CHAPTER 2

Research design and methodology

2.1 INTRODUCTION

This chapter deals with research design, the population, sampling, instruments and procedures for data collection and analysis. Criteria for establishing trustworthiness and ethical considerations were also discussed.

2.2 RESEARCH DESIGN

The research design is the heart of the research report. A qualitative, explorative and contextual design was followed in this study.

A design is a plan for conducting research, implementing to attempt to find answers to the researcher's focused questions (Polit & Hungler 1995:652).

2.2.1 Qualitative

Qualitative researchers are not concerned with the objective truth, but rather the truth as the informants perceive it (Burns & Grove 2000:388). This information is necessary in order to fully understand the behaviour of the informants. The strength in qualitative research lies in the fact that it is descriptive or exploratory and it stresses the importance of context and the subject's frame of reference (Burns & Grove 2000:388).

Polit and Hunger (1995:517) describe qualitative research as holistic, as it is concerned with people in their immediate environment. In the discussion on the nature of qualitative research Holloway and Wheeler (1996:1), state that "qualitative research is based on the beliefs that knowledge is socially constructs". In using this framework, the researcher accepts that both she and the participants have their own values and realities, resulting in a multitude of realities.

2.2.2 Explorative

Fox and Long (1990:23) cite Turkey (1977) that “an exploratory design details the unexpected in the data and avoids overlooking crucial patterns that may exist”. In nursing, identification and exploration of patterns is considered critical to both theory and practice.

The design of an exploratory study must be flexible enough to permit the consideration of many different aspects of the phenomenon as emphasis is on the discovery of new ideas and insights.

The researcher in this study, explored the experiences of clients who should utilise the decentralised PHC services as first point of entry into the health system.

2.2.3 Contextual

The contextual nature of a study is based on the fact that it studies the phenomena in terms of its context (Mouton 1998:133).

According to Mouton (1998:133), research can be described as contextual as the study is made of occurrences in their immediate environment or context. Context implies the conditions and situations of an event.

This study is contextual in that it focuses on the factors influencing the utilisation of the curative component of a PHC clinic of a predominantly Black metropolitan area in the Eastern Metropolitan region characterised by a low social economic group.

2.3 SAMPLING DESIGN

According to Polit and Hungler (1995:296), qualitative studies almost always use small, non-random samples. They caution against the perception that qualitative researchers are unconcerned with the quality of their samples, but mentioned that qualitative researchers use different criteria for selecting

participants for their studies.

2.3.1 Population and sampling

A purposive, convenient sampling was used in this study, which involved conscious selection by the researcher of certain population groups to include in the study (De Vos 1998:198). The accessible population is the total number of cases that conform to the set criteria and that are accessible to the researcher (Polit & Hungler 1995:33).

The research sample for this study comprised of four groups namely, the CHC members, nurse clinicians rendering curative services and two different groups of clients who have attended the Far-East Rand OPD and reside in the Eastern Metropolitan region.

The purpose of utilising these four groups to answer the same two questions was for promoting community involvement and for finding solutions which would be acceptable to the community based on the fact that it would be their ideas. These groups are residing in the Eastern Ekurhuleni Metropolitan area and the curative service under study was introduced for their utilisation.

The research population for this study comprised of all the patients with minor ailments and those with chronic conditions who attended the Far-East Rand Hospital instead of the clinic to which they are allocated, as well as the members of the CHC and nurse clinicians at the clinic.

2.3.2 Sampling criteria

The sampling criteria were designed to make the population as homogenous as possible (De Vos 1998:193). This approach is helpful when the researcher wishes to understand a particular group of people well (Polit & Hungler 1995:298).

In this study the sample for phase1 was selected from the population which met the following criteria:

- Clients attending the Far-East Rand OPD for minor ailments and for treatment of chronic conditions, who, despite being referred to the clinic, still preferred to visit the hospital.

The sample for phase 2 was selected from the population, which met the following criteria:

- Members of the CHC of the clinic.
- Nurse clinicians rendering curative services to the clients at the clinic.

Other selection criteria were:

- All clients attending the Far-East Rand OPD and the CHC members must reside in the Eastern Ekurhuleni Metropolitan area.
- Must be conversant in Sotho or English.
- Must be 18 years and older.
- All races were included in the sample.

2.3.3 Sample size

The sample size in this research was determined by the number of informants required to saturate data (De Vos 1998:191).

2.4 DATA COLLECTION

Data was gathered by means of focus group interviews that were conducted in two phases. A focus group is defined as a carefully planned discussion group designed to obtain information about a defined area of interest in a permissive non-threatening environment (Omery 1995:49). A focus group interview was chosen because it is efficient to obtain the viewpoints of many individuals in a short time (Polit & Hungler 1995:272).

Four focus groups interviews were held as described as phase1 and phase 2. In phase1, the focus groups consisted of 24 informants, of which 12 were

clients with chronic conditions and 12 were clients with minor ailments. In phase 2, ten nurse clinicians and six CHC members were interviewed. Informants were allowed to participate in a comfortable, conducive and non-threatening environment. The focus group interview lasted from 30 minutes to an hour for each of the groups.

A high quality audiotape was used to record the focus group interviews which were transcribed and translated verbatim.

The questions were open-ended, semi-structured and were prepared in advance. The researcher was trained in conducting interviews and thus was able to probe in order to get answers to questions.

Permission to use the tape-recorder was arranged with the informants before the focus group interviews started.

Data was conducted in two phases:

Phase 1

Phase1 consisted of focus group interviews with clients who attended the Far-East Rand OPD for chronic medication and minor ailments that could attend the clinic, which has similar and comparable services.

Phase 2

Phase 2 consisted of focus group interviews conducted with CHC members and the nurse clinicians rendering curative PHC services at the clinic within the East Rand region of the Ekurhuleni Metropolitan area. The CHC is the link between the clinic staff and the community. They serve as a mouthpiece for the community and hold meetings with the clinic staff to look into health issues affecting the community they represent. The nurse clinicians were involved in the study because they are in the practical situation and thus have first hand information on the strengths and constraints experienced in providing the curative PHC services.

2.4.1 Focus group questions

The following two questions were asked during the focus group interviews:

- In English: What factors have an impact on the utilisation of the curative PHC services provided by the clinic to the community?
- In Sotho: Ke mabaka a feng a etsang gore go seke ha ba le kgotsofalo kliniking?

and

- In English: What are your suggestions for improving the curative care received in the PHC services?
- In Sotho: Go ka etswa eng gore thlokomelo ya mo kliniking e tokafale?

2.5 PILOT INTERVIEW

A pilot interview was conducted with groups who fulfilled the required set criteria for the population. These informants were not included in the major study (Burns & Grove 1993:366). The pilot study followed exactly the two phases as previously described. The interview process in the pilot study did not reveal any problems. The groups understood both questions and these questions were therefore used unchanged in the main study.

2.6 PREPARING FOR AN INTERVIEW

The interviewer should attempt to create an atmosphere of trust, friendliness and openness from the moment the informants arrive for a focus group interview. Purposeful small talk facilitates a warm and friendly environment so as to put the participants at ease (Krueger 1994:36). The researcher created a trusting and open atmosphere by greeting the participants and reassuring them about confidentiality.

2.6.1 The researcher

In qualitative research, the researcher is not only extracting data from

participants, but actually joining them in a research partnership. It is also accepted that the researcher, as an interviewer, can share some of his/her own perceptions and reactions with the participants. This provides an opportunity for continuing dialogue (Tutty, Rothery & Grinell 1996:57-61).

The researcher had to realise that characteristics such as flexibility, adaptability, humour, accepting ambiguity, empathy and accepting one's emotions would contribute towards successfully completing the study (Nyamathi & Shuler 1990:1284).

Berg (1985:93) states that the researcher must acknowledge his/her own motivation for the study in order to discover the true feelings of the participants. It is also suggested that the researcher broadens his/her knowledge base and prepares for the research by studying literature on the topic. Being well prepared on the topic, the researcher can pick up subtle clues in the interviews and follow them up with leading questions in order to clarify the information given (Denzin & Lincoln 1994:226).

The researcher was motivated to undertake the research to discover why PHC clients bypass the clinic and choose to attend OPD at the hospital. The researcher was well-prepared based on the fact that she consulted literature on previous research that was done and literature pertaining to the topic of her study.

2.6.2 The research setting

The researcher needed to decide where the data would be collected. The selection of an appropriate setting was important, as it could influence the way participants behave or feel and how they respond to questions (Polit & Hungler 1995:142). In this study the researcher decided on settings where the services are delivered, to allow for observing the full context within which the informants function.

Clients who attended PHC services at the hospital rather than the clinic they were allocated to, were specifically selected to explore reasons for the

preference of the hospital. The researcher selected to include the role players at the clinic in phase 2 because of their involvement at clinic level and their knowledge of the community.

For the researcher to gain access into the research setting, she obtained permission from the management of the hospital (Annexure C) and that of the clinic (Annexure B). The researcher did not disrupt the smooth running of the clinic nor the hospital's OPD.

The research environment was comfortable, non-threatening and conducive for participation. At the hospital the researcher used the conference room, through the permission of the sister in charge of the OPD who got the mandate from the hospital's superintendent. The conference room was in the corner of the OPD and the staff used it for in-service training and lectures. At the clinic, the researcher got permission to use the in-service training room which was in a quiet setting.

2.6.3 The participants

The researcher had to ensure that the focus group interviews occur within the ethical and professional parameters (Berg 1985:91).

Permission was sought from the individual participants. Written consent was obtained from the literate informants while verbal consent was obtained from illiterate informants (see Annexure A).

Informants were requested to participate in a 30 minutes to one hour semi-structured interview, to be conducted by the researcher in a quiet venue at the abovementioned service delivery centres. The use of an audiotape, its management and the information during and after completion of the study, was explained to the participants and they were assured that their identity and any information they disclose will be treated as confidential. Tapes were kept in a safe place and confidentiality was maintained.

Participants were informed that they have the right to refuse the interview or withdraw from the research project at any time, if they so wished. They were reassured that an honest reflection of their experiences would not result in victimisation.

2.6.4 Tape-recording

The researcher decided to use an audiotape to capture the interviews. Being new to the field of research, the researcher felt that the use of an audiotape would allow her to focus all her attention on the interviewees and the interview itself, whilst it would also provide a means of self-monitoring and improvement.

The researcher believed that most participants would agree if they were aware of the purpose of the audiotape and if their anonymity was ensured. They would also be offered the chance to review the transcript. Participants agreed to the use of an audiotape.

The audiotapes, which would be used for full transcripts of the interviews, would be kept safe till after the completion of study.

2.7 DATA ANALYSIS

Data analysis is the systematic organisation and synthesis of research data (Polit & Hungler 1995:639).

The tape-recorded interviews were translated and transcribed verbatim and analysis done according to the method of Tesch (Creswell 1994:155).

2.7.1 Process of data analysis

- Following Tesch's method, the researcher started the process by obtaining a sense of the whole by listening to the tapes repeatedly to internalise the context and transcribe it verbatim. After this, the transcripts were read through carefully and ideas were written down in the margin as they came to mind so that no data was left out. All the data was important for this

study in terms of principles of trustworthiness and credibility.

- After completing this task for all four focus group interviews, a list of all topics was made. Similar topics were clustered together. Columns, indicating major, unique and leftover topics were formed.
- Topics were abbreviated as codes. Codes were used to retrieve analytically significant segments of data. The researcher wrote the codes next to the appropriate segments of the text. New categories and codes emerged.
- The researcher found the most descriptive wording for each topic. Topics were then turned into categories. Grouping related topics together reduced the list of categories. Lines were drawn between the categories to show interrelationships.
- A final decision was made on the abbreviation for each category and the codes were alphabetised.
- All data belonging to each category was gathered. A preliminary analysis was then performed.
- Where necessary the researcher recoded the existing data.

After completing the steps as indicated, the researcher identified potential useful verbatim quotations to be included into the report, in order to illustrate key themes. Major and minor themes were categorised, to serve as a framework for the literature control.

Copies of the transcriptions, including a protocol with guidelines for data analysis, were sent to the identified independent coder (Annexures D & E). The independent coder analysed the transcripts independently of the researcher to identify categories and themes. The researcher and independent coder met to discuss and reach consensus about the final themes and categories.

2.8 TRUSTWORTHINESS

Guba's model for assessing the trustworthiness of data was used. According to De Vos (1998:348), the criteria for trustworthiness are truth value, applicability, consistency and neutrality.

2.8.1 Truth value

Truth value is used to determine whether the researcher has established confidence in the truth of the findings, based on the research design, informants and context. Truth value is established through the strategy of credibility, by which the researcher discovers the "lived experiences" of the participants.

The researcher applied truth value by allowing sufficient time for interviews to:

- establish rapport
- build trust
- encourage open conversation without fear of retribution
- convey to participants how meaningful their contribution to the process was

2.8.1.1 Credibility

Credibility is a criterion for evaluating the data quality of qualitative data, referring to confidence in the truth of data (Polit & Hungler 1995:638).

The researcher has a diploma qualification in Clinical Health Assessment, Treatment and Care and was allocated in a PHC local clinic for two years in a neighbouring area to the one under study. The researcher was therefore knowledgeable about the area and the context and was able to determine the credibility of information from the four different groups.

2.8.2 Applicability

Applicability refers to the degree to which the findings can be applied to other settings or groups. Sandelowski, in Krefting (1991:215), explains that in qualitative research this ability to generalise is not always relevant, as each situation is unique. Applicability in qualitative research can be measured against the strategy of transferability. The findings of this study are not

transferable to other clinics or hospitals.

2.8.3 Consistency

Tutty et al (1996:112) explain that although qualitative research is influenced by the unique events and relationships that unfold during the study, a reasonable degree of consistency is desirable. Consistency of the data implies that the findings will be consistent if the study were to be replicated with the same participants or in a similar context. It can be measured against the strategy of dependability. In this study, consistency is established by interviewing four different groups on the same issues within the same context.

2.8.3.1 Dependability

Dependability of qualitative data refers to the stability of data over time and over conditions (Polit & Hungler 1995:362).

It relates to the consistency of the findings which related in turn to the research design and methods described earlier. The approach in inquiry audit was utilised whereby an external reviewer scrutinises the data and relevant supporting documents (Polit & Hungler 1995:363). Dependability was applied based on:

- The researcher conducted focus group interviews herself.
- Participants gave voluntary consent.
- Interviews were conducted in private.

2.8.4 Neutrality

Neutrality, which is defined as the freedom from bias in research procedures and results (Sandelowski in Krefting 1991:216), refers to the degree to which the findings are solely a result of the research and not other biases or perspectives; the emphasis thus being on the neutrality of the data.

Neutrality can be measured against the strategy of confirmability.

2.8.4.1 Confirmability

Refers to the objectivity or neutrality of the data, such that there would be agreement between two or more independent people about the data's relevance and meaning (Polit & Hungler 1995:307).

This means that raw data collected during interviews by tape-recording, are reduced to coding by the researcher and the independent external coder. Categories and sub-categories were arranged after consensus was reached. All data was kept in a well-organised, retrievable form.

2.9 CRITERIA OF TRUSTWORTHINESS

Criteria for trustworthiness was obtained by the following:

2.9.1 Code-recode procedure

This is when the researcher and the independent coder discuss and reach consensus following data analysis. Coding is the process of transforming qualitative data into patterns after all topics are clustered together and arranged in columns under broad categories, sub-categories and leftovers (Creswell 1994:154).

An external coder was selected, who has a master's degree and who has proven expertise and knowledge about qualitative data.

2.9.2 Data triangulation

Triangulation is the use of multiple methods perspective to collect and interpret data about some phenomenon, to convert on an accurate representation of reality (Polit & Hungler 1995:655).

In this study, the researcher utilises different sources for data collection, for example clients attending the Far-East Rand OPD, curative PHC nurses and CHC members as well as literature control. Information from these sources is towards the same focus (Polit & Hungler 1995:362). Data analysis was done by the researcher and the independent coder.

2.9.3 Literature control

The result of this study was discussed in the light of literature obtained from similar studies. This would qualify the research findings to be placed within the context of what is known about the topic and its use in PHC (Streubert & Carpenter 1995:46).

2.10 ETHICAL CONSIDERATIONS

Ethical conduct was ensured following the ethical standards laid down by the South African Nursing Association (SANA) for nurse researchers (SANA 1991:3-4).

2.10.1 Competency of the researcher

The supervisor and the joint supervisor are both professional researchers and are experienced in qualitative research. The researcher completed the theory on research methodology for masters' students at the University of South Africa. The researcher has a diploma in Clinical Health Assessment, Treatment and Care and is registered with the SANC. She is also rendering curative PHC services to clients as part of her job description in the neighbouring metropolitan area.

2.10.2 Informed consent

Consent to gain access to the clinic was obtained from the director of the clinic and also from the superintendent of the Far-East Rand OPD included as Annexures B and C.

Written consent was also obtained from the literate informants, while verbal consent was obtained from illiterate informants. An example of the consent form is included as Annexure A.

2.10.3 Anonymity and confidentiality

The informants were assured that the information given by them would neither be made public or lead to the disclosure of their identities (Burns & Grove 1993:99).

2.11 SUMMARY

In this chapter, the research design and methods were described, with emphases on data gathering, sampling, data analysis, as well as ethical standards.