Chapter 3

Research design and methodology

3.1   INTRODUCTION

This chapter covers an overview of methodology used in the study. The discussion in the chapter is structured around the research design, population sampling, data collection and data analysis. Ethical considerations and measures to provide trustworthiness are also discussed.

3.2   DEFINITION OF METHODOLOGY

According to Polit and Hungler (2004:233), *methodology* refers to ways of obtaining, organising and analysing data. Methodology decisions depend on the nature of the research question. Methodology in research can be considered to be the theory of correct scientific decisions (Karfman as cited in Mouton & Marais 1996:16).

In this study methodology refers to how the research was done and its logical sequence. The main focus of this study was the exploration and description of the experiences of registered nurses involved in the termination of pregnancy, therefore the research approach was qualitative.

Mouton (1996:35) describes methodology as the means or methods of doing something. According to Burns and Grove (2003:488), methodology includes the design, setting, sample, methodological limitations, and the data collection and analysis techniques in a study. Henning (2004:36) describes methodology as coherent group of methods that complement one another and that have the ability to fit to deliver data and findings that will reflect the research question and suit the researcher purpose. According to Holloway (2005:293), methodology means a framework of theories and principles on which methods and procedures are based.

Qualitative methodology is dialectic and interpretive. During the interaction between the researcher and the research participants, the participants' world is discovered and interpreted by means of qualitative method (De Vos 2002:360).

In this study the researcher employed phenomenological methodology. Phenomenology is a science whose purpose is to describe particular phenomena, or the appearance of things, as lived experiences (Streubert & Carpenter 2002:56). However, phenomenological research methodology is difficult to explain because it has no clearly defined steps. Phenomenologists are of the opinion that the clear definition of methodology tends to limit researcher's creativity (Burns & Grove 2003:360). The concept of *phenomenology* is described in section 3.6.

3.3   LITERATURE STUDY

There are different views as to when a literature study should be conducted in a qualitative study (Talbot 1995:430). Qualitative review can be done either before or after data collection. Researchers who feel that the review should be done before data collection, motivate their view by stating that prior literature review justifies the study, puts it into context and also acquaints the researcher with the phenomenon under study. Other researchers feel that the literature review should be done after data collection to avoid the researcher being influenced by prior thoughts on the topic (Polit & Hungler 2004:56).

In this study the researcher submitted a literature review before submitting the proposal, which was a prerequisite for the commencement of the study. The reason was to obtain more background knowledge about the phenomenon under investigation, after which a more detailed review was undertaken to orientate the researcher with respect to the experiences of registered nurses involved in TOP. This data was used to construct and adapt the conceptual phase, and to formulate the criteria for the study.

The literature study sensitised the researcher to the relevant content in the literature. After the research findings have been analysed and interpreted, they can be related to the existing knowledge in the literature about the phenomenon under study (Talbot 1995:430).

3.4   ASSUMPTIONS

Assumptions in this study were discussed in detail in chapter 1, section 1.7.

3.5   RESEARCH DESIGN

The present study is an exploratory, descriptive and contextual qualitative study in reproductive health. The researcher employed a phenomenological research design and methodology to achieve the objectives of this study.

3.5.1 Qualitative research

Qualitative research refers to inductive, holistic, emic, subjective and process- oriented methods used to understand, interpret, describe and develop a theory on a phenomena or setting. It is a systematic, subjective approach used to describe life experiences and give them meaning (Burns & Grove 2003:356; Morse & Field 1996:1999). Qualitative research is mostly associated with words, language and experiences rather than measurements, statistics and numerical figures.

Researchers who use qualitative research adapt a person-centred and holistic perspective to understand the human experience, without focusing on specific concepts. The original context of the experience is unique, and rich knowledge and insight can be generated in depth to present a lively picture of the participants' reality and social context. These events and circumstances are important to the researcher (Holloway 2005:4).

Regarding the generation of knowledge, qualitative research is characterised as developmental and dynamic, and does not use formal structured instruments (Holloway 2005:4-6). It involves the systematic collection and analysis of subjective narrative data in an organised and intuitive fashion to identify the characteristics and the significance of human experience (Holloway 2005:47-51).

Qualitative researchers are concerned with the 'emic' perspective to explore the ideas and perceptions of the participants. The researcher tries to examine the experience from the participant's point of view in order to interpret his/her words. The researcher

therefore becomes involved and immersed in the phenomenon to become familiar with it. The immersion of the researcher helps to provide dense descriptions from the narrative data gathered from the participants, to interpret and portray their experiences, and to generate empathetic and experiential understanding. However, immersion cannot be obtained without a researcher-participant trusting relationship. The relationship is built through basic interviewing and interpersonal skills.

3.5.1.1 Attributes of qualitative research

Qualitative research adopts a person-centred and holistic perspective. It develops an understanding of people's opinions about their lives and the lives of others. It also helps the researcher to generate an in-depth account that will present a lively picture of the research participants' reality **(**Holloway 2005:5). In qualitative research, the researcher is required to be a good listener, non-judgmental, friendly, honest and flexible. Qualitative research is a form of content analysis covering a spectrum of approaches ranging from empirical phenomenological psychology to hermeneutical-phenomenological psychology, depending on the data source (Van der Wal 1999:55).

When working with the registered nurses, the researcher did not pressurise them to describe how they experience being involved in TOP, but allowed them ample time to respond in a way they felt suitable.

Qualitative data collection methods are flexible and unstructured, capturing verbatim reports or observable characteristics and yielding data that usually do not take numerical form. Words, films, postcards, art and all sensory data are considered qualitative data unless they are transformed into some numerical system (Brink & Wood 1998:5).

Special characteristics of qualitative research are that it:

- uses an inductive form of reasoning: develops concepts, insights and understanding from patterns in the data
- uses the emic perspective of enquiry: derives meaning from the participants' perspective
- is ideographic: aims to understand the meaning that people attach to everyday life
- regards reality as subjective

43

- captures and discovers meaning once the researcher becomes immersed in the data
- uses concepts in the form of themes, motifs and categories
- seeks to understand phenomena
- determines observations by information-richness of settings, and modifies types of observations to enrich understanding
- presents data in the form of words, quotes from documents and transcripts
- analyses data by extracting themes
- uses a holistic unit of analysis, concentrating on the relationships between elements, concepts and so on
- uses words as the basis for analysing rather than numerical data
- considers that the whole is always more than the sum

(Brink & Wood 1998:246; Burns & Grove 2003:357)

3.5.1.2 Indication for the use of qualitative research

Qualitative research is a tool with which researchers can examine the context of existing gestalt or sedimented views. The concept of gestalt is closely related to holism. The view proposes that knowledge about a particular phenomenon is organised into a cluster of linked ideas or gestalt (Burns & Grove 2003:19; Brink & Wood 1998:339). A theory is a cluster of linked ideas that explain a phenomenon. The purpose of a qualitative research approach is to form new gestalts in order to generate new theories. It is important that the researcher be open to new perceptions (new gestalts) being formed from information received during the research process (Burns & Grove 2003:19). Qualitative research identifies the characteristics and the significance of human experiences as described by participants and interpreted by the researcher at various levels of abstractions. In qualitative research, the researcher's interpretations are *inter-subjective*; that is, given the researcher's frame of reference, another person can come to similar interpretations. Qualitative data are processed through the researcher's creative abstractions and the participant's descriptions are studied to uncover the meaning of human experiences (such as registered nurses' experiences of being involved in TOP).

Miles and Huberman (1994:4) state that the general reasons for conducting qualitative research are description and hypothesis generation. Description is done when little is known about the phenomenon under study. Little is known about the experiences of registered nurses involved in TOP. Hypothesis generation is done when the researcher's

qualitative research does not have a priori hypotheses. Qualitative inquiry might, however, elicit appropriate hypotheses. The present study did not bring a priori hypotheses, only a guiding question (Van der Wal 1999:56).

3.5.1.3 Advantages of qualitative research for this study

Qualitative research has the following advantages:

- Qualitative research is a means to understanding human emotions such as rejection, pain, caring, powerlessness, anger and effort.
- Since human emotions are difficult to quantify (have a numerical value assigned to them), qualitative research appears to be a more effective method of investigating emotional responses than quantitative research.
- In addition, qualitative research focuses on understanding the whole, which is consistent with the philosophy of nursing.
- Abstract thinking processes are used to develop research findings from which meaning and theoretical implications emerge.
- The research design is flexible and unique and involves throughout the research process (Brink & Wood 1998:246; Burns & Grove 2003:374-374).

3.5.1.4 The research phases

There were three phases in the research process for this study. These are described briefly below.

The first phase

The *conceptual* phase was characterised by formulation of the research question, the objectives and the purpose of the study. Then a literature review was done to become familiar with the content of the literature. In order to clear any preconceived ideas about the phenomenon, the researcher did bracketing.

The second phase

This involved the *research design and planning* of the study. The researcher was the data collection instrument, and the sample was the participants who met the eligibility criteria. A non-probability sampling design and purposive sampling were used.

The third phase

The *empirical* part of a research study involved the actual data collection, analysis and interpretation of data. The data collection occurred using an unstructured interview with each of the participants. Field notes were made during the interview. Data analysis started as soon as the first interview had been obtained.

3.5.2 Dimensions of the research design

In this study, the researcher used an exploratory, descriptive and contextual qualitative research design.

3.5.2.1 Exploratory research

3.5.2.1.1 Definition

According to *Collins Cobuild English Dictionary for Advanced Learners* (2001:540), "exploratory actions are done in order to discover something or to learn the truth about something." Burns and Grove (2003:313) define *exploratory research* as research conducted to gain new insights, discover new ideas and/or increase knowledge of a phenomenon.

3.5.2.1.2 Reason for using exploratory method

In this study, the researcher selected the exploratory method to gain new insights, discover new ideas and/or increase knowledge of experience of being involved in TOP. The researcher therefore entered the research field with curiosity from the point of not knowing and to provide new data regarding the phenomena in the context (Burns & Grove 2003:313; Cresswell 1994:145).

3.5.2.2   Descriptive research

3.5.2.2.1   Definition

Descriptive research refers to research studies that have as their main objective the accurate portrayal of the characteristics of persons, situations or groups (Polit & Hungler 2004:716). This approach is used to describe variables rather than to test a predicted relationship between variables. In this study, "descriptive" refers to the descriptive aspect of phenomenology described in section 3.6.4.

3.5.2.2.2   Reason for using the descriptive method

In this study, "descriptive" refers to the experiential meaning of being involved with women in need of termination services. The descriptive approach was adopted for collecting data of experiences of registered nurses involved in TOP at Soshanguve Community Health Centre (SCHC).

3.5.2.2.3   Advantages of descriptive approach for this study

A descriptive approach in data collection in qualitative research gives the ability to collect accurate data on and provide a clear picture of the phenomenon under study (Mouton & Marais 1996:43-44). In the present study, the descriptive approach was particularly appropriate because an accurate and authentic description was required of the experiences of registered nurses involved in TOP at SCHC.

Streubert Speziale and Carpenter (2003:22) state that a descriptive method in data collection in qualitative research is central to open, unstructured qualitative research interview investigations. This means that the researcher facilitated the registered nurses' descriptions of their experiences of being involved in TOPs by applying and intuiting, so that the phenomena under study could unfold without unnecessary hindrances (see sections 3.6.6.1 and 3.6.6.2).

3.5.2.3 *Contextual research*

In a *contextual research* strategy, the phenomenon is studied for its intrinsic and immediate contextual significance (Mouton 1998:133). Burns and Grove (2003:32) point out that contextual studies focus on specific events in "naturalistic settings". Naturalistic settings are uncontrolled real-life situations sometimes referred to as field settings. Research done in a natural setting refers to an enquiry done in a setting free from manipulation (Streubert Speziale & Carpenter 2003: 363). This means that this study would be done where TOPs are being performed, in this case at SCHC. In-depth, unstructured, open, qualitative interviews were conducted with the registered nurses. The registered nurses were purposively selected according to the sampling criteria in this study.

3.5.3   Epistemology

Epistemology is the research of philosophy concerned with how individuals determine what is true (Streubert Speziale & Carpenter 2003:362). Mouton (1998:47) states that research done in the epistemological dimension is regarded as the pursuit of valid knowledge (truth). Epistemology is the relationship of researchers to reality and the road that they will follow in the search for truth (De Vos 2002:214). This study explored the "truth" of being involved in TOP. The researcher was committed to "search for truth" in the epistemic imperative. A close relationship exists between epistemology, intentionality and ontology. The focus or definition of intentionality forms the basis for epistemology. Intentionality is a way of knowing reality – an epistemology. It carries the meaning of reality (ontology) as we know it. Ontology is essentially part of the process of constituting a life-world (ontology) (Van der Wal 1999:77).

Linguistic epistemology refers to the way of knowing reality (truth) through the spoken word (linguistic or lingual), i.e. using words to describe an experience. The present study required that registered nurses at SCHC describe their experience of being involved in TOP. Linguistic epistemology made the researcher opt for the open unstructured qualitative interview to investigate the lived experiences of these registered nurses. This choice was also based on the assumption that what people experience, they experience in terms of language.

3.6   PHENOMENOLOGICAL RESEARCH

The phenomenological research approach was the most appropriate to the aim of the study, which was to explore and understand the lived experiences of the registered nurses involved in performing TOPs. Phenomenology aims to gain a deeper understanding of the nature of the meaning of our everyday experiences. The *phenomenological approach* allowed participants, through in-depth interviews, to elicit their own meaning of their experience of being involved in performing TOPs. "Phenomenology aims to describe a person's lived experiences (phenomena) in an attempt to enrich lived experience by drawing out its meaning" (Holloway 2005:47).

In the light of the above, the researcher considered phenomenology the best method and approach in this study.

3.6.1   Definitions

The word *phenomenology* is derived via late Latin from Greek *phainomenon,* from *phainesthai* to appear, from *phainei* to show, and means *philosophy*.

Collins English Dictionary (1991:1168) defines it as follows: "1. the movement founded by Husserl that concentrates on the detailed description of conscious experience, without resources to explanation, metaphysical assumptions, and traditional philosophical questions. 2. the science of phenomena as opposed to the science of being". Thus, phenomenology is an attempt to describe lived experiences without making previous assumptions about the objective reality of those experiences (Holloway 2005:47).

According to Jasper (1994:309), phenomenology considers that the "true meaning of phenomena be explored through the experience of them as described by the individual". Phenomenology is as inductive, descriptive research method. In the present study, the researcher used exploratory, descriptive and contextual designs (see section 3.5.2). The goal of phenomenological research is to describe experiences as they are lived; in other words, the "lived experiences". Phenomenological research further examines the particular experiences of unique individuals in a given situation, thus exploring not what is (reality), but what it is preconceived to be (Burns & Grove 2003:360).

3.6.2   Advantages of phenomenology

In addition to the general advantages of qualitative research, phenomenology has the following advantages:

- It is a highly appropriate approach to researching human experience.
- As a research method, it is a rigorous, critical, systematic investigation of phenomena.

(Streubert Speziale & Carpenter 2003:53)

3.6.3   Indications for the use of phenomenology

The purpose of phenomenological enquiry is to explicate the structure or essence of the lived experiences in the search for meaning that identifies the essence of the phenomena, and its accurate description through every day's lived experience. Qualitative phenomenology is employed for the purpose of:

- clarifying the nature of being human
- expanding awareness about a certain phenomenon
- fostering human responsibility in the construction of realities
- tightening the bond between experiences and the concepts and theories used to explain those experiences

(Streubert Speziale & Carpenter 2003:48)

Most nursing researchers adopt the phenomenological approach because of the nursing profession's philosophical beliefs about people. Nursing also grounds its practice in a holistic belief system that cares for mind, body and spirit (Streubert Speziale & Carpenter 2003:56).

3.6.4   Dimensions of phenomenology

Omery (1983:51) describes Spiegelberg's six types of phenomenology: descriptive phenomenology; phenomenology of essence; constitutive phenomenology; reductive phenomenology; phenomenology of appearances; and hermeneutical phenomenology.

3.6.4.1   Descriptive phenomenology

Spiegelberg (1976:69) defines descriptive phenomenology as "direct exploration, analysis, and description of particular phenomenon, as free as possible from unexamined presuppositions, aiming at maximum intuitive presentation" (Streubert Speziale & Carpenter 2003:60). Descriptive phenomenology stimulates people's perception of lived experiences while emphasising the richness, breadth, and depth of those experiences (Streubert & Carpenter 1999:60). Descriptive phenomenology is a three-step process: (1) intuiting, (2) analysing and (3) describing (Brink & Wood 1998:341) (see section 3.6.6).

3.6.4.2   Phenomenology of essence

Phenomenology of essence involves probing through the data to search for common themes or essences and establishing patterns of relationships shared by particular phenomena. Probing for essences provides a sense of what is essential and what is accidental in the phenomenological description (Streubert Speziale & Carpenter 2003:60). The researcher followed the steps of intuiting, analysing and describing (Streubert Speziale & Carpenter 2003:61).

3.6.4.3   Constitutive phenomenology

Constitutive phenomenology involves studying phenomena as they became established or constituted in people's consciousness. According to Spiegelberg (1975:72), constitutive phenomenology means the process in which the phenomena take shape in people's consciousness as they advance from first impression to full picture of the structure (Streubert Speziale & Carpenter 2003:53). In the present study, this involved the researchers "growth" during the study.

3.6.4.4   Reductive phenomenology

Reductive phenomenology occurs concurrently throughout a phenomenological investigation. The researcher continually deals with personal biases, assumptions and presuppositions, thus brackets or sets aside these beliefs to obtain the purest description of the phenomenon under investigation. Reductive phenomenology detaches the

phenomenon of our everyday experience from the context of our naive or natural living, while preserving the content as fully and as purely as possible. This step is critical for the preservation of objectivity in the phenomenon (Streubert Speziale & Carpenter 2003:62). In this study, the researcher began by identifying presuppositions or assumptions she had about the registered nurses' experiences of being involved in TOP. This process involved self-examination of personal beliefs and acknowledgement that the researcher had gained experience.

Phenomenology reduction is critical if the researcher is to achieve a pure description of the phenomenon. The reductive process is also the basis for postponing any review of literature until the researcher has analysed the data (Streubert Speziale & Carpenter 2003:62).

3.6.4.5 *Phenomenology of appearances*

Phenomenology of appearances involves paying attention to the ways the phenomena appears. The researcher pays attention to or watches the phenomenon under study for ways it appears in different perspectives or modes of clarity; that is, determining the distinct from the haze surrounding it as it unfolds, through dwelling with the data (Streubert Speziale & Carpenter 2003:61). Phenomenology of appearances does not apply to the present research because the researcher did not observe the phenomenon as it unfolded, but only asked the informants to describe their own experiences of the phenomena.

3.6.4.6 *Hermeneutical phenomenology (interpretive)*

Hermeneutical or interpretive phenomenology concentrates on interpreting the meaning in the phenomenon that is concealed, and thus not immediately revealed to direct investigation, analysis and description (Holloway 2005:128). This approach concentrates on the need to study human consciousness by focusing on the world that the study participants subjectively experience. This could indicate immediate probing during the interviews.

3.6.5   Procedural steps

In this study, the researcher used Streubert's (1991) procedural steps (Streubert Speziale & Carpenter 2003:64):

(1)   Explicate a personal description of the phenomenon of interest.

(2)   Bracket the researcher's presuppositions.

(3)   Carefully read the interview transcripts to obtain a general sense of the experience.

(4)   Review the transcripts to uncover essences.

(5)   Apprehend essential relationships.

(6)   Develop formalised descriptions of the phenomenon.

(7)   Review the relevant literature (literature control).

(8)   Distribute the findings to the nursing community.

3.6.6   Special strategies in phenomenology

Descriptive phenomenology involves the following four strategies: intuiting; bracketing; analysing; and describing.

3.6.6.1 Intuiting

"*Intuiting* is a process of thinking through the data so that a true comprehensive or accurate interpretation of what is meant in a particular description is achieved" (Streubert Speziale & Carpenter 2003:54). In intuiting, researchers become absorbed in the phenomenon, looking at it afresh, without layering it with what they have bracketed out. Concentration is very important here because the involvement is intense (Brink & Wood 1998:301). Intuiting results in a common understanding about the phenomenon under investigation (Streubert Speziale & Carpenter 2003:60).

Through the intuitive process, the researcher acquired an understanding of the phenomenon of involvement in TOP as described by registered nurses at SCHC. During the interviews the researcher encouraged knowledge generation by using facilitative techniques such as open-ended clarifying questions, and refrained from leading questions (Streubert Speziale & Carpenter 2003:28).

3.6.6.2 Bracketing

Bracketing refers to the process of holding assumptions and presuppositions in suspension to improve the rigour of the research (Holloway 2005:289). This means that researchers explore their own assumptions and preconceptions in order to set them aside or keep them in suspension, rather than conceal them, so that they do not interfere with the information given by the participants. The bracketing process is crucial throughout the research process, especially during data analysis. Bracketing requires the researcher to remain neutral with respect to belief or disbelief in the existence of the phenomenon (Streubert Speziale & Carpenter 2003:55).

The researcher thus had to first identify any preconceived ideas about registered nurses involved in TOP (Streubert Speziale & Carpenter 2003:22). Then the researcher had to suspend any knowledge she might have about the registered nurses' experiences to prevent this information from interfering with the recovery of a pure description of the phenomenon (TOP involvement). This would allow the "truth" to show itself and would determine the trustworthiness of the results.

3.6.6.3 Analysing

Phenomenological *analysing* involves identifying the essence of the phenomenon under investigation, based on the data obtained and on how the data are presented. At this point the researcher listens to, compares and contrasts descriptions of the phenomenon under study. This allows for the identification of recurring themes and interrelationships (Brink & Wood 1998:20).

As the researcher listened to the descriptions of the experience of being involved in TOP and dealt with the data, common themes or essences began to emerge.

3.6.6.4 Describing

Describing is the final step and the aim is to communicate and describe (in writing and verbally) distinct, critical elements of the phenomenon, thereby communicating to others what the researcher has found (Brink & Wood 1998:23).

The researcher must avoid attempting to describe a phenomenon prematurely. Premature description is a common methodological error associated with this type of research (Streubert Speziale & Carpenter 2003:61). In this study, phenomenological describing involved classifying all critical elements of essences common to the lived experience of being involved in TOP and describing these essences in detail.

3.7   CONCEPTUAL PHASE

The conceptual phase included the thoughts, readings and questions the researcher had about the phenomenon under study.

3.7.1 Background to the problem

The researcher has been employed at SCHC since 1991 as a primary health care practitioner. Since the year 2000 the researcher has been responsible for student training and staff development. The researcher must thus ensure that the staff members are kept up to date with the latest developments in primary health care, including termination of pregnancy. TOP services were implemented in September 2001 at SCHC. Of the five registered nurses trained for TOP at the clinic, only three are actively involved in performing termination, since the other two have psychological trauma attributed to termination procedures.

Invitations for training and counselling in TOP are often received at the clinic and staff members are informed, but there is usually little or no response. Because of the lack of interest in TOP training, the researcher became interested in the phenomenon. An interview with a registered nurse in charge of the SCHC revealed that registered nurses at the clinic were opposed to TOP and that those who were involved appeared to be strained due to the high demand. The researcher was then interested in investigating the experiences of registered nurses involved in termination of pregnancy at Soshanguve Community Health Centre.

3.7.2   Research question and objectives

The exposure to the above-mentioned background led to the research question of the phenomenon under investigation:

What are the experiences of the registered nurses who participate in the procedure of termination of pregnancy at Soshanguve Community Health Service?

The research objectives were formulated to

- describe the experiences of registered nurses involved in termination of pregnancy at Soshanguve Community Health Services
- gain an understanding of their experiences
- explain how registered nurses were coping when actively involved in TOP procedures

3.8   POPULATION AND SAMPLING

3.8.1   Population

The *population* includes all elements that meet certain criteria for inclusion in a study (Burns & Grove 2003:43). For the purpose of this study the population consisted of all the registered nurses employed at Soshanguve Community Health Services.

3.8.2   Sampling approach

A non-probability purposive sampling design was used for the study. The participants met the eligibility criteria as described in 3.8.3 participants were contacted, the purpose of the study explained and agreement to participate obtained. The researcher chose the participants because of a need for experts in TOP (Polit & Hungler 2004:294).

The size of the sample was controlled by saturation of information, which means the point at which repetition or confirmation of previously collected data occurs, thus there was no specific number of participants (Streubert Speziale & Carpenter 2003:25).

The design was also chosen because the researcher wanted to develop a rich or dense description of experiences regarding TOP, rather than using sampling techniques that

support general data (Streubert Speziale & Carpenter 2003:25). Purposive design provided cases rich in information for in-depth study.

3.8.3 Inclusion/eligibility criteria and site sampling

The *sample* is a subset of population selected to participate in a research study. It defines the selected groups of elements, that is, individuals, groups or organisations. The sample is chosen from the study population that is commonly referred to as the 'target population or accessible population' (Burns & Grove 2003:233; Polit & Hungler 2004:290). In this study, the sample consisted of registered nurses at SCHC involved in TOP.

The participants that were chosen met the eligibility criteria set for the study. *Eligibility criteria* are the reason or criteria for including the sample in the study (Polit & Hungler 2004:290). The eligibility criteria of this study require the registered nurse to

- be trained in TOP management
- have worked in TOP services at SCHC clinic 3 (the TOP unit) for more than one year

3.8.4 Exclusion criteria

All registered nurses at SCHC not working in a TOP unit and all registered nurses with less than one year working experience in the unit were excluded. The reason for exclusion is that they may not have gained enough experience of being involved in TOP.

3.9 DATA COLLECTION

Data gathering is the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observation, focus group discussion, narratives and case histories (Burns & Grove 2003:373).

The empirical phase, which involves the actual collection of data, is followed by preparation for data analysis (Polit & Hungler 2004:51). Data collection begins with the researcher deciding from where and from whom data will be collected (Talbot 1995:472). The researcher was the main research tool or primary instrument (Streubert Speziale &

Carpenter 2003:18). The data collection was reflective to give the participants the opportunity to reflectively express their experience. In this study the collection of raw data from participants took place in one stage.

3.9.1 Interviewing

Interviewing refers to structured or unstructured verbal communication between the researcher and the participants, in which information is presented to the researcher.

In this study, data was gathered by interviewing research participants in a quiet environment, free from disturbances, and where they felt safe. Interviews were held in a specific room within the health service or at their respective homes. Interviews were conducted individually for 30 to 40 minutes.

The researcher followed the following steps with each interview:

(1)   made an appointment with each participant at a time which suited them

(2)   created a quiet room conducive to conversation

(3)   arranged chairs to enhance face-to-face interviewing

(4)   prepared a tape recorder

(5)   had a jar of water available

Before the researcher conducted each interview, she:

(1)   thanked the participant for the time and willingness to be part of the study

(2)   reminded the participant about the agreement

(3)   explained that the interview was to be unstructured and that probing questions would be determined by the information given by the participant

(4)   asked permission to record the interview

(Talbot 1995:477)

3.9.1.1 In-depth interviewing

Marshall and Rossman (1999:112) describe phenomenological interviews as a specific type of in-depth interviewing grounded in the theoretical tradition of phenomenology.

There is a relationship between the philosophical tradition and the method, which distinguishes this interview from other forms. The distinction is clearly in the relationship between the researcher and the participants, as this moves from observational in quantitative research to dialogue in qualitative research, and then to reflective in phenomenological research. Such reflectivity appears to acknowledge that the researcher is an important component in the research process. The reference to bracketing presupposes that it is the researcher who is 'contaminating' the data. This essential phenomenological reduction or bracketing is undertaken to suspend belief so that preconceptions can be put aside and the 'true' phenomenon or essence be revealed in its 'true' form to the phenomenologist (Crotty 1996:87).

3.9.1.2 Open unstructured interviews

Open unstructured interviewing is considered the main method of data collection in phenomenological research as it provides a situation where the participants' descriptions can be explored, illuminated and gently probed (Kvale 1996:89). The open unstructured interview in phenomenological studies is intended to be in-depth (Burns & Grove 2003:284). De Vos (2002:302) states, the aim of the unstructured interview is "to actively enter the world of people and to render those worlds understandable from the standpoint of a theory that is grounded in behaviours, languages, definitions, attitudes and feelings of those studied". No questions are deliberately formulated. According to Hallet (1999:56), this approach reflects the open and accepting style of interviewing that seeks to elicit the genuine views and feelings of participants. This may be difficult to achieve though, if the process has a predetermined structure .The common ground in phenomenological interviews is that by their nature the interviews put the researcher in the role of the research instrument "through which data are collected" (De Vos 2002:301). In open unstructured interviews, the researcher may use reasonable guidelines to prevent the participants from feeling that they are being "cross-examined" on a topic (Burns & Grove 2003:285).

3.9.1.3 Advantages of interviews

Interviews have the following advantages (Burns & Grove 2003:285; De Vos 2002:302):

- Interviewing is a flexible technique that allows the researcher to explore greater depth of meaning than can be obtained with other techniques.

- Interpersonal skills can be used to facilitate co-operation and elicit more information.

- There is a higher response rate to interviews than questionnaires, leading to a complete description of the phenomenon under study by the participants.

- Interviews allow collection of data from participants unable or unlikely to complete questionnaires, such as those whose reading, writing and ability to express themselves is marginal.

3.9.2 Becoming acquainted: the relationship

Initially, interviews and interviewees are strangers to each other. Interviewees tend to be uncertain, self-conscious and overly critical. Interviewers are intent on projecting themselves in a way that will evoke the least resistance in the interviewee. As first impressions are usually lasting impressions, this phase determines whether a person will agree to an interview or not. Particulars that attest to the interviewer's credentials are vital for reassuring interviewees that they are dealing with a bona fide interviewer (De Vos 2002:293).

Practical aspects of the research should be explained to the interviewee, such as the use of a tape recorder, the interview venue, and the time that can be devoted to the interview. The interviewer should strive to establish a cordial atmosphere so that interviewees will feel secure and have the confidence to speak freely (De Vos 2002:293). In this study, the researcher first explained that the interview would be tape-recorded, then translated and transcribed verbatim. To ensure a cordial atmosphere the TOP providers were made comfortable by giving them a cup of tea and having a general discussion before the interview.

3.9.2.1 Preparing for the interview

Preparing for the interview starts when the researcher selects the participants according to the sampling criteria. Reviewing literature on the topic is also part of the preparation for the interview. In selecting interviewees for qualitative interviews, interviewers should enter the world of interviewees (De Vos 2002:292).

3.9.2.2 Conducting the interview

Interviews are usually initiated with a broad or general question. After the interview has begun, the role of the researcher is to encourage the participants to continue talking, using techniques such as nodding the head or making sounds that indicate interest. In some cases, the participants may be encouraged to elaborate further on a particular dimension of a topic of discussion (Burns & Grove 2003:285) by using probes. The interviewer is obliged to follow up cues during an in-depth interview in order to get the 'true' meaning of a phenomenon.

3.9.2.3 Role of the interviewer

To get to the core of the reality about the phenomenon under study, the interviewer needs to probe. Probing encourages interviewees to give more information. Probes should be neutral to avoid biasing the participants' responses. Specific probing techniques include the following:

- *Open-ended questions*

Open-ended questions do not need a one-word answer but provide interviewees with ample opportunity to express their feelings (De Vos 2002:293). Open-ended questions allow participants to respond in their own words (Polit & Hungler 2004:349).

- *Tracking*

Interviews act like a needle tracking the grooves of a record. Interviewers show interest and encourage interviewees to speak by closely following the content and meaning of their verbal and non-verbal conversation (De Vos 2002:294). Interviewers also understand the progress of the conversation.

- *Clarification*

The interviewer asks for clarification from the interviewees, for example, "*Can you please tell me more about your experience of participating in the procedure of termination of*

pregnancy at Soshanguve Community Health Service"? The researcher can determine whether questions have been misunderstood and can clarify matters.

- *Reflective summary*

The interviewers repeat in their own words, the ideas, opinions and feelings of interviewees correctly (De Vos 2002:294).

3.9.2.4 Role of the interviewee

In this study, the researcher used open unstructured qualitative interviews. This was meant to put participants at ease as they were not initially bombarded with questions, but were asked to talk about issues relating to the study that interested them. The participants were able to reveal relevant information in a natural way and had the opportunity to qualify their answers and explain in depth the underlying meaning of their responses (Polit & Hungler 2004:248).

3.9.3 Researcher as the main data collection instrument

The researcher was the main data collection instrument in this phenomenological research. The researcher played a major role in conducting the interviews without the help of research assistants. As the initiator of the interview, the researcher played an active role in making certain decisions about the progress of the interview. The whole interview was tape-recorded and the researcher abstracted data from the material after the interview was over. In doing so, the researcher analysed the information on the tape and translated the interviewee's responses into meaningful descriptions (De Vos 2002:340).

The researcher showed sensitivity to the uniqueness of each participant throughout the interview. The topic and interview could re-open the wounds of the participant's experiences, and thus were approached with an empathetic understanding (Holloway & Wheeler 1996:5).

This behaviour was intended to create an interviewer with the following attributes:

- good listener
- non-judgmental
- friendly
- open and honest
- flexible

(Holloway & Wheeler 1996:4-6)

The collected data was then prepared for analysis using Tesch's approach and then interpreted (Marshall & Rossman 1999:153).

3.10 DATA ANALYSIS

Data analysis is a mechanism for reducing and organising data to produce findings that require interpretation by the researcher (Burns & Grove 2003:479). Data analysis is a challenging and a creative process characterised by an intimate relationship of the researcher with the participants and the data generated (De Vos 2002:339).

3.10.1 Qualitative phenomenological data analysis

Qualitative data analysis needs to be conducted with rigour and care (Coffey & Atkinson 1996:189). In phenomenological research, the analysis begins as soon as the first data are collected. They may consist of no more than a single interview. When the researchers prepare to attend to the data, their first task is a conceptual one: the clarification of their own preconceptions of the phenomena under study. This is "bracketing" and means "suspending as much as possible the researcher's meanings and interpretations and entering into the world of the individual who was interviewed" (Tesch 1992:92). The actual data analysis occurs when the researchers read the entire data set. Phenomenology reading is more than casually taking note of the content. The researchers immerse themselves in the data, read and reread, and dwell with the data, in order to achieve closeness to the data and a sense of the whole. When they are satisfied that the text has become accessible to them, they can delineate all "meaning units" throughout the entire interview transcription, decide which ones are relevant to the

research questions asked, then bind the meaning units that contain them (Tesch 1990:91).

Data analysis requires that researchers dwell with or become immersed in the data. Data analysis is done to preserve the uniqueness of each participant's lived experience while permitting an understanding of the phenomenon under study. This begins with listening to the participants' descriptions and is followed by reading and rereading the verbatim transcriptions (Henning 2004:127-128).

As the researcher became immersed in the data, she identified and extracted significant statements. It is critical to identify how statements or central themes emerge and connect to one another if the final description is to be comprehensive and exhaustive (Streubert Speziale & Carpenter 2003:70). Computer software was utilised for efficient data storage and retrieval (Streubert Speziale & Carpenter 2003:70).

3.10.2 Types of qualitative data analysis

3.10.2.1 Thematic analysis

The researcher translated and transcribed the tape-recorded interviews, then read and reread the interviews in their entirety, reflecting on the interviews as a whole. Then, she summarised the interviews; keeping in mind that more than one theme might exist in a set of interviews. Once identified, the themes that appeared to be significant and concepts linking substantial portions of the interviews were written down and entered on computer (Morse & Field 1996:115).

3.10.2.2 Content analysis

In this analysis, the researcher read the entire interview, identifying several topics. These topics then become primary categories or category labels.

With too many categories, saturation is achieved slowly. Once the categories have ample data, the researcher may select to categorise this data into sub-categories of two or more (Morse & Field 1996:117). A tree diagram develops with types of the main category. When each category is reasonably full and saturation is reached (that is, no

new data emerge) then the researcher writes descriptive paragraphs about the categories and looks for relationships between categories. These relationships could be concurrence, antecedents or consequences of an initial category (Morse & Field 1996:117).

3.10.3 The data analysis process

The researcher used Tesch's proposed eight steps in data analysis:

(1)   The researcher carefully read through all the transcriptions, making notes of ideas that came to mind.

(2)   The researcher selected one interview and read it to try to get meaning in the information, writing down thoughts coming to mind.

(3)   After going through the transcripts, the researcher arranged the similar topics in groups by forming columns labelled major topics; unique topics; and leftovers.

(4)   The researcher then abbreviated the topics as codes and wrote the codes next to the appropriate segment of the text. The researcher then observed the organisation of data to check if new categories or codes emerged.

(5)   The researcher found the most descriptive wording for the topics and converted them into categories. The aim was to reduce the total list of categories by grouping topics together that relate to each other. Lines drawn between the categories indicated interrelationship of categories.

(6)   A final decision was then made on the abbreviation of each category and the codes were arranged alphabetically.

(7)   The data material belonging to each category was put together in one place and preliminary analysis performed.

(8)   Recoding of the data was done if necessary.

(De Vos 2002:340-341)

3.10.3.1   Description

The descriptive stage is more critical in qualitative studies. It is the initial phase whereby the researcher becomes familiar with the data (Burns & Grove 2003:378). The researcher used reflexivity, bracketing and intuiting (as described in section 3.6.6) to exclude preconceived ideas about the phenomenon under study. In this study the

researcher replayed the tape after the interview to listen to voice, tone, pauses and responses as well as to the entire content (Burns & Grove 2003:380). The information on the tape was transcribed word for word including pauses, exclamations, laughter or crying (Burns & Grove 2003:363).

After transcribing the researcher replayed the tape to correlate the information for accuracy (Streubert Speziale & Carpenter 2003:168). To uncover the meaning of the experiences, the researcher read the interview transcripts several times. The researcher explored personal feelings and experiences that might influence the study and integrated this understanding into the study – this is called reflective thought (Burns & Groove 2003:382).

Codes and coding were used as a way of indexing or identifying categories of data. The purpose of coding is to facilitate the retrieval of data segment by coding category. A category system was invented and applied to the data gathered.

Several categories or codes could be identified within the data recorded for any given participant (Brink 1999:192). The categories with the greatest priority were identified and later compared with those of other participants so as to determine the final theme.

3.10.3.2 Analysis

Analysis goes beyond description because data is transformed and extended (Burns & Grove 2003:382). In this process there is identification of essential features and description of interrelations among them.

The researcher identified themes and patterns from the data. Coding was also used to expand, transform and re-conceptualise data, providing opportunities for more diverse analyses.

Memos were also used to record insights or ideas related to notes, transcripts or codes. The researcher recorded any ideas that emerged, even if they were vague or not well thought out. Memos were given titles and dates (Tesch 1990:87).

3.10.3.3 Interpretation

Data analysis is a mechanism for reducing and organising data to produce findings that require interpretation by the researcher (Burns & Grove 2003:479).

Interpretation focused on the usefulness of the findings for clinical practice or moved toward theorising. The researcher identified any relations between categories that could be used to formulate tentative propositions. These tentative propositions were recorded on the index cards and sorted into categories (Burns & Grove 2003:389).

3.11   ADEQUACY AND TRUSTWORTHINESS

Data adequacy refers to the amount of data obtained and whether or not saturation occurred. Confirming the results of the study with a secondary sample can ensure adequacy of the data (Morse & Field 1996:156).

Streubert Speziale and Carpenter (2003: 364) describe *trustworthiness* as "establishing the validity and reliability of qualitative research". Qualitative research is trustworthy when it accurately represents the experiences of the study participants. Trustworthiness establishes the validity and reliability of qualitative research (Talbot 1995:428). The research demonstrates trustworthiness when the experiences of the participants were accurately represented (Streubert Speziale & Carpenter 2003:38). Trustworthiness of data in method triangulation is demonstrated through the researcher's attention to and confirmation of information discovery. This is referred to as rigour. The goal of rigour in qualitative research is to accurately represent the study participants' experiences (Streubert Speziale & Carpenter 2003:39).

Four criteria are used to measure trustworthiness of data: credibility, dependability, transferability and confirmability.

For the purpose of this study, Guba's model for establishing trustworthiness of qualitative research will be used because it is well developed conceptually and has been extensively used by qualitative researchers, particularly nurses, for a number of years.

The researcher used Lincoln and Guba's (1985:112) model, which identifies the following four criteria for establishing trustworthiness:

- truth value – strategy: credibility measure
- applicability – strategy: transferability measure
- consistency – strategy: dependability measure
- neutrality – strategy: confirmability measure

(Polit & Hungler 2004:36, Streubert Speziale & Carpenter 2003:38, Talbot 1995:487-488)

3.11.1 Credibility

Credibility is demonstrated when participants recognise the reported research findings as their own experiences (Streubert Speziale & Carpenter 2003:38). It is the truth of how the participants know and experience the phenomenon (Talbot 1995:529). To ensure credibility the researcher must make sure that those participants are identified and described accurately (Holloway 2005:8). Activities increasing the probability that credible findings will be produced are: prolonged engagement reflexivity; triangulation; peer and participants debriefing; and member checks. The following strategies were applied to ensure credibility:

3.11.1.1 *Prolonged engagement*

Prolonged engagement is the investment of sufficient time to achieve certain purposes: learning the "culture"; testing for misinformation introduced by distortions either of the self or of the participants; and building trust (Lincoln & Guba 1985:302). It is imperative therefore that the researcher spends enough time becoming orientated to the situation. Prolonged engagement also requires that the investigator be involved with a site long enough to detect and take into account distortions that might otherwise creep into the data. The investigator must first deal with personal distortions. The mere factor of being "a stranger in a strange land" draws undue attention to the inquirer, with its attended overreaction (Lincoln & Guba 1985:302).

Prolonged engagement is one of the strategies that increased credibility of this study. The researcher works in the staff development department of the clinic where TOP is performed. This reflects the researcher's prolonged engagement with participants of the

phenomenon under study. Enough time was spent with the participants to develop a trusting relationship with them during the interviews and member checks (Holloway 2005:175).

3.11.1.2 Persistent observation

The purpose of *persistent observation* is to identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and to focus on them in detail. Focusing on the issues also implies sorting out irrelevancies - the things that do not count (Lincoln & Guba 1985:304).

To satisfy this criterion of trustworthiness, the researcher tentatively identified the participants' behaviour during their working in the TOP unit at SCHC. The presence of the researcher in the situation enabled her to observe the occurrence of the phenomenon and the interaction of the TOP providers. This enabled her to sort the irrelevancies.

3.11.1.3 Reflexivity

The researcher is part of and not divorced from the phenomenon under study and, in the study, was constantly taking the position of a main research tool. The researcher explored personal feelings and experiences that might influence the study and integrated this understanding into the study to promote objectivity **(**Burns & Grove 2003:380). The analysis of the researcher's experience made the researcher aware of possible biases and preconceived ideas. Bracketing was implemented throughout the study and each phase of the research was carefully approached using bracketing (to lay aside what is known) and intuiting (looking at the phenomenon) to avoid bias and approach the phenomenon with an open mind.

3.11.1.4 Peer and participants debriefing

Peer debriefing is a process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the enquiry that might otherwise remain only implicit in the inquirer's mind. Peer debriefing exposes a researcher to the searching questions of others who are experienced in the methods of

enquiry, the phenomenon or both (Lincoln & Guba 1985: 308, Polit & Hungler 2004:432). In this study, the researcher exposed the research work to a colleague for constructive criticism.

Debriefing by peer and of participants increases credibility. *Participant debriefing* or member checks involved the researcher returning to the participants and checking the findings with him/her to confirm their experience as true (Holloway 2005:277, Polit & Hungler 2004:432).

3.11.1.5 Member checks

The *member check*, whereby data, analytical categories, interpretations and conclusions are tested with members of those stake-holding groups from whom the data were originally collected, is the most crucial technique for establishing credibility. If researchers are to be able to purport that their reconstructions are recognisable to audience members as adequate representations of their own realities, it is essential that they be given the opportunity to react to them (Lincoln & Guba 1985:314; Polit & Hungler 2004:433).

The researcher did member checks with the participants' feedback. The members/participants checked categories that emerged from the data, and after the themes were finalised the researcher discussed the interpretation and conclusions with them.

3.11.2 Transferability

Transferability refers to the probability that the study findings have meaning to others in similar situations. Transferability is also called "fittingness" for it determines whether the findings fit in or are transferable to similar situations (Streubert Speziale & Carpenter 2003:39). The potential user, not the researcher, determines whether or not the findings are transferable (Streubert Speziale & Carpenter 2003:29). It is the extent to which the findings from the data can be transferred to other settings. Generality and applicability is irrelevant in qualitative research because the researcher wants to describe the particular phenomenon.

It is the researcher's responsibility to provide a dense description of the research context and sufficient descriptive data that the reader can assess and evaluate the applicability or transferability of the data to another context. The researcher needs to describe the data sufficiently to allow comparison.

Lincoln and Guba (cited in Polit & Hungler 2004:435) state that with purposeful samples, the selection of participants should fulfil the need of the study. The researcher approached the participants that had experience and knowledge of the phenomenon under study, i.e. that were involved in termination of pregnancy. In the present study, transferability was ensured through the process of member checks. This would enhance the possibility that the findings have the same meaning for other registered nurses.

A dense or thick description of the participants' experiences, regarding their interpretations and feelings of the phenomenon in the disciplinary context the change took place were discussed (Holloway 2005:277; Mertents 1998:183). This was to provide rigour and a clear and comprehensive decision trial so that the reader can consider if the findings could be transferable to other situations (Holloway 2005:277).

In this study, the researcher ensured the trustworthiness of the findings by exposing the study to a colleague for constructive criticism and by sharing the findings with registered nurses who did not participate in the study. Finally, the supervisors were responsible for examining the findings, interpretations, and recommendations and attesting that they are supported by the data.

3.11.3 Dependability

Dependability is another criterion used to measure trustworthiness in qualitative research. Dependability is met through securing credibility of the findings (Lincoln & Guba 1985:316; Streubert Speziale & Carpenter 2003:38).

It is the stability of data over time and is obtained with stepwise replication and inquiry audit (Polit & Hungler 2004:435). It is a criterion that is met through obtaining credibility and cannot be present without credibility (Streubert Speziale & Carpenter 2003:38). Since there can be no validity without reliability (and thus no credibility without dependability), a demonstration of the former is sufficient to establish the latter.

According to Holloway (2005:143), dependability is related to consistency of findings. This means that if the study were repeated in a similar context with the same participants, the findings would be consistent. In qualitative research the instruments to be assessed for consistency are the researcher and the participants. For the findings of a research project to be dependable they should be checked and audited by means of external checks. A more direct technique is the "overlap method", which is simply one way of carrying out the first argument, and not a separate approach.

Two more techniques are Guba's "stepwise replication" and "inquiry audit". Stepwise replication is a process that builds on the classic notion of replication as the means of establishing reliability. The inquiry audit is based metaphorically on the fiscal audit. The inquiry auditor examines the *product* (i.e. the data, findings, interpretations, and recommendations) and attests that it is supported by data and is internally coherent so that the "bottom line" may be accepted. This process establishes the confirmability of the inquiry. Thus a single audit can be used to determine dependability and confirmability simultaneously (Lincoln & Guba 1985:332).

The supervisor of this study is responsible for examining the data, findings, interpretations and recommendations in order to attest that they are supported by data. In this study, this activity would be a means of establishing confirmability of the research.

3.11.4 Confirmability

Confirmability is a neutral criterion for measuring the trustworthiness of qualitative research. If a study demonstrates credibility and fittingness, the study is also said to possess *confirmability* (Lincoln & Guba 1985:331; Streubert Speziale & Carpenter 2003:38).

It is a creation for evaluating data quality and refers to the neutrality or objectivity of the data by an agreement between two or more dependent persons that the data is similar (Polit & Hungler 2004:435). Confirmability is a strategy to ensure neutrality (De Vos 1998:331). It means that the findings are free from bias. In qualitative research, neutrality refers to data neutrality and not the researcher's neutrality. The use of audit strategies is a systematic collection of materials and documents so that dependent or external auditors come to comparable conclusions about the data. The purpose of confirmability

is to illustrate that the evidence and thought processes give another researcher the same conclusions as in the research context (Streubert Speziale & Carpenter 2003:38).

Holloway and Wheeler (1996:168) suggested that the following auditing criteria be utilised for examining the information of the study:

- the raw data, namely, tape recording and field notes
- findings of the study through analysed data
- how the significant statements, themes, codes and categories were reconstructed
- the research process, designs and procedure used
- early intentions of the study, for instance proposal and expectations
- the development of the data collection instruments, for instance open-ended questions and early interviews

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

(1)   Collected the raw data from tape recorders.
(2)   Analysed the raw data and findings of the study through de-contextualisation.
(3)   Made a synthesis of the analysed data through re-contextualisation.
(4)   Carefully planned each phase of the research process, research design, sampling design and data collection process.
(5)   Made sure that the conclusions of the study's findings are supported by the analysed data.

Table 3.1 presents a structural outline of the strategies and applications of the methods in the study to ensure trustworthiness.

Table 3.1   Trustworthiness strategies

STRATEGY	CRITERIA	APPLICATION BY RESEACHER
CREDIBILITY	Reflexivity	Bracketing and intuiting in each phase of the research process
	Persistent observation	Identification of characteristics and elements relevant to the problem. Sorting out irrelevancies. Identification of participants' behaviour while working in TOP unit.
	Peer and participants debriefing	Research data analysis and findings examined by abovementioned supervisors
		Member-checks with participants and discussed the themes that emerged.
		Finally discussed the categories with participants.
		Spent sufficient time with the participants to be oriented.
	Prolonged engagement	Involved with phenomena since 2004.
		Trusting relationship with participants.
		Involved for two years with literature review and interviews.
	Member checks	Analytical categories, interpretations and conclusions tested with members to ensure credibility.
	Purposeful sample	Sampling was purposeful: experts with knowledge and experience.
TRANSFERABILITY	Dense description	Data about participants, research context and setting were adequately provided.
	Stepwise replication	Data was coded and again recoded after two weeks. Member checks of codes, themes, categories and subcategories. After the third recoding, two supervisors compared and examined it.
DEPENDABILITY	Inquiring audit	Two supervisors of the researcher audited the research process. The decision trial and the research process are described in detail.

STRATEGY	CRITERIA	APPLICATION BY RESEACHER
	Dependability occurs with credibility	The researcher achieves credibility as described in paragraph 3.11.1 (see above application)
	Audit trial	Researcher audited all the phases of the research process under the supervision of two Master's prepared colleagues. The inquiry trial contributed to the dependability as well as the confirmability.
CONFIRMABILITY	Confirmability occurs with: 1. credibility 2. transferability 3. dependability	The study established rigour with the decision trial and proved confirmability through credibility, transferability and dependability. Conclusions and interpretation derived directly from the data.

3.12   ETHICAL CONSIDERATIONS

The researcher had a moral obligation to strictly consider the rights of the participants who were expected to provide this knowledge (Streubert Speziale & Carpenter 2003:314). The researcher considered it very important to establish trust between the participants and herself and to respect them as autonomous beings, thus enabling them to make sound decisions (Burns & Grove 2003:65; Streubert Speziale & Carpenter 2003:314).

Ethical considerations were an important aspect in this study; due to the sensitive nature of the study, possible risks were continuously examined to increase sensitivity to the participants and not to expose them.

Ethical measures are as important in qualitative research as in quantitative research and include ethical conduct towards participant's information as well as honest reporting of the results. The ethical measures in this study include consent, confidentiality and anonymity, privacy, dissemination of results and the right to withdraw from the study.

3.12.1 Consent

The researcher's request for permission to conduct the study was forwarded to the Director of Community Health Services of the Pretoria Region in Pretoria. Written

permission was also obtained from management of the clinic where the study was conducted. Written permission (informed consent) was sought from participants for the interviews (LoBiondo-Wood & Harber 2002:273; Polit & Hungler 2004:151) (see Annexure C).

3.12.2 Confidentiality and anonymity

Polit and Hungler (1999:143) state that *confidentiality* means that no information that the participant divulges is made public or available to others. The anonymity of a person or an institution is protected by making it impossible to link aspects of data to a specific person or institution. Confidentiality and *anonymity* are guaranteed by ensuring that data obtained are used in such a way that no one other than the researcher knows the source (LoBiondo-Wood & Harber 2002:273).

In this study no names were attached to the information obtained, but codes were used.

3.12.3 Privacy

According to De Vos (2002:67), *privacy* refers to agreements between persons that limit the access of others to private information. In this study, the researcher ensured that when participants described their experiences of being involved in termination of pregnancy, the information given was not divulged. Privacy refers to the freedom an individual has to determine the time, extent and general circumstances under which private information will be shared with or withheld from others (Burns & Grove 2003:171). In this study, privacy was also maintained by not attaching participant's names to the information.

3.12.4 The right to withdraw from the study

The participants were informed that they could withdraw from the study at any time if they wished to. This right was explained to them prior to engagement in the study, before the interview (Holloway 2005:292). This right is part of the informed consent (see annexure C).

3.12.5 Dissemination of results

Results are disseminated in the form of a research report. The report should stimulate readers to want to study it and also determine its feasibility for implementation (De Vos 2002:414). The report should not expose the secrets or weaknesses of the institution to the readers, but should recommend improvements of the service.

The participants were informed that a copy of the findings would be handed to the regional office as well as to the clinic where the study was conducted. The information will be published in the relevant journals.

Anonymity is assured because the results do not mention the participants' names.

3.13   CONCLUSION

The chapter describes the research design, data collection and analysis, trustworthiness and ethical considerations. Chapter 4 discusses the research findings with reference to the literature review.