interview was done. The researcher started with a general guiding question. The subsequent questions, which were more specific, were guided by responses to the guiding question (see annexure E). The interview guide served merely as a guide, themes to be explored during an interview were outlined. The questions were unstructured and open-ended. The wording could be changed in an interview as long as the essence was maintained. The sequence was also changed to fit in with the flow of the interview (Polit & Hungler 1997:255; Shi 1997:130).

3.5.2 Focus group interviews and field notes

Unstructured interviews were used to collect data. The researcher interviewed focus groups of five respondents at a time. Each focus group was interviewed twice. First, an interview was done and the second time the researcher read all the data to the focus groups in order to verify what had been recorded/documented. The researcher started with a general guiding question, “What are your beliefs and practices during pregnancy?” and allowed the respondents to talk freely (Polit & Hungler 1991:253-254). Later the interview took shape as themes emerged from the information given by the informants. A topic guide, which included themes to be covered, was designed (Polit &

Hungler 1991: 278-279) and the informants were then asked questions pertaining to the guide, though these were unstructured.

An unstructured method was used because the purpose of a qualitative research interview is to "obtain qualitative descriptions of the life-world of the subjects with respect to the interpretation of their meaning" (Kvale 1996:125). The interview in this study was done in such a way that changes in sequence and questions were open (Kvale 1996:126).

According to Wilson (1993:224), an unstructured interview may be either spontaneous or scheduled but its identifying characteristic is that respondents are encouraged to talk about whatever they wish that is relevant to the researcher's interest. All questions were open-ended in this study.

Focus group interviews were done because, as a facilitator at Potchefstroom University in the North-West Province, the researcher is skilled and experienced in facilitating group discussions. Furthermore, the method is commonly used in psychiatric mental health nursing group therapy (Hunt, Griffin & Sullivan 2000:15). That is where the researcher developed the skills to manage groups. The researcher's knowledge of group process and dynamics made it easy for her to conduct focus group interviews. The following steps were followed for the interviews:

- Appointments were made with each group and scheduled for the return date for antenatal care.
- A separate room in the clinic away from any disturbance was chosen for interviews.
- A clinic sister doing perinatal care was requested to assist with the technical device and to be present during interviews for data confirmation at a later stage.
- The chairs were arranged in a circle to facilitate discussions.
- Water jugs and glasses were available for the informants.

There were no disturbances in the room. A sign on the door indicated that interviews were in process. Before the interview, the researcher

- thanked the informants for their time and willingness to participate in the study
- reminded the informants about the consent form they had signed and emphasised that they were free to withdraw from the study if they wished

- asked permission to record the interview
- explained again that informants should talk freely but allow each other time to talk
- reminded them that they should say what they said in the way that they knew and had experienced the phenomenon under study, there were no right or wrong answers, but all information would be taken as it is and no changes made in what they said
- explained the purpose of the focus group as simply as possible

During the interviews the researcher was sensitive to the needs of the informants and allowed them to talk freely, while encouraging them not to dwell much on issues which had no bearing on the topic (Hunt et al 2000:16).

After each interview the researcher bracketed all information from the group as well as her experiences.

Non-verbal prompts were also used by means of eye contact, listening and leaning forward to encourage the members of a group to talk and reflect on their practices during pregnancy. After the interview the researcher reminded the informants that, as discussed and agreed upon, a second interview would be held to confirm the data and they should also feel free to say whatever they deemed necessary regarding the phenomenon under study until data saturation had been reached (Holloway & Wheeler 1996:165; Streubert & Carpenter 1995:45).

Notes were taken during the interview regarding any probing questions the researcher wanted to ask. After the raw data was collected, it was read and prepared for analysis. The analysis began from the time the researcher listened to descriptions of the phenomenon (Streubert & Carpenter 1995:45).

3.6 DATA ANALYSIS PHASE

The data collected in the empirical phase was not reported in raw form, it was summarised and subjected to analysis (Brink 1999:60).

Important leads were identified in the early phases of data analysis and pursued by asking new questions. As stated earlier, qualitative research is an emergent design, which means that it is an

ongoing research activity. It is also primarily inductive because analysis begins after a researcher has accumulated a subset of data to provide an opportunity for the salient aspects of the phenomenon under study to begin to emerge. Therefore the researcher builds more data on the data first collected.

All the focus group discussions were conducted in Sesotho, because not all the members of the groups were literate and all preferred to be interviewed in Sesotho. During data analysis, all information in the field notes, together with the recorded information, was read and listened to. The Sotho version of all the interviews was translated into English.

The data was therefore translated into English before being analysed. The information in English was then read and re-read. In the process of reading, coding of the data was done using colour codes (i.e. manually). Sometimes two topics emerged in a response. In that case different colour codes were used in one interview response. This made it difficult to index the data. Data was then indexed under a certain theme, and in another theme a reference was made to the previous theme (Field & Morse 1990:96-103; Polit & Hungler 1991:500-503; Shi 1997:138).

The data was analysed with the help of the supervisor and joint supervisor.

3.7 TRUSTWORTHINESS OF THE DATA

Lincoln and Guba (1985) and Krefting (1990) describe trustworthiness as the truth value of the findings of the study.

Brink (1999:124) states that trustworthiness has to do with the consistency, stability and repeatability of the informants' accounts as well as the investigator's ability to collect and record information.

In this study, the trustworthiness of the data collected was established through credibility, reflectivity, interview technique, the authority of the researcher and referential adequacy, structural coherence, transferability, dependability and confirmability.

3.7.1 Credibility

Marshall and Rossman (1995:143) define credibility as “an act of conducting inquiry in such a manner as to ensure that participants were identified and described for the study to show that the inquiry is credible to the constructors of the original multiple realities”. In this study, the researcher ensured credibility by choosing pregnant Sotho women as the study population. The researcher also allowed a colleague to determine whether the findings of the study are credible to the people under study (Brink 1990:124). The participants were also allowed to see the drafted versions of the data collected from them, because credibility is demonstrated when participants confirm that the reported research findings are their own experiences (Streubert & Carpenter 1995:314). In this study, the informants agreed that the information is true and traditional birth attendants were also interviewed to confirm the written data.

Prolonged engagement with the informants increases the credibility of the findings. In this study, the researcher worked at the clinic for a long time during redeployment and had the chance to engage with the informants (Polit & Hungler 1995:362; Streubert & Carpenter 1995:25). She worked at the clinic in 1997 while engaged in her master’s studies and continued with the initial contact with the informants as well as the actual data collection with the same informants in 2000. The literature review was conducted for two years.

3.7.2 Reflectivity

The researcher was reflective in order to monitor the process of data collection and analysis. The researcher was aware of her assumptions and values throughout the research process. She remained objective during the research process and could analyse the data collected without bias.

3.7.3 Interview technique

The researcher developed a broad opening question to be asked before she developed an interview guide. The broad question was asked, followed by themes in an interview guide. An unstructured questionnaire was designed. During the interviews, questions asked were open and unstructured. The supervisors checked the questions before the fieldwork was done.

3.7.4 The researcher's authority and referential adequacy

The researcher's competence, training background and experience contributed to the credibility of the research. As a facilitator, a psychiatric nurse and a nurse educator, the researcher was able to conduct focus group interviews. The researcher is competent in transcribing and analysing conversations because of her experience as a psychiatric nurse.

3.7.5 Structural coherence

Structural coherence means that there are no inconsistencies between the data and its interpretations. In this study, the Sotho interviews were transcribed in Sesotho. These were then translated into English. A professional editor edited the content to ensure dependability and confirmability.

3.7.6 Transferability

According to Marshall and Rossman (1995:143), transferability is a process of demonstrating the applicability of one set of findings to another context. Streubert and Carpenter (1995:318) define transferability as a term used in qualitative research to demonstrate the probability that the research findings have meaning to others in similar situations. Transferability is also called *fittingness*. However, in this study transferability is impossible as this is qualitative research in which generalisability is not always possible.

3.7.7 Dependability

Marshall and Rossman (1995:145) state that "dependability is a construct in which a researcher attempts to account for changing conditions in the phenomenon chosen for study as well as changes in the design". In order to make the findings of this study dependable, changes were made in the design, especially in sampling. Traditional birth attendants were included in the study in order to confirm the data obtained from the antenatal women and because the traditional birth attendants are experts in the practice of their customs. Hence confirmability of the findings was guaranteed (Brink 1995:125; Denzin & Lincoln 1994:439; Lincoln & Guba 1985:316-318; Marshall & Rossman 1995:145).

According to Streubert and Carpenter (1995:314), dependability is a criterion used to measure trustworthiness in qualitative research, and this criterion is met by securing credibility of the findings.

3.7.8 Confirmability

Confirmability is a criterion for evaluating data quality. It occurs when two or more people independent people agree that the data is similar, and means that the findings are free from bias (Polit & Hungler 1995:363). In this study, confirmability was established by verifying with the clinic sister that the data documented is truly the informants' narrations. There was an agreement between the researcher and the clinic sister that the data is similar, which is referred to as neutrality according to (Polit & Hungler 1995:363). It means that the findings are free from bias. In qualitative research, neutrality refers to the data neutrality and not the researcher's neutrality.

The purpose of confirmability is to illustrate the evidence and thought processes that another researcher's conclusions give the same conclusions in the research context (Streubert & Carpenter 1995:26). Holloway and Wheeler (1996:168) cite Robson's (1993) suggestion that the following auditing criteria has to be utilised for examining the information of the study:

- The raw data, namely tape recordings, field notes and diaries.
- Findings of the study through data analysis.
- How the significant statements, themes, codes and categories were reconstructed.
- The research process, designs and procedures used.
- The early intentions of the study, such as proposal and expectations.
- The development of the data collection instrument, such as an interview guide as well as unstructured questions.

Confirmability occurs with the presence of credibility, transferability and dependability (Holloway & Wheeler 1996:169). The researcher used the following auditing criteria:

- The raw data of the narrative conversations and the audiotapes was collected.
- The raw data was analysed at an early stage of data collection and at the analysis phase.

- The researcher carefully planned each phase of the research process, for instance research design, sampling design and data collection process.
- She developed an interview guide which was used at the initial stages of data collection after a broad question was asked.
- Later, as the interview took shape from the informants' responses, an unstructured questionnaire was developed.
- The researcher made sure that the conclusions of the study's findings were supported by the analysed data.

The data collected was also confirmed by interviewing the traditional birth attendants in order to clarify aspects of the data.

Table 3.1 below represents a structural outline of the strategies and applications of methods in the research process to ensure trustworthiness.

STRATEGY	CRITERIA	APPLICATION BY RESEARCHER
Credibility	Reflectivity	<ul style="list-style-type: none"> • Bracketing and intuiting in each phase of the research process.
	Prolonged engagement	<ul style="list-style-type: none"> • Involved with the phenomenon since 1997. • Involved for three years with literature review and • trusting relationship with the informants.
	Authority of the researcher and referential adequacy	<ul style="list-style-type: none"> • Psychiatric nurse well acquainted with group interviews and group facilitation. • A facilitator of group discussions at Potchefstroom University. • Involved with the phenomenon since 1997.
	Informants' debriefing	<ul style="list-style-type: none"> • All drafted information was checked with informants for correctness and truth value.
	Interview technique	<ul style="list-style-type: none"> • Interview guide and questionnaire checked by supervisors first before actual data collection.

STRATEGY	CRITERIA	APPLICATION BY RESEARCHER
	Structural coherence	<ul style="list-style-type: none"> Recorded and transcribed the interviews. Translation of Sotho interviews into English. Supervisors checked all data chunks in English and saw the Sotho version of the interviews. Editing was done by a professional editor.
Transferability	Purposeful sampling	<ul style="list-style-type: none"> Sample was purposeful and experts with knowledge were chosen.
Dependability	Stepwise replication	<ul style="list-style-type: none"> Traditional birth attendants were interviewed in order to confirm the data collected from the informants and to clarify certain issues. Data was written and recorded.
Confirmability	Confirmability occurs with: <ul style="list-style-type: none"> credibility transferability dependability 	<ul style="list-style-type: none"> The research project proved confirmable through credibility, transferability and dependability. Conclusions and interpretations were derived directly from the data.

3.8 ETHICAL ISSUES IN COLLECTING DATA

Cormack (1991:30) states that the first duty of the researcher is to ensure that the researcher shall do the participants no harm. Human rights in nursing research should be protected as in any other nursing intervention. The participants' right to privacy, self-determination and freedom to withdraw at any time from the study were considered in this study (Cormack 1991:31-34). The researcher observed the following ethical issues in this study.

3.1.8 Principle of beneficence

With this principle the researcher kept the principle of no harm in mind. It is also the most fundamental ethical principle in any research.

3.8.1.1 Freedom from harm

Although physical harm was not considered, psychological harm was a possibility in the sense that if the informants were not prepared for the fact that they could be interviewed twice or, if need be, requested to clarify certain issues in the information they had given, this could harm them psychologically. The researcher also told the informants that if they did not wish to continue with the study they could withdraw at any time (Polit & Hungler 1995:120).

3.8.1.2 Freedom from exploitation

All informants who took part in the study were purposefully selected because of their expert knowledge, not because of their vulnerability. Freedom from exploitation in this study is also equated with the principle of justice in the sense that the researcher considered the fact that the informants were not selected unfairly.

3.8.2 Principle of respect for human dignity

Respect for human dignity included observing the right to self-determination in the sense that the informants were made aware that they had freedom of choice to participate or to withdraw from the study at any time if they so wished. The researcher would respect their person and their wishes.

3.8.2.1 The right to self-determination

The participants had the right to choose to participate or not. The researcher approached the informants purposefully and no remuneration was offered. This meant that the informants volunteered to participate in the study after being approached by the researcher. Written consent and an agreement were signed prior the interviews as well as the declaration letter by the researcher (see annexures C and D). Informants who did not participate were not threatened or intimidated. Permission was asked to record the interviews (Polit & Hungler 1995:122).

3.8.2.2 The right to full disclosure

Full disclosure means that the nature of the study was fully explained to the informants. Self-determination depends on full disclosure. The research question, aim and purpose were discussed

with the informants who agreed to participate. The nature of the study, time, commitment and involvement of the informants were explained. The drafted version of the data was read to the informants to increase the trustworthiness of the data.

3.8.3 The principle of justice

Justice includes the right to fair treatment and to privacy.

3.8.3.1 The right to fair treatment

Fair treatment entails that the informants were selected on the basis of the requirements of the research questions. It entails non-prejudicial treatment of individuals who decline to participate in or withdraw from the study (Polit & Hungler 1995:124).

3.8.3.2 The right to privacy

Anonymity occurs when the researcher cannot link the information with the informants, thus anonymity with qualitative research should be ensured by assigning labels to the informants and not actually writing the informants' names down. During the study informants were assured of privacy. The promise of confidentiality was guaranteed, and information was not publicly reported in a way that the informants' identity was exposed. Confidentiality was ensured verbally and in the informed consent.

Confidentiality was ensured in the following ways:

- Private data identifying the informants was not reported. For example, "A woman at 37 weeks' gestation, living near the clinic reported that ...". If any information potentially recognisable to others is published, permission from the informant should be obtained. Quotes were written in this study, but any information that would jeopardise the anonymity of the informants was removed.
- The investigator made it clear to the informants before interviewing them who would have access to the information after completion of the study, namely the researcher's supervisor and joint supervisor, the sister involved with perinatal care at the clinic, as well as the primary

health care authorities on request, and lastly Unisa students who access the information from the library (Kvale 1996:38-40).

- No names were attached to the tapes and files.
- Interviews were not published and only meaning units were utilised in data presentation (Polit & Hungler 1995:125-126).

3.8.4 Informed consent

The researcher informed the participants about the overall purpose of investigating their beliefs and practices during pregnancy (see annexure C). The main features of the design were discussed, including freedom of choice, the use of technical devices and follow-up interviews to obtain the information from them.

Voluntary participation of the informants with their right to withdraw from the study at any time was emphasised (Kvale 1996:112). The informants themselves gave consent (see annexure C).

3.8.5 Honesty and integrity

Honesty ensured that the informants saw all the draft versions of the report during data analysis (De Raeve 1996:38-40). Kvale (1996:117) states that the researcher's moral behaviour is more than ethical knowledge and cognitive choices. It involves the researcher as a person as well as sensitivity and commitment to moral issues and action, which makes for integrity.

3.8.6 The role of the researcher

The researcher is the instrument and the main source of data collection (see section 3.6).

As indicated above, the researcher's moral behaviour involves the researcher as a person who has to be sensitive and committed to honesty and integrity. Therefore data collection and recording was done as honestly as possible. As an active participant, the researcher was aware that her presence might trigger a variety of reactions from the respondents, such as psychological factors like informants' responding according to what they thought the researcher expected, and not for the

sake of truth. This was counteracted by explaining to the respondents that they should say what they know the way they know it (Bulmer & Warwick 1993:208-213).

During an interview, the researcher is the main instrument for obtaining knowledge and has to understand the ethical guidelines for decision-making with regard to the sampling criteria. Informants should not just be chosen because of their vulnerability. They have to be chosen because of their expert knowledge. In this study, the researcher was therefore fair and honest during sampling since informants were not chosen because of their vulnerability, but because they had expert knowledge of their own beliefs and practices during pregnancy (Kvale 1996:117).

3.8.7 Consequences of the interview

The researcher took the principle of beneficence into account in the sense that the study conducted should benefit the informants and the target population (Kvale 1996:116-117). This is true in the case of this study because understanding the beliefs and practices of Sotho antenatal patients might lead to respect for this particular group's beliefs as upheld by the South African Constitution.

3.9 PERMISSION TO DO THE STUDY

A letter requesting permission to conduct the study was sent to the General Manager of Eastern Free State Health Complex who, in turn, forwarded the letter to the District Manager of DC 19 (see annexure A).

Telephonic arrangements were made with professional nurses at Bolata Clinic. The persons in charge of the clinic and perinatal care were contacted to request permission to do the study at the clinic and to help identify informants during antenatal visits.

3.10 THE GEOGRAPHICAL AREA

The geographical area is Bolata Village in Qwa-Qwa. Qwa-Qwa is a former self-governing state and a partly rural area. In Qwa-Qwa there are townships, elite areas and villages, Bolata Village is

situated in Western Qwa-Qwa in the Eastern Free State. People living in this area are rural people (see figure 3.1).

There is a clinic in the area, which serves the people in the surrounding areas. The clinic offers antenatal care, well baby clinic, TB clinic, psychiatric services, and assessment of minor ailments and chronic conditions, including diabetes and hypertension clinic.

A supermarket system (all clinics done on a daily basis) is done for all services except antenatal, well baby and psychiatric services. Antenatal services are offered on Wednesdays. The study was conducted at Bolata Clinic, where the respondents attend antenatal care.

3.11 CONCLUSION

This chapter dealt with the methods and procedures in the study and the role of the researcher as the main instrument for data collection. Ethical issues in data collection and sampling techniques were described. Chapter 4 discusses the data analysis and interpretation.



Figure 3.1
Map of Phuthadjithaba (Owa-Qwa)