CHAPTER 3

Research design and methodology

3.1 INTRODUCTION

This chapter covers the research design and methodology, including sampling, population, establishing rigour during and after data collection, ethical considerations and data analysis.

3.2 RESEARCH DESIGN

Burns and Grove (2003:195) define a research design as “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings”. Parahoo (1997:142) describes a research design as “a plan that describes how, when and where data are to be collected and analysed”. Polit et al (2001:167) define a research design as “the researcher’s overall for answering the research question or testing the research hypothesis”.

This study focuses on the opinion of nurses on pain in patients that suffer from dementia. The research approach is non-experimental, qualitative, exploratory-descriptive and contextual.

3.2.1 Non-experimental research

According to Polit et al (2001:178), non-experimental research is used in studies whose purpose is description and where it is unethical to manipulate the independent variable. Non-experimental research is suitable for the study of people in nursing for several reasons. First, due to ethical considerations manipulation of the human variable is not acceptable because of the potential for physical or mental harm to the participants. Secondly, human characteristics are inherently not subject to experimental manipulation,

such as health beliefs and opinions. Thirdly, research constraints such as time, personnel and the type of participants, make non-experimental research more feasible. Lastly, qualitative studies do not interfere with the natural behaviour of participants being studied; the type of research question would not be appropriate for an experimental research (Polit et al 2001:178). In this study data were collected without introducing any treatment.

3.2.2 Qualitative research

Burns and Grove (2003:19) describe a qualitative approach as “a systematic subjective approach used to describe life experiences and situations to give them meaning”. Parahoo (1997:59) states that qualitative research focuses on the experiences of people as well as stressing uniqueness of the individual. Holloway and Wheeler (2002:30) refer to qualitative research as “a form of social enquiry that focuses on the way people interpret and make sense of their experience and the world in which they live”. Researchers use the qualitative approach to explore the behaviour, perspectives, experiences and feelings of people and emphasise the understanding of these elements.

Researchers who use this approach adopt a person-centred holistic and humanistic perspective to understand human lived experiences without focusing on the specific concepts (Field & Morse 1996:8). The researcher focused on the experiences from the participants’ perspective. In order to achieve the emic perspective, the researcher became involved and immersed in the study. The researcher’s participation in the study added to the uniqueness of data collection and analysis (Streubert & Carpenter 1999:17). Complete objectivity is impossible and qualitative methodology is not completely precise because human beings do not always act logically or predictably (Holloway & Wheeler 2002:3).

The rationale for using a qualitative approach in this research was to explore and describe the opinion of nurses on pain in patients that suffer from dementia. A qualitative approach was appropriate to capture the opinions of the nurses regarding pain in patients suffering from dementia.

This study involved three phases, namely the conceptual, narrative and interpretative

phases (Field & Morse 1996).

3.2.2.1 Conceptual phase

In the conceptual phase the research question namely what is the perception of nurses of pain in the elderly suffering from Alzheimer's disease and objectives were formulated for the purpose of the study (see chapter 1, sections 1.5.1 and 1.6). The research question evolved due to the researcher's involvement in the phenomenon under investigation. A literature review was conducted to familiarise the researcher with the concept and content literature. It was necessary for the researcher to do bracketing to lay aside any pre-conceived ideas about the phenomena under study (see discussion under section 3.3.3).

3.2.2.2 Narrative phase

The narrative phase involved planning the research design. The researcher was the main data collection instrument. A pilot study (pre-exercise) was conducted with three participants who met the sampling criteria and would not form part of the main study. Non-probability sampling was used (see discussion under section 3.4.4).

3.2.2.3 Interpretative phase

The empirical research phase involved data collection, analysis and interpretation. Data collection included qualitative information that was collected during a focus group interview. The researcher also searched articles to understand the context of the topic under study, for the purpose of providing a view of reality that is important to participants.

3.2.3 Exploratory research

According to Polit et al (2001:19), explorative studies are undertaken when a new area is being investigated or when little is known about an area of interest. It is used to investigate the full nature of the phenomenon and other factors related to it. In this study, the opinions of nurses regarding pain in patients who suffer from dementia were explored using a focus group interview.

Although research has been conducted on pain in dementia, little is known about nurses' opinion of pain in patients who suffer from dementia.

3.2.4 Descriptive research

According to Burns and Grove (2003:201), descriptive research "is designed to provide a picture of a situation as it naturally happens". It may be used to justify current practice and make judgment and also to develop theories. For the purpose of this study, descriptive research was used to obtain a picture of nurses' opinions of pain in patients who suffer from dementia with a view to improving the standard of care for this group of patients.

3.2.5 Context

The context is significant in qualitative research. According to Holloway and Wheeler (2002:34), context includes the "environment and conditions in which the study takes place as well as the culture of the participants and location".

The participants in this study were registered nurses, registered nurses for mental health care nursing, as well as trained nursing care assistants. The setting was the Grosvenor Park Nursing Home in Bexhill-on-Sea, East Sussex in the UK. The opinions of nurses who provide care for patients who suffer from dementia cannot be studied outside their context and are, therefore, dependent on the context and the time.

3.3 CONCEPTUAL PHASE

In the conceptual phase the researcher formulated the research question as well as the objectives of the study. A literature review was conducted to familiarise the researcher with the content and the concepts related to this study. In addition, reflexivity, the process of bracketing and intuiting were described.

3.3.1 Literature review

According to Polit et al (2001:43), some qualitative researchers advise against a literature

review prior to data collection because the literature review might influence the researcher's conceptualisation of the study. Field and Morse (1996:37) maintain that a literature review may mislead the researcher's ability to make accurate decisions in the study. According to this view, the phenomenon should be clarified based on the view of the participants rather than prior information. However, the researcher belief that a literature review is necessary to provide guidance in identifying bias in previous studies.

In this study the researcher conducted a literature review prior to submitting the research proposal as prerequisite. The aim was to obtain background knowledge about the phenomenon under study. Thereafter an extensive literature review was conducted to orientate the researcher on concepts such as nurses' opinion, pain and dementia as well as to put the current study into the context of what is known about the topic (Parahoo 1997:89). Polit et al (2001:121) maintain that a literature review provides a background for understanding current knowledge on the topic. After the research findings had been analysed and interpreted, the researcher reviewed the literature again and correlated the findings in relation to the existing knowledge (see chapter 2 on literature review).

3.3.2 Reflexivity

In qualitative research the researcher is both the researcher and the participant and can therefore not be divorced from the phenomenon under study. According to Parahoo (1997:292), reflexivity is a continuous process whereby researchers reflect on their preconceived values and those of the participants, such as reflecting on how data collected will be influenced by how the participants perceive the researcher. Holloway and Wheeler (2002:263) add that researchers should reflect on their own actions, feelings and conflicts experienced during research. To achieve credibility of the study, the researcher adopted a self-critical stance to the study, the participants, their role, relationships and assumptions.

Reflexivity is not easy to carry out, as it is not always easy to stand back and examine the effects of one's preconceptions. Some researchers validate the data by going back to the participants to confirm whether the interpretation was correct. Validation of data provides an opportunity for clarification and for researchers to recognise their prejudices (Parahoo

1997:292). The three reasons for reflexivity are:

- Helping the researcher with self-monitoring, to spot if something is going wrong and correct it.
- Analysis of the data and finding a way through mass of data.
- Self-injunction and showing others to believe in the researcher's interpretation.

In this study, the researcher wrote down any feelings, preconceptions, conflicts and assumptions she had about the study. This enabled self-monitoring to prevent bias and increase objectivity.

3.3.3 The researcher's process of bracketing

Qualitative researchers use bracketing to improve rigour and to reduce bias in research. Parahoo (1997:45) defines bracketing as "suspension of the researcher's preconceptions, prejudices, and beliefs so that they do not interfere with or influence the participants' experience". Burns and Grove (2003:380) add that bracketing means that the researcher lays aside what he or she knows about the experience being studied. Streubert and Carpenter (1999:12) affirm that bracketing means not making judgment about what was observed or heard and remaining open to data as it is revealed. Bracketing was therefore done throughout. Brink and Wood (1998:313) assert that bracketing is achieved by the researcher first writing out fully everything that she has experienced or thought about the topic. Bracketing made it possible for the researcher to focus on the participants' experience and shape the data collection process according to it.

Bracketing in this study was achieved through the following:

- Burns and Grove (2003:380) state that some researchers do not bracket but identify beliefs, preconceptions, and assumptions about the research topic and these are written down at the beginning of the study for self-reflection and external review. The

researcher wrote a narrative description of her personal opinion of pain in patients who suffer from dementia. This was to express the researcher's thoughts and set them aside which would help to maintain an open approach when interviewing the participants and analysing the findings.

- Although a pilot study (pre-exercise) is not part of qualitative research, a focus group discussion were conducted with three individuals that met the eligibility criteria as a practical experience in approaching informants with a clear and open mind, and discovered the individuality of experience regarding the phenomenon. This helped the researcher with bracketing when approaching participants in the formal study, and to see them as unique individuals regarding their own experience.

3.3.4 Intuiting

According to Polit et al (2001:215), intuiting occurs when the researcher remains open to meaning attributed to the phenomenon by those who have experienced it. It requires the researcher to vary the data until common understanding emerges (Streubert & Carpenter 1999:46). The researcher suspended her preconceived ideas and was open- minded when observing the participants' experience of the phenomenon.

Intuiting was achieved through the following:

- According to Streubert and Carpenter (1999:49), intuiting is a process whereby the researcher begins to know about the phenomenon from the participants' perspective. In intuiting the researcher is required to be totally immersed in the study.
- The researcher avoided all criticism, evaluation and opinion and paid attention to how the phenomenon under investigation was described. The researcher was an "instrument" during the interview process. The researcher was the tool for data collection and listened to the nurses' opinion of pain in patients who suffer from dementia. The researcher studied the data as they were transcribed and reviewed what the participants had described as their opinion of pain in patients who suffer from dementia.

3.4 NARRATIVE PHASE

The narrative phase involved planning the study (see discussion under section 3.2.2.2).

3.4.1 Research approach

The research population, sample, sampling size, sampling process and procedure and the setting were discussed.

3.4.1.1 Research population

Parahoo (1997:218) defines population as “the total number of units from which data can be collected”, such as individuals, artifacts, events or organisations. Burns and Grove (2003:213) describe population as all the elements that meet the criteria for inclusion in a study.

Burns and Grove (2003: 234) define eligibility criteria as “a list of characteristics that are required for the membership in the target population”.

The criteria for inclusion in this study were:

- Registered nurse working in the nursing home
- Health care assistants employed by the nursing home
- Home managers, who are also registered nurses working in the nursing home

3.4.1.2 Sample

Polit et al (2001:234) define a sample as “a proportion of a population”. The sample was chosen from nurses employed at the Grosvenor Park Nursing Home in Bexhill-on-Sea, East Sussex in the UK. A carefully selected sample can provide data representative of the population from which it is drawn.

3.4.1.3 Sampling size

Holloway and Wheeler (2002:128) assert that sample size does not influence the importance or quality of the study and note that there are no guidelines in determining sample size in qualitative research. Qualitative researchers do not normally know the number of people in the research beforehand; the sample may change in size and type during research. Sampling goes on until saturation has been achieved, namely no new information is generated (Holloway 1997:142).

In this study the total number of different categories of nurses that were listed was 25.The list was given to both the home manager and the head of care. The researcher worked in conjunction with the management in choosing participants, based on their level of experience in caring for patients that suffer from dementia as well as their qualifications. There were 12 potential participants, of whom seven participated in the study. Some of the nurses were not available as they were off duty, off sick, on holiday, while others did not want to participate in the study.

3.4.1.4 Sampling process

Burns and Grove (2003:31) refer to sampling as a process of selecting a group of people, events or behaviour with which to conduct a study. Polit et al (2001:234) confirm that in sampling a portion that represents the whole population is selected. Sampling is closely related to generalisability of the findings. In this study the sampling was non-probable and purposive. According to Parahoo (1997:223), in non-probability sampling researchers use their judgment to select the subjects to be included in the study based on their knowledge of the phenomenon.

Purposive sampling was used in this study. Parahoo (1997:232) describes purposive sampling as “a method of sampling where the researcher deliberately chooses who to include in the study based on their ability to provide necessary data”. The rationale for choosing this approach was that the researcher was seeking knowledge about the nurses’ opinion of pain in patients who suffer from dementia, which the participants would provide by virtue of their experience. In this study only nurses who were eligible were purposively chosen to participate in this study (see section 3.4.1).

3.4.1.5 Sampling procedure

Sampling of the participants was done as follows:

- The researcher sought the assistance of the home manager and head of care of the facility to identify potential participants.
- Possible participants were selected after the researcher pre-selected participants according to the criteria under section 3.4.1.1.
- The research project was explained to the prospective participants who were on the short- list and they were asked personally if they wanted to take part in the research.
- The researcher selected the prospective participants for a focus group discussion.
- In the event of a problem with identifying participants who met the criteria for selection for the study, each eligible participant was asked to refer colleagues with similar experience.

3.4.1.6 Context (setting)

Context of the study was described under (section 3.2.5).

3.5 DATA COLLECTION

According to Parahoo (1997:52, 325), a research instrument is “a tool used to collect data. An instrument is a tool designed to measure knowledge attitude and skills.”

Data were collected during the focus group discussion. Obtaining data from participants with different experience prevents information bias and thus increasing credibility regarding the information.

3.5.1 Focus group discussion

According to Parahoo (1997:296), a focus group discussion is an interaction between one or more researchers and more than one participant for the purpose of collecting data. Holloway and Wheeler (2002:110) state that in focus group discussion researchers interview participants with common characteristics or experience for the purpose of eliciting ideas, thoughts and perceptions about specific topics or certain issues linked to an area of interest. In this study the researcher interviewed nurses who care for patients with dementia to elicit their opinion of pain in patients who suffer from dementia.

3.5.1.1 Advantages of focus group discussion

According to Parahoo (1997:298), a focus group discussion has the following advantages:

- It is a cheaper and quicker way of obtaining valuable data.
- Colleagues and friends are more comfortable in voicing opinions in each other's company than on their own with the researcher.
- Participants are provided an opportunity to reflect or react to the opinion of others with which they may disagree or of which they are unaware.

Holloway and Wheeler (2002:117) list the following strengths of focus group discussion:

- The dynamic interaction among participants stimulates their thoughts and reminds them of their own feelings about the research topic.
- All participants including the researcher have an opportunity to ask questions, and these will produce more information than individual interviews.
- Informants can build on the answers of others.
- The researcher can clarify conflicts between participants and ask about these different views.

3.5.1.2 Disadvantages of focus group discussion

Holloway and Wheeler (2002:118) highlight the following limitations of focus group discussion:

- The researcher has difficulty managing debate and controlling the process than in individual interview.
- Some participants may be introverts while others dominate the discussion and influence the outcome, or perhaps even introduce bias.
- The group climate can inhibit or fail to stimulate the individual, or it can be livelier and generate more data.
- Recording data can present problems; it is not feasible to take notes when many people are talking at the same time. Also tape recorders may record only those that are nearer.
- Data analysis can be daunting.
- Focus group discussions are not replicable. The validity and reliability of the findings are difficult to ascertain on their own.

3.5.2 Anticipated problems during data collection

In this section, the anticipated problems which could occur during the data collection are investigated according to the guidance of Holloway and Wheeler (2002:36).

3.5.2.1 Situational contaminants

The following factors were contributory to errors in data collection.

Some situational factors could influence the participants' response adversely, including the participants' being aware of the interviewer's presence (reactivity factor). Environmental factors such as lighting, temperature and noise may impact the participants' reaction. In this study, situational contaminants were excluded by use of a well-ventilated and lighted room, chairs arranged in a circle to be nearer the tape recorder, and a 'do not disturb" sign

put outside the interview room, to limit access during the data collection session.

3.5.2.2 Response set bias

Personal characteristics of participants may influence their responses to questions, resulting in the phenomenon of social desirability of response, extreme of response and acquiescence. The interview technique, explanation of the purpose of the research to the participants and assurance of confidentiality as well as the signed consent form were useful in reducing the above traits.

3.5.2.3 Transient personal factors

Some temporary states of participants, such as anxiety and fatigue, could influence their response. To limit this, the interview was scheduled for the morning between 09h00 and 11h00.

3.5.2.4 Administrative variations

Administration variations are a problem during data collection. In this study the researcher practised how to use the tape recorder. The researcher put batteries in the tape recorder as a back-up in the event of a power failure. The researcher also obtained extra audiocassettes in case the one in use was full. The researcher operated the tape recorder, a colleague was appointed to take field notes and a housekeeper organised tea.

3.5.2.5 Researcher bias

The researcher was the main conductor of the study in the participants' natural environment. This could lead to distortion of the findings of the study. The researcher practised bracketing as well as reflexivity to overcome this problem. The researcher also went back to participants to verify and clarify their responses.

3.5.3 Research instrument

In this study the researcher was the primary data collection instrument because the data from participants were words in the context of the research problem (Holloway & Wheeler 2002:8). This approach allowed greater latitude in providing answers therefore the nurses were able to provide in-depth information regarding the phenomenon.

To ensure the credibility of the data collected, the researcher laid aside her preconceived ideas by writing down her opinion on pain in patients who suffer from dementia. This allowed flexibility in the collection of data. The participants were not guided by the researcher's prior knowledge of the phenomenon, but by their own experience (Polit et al 2001:264).

3.5.3.1 The instrument

Data was collected by means of a focus group discussion. The rationale for choosing this method was to

- Obtain different perspectives on the phenomenon under investigation.
- Clarify unclear questions because dialogue was used.
- Observe non-verbal communication.
- Prevent researcher bias and approach the phenomenon without preconceived ideas.

3.5.3.2 Structure of the instrument

The research guide comprised of two sections, namely for collecting biographical data and for collecting qualitative data on the nurses' opinion on pain in patients who suffer from dementia (see section 3.6.3).

3.5.4 Pilot study (pre-exercise)

According to Holloway and Wheeler (2002:80), pilot studies are not usually used in qualitative studies but novice researchers could conduct interviews as a pre-exercise, to get used to the type of data collection. A pre-exercise was done to orientate the researcher to the research project and provide the researcher with insight into the phenomenon. A

pilot study ensures that errors can be rectified at little cost.

The pilot study was conducted with three participants who met the selection criteria. All three were care assistants. This was done at their workplace and was repeated at a later date. The interview was tape-recorded to ensure correct using of the tape recorder and to listen to the researcher's problems with probing and verbal reactions. During the exercise attention was also given to body language and non-verbal responses as well as the manner of asking questions. This enhanced the researcher's level of confidence.

As the researcher was the main data collection instrument, the pilot study increased her experience of interviewing as well as her interpersonal skills, and also ensured that she was conversant with qualitative data collection and analysis. It gave the researcher the opportunity to:

- Probe relevant responses from participants.
- Approach the participants with sensitivity and open-mindedness.
- Lay aside her preconceived ideas and ensure reflexivity and intuiting throughout the study.
- Identify the shortcomings of the pilot study regarding the environment setup and the tape recorder.
- Transcribe and analyse data, which was an opportunity to increase data analysis skills.
- Build in extra precautions to prevent errors in the interview.

3.6 DATA COLLECTION TECHNIQUES

The researcher was the main research instrument in this research. The role of the researcher was to elicit information, during the focus group discussion.

3.6.1 Discussion of the instrument

The types of questions for the focus group discussion are discussed in section 3.6.3.

3.6.2 The researcher's role

The researcher introduced herself to the participants to establish rapport. The participants were informed about the purpose of the study.

The researcher was the facilitator of the focus group discussion. A colleague was asked to take notes and operate the tape recorder. The researcher maintained open-mindedness and skills in eliciting information. The climate was non-threatening; all the participants were introduced to one another. The participants sat in a circle for better communication, to ensure productivity as well as comfort in disclosing information. The researcher established the following ground rules:

- No use of mobile phones during the interview.
- Only one person to talk at a time.
- Participants to address one another with respect.

These rules were necessary for the smooth running of the interview. The researcher put the participants at ease and introduced the topic to be discussed. She told of her first encounter with patients who suffer from dementia. This was done to elicit the participants' reaction.

Questions were asked inductively, proceeding from general to specific using a semi-structured interview guide prepared before the session (see annexure D). All the participants were involved. Ethical issues, in particular, confidentiality, were addressed. The participants were asked to keep the discussion confidential.

According to Holloway and Wheeler (2002:115), facilitators must have social and refereeing skills to guide the participants to interact effectively and exert control over the topic and participants without directing the discussion or coercing the participants. The researcher dealt with hurtful remarks and prejudice by repeating the ground rules and using good facilitating skills .The researcher also should be able to use the instrument required to aid in data collection.

In order to collect data effectively while at the same time limiting problems, the researcher

practised the use of the tape recorder in preparation for the interview to boost her confidence.

3.6.3 Interview technique

The researcher used the following technique for group discussion:

- The researcher conducted the focus group interview with the participants using an interview guide with semi-structured questions.
- The researcher maintained eye contact with the participants.
- The researcher used grand as well as mini tour questions to elicit information from participants. Grand tour questions were broad questions asked to introduce the topic such as “What is your opinion of pain in patients suffering from dementia?” The mini tour questions were specific questions such as “What services are available for this clientele group?”
- The interview techniques of probing (verbal and non- verbal) were used. These included probing or “exploring”, silence, prompting as well as summarising. The researcher used phrases such as “Could you elaborate more on that point?”, maintained eye contact to encourage participants to continue speaking. The researcher summarised the last statements of the participants and encouraged more talk (Holloway & Wheeler 2002:84).
- The researcher used a semi-structured interview guide, but the line of questioning and responses from participants maintained flexibility and consistency.
- The researcher asked if there were more questions or comments. This assisted in closure of the interview. The researcher summarised the interview proceedings by restating in her own words the ideas and opinions of the participants, to ensure understanding. The participants were told of the need for follow-up interviews should there be any aspects that were not clear.

3.6.4 Process of recording interview data

During the interview data collected were recorded on audiotape and field notes were taken simultaneously by a non-participant to enrich the taped discussions.

3.6.4.1 Note taking during the interview

According to Holloway and Wheeler (2002:237), note taking is an important activity, but it might disturb the participants. To limit this, the researcher informed the participants that notes would be taken during the interview.

- A non-participant took notes so that non-verbal behaviour of the participants as well s the researcher's reactions and comments could be recorded (Holloway & Wheeler 2002:237).
- This method of collecting data acts as a back-up of the information obtained on the audiotape.

Note taking was done discreetly to avoid distracting the participants.

3.6.4.2 Tape-recording the interview

The following factors were considered by the researcher to ensure a successful interview:

- Permission to use the tape recorder was sought before the interview. All the participants consented to its use.
- Use of the tape recorder enabled the researcher to maintain eye contact with the participants.

Preservation of participants' words during data collection is very important. The following tips enabled the success of the interview:

- The tape recorder was positioned close enough between the researcher and participants to record conversation.
- A "do not disturb" sign was posted on the door to ensure silence. The other members of the staff were reminded about the interview that was in progress.
- The tape recorder was tested prior to the interview to ensure that it was in good working order. The electric socket in the room was also tested before the interview. Batteries were inserted in the tape recorder in case of electric power failure.

The audio tapes were labelled properly for the interview with dates and pseudonyms such as a5/05/04/ff.04. This represented the date of the interview, the name of the setting, the gender and number of participants interviewed.

3.7 INTERPRETATIVE PHASE

This is outlined in section 3.2.2.3, a detailed explanation follows.

3.7.1 Data analysis

Data analysis means to organise, provide structure and elicit meaning. Analysis of qualitative data is an active and interactive process (Polit et al 2001:383). Data analysis commenced after conducting the first interview.

3.7.2 The researcher's role in data analysis

The researcher used reflexivity, bracketing and intuiting (see sections 3.3.2, 3.3.3 and 3.3.4, respectively) to lay aside her preconceptions regarding the phenomenon under investigation. Data analysis occurs simultaneously with data collection (Holloway & Wheeler 2002:235). Field and Morse (1996:82) identify intellectual processes that play a role in data analysis:

- Comprehending: The researcher wants to learn about what is going on. When comprehension is achieved, the researcher is able to prepare a detailed description of the phenomenon under study. Saturation is achieved when new data cannot be added.
- Synthesising: This involves sifting data and putting the pieces together. This enables the researcher to make sense of what is typical regarding the phenomenon. The researcher makes general statements regarding the phenomenon and participants.
- Theorising: This is the systematic sorting out of data. Alternative explanations of the phenomenon are developed by the researcher to determine their correlation with the data.

To make sense of the data, Parahoo (1997:355) states the following steps are necessary:

- Responses during the focus group interview were transcribed verbatim and read in order to get used to them.
- Significant statements that pertain to the experience under investigation were extracted.
- Statements were used to formulate meanings.
- Statements were then organised into clusters
- Themes were used to provide full description of the experience.
- The researcher returned the description to the original source for confirmation of validity.

In this study meanings were formulated from extracted statements and then clustered into themes to provide full meaning of the experience. The participants were consulted to ensure or confirm the credibility of the description.

3.7.3 Establishing rigour/trustworthiness

According to Holloway (1997:161), “trustworthiness is the truth value of a piece of research”. A research project is trustworthy when it reflects the reality and ideas of the participants (Krefting 1991: 214-2190). Streubert and Carpenter (1999:61) add that trustworthiness of the research depends on the extent to which it delves into the participants’ experience apart from their theoretical knowledge.

In this study trustworthiness was ensured by the researcher laying aside her preconceived ideas about the phenomenon under investigation and by returning to participants to ascertain whether the description was a true reflection of their experience. Lincoln and Guba (1985) and Krefting (1991:214) state that trustworthiness involves the following elements: credibility, dependability, confirmability and transferability.

3.7.3.1 Credibility

According to Polit et al (2001:32), credibility refers to the confidence of the data. Credibility is similar to internal validity in quantitative research. Credibility exists when the research findings reflect the perceptions of the people under study. Polit et al (2001:32) affirm that

validity and reliability are justifiable in research although qualitative researchers use different procedures to establish validity and reliability. Internal validity is important in qualitative research, as researchers are able to demonstrate the reality of the participants through detailed description of the discussion.

Strauss and Corbin (1990:160) holds that theoretical concepts should have generalisability and transferability, meaning that concepts should be applicable to other similar situations. This stresses the significance of thick description so that the reader has the knowledge on which to base judgment. The following steps enhance credibility:

- *Prolonged involvement*: This refers to "investment of sufficient time to learn culture", test for misinformation, build trust and generally repeating the procedure central to the case study (Robson 1997:404). The researcher had worked in this environment as staff nurse for two years.
- *Persistent observation:* Specific situations regarding to the phenomenon under study were observed over a sufficient period to identify specific aspects relevant to it. The researcher observed the nurses' attitudes to pain in patients who suffer from dementia.
- *Triangulation:* This refers to the use of multiple referents to draw conclusions. It involves evidence from different sources; different methods of collecting data and different investigators (Robson 1997:404). The use of triangulation enables the researcher to strive to distinguish true information. The researcher conducted a literature review to familiarise herself with the content of the phenomenon under investigation, collect data by means of a focus group interview to get in-depth information regarding the nurses' opinion on pain in patients who suffer from dementia and also used an independent coder (a nurse with a masters degree) during data analysis.
- *Peer debriefing:* This refers to exposing the researcher's analysis and conclusion to a colleague or other peer on a continuous basis for the development of both design and analysis of the study (Robson 1997:404). The researcher conducted a pre-exercise interview with three participants who met the criteria; the researcher also liaised with colleagues and supervisors regarding data analysis.

3.7.3.2 Dependability

According to Polit et al (2001:315), this refers to stability of data over time and over conditions. Dependability can be likened to reliability in quantitative studies. According to Lincoln and Guba (1985:161), a dependable study should be accurate and consistent. Two methods of assessing dependability of data include stepwise replication and inquiry audit.
Stepwise replication: This approach involves several researchers who can be divided into two teams to conduct separate inquiries with a view to comparing data as well as conclusions. Data and conclusions were compared by the research supervisors.

Inquiry audit: Inquiry audit refers to data and relevant supporting documents being scrutinised by an external reviewer. The supervisors of the research audited the research project.

3.7.3.3 Confirmability

According to Polit et al (2001:315), confirmability refers to neutrality or objectivity of data. The issue of confirmability focuses on characteristics of the data. This means that the research findings are the result of the research and not the researcher's assumptions and preconceptions. The issue of confirmability focuses on the characteristics of data being dependable. According to Holloway and Wheeler (2002:255), inquiry audit can be used to trace the data to their sources. In this way the researcher's path of arriving at the constructs, themes and their interpretation can be followed. In this study the researcher audited the research process under the supervision of the supervisors.

3.7.3.4 Transferability

According to Holloway and Wheeler (2002:255), transferability means that findings of the research project can be applicable to similar situations or participants. The knowledge that was acquired in context will be applicable in another and researchers who undertake research in another context will be able to apply certain concepts that were originally developed. Transferability is similar to generalisability. Lincoln and Guba (1985) state that "as the naturalist cannot specify the external validity of an enquiry, she can only provide a tick description necessary to enable someone interested in making transfer to reach a conclusion about whether a transfer can be contemplated as a possibility". The researcher

provided a thick description about the setting, the participants as well as the method of data collection.

3.7.4 Strategies to ensure rigour

Holloway and Wheeler (2002:251) define rigour as “the means by which we show integrity and competence”. Burns and Grove (2003:391) associate rigour with openness, scrupulous adherence to philosophical perspective, thoroughness in collecting data and consideration of all in the subjective theory development, hence Sandelowski’s assertion to researchers to create “evocative, true-to-life and meaningful portraits, stories and landscapes of human experience” (Holloway & Wheeler 2002:251).

Strategies to ensure rigour include member checking, searching for negative cases and alternate explanations, peer review, triangulation, audit trail, thick description and reflexivity.

3.7.4.1 Member checking

This involves giving feedback regarding preliminary findings and interpretation to participants and securing their reaction (Polit et al 2001:314). Data of the people under study was checked throughout the group focus interview. This was achieved by the researcher’s summary, paraphrasing or repeating the participants’ words. The researcher asked the participants whether the interpretation was a true or fair reflection of their perspective. This was carried out both during data collection and analysis.

3.7.4.2 Searching for negative cases or alternative explanation

Holloway and Wheeler (2002:258) maintain that “negative case analysis involves addressing and considering alternate interpretation of data”, especially those that are contrary to the researcher’s view of reality. It always presents a challenge because it is not easy to become aware of discrepant data and negative or alternate cases. Searching for

negative cases enhances the validity of the research if the researcher identifies data that do not easily fit into the developing theory or their own ideas.

3.7.4.3 Peer review

According to Lincoln and Guba (1985:161) peer review means involving some colleagues who are competent in qualitative research procedures to re-analyse the raw data, listen to the researcher's concern and discuss them. The researcher enlisted the help of a colleague with a Master's degree to re-analyse the data.

3.7.4.4 Thick description

According to Polit et al (2001:316), thick description refers to a "rich, thorough description of the research setting, and the transactions and processes observed during the enquiry". It includes the meaning and intentions of the participants and the researcher's conceptual development. The researcher wrote the narratives, accounts and ideas of the participants down. The researcher also described the setting as well as the people in it (see chapter 1, section 1.2).

3.7.4.5 Reflexivity

This is discussed in section 3.3.2. The researcher wrote an account of her opinion on pain in patients who suffer from dementia.

3.8 ETHICAL CONSIDERATIONS

This relates to moral standards that the researcher should consider in all research methods in all stages of the research design. After approval from the University of South Africa was obtained to conduct the study, permission was obtained from the ethics committee of the Grosvenor Park Nursing Home (see annexure A).The researcher followed three principles of the Belmont Report, namely beneficence, respect for human dignity as well as justice (Polit et al 2001:75).

3.8.1 Principle of beneficence

This principle means “above all do no harm”. This principle contains broad dimensions such as freedom from harm and exploitation as well as the researcher’s duty to evaluate the risk/benefit ratio.

3.8.1.1 Freedom from harm

In this study physical harm was not to be considered, however, the researcher bore in mind that the psychological consequences needed sensitivity. The researcher was sensitive to the participants’ emotions when probing questions that could psychologically harm the participants. The researcher told the participants that if they felt that some parts of the interview were too much for them they were free to withdraw from the study or choose not to answer the questions (see annexure F).

3.8.1.2 Freedom from exploitation

Participants in a study should be protected from adverse situations. They should be assured that information that they provide to the researcher or their participation will not be used against them. The researcher-participant relationship should not be exploited (Polit et al 2001:76). The tapes and written narratives were safely stored and were destroyed after the study (Robson 1997:472).

3.8.1.3 Risk/benefit ratio

The researcher considered the risk-benefit ratio and kept risk to the minimum. The participants benefited by sharing their ideas with their peers as well as improving their knowledge regarding pain in patients with dementia. The participants were also satisfied that the information that they provided would help in improving the standard of care for patients who suffer from dementia.

3.8.2 Principle of human dignity

This principle includes the right to self-determination and full disclosure (Polit et al 2001:77).

3.8.2.1 Right to self-determination

This principle means that prospective participants should not be coerced into taking part in the study. Participants have the right to decide whether to participate without incurring any penalty (Polit et al 2001:78). Participants were approached and the purpose of the study was explained. No remuneration was offered and they were informed of the opportunity to withdraw at any stage of the research. Verbal and written consent were obtained. Individuals who refused to participate were not forced.

3.8.2.2 The right to full disclosure

Full disclosure means the researcher has fully explained the nature of the study, and the person's right to refuse participation. Self-determination is dependent on full disclosure (Polit et al 2001:78). The researcher shared the aim and purpose of study, the type of interview and other data collection procedures with the participants.

3.8.3 The principle of justice

This principle includes participants' right to fair treatment and privacy.

3.8.3.1 The right to fair treatment

Fair treatment includes that the selected participants' inclusion was based on the requirements of research.

- Non-prejudicial treatment of participants who refused to take part or those who withdrew.
- The participants had access to the researcher at any point in the study to clarify information.
- Sensitivity to and respect for the participants' beliefs, habits, lifestyles, culture and emotions.
- Courteous treatment at all times (Polit et al 2001:81).
- The sampling method was purposive with the purpose of selecting participants with experience.

3.8.3.2 The right to privacy

This means that the information provided by participants will be shared without their will (Burns & Grove 2003:172). As the study was conducted in the participants' natural setting; there was no intrusion of privacy with regard to information provided. Anonymity was therefore upheld. Anonymity is the inability to link information to participants. This was achieved by tape-recording the interview conducted. The participants were assured of confidentiality verbally and in the written consent form.

The following precautions were used to ensure confidentiality:

- The list of names, transcriptions and notes were kept in a locked safe.
- The list of names was kept separate from recordings, transcription and notes.
- No names were attached to the tapes or transcription or notes (Polit et al 2001:82).

3.9 CONCLUSION

This chapter described the research methodology. The purpose of a research design is to maximise valid answers to a research question. This was achieved by using a non-experimental, qualitative, exploratory-descriptive approach that was contextual.

The researcher was main data collection instrument. Data was collected by means of interviewing. The researcher made sense of data by using a descriptive method to analyse it and also ensured that the data was trustworthy. Observing the principles of beneficence, human dignity as well as justice ensured that the participants were morally and ethically protected. Chapter 4 discusses the data analysis and findings.