

CHAPTER THREE

RESEARCH DESIGN

3.1 INTRODUCTION

The approach to selecting a research design depends mainly on the question being asked. The research question involves exploring the recurrent cultural patterns related to health care in the urban Pares of Moshi. This means that the researcher must hear the views and beliefs from the group members themselves. Hearing (listening and understanding) is the essence of qualitative research methodology and is the reason why the researcher used this method. In order to gain insight into a person's health beliefs it is necessary to ask open ended questions so that the informant can identify and explain their subjective views, experience and perceptions.

This chapter considers issues related to the methodology of the study. These issues include a discussion of qualitative research design, the conceptual phase, the design and planning stage, the empirical phase, data analysis, issues of trustworthiness and ethical considerations.

3.2 RESEARCH METHODOLOGY

According to Polit and Hungler (1995:15) methodology refers to ways of obtaining, organising and analysing data. Methodological decisions depend on the nature of the research question (Polit & Hungler 1995:15,153). Mouton & Marais (1990:15) state that the etymological meaning of the word methodology could be interpreted as the logic of implementing scientific methods in the study of reality. Methodology in research can be considered to be the theory of correct scientific decisions (Kaufman as cited by Mouton & Marais 1990:16).

In this study the word 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 health beliefs of the urban Pares, therefore the research approach was qualitative.

3.2.1 Qualitative research

3.2.1.1 Features

Lobiondo-Wood and Haber (1994:255) differentiate between quantitative and qualitative approaches, and note that qualitative approaches focus on human experience and are presented in narrative form as compared to the numerical analyses of quantitative approaches.

Polgar and Thomas (1995:11) believe that clients can be perceived in two different but interrelated frameworks. The first view describes a quantitative approach to research and knowledge, where clients are viewed as natural objects, whose variables can be identified and measured. The second view is the qualitative approach in which clients are seen as people who have subjective experiences which are of interest. According to Smith (1993:134), qualitative research is an in-depth analysis in order to understand the *what* and *why* of human behaviour.

Qualitative research aims to describe unique and changing life experiences in a holistic way, within the lifeworld of the informant. It aims to create an understandable gestalt by using a variety of methods, which are mainly unstructured or semi-structured (Polit & Hungler 1995:16). A qualitative approach accepts that interpretation of a concept is subjective; it generally does not begin with a hypothesis but a hypothesis may emerge from the data. Observation and data collection by the researcher is acknowledged to be a subjective experience in which the researcher becomes personally involved. The researcher is able to collect data which was not expected to be forthcoming, and considers the impact of the context (Mouton & Marais 1990:159-163).

Important characteristics of qualitative research have been identified. These include a belief in multiple realities and a realization that people actively create their social world and perceive phenomena differently. These different perceptions are considered to be valid and are of concern to the researcher. Qualitative research must use an appropriate approach in understanding the phenomenon of interest. The method does not lead the discovery; the topic and discoveries guide the choice of

method as the study proceeds. An inductive approach is used, rather than the deductive approach that is used in positivistic methods. The qualitative researcher is committed to the informant's viewpoint; he respects the informant's ideas and tries to understand them clearly. Qualitative research avoids interfering with the natural context. It does not manipulate any variables as happens in experimental research. Qualitative approaches accept that the researcher is a participant who affects the research. While attaining objectivity is a major concern of quantitative studies, in qualitative research the researcher is an instrument, and subjectivity is accepted. Qualitative approaches report findings in descriptive narratives which record the data from informants; this may be stories, quotations or observed behaviour (Streubert & Carpenter 1995:10-12).

Qualitative research is concerned with the 'emic' or insider's perspective; this means that the researcher aims to explore and understand the ideas and perceptions of the informants from their point of view. The researcher becomes involved in the data collection; this involvement has been referred to as 'immersion'. This involvement is reflected in the trusting relationship that the researcher builds up with informants using interpersonal and communication skills (Holloway & Wheeler 1996:3-8).

While data analysis in qualitative research involves systematic organization of data, there is also the need for intuition and creativity in recognising important recurring themes and in subsequently arranging them into a descriptive account, which will convey a picture of the informants' experience to the reader. Data collection and data analysis guide each other and the researcher has a flexible approach to following new and interesting findings (Polit & Hungler 1995:517-521).

The five main phases of the research process can be described as the conceptual phase (see paragraph 3.3), the design and planning phase (see paragraph 3.4) the empirical phase (see paragraph 3.5), the analytic phase (see paragraph 3.6) and the dissemination phase (see paragraph 3.9) (Polit & Hungler 1995:31-37). Throughout all of these phases, the issue of trustworthiness (see paragraph 3.7) and the importance of ethical research practice (see paragraph 3.8) are addressed. The main phases of the research process and their interrelationships are represented in Figure 3.1.

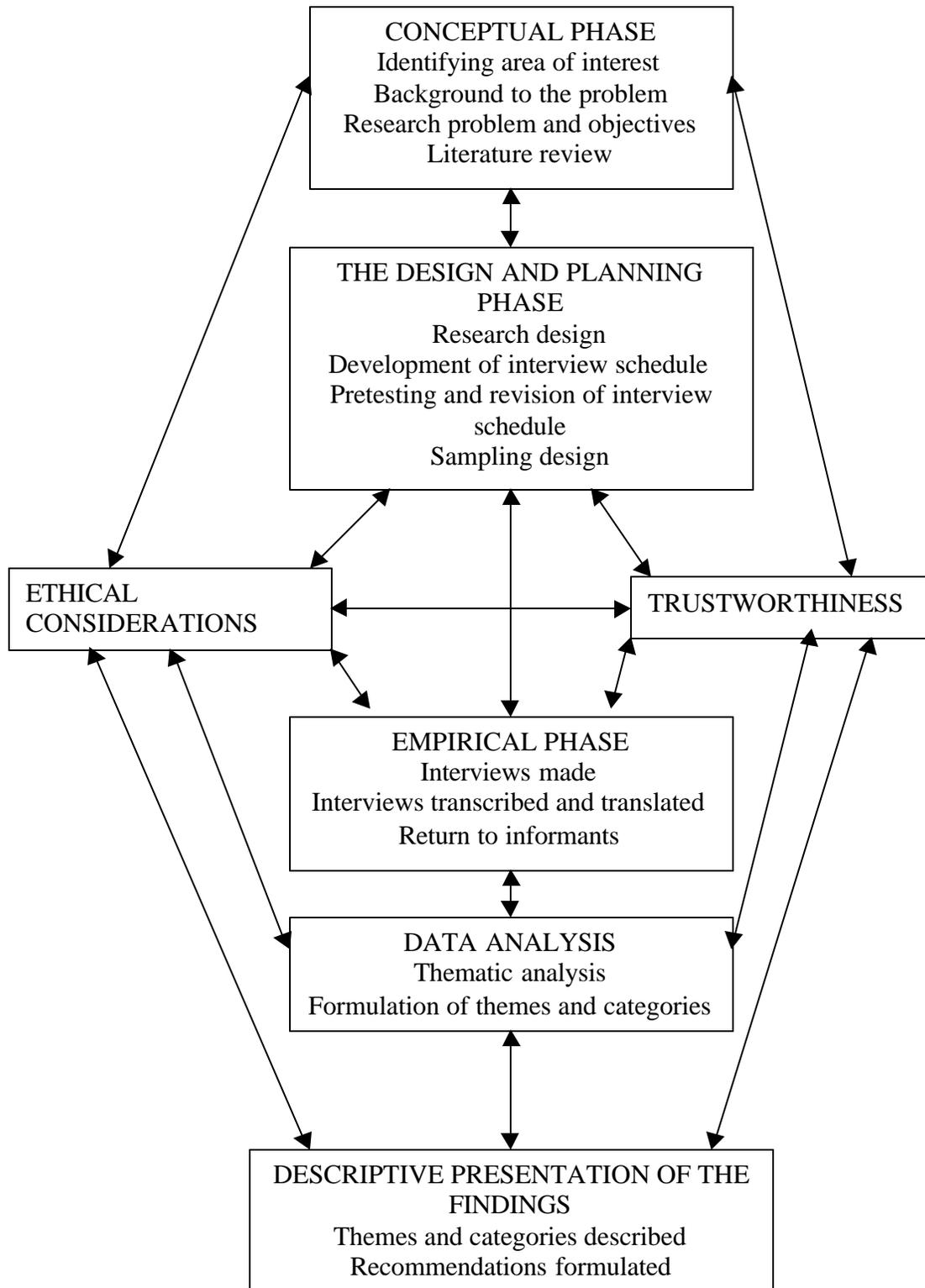


Figure 3.1
Phases of the research process
 (Applied from Polit & Hungler 1995:31-37)

3.2.1.2 Assumptions of qualitative research

The qualitative research paradigm is founded on, amongst others, the following assumptions:

- humans are complex and experience life in individual ways
- truth is subjective and depends on the context
- the researcher can investigate life experiences and perceptions of other people by observing them or communicating with them
- the researcher is an instrument of the research and cannot be entirely objective; bias is acknowledged and reflexivity is used
- a valid sample can be obtained if the researcher selects informants who are living the experience under study and continues with data collection until data saturation occurs
- qualitative research involves being with people in their normal environment
- qualitative research involves description of human experience derived from analysis of data (LoBiondo-Wood & Haber 1994:255-257).

3.2.1.3 Motivations for using qualitative research for this study.

The qualitative research approach and its assumptions are compatible with the research question and objectives of this study. Investigating health beliefs is possible if the researcher accepts that each informant's experience and perceptions are of value and may be different from another informant. A quantitative approach would have allowed for collection and analysis of data using preconceived ideas of what should be collected. A qualitative approach was appropriate as the subject required exploration; there were no previous studies to provide a basis for a quantitative approach.

3.2.1.4 Purposes

Qualitative research approaches arose in the social sciences as a means of studying human phenomena not amenable to quantitative measurement. Some aspects of reality may not be examined in objective and replicable ways. Qualitative research

approaches allow an exploration of social experience and its meaning. *“The idea of truth and thus reality may in fact rest more on personal perception ... than on positivistically derived scientific fact”* (Streubert & Carpenter 1995:2). Subjective knowledge derived from qualitative approaches deserves attention as it represents an important part of reality. To use the paradigm of Carper’s fundamental patterns of knowing, quantitative approaches mainly use empirical knowing while qualitative approaches use mainly aesthetic, personal and ethical patterns of knowing. Empirical science aims to predict and control; human science aims to *“study and create meaning that will enrich and inform human life”* (Streubert & Carpenter 1995: 6); to discover, describe and understand human phenomena (Streubert & Carpenter 1995:1-12).

While the researcher tries *“to be as open-minded and receptive as possible, seeing all the patterns that begin to emerge”* (McNeill 1990:77), she needs to be aware of her preconceived ideas. Traditionally it was recommended that these ideas be noted and consciously set aside or ‘bracketed’ (Lobiondo-Wood & Haber 1994:269), although reflexivity is more realistic (Coolican 1999:179–181).

3.2.1.5 Methods

Qualitative research does not begin with a hypothesis but, as in this study, may start with a research question or problem statement. This study involved a literature review in the conceptual phase, which helped to refine the research question, contextualise the study and guide the formulation of relevant questions.

The data collection method used in this study was the semi-structured interview. The sampling method was non-probability and purposive.

Quality of data was not measured by the reliability and validity measures applied to quantitative research data; the issues of trustworthiness were considered. Analysis of data involved thematic analysis.

3.2.2 Research approaches used in published studies on health beliefs

Older studies such as those by Ntiro (1972) appear to represent viewpoints and provide anecdotes; more recent studies utilise a qualitative research approach which is often ethnographic. To consider a selection of studies discussed in Chapter 2, it is noted that Selepe and Thomas (2000:96) used an ethnographic approach; Holt (2001:148) describes her study as being “*a limited ethnonursing study*”, Papadopoulos (2000:182) describes her study of health beliefs as qualitative and Juntunen et al (2000:174) describe their study of the Bena in Tanzania as ethnographic.

3.2.3 Advantages and disadvantages of the qualitative research approach

A qualitative research approach allows the researcher to gain rich and valuable data, which could not be obtained effectively by other methods. The data can be used to explore a new area of study and can provide rich descriptions which are of value for students, practitioners and subsequent researchers. Qualitative approaches are laborious and time-consuming. There are various risks associated with qualitative approaches, such as an “*ever-present danger of the researcher’s ‘going native’*” (McNeill 1990:82) or losing detachment. The researcher needs to be sensitive to the impact she is having on the research, and the impact of the research on her (McNeill 1990:82-83).

3.2.4 Research approach used in this study

Health beliefs are not directly observable or immediately amenable to quantitative analysis. The purpose of this study was to discover the informants’ health beliefs and practices. The qualitative approach allows for an understanding of the Pare’s view of their world, or their emic perspective (Lobiondo-Wood & Haber 1994:268). The study deals with an area on which there appears to be no recent published material; the qualitative paradigm was chosen as this allows for exploration of new subject areas. The study sample was taken from the cultural group who are “*living the phenomenon under investigation*” (Lobiondo-Wood & Haber 1994:269). The researcher was a ‘neutral’ collector and analyser of data, who aimed to gain an emic

view of the beliefs of people belonging to a particular cultural group. The researcher was the instrument in terms of collecting, interpreting and analysing data. The informants were interviewed in their home environments, which is consistent with the notion of fieldwork.

3.2.5 Methods used in this study

In this study the conceptual phase involved identifying an area of interest and investigating it. Then the research problem was formulated and refined and research objectives identified. A literature review was done in this phase.

The design and planning phase involved identifying the qualitative approach as suitable for this study, and the interview as a suitable method of data collection. The data collection instrument was designed and pretested and revised. The sampling design was chosen.

In the empirical phase, interviews were conducted and then transcribed and translated.

In the data analysis phase, a thematic analysis of the translated interviews was undertaken. This phase was concurrent with the empirical phase until data saturation occurred.

In the dissemination phase, the data was presented and discussed, and recommendations formulated. All of the phases discussed above are described in detail in paragraphs 3.3, 3.4, 3.5, 3.6, and 3.9.

3.3 CONCEPTUAL PHASE

3.3.1 Background to the problem

Research problems often arise from experience, the nursing literature, and theories (Polit & Hungler 1995:43). The researcher noted from experience the poor quality of nursing care in Tanzania while involved in clinical teaching of student nurses.

Concerns about the quality of nursing care in Tanzania are also reflected in the literature (see paragraph 2.7). Individualized care with attention to cultural factors does not always appear to be practised. Leininger's theory of cultural care diversity and universality contains the hypothesis that "*efficacious or therapeutic nursing care is largely culturally-determined, culturally-based and can be culturally-validated*" (Leininger 1994:35-36). The researcher had developed an interest in transcultural nursing through living in several different cultures and from studying transcultural nursing. She had developed the belief that understanding and respecting cultural values is an important factor in providing quality nursing care.

While there is some literature providing written material about the health beliefs of the Chaggas who are the largest tribe numerically in the Kilimanjaro Region, there appears to be no available published work relating specifically to the second largest tribal group in the region, the Pares. Being a dissertation of limited scope, it would not have been possible to attempt a complete cultural assessment of the Pares. Health beliefs were identified as being a central factor in health care decision making.

Thus the practical problem of how to improve nursing care, coupled with assumptions from Leininger's theory, and a lack of literature, led to the identification of the research problem. It appeared to be an important problem, in that large numbers of urban Pares are using biomedical health facilities. It also appeared to be a feasible problem to investigate, as there are many potential informants.

3.3.2 Research problem

The research problem can be expressed in terms of a statement of purpose or a research question (Polit & Hungler 1995:50). The purpose of the study is to identify the health beliefs and practices of urban Pares living in Moshi, Tanzania. The guiding research question is:

- What are the health beliefs of the urban Pares living in Moshi, Tanzania?

3.3.3 Research objectives

The following research objectives were formulated to guide the researcher. In this study the researcher aimed to do the following:

- gain an understanding of the health beliefs and practices of the urban Pares of Moshi, Tanzania
- describe the health beliefs and practices of the urban Pares of Moshi, Tanzania
- recommend how nurses may modify their current practices to provide culturally congruent care for this group.

3.3.4 Literature review

While some qualitative approaches may require a literature review to be deferred until after data collection (Brink & Wood 1998:348), in other approaches such as ethnographic studies a literature review is considered important prior to data collection (McNeill 1990:72). There is a need to “*identify the outcomes of past research, noting limits*” (Grbich 1999:163). In this study the literature review helped in the formulation of the research problem and to guide the researcher as to the type of questions to ask to obtain a more accurate view of people’s experience. This is presented in Chapter 2. 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 extent and content of the literature available. After the research findings were analysed and interpreted, the researcher again reviewed the literature and situated the findings in relation to the existing knowledge in the literature about the phenomenon under investigation.

3.3.5 Issues affecting all phases

Trustworthiness (see paragraph 3.7), including the issue of reflexivity (see paragraph 3.7.1.4) and ethical considerations (3.8) were of concern in all the phases of this study.

3.4 THE DESIGN AND PLANNING PHASE.

The design and planning phase describe how the researcher chose the methodology to address the research question and objectives. Careful planning in this stage prepared for the actual collection of data in the subsequent phase. The research and sampling designs were chosen to ensure rigour and trustworthiness (Polit and Hungler 1995:32).

3.4.1 Research design

3.4.1.1 *Context of the study*

The context is of major significance in qualitative research. It refers to the space and environment in which the social phenomenon took place. Factors like time, people and changes in the environment characterise the context. This necessitates the researcher understanding the informants' context regarding time, space, and their culture. This understanding facilitates an interpretation of the data that is meaningful and not deficient. An underlying assumption of qualitative research is that "*there is more than one way to know something and that knowledge is context bound*" (Streubert & Carpenter 1995:9). While quantitative research may claim to be 'context free', qualitative research acknowledges that it is 'context dependent' (Streubert & Carpenter 1995:12).

Kilimanjaro region is situated in the northeastern part of Tanzania. It has six districts, Moshi urban, Moshi rural, Rombo, Hai, Same and Mwanga (see Figure 1.2). Moshi town has an estimated population of 200,000. It has grown rapidly in the last 40 years; the population growth is attributed to high fertility rates and a trend of migration from rural to urban areas. The growth rate of Moshi urban district between 1978 and 1988, for example, was 6.4% (United Republic of Tanzania 1994:9). The Pare tribe was a population group of 55,648 in the census of 1928. By 1978 there were 208,000 Pares and it was estimated that there would be 365,729 members by the year 2000 (see Table 2.1) (Forster & Maghimbi (eds) 1992:16) (see paragraphs 1.2.2 and 2.6.2).

The health care context is described in paragraph 2.8. Currently, there are many technological changes such as increased availability of radio and television so that urban Pares are now exposed to cultures other than those living locally. While there are many changes taking place and there are expectations of a changed lifestyle connected to education, many urban Pares face financial difficulties that have a major impact on their lifestyle, health and health care options. Poor housing and overcrowded conditions are common in urban Moshi at the present time, with poor infrastructure and environmental hygiene. The AIDS epidemic is an issue causing great concern in Tanzanian society.

3.4.1.2 Non-experimental design features

Non-experimental designs do not manipulate the environment or the phenomenon under study. This type of design is appropriate in descriptive studies, and when the aim is to explore what people think or do in their everyday lives. Qualitative research generally avoids manipulation or interventions in order to examine the phenomenon as it normally occurs (Polit & Hungler 1995:175-6). This study was non-experimental as there was no intervention or manipulation, and informants were interviewed in their own home setting, and were asked to provide information about their beliefs and normal lives.

3.4.1.3 Descriptive design features

Descriptive design features were used in this study, in order to obtain information through interviews and then to describe the phenomenon with the purpose of providing new information about it (Polit & Hungler 1995:640). The descriptive design aims to observe a phenomenon, to describe it, and may then classify the findings (Polit & Hungler 1995:11). It involves studying the situation as it occurs naturally without any intervention; there is no randomisation of subjects (Polit & Hungler 1995:178). It aims to give an accurate picture of individuals, situations or groups (Polit & Hungler 1995:640). It takes into account the context in which the informants' live, and aims to provide information that is meaningful and not deficient (Neuman 2000:14). Descriptive studies have specified objectives which guide data collection, and a defined study population (Kothari 2001:47). This study involved a

search for information about the health beliefs of urban Pares according to objectives which were used in the development of an interview guide. The data was then used to produce a descriptive account, which was reviewed by an informant who confirmed its accuracy. It involved no intervention or randomisation, and was carried out in people's normal environment.

3.4.1.4 Exploratory design features

Brink and Wood (1998:309) describe the indications for the use of exploratory designs including the situation where a problem has been identified but no literature exists. When discussing the use of the exploratory design in nursing, they note that "*each exploration into a particular client group adds information about the range of behaviours, beliefs and practices of the people we nurse. We need information about people in both the healthy and the ill or traumatized state because we need to know what they want (or need) from us*" (Brink & Wood 1998:316).

The exploratory design involves the discovery of new ideas and insights, and requires a flexible approach. The data found guide the study direction (Kothari 2001:45). The exploratory design involves describing and looking at "*the dimensions of the phenomenon, the manner in which it is manifested, and the other factors with which it is related*" (Polit & Hungler 1995:11). This study looks at a previously unreported subject. The use of open-ended questions in a guided interview framework, and the probing of informants' answers allowed for flexibility to further explore the study topic. The researcher was able to move beyond the limits of preset questions based on expected findings from the literature to explore facets of health beliefs specific to this cultural group.

3.4.2 Data collection instrument

3.4.2.1 The researcher as instrument

The researcher can be considered to be the primary research tool in the study (Streubert & Carpenter 1995:90). A self-administered questionnaire, for example, would not have yielded the required data (see paragraph 3.5.1.1.4). The human

presence of the interviewer who was able to create a relationship, use the guiding questions flexibly, and probe to explore issues allowed for the collection of rich data.

3.4.2.2 Schedule of guiding questions

Semi-structured qualitative research interviews use an interview guide to provide an outline of topics to be covered. In this study, guiding questions were not necessarily followed strictly in the sequence prepared; sometimes the informant started talking about a topic which the interviewer expected to ask about later on. It was important to maintain the flow of the interview, so a flexible approach to the order of questions was applied. Guiding questions were constructed based on information about health beliefs, and cultural assessment tools that are already developed, as discussed in Chapter 2. The need to adapt existing tools is noted by different authors, including Morris (1996:31–38).

While having guiding questions imposes some structure on the interviews, the researcher was aware that they are only a tool and not a rigid formula (Polit & Hungler 1995:517-518). There was a need to use different types of questions in order to obtain a clear understanding of the beliefs of the informants. A copy of the guiding questions is included as Annexure B.

3.4.2.3 Source of questions

The questions were constructed following the literature search, and were based on the various sources identified there. These include Luckman (1999:47-49,197,199-203), Holland and Hogg (2001:15-16) and the Andrews/Boyle transcultural nursing assessment guide (Andrews & Boyle 1999:541), as well as the research studies discussed in the literature review.

3.4.2.4 Type of questions

Interview questions may be open-ended or closed-ended (Grbich 1999:94). Closed-ended questions call for a limited response. The guiding questions used in this study were open-ended. Open-ended questions were used to allow the informants to express

their views without being limited to fixed alternatives. Open-ended questions such as “How do you view illness?” allow the informant to give any answer he wishes. This allows a “*richer and fuller perspective on the topic of interest*” (Polit & Hungler 1993:202-203).

The nature of exploratory qualitative research requires largely the use of open-ended questions. When clarifying a point, rephrasing it as a closed-ended question was sometimes useful. A closed-ended question demands a limited response, such as “yes” or “I don’t know” (Polit & Hungler 1993:202-3). For example, a question such as “Do you mean that a woman who is pregnant will stop breastfeeding because she thinks her milk is contaminated?” used after the informant has provided information on the subject was sometimes needed to clarify that the researcher had fully understood the informant. Leading questions suggest the answer that is expected, and require care in their use (Hein 1980:41–62). However, leading questions are valuable to check on the interpretation of a part of an interview; “*leading questions do not always reduce the reliability of interviews, but may enhance it; rather than being used too much, deliberately leading questions are today probably applied too little in qualitative research interviews*” (Kvale 1996:158).

Each question has a thematic and dynamic dimension; thematically it relates to the research question and objectives. Factors such as the quality and content of the questions dynamically affect the interviewer / informant relationship. Questions need to be stated clearly and in understandable language, and be interesting so as to encourage the informant to respond. Personal and sensitive issues can create tension and alter the dynamics of the interview (Kvale 1996:130). When sensitive and personal issues were to be addressed, they were delayed until the latter part of the interview, to allow the informant time to develop a sense of trust in the interviewer.

Different types of questions were used during the semi-structured interviews. Introducing questions were based on the planned guide, and often produced a lot of information. Follow-up questions or non-verbal signals from the interviewer were used to encourage the informant to say more on a topic, particularly if the interviewer noted that the informant has special knowledge or interest in it. Probing questions pursued a particular theme that the interviewer was concerned to understand in more

detail. Specifying questions requested more precise information. Direct questions asked for information about personal views or experience, and were generally left to the latter part of an interview. Indirect questions such as “what do urban Pares normally do ...?” may have elicited a response which reflected other people’s views or that of the informant. Structuring questions were used to introduce a new theme, or to return to the theme. Silence was used sensitively in interviews to allow informants time to reflect without the pressure of constant questioning. Interpreting questions helped the interviewer to clarify what has been said, such as “do you mean that some urban Pares are knowledgeable about ...?” (Kvale 1996:133-135).

3.4.3 Pretesting of the interview schedule

Pretesting involves the use of a data collection instrument with a small sample of informants to check whether it is clearly worded and easily understood (Polit & Hungler 1993:203). The interview schedule was tested with two informants, one male and one female. Questions relating to worldview, such as “what is man’s innate human nature” and “what is man’s relationship to nature” were found to be unclear to respondents. It was decided that these questions were not central to the study and should be omitted.

3.4.4 Sample and sampling design

Sampling involves selecting a part of the population to represent all of the population (Polit & Hungler 1993:174). Sampling designs may be probability or non-probability. Probability sampling involves random choice of subjects from a population; it is suitable when quantitative methods are used and generalisation and prediction are required. Non-probability sampling involves the researcher in choosing subjects for a particular reason. Purposive sampling is a type of non-probability sampling in which the researcher chooses subjects with specified characteristics. Convenience sampling involves choosing subjects that are easily available to the researcher (Kothari 2001:72-73).

Qualitative research designs generally use non-probability sampling methods, and a relatively small sample size, since control, generalisation and statistical analysis are

not required (Streubert & Carpenter 1995:23-24). The sample size is determined by the point at which data saturation occurs.

3.4.4.1 Criteria for selection of informants

The specified eligibility criteria for selecting informants in this study were that they should be:

- Pare by tribe
- Currently living in urban Moshi
- Adult
- Not a patient, student or employee of the health institution where the researcher is employed to avoid the risk of exploitation (see paragraph 3.8.1.2)
- Willing and able to be interviewed
- Able to communicate in Swahili or English

3.4.4.2 Population

A population can be considered to be the focal group from whom the researcher wants to learn something. It is the totality of all the objects and subjects that meet the requirements of a specific situation. An accessible population can be described as all the cases that meet the criteria and are accessible for the study (Polit & Hungler 1995:33; 229-230). The research population was made up of the members of the Pare tribe now living in the town of Moshi.

3.4.4.3 Sample design

A sample is a subset of elements from the population (Polit & Hungler 1995:230). In qualitative research the aim is not to generalise findings and thus there is no need to determine the number of informants to be interviewed. The required sample size in qualitative research depends on the collection of data, and cannot be predicted in the conceptual or design and planning phases. The sample is found to be adequate when data saturation occurs (Brink & Wood 1998:352; Streubert & Carpenter 1995:23-24).

Brink and Wood (1998:320) suggest that “*exploratory design calls for small samples that are chosen through a deliberative process [and] ... are usually purposive*”. The sample selection method in this study was purposive sampling. Individuals were identified who were known to the researcher or other social contacts. There were not specific ‘key informants’ as every urban Pare’s views on health beliefs are as valuable as another’s.

3.4.4.4 Sample characteristics

The size of the sample was determined by reaching the point of data saturation, which is where no new themes were appearing from the data (Polit & Hungler 1995:531). This was reached after interviewing nine informants. Five were female and four were male. The age range was 40 to 79 years, with a mean age of 57 years. While six of the informants were Lutheran, one was Seventh Day Adventist, one was Catholic and one was Muslim. These are the most common religious affiliations of the Pares. A reviewer who also met the criteria for selection of informants assisted later in the study (see paragraph 3.7). Biographical data of the informants is presented in Table 3.1.

Table 3.1: Characteristics of informants

Informant code	Language used	Religious affiliation	Sex	Age
A	Swahili	Lutheran	Female	60
B	Swahili	Lutheran	Female	61
C	Swahili	Lutheran	Male	63
D	Swahili	Lutheran	Male	79
E	Swahili	Lutheran	Male	40
F	Swahili	Roman Catholic	Female	40
G	Swahili	Lutheran	Male	66
H	Swahili	Muslim	Female	45
I	English	Seventh Day Adventist	Female	56
Reviewer	Swahili/English	Roman Catholic	Male	34

The mean age of this group is considerably higher than the mean age for urban Pares. This may be partly because friends of the researcher who assisted in identifying informants judged that older people would have more knowledge of traditional Pare beliefs and be more ‘useful’ informants. Older informants were also judged to be more available to participate than younger people still in paid employment. It is possible that a significantly younger group of informants may have presented a

different perspective on some issues. However, the reviewer who is aged thirty four years found the data presented in Chapter 4 to be congruent with his experience and perspective.

In this phase the issues of trustworthiness and ethical considerations were considered, as illustrated in Figure 3.1. these two aspects will be discussed in paragraphs 3.7 and 3.8.

3.5 EMPIRICAL PHASE

The empirical phase involved collecting the actual data as well as preparing for the data analysis phase (Polit & Hungler 1995:35). The type of data collected in qualitative research are verbatim reports or observable characteristics that can be reported in verbal descriptions (Brink & Wood 1998:5). Tesch (1990:56) considers that qualitative research is research that exclusively uses words as data. Words are part of language and language can be studied as communication. Words can be explored as an art form, explored as information or interpreted. Qualitative research deals with the ways people experience life and identifies emerging themes of the phenomenon (Tesch 1990:68). In this study verbatim interviews were used as the data for subsequent analysis.

3.5.1 Interviews and field notes stage

This stage involved the researcher visiting informants and collecting data from them.

3.5.1.1 Qualitative research interviews

3.5.1.1.1 Definition of interview

An interview can be considered to be a medium of exchange; it involves verbal communication with a particular purpose. It is a form of “*interaction in which information is needed and shared*” (Hein 1980:25). It is “*conversation with a purpose*” (Evans 1971: 110). The purpose of an interview includes gathering

information which describes an event, experience, perceptions, behaviours, attitudes or beliefs, feelings and values (Hein 1980:27).

3.5.1.1.2 Types of interview

An interview may be informal, guided or structured (Grbich 1999:93). An informal interview allows the informant to structure the interview, and may even allow him to choose the topic. A structured interview involves the interviewer in keeping to a predefined set of questions, with specific limited objectives in view. A guided interview has broad objectives reflected in guiding questions, which encourage informants to describe their views and experiences on particular themes, and allow the interviewer the freedom to explore any issues that arise. Guided interviews were used in this study, being congruent with the research design.

5.5.1.1.3 Characteristics of qualitative research interviews

Qualitative research interviews involve the everyday life experience of the informant. The interviewer tries to interpret the meaning of what is being said, and is concerned with qualitative knowledge. She obtains descriptions of the life world of the informant, which are specific rather than general opinions. The interviewer uses “*deliberate naivete ... an openness to new and unexpected phenomena*” (Kvale 1996:31). She focuses on certain issues without having a strict structure; she expects that some responses may be ambiguous or even contradictory. The informant may change his views or perceptions during an interview or a series of interviews. Different interviewers may obtain different data from the same informant; interpersonal factors and individual sensitivity affect this. The well conducted interview should be a positive experience for those involved (Kvale 1996:29–36).

3.5.1.1.4 Advantages of interviews as a data collection method

While the use of a questionnaire may be less costly and time-consuming, the quality of data in terms of trustworthiness (see paragraph 3.7) is generally better when an interview is used. This is because interviewing allows the researcher to collect data directly from informants, and to clarify or expand on any issues. It allows the

researcher to develop a relationship with the informant, and to note his non-verbal communication as well as his verbal communication. It may allow the researcher some choice of setting; if it is in the informant's natural environment it will allow for observation of this environment. Depending on the subject of the study, this may bring the benefit of being able to compare observed findings and reported findings. Interviews allow for a flexible approach; new data of interest can be 'followed' and explored. An individual interview allows each informant the freedom to express his own views without the censure of others (Kothari 2001:120–122).

With the complex subject of health beliefs, informal discussions, observation and questionnaires may provide some useful information, but the need to clarify responses and probe for more information makes interviewing the data collection method of choice.

3.5.1.1.5 Problems with interviewing

Interviewing is time-consuming for the researcher to undertake, transcribe and analyse. It requires co-operation and commitment of time from informants. If there is an overall time constraint, the interview method will allow for a smaller sample size than questionnaire. The success of an interview depends on the skill of the interviewer (Kothari 2001:122).

While an interview can help to obtain data of different types, the researcher needs to be aware that when asking about experiences, this is 'second-order data' "*as it is one step removed from the actual occurrence of the situation and is therefore subject to problems of recall*" (Grbich 1999:85–86). There may be problems of the interviewer and interviewee understanding each other even if they speak the same language. The interviewer may assume that a response is the 'truth' but the interviewee may create a protective 'front' and expose only the outside layer; he may express public rather than private views, and may even change his opinion during the course of an interview (Grbich 1999:86). The researcher has to "*accept that the information provided is only one facet of the multiple aspects of 'truth', only a few of which are likely to be exposed in a single study*" (Grbich 1999:87).

3.5.1.1.6 Role of interviewer as instrument

Effective interviewing requires considerable skill; *‘the interviewer’s function is to encourage participants to talk freely’* (Polit & Hungler 1995:272). It has been noted that the major factor affecting quality of data collected during interview is the quality of the relationship established between the interviewer and interviewee. Characteristics of a good interviewer include listening ability, enthusiasm, interest in what the interviewee has to say, is focused, sensitive and compassionate (Grbich 1999:89). The researcher in this study made an effort to show respect and used a friendly approach, culturally appropriate dress, non-verbal communication and greetings which helped to establish a good relationship with the informant. The researcher has previously found Tanzanian informants willing to share information about their culture. She encouraged this willingness by showing an interest in what the informant was saying. Some aspects of health beliefs are sensitive, however, and the difficulties involved in obtaining truthful answers are noted above.

“In this type of work [qualitative research] there is inevitably a stage during which the ‘researcher’ acts as the ‘instrument’ in the capture and analysis of data derived from human activity and speech” (Andrews, Lyne & Riley 1996:442). The interviewer as an instrument is committed to, and becomes involved in the interview process; indeed he is an integral part of the process. The interviewer needs to be aware of himself/herself and the impact he/she has on others, his/her limitations and strengths, his/her values and feelings (Evans 1971:125-126). In this study, the interviewer was aware of being an instrument in the collection of new data, which would otherwise remain undocumented at the present time. She was aware that her background, education and life experience were all very different from those of the informants. She was aware that the informants might not be used to conversing with non-Tanzanians, and might feel threatened by the interviewer being a professional nurse. She tried to use a friendly, respectful and interested approach, as well as using Swahili, to help reduce the impact of the cultural and social differences.

The researcher was aware of some of her personal limitations including in respect to use of Swahili (see paragraphs 3.5.1.4, 3.5.1.5 and 3.5.1.6). She was also aware of some of her strengths, such as her experience and interest in different cultures. She

was aware of her own values and feelings, for example in relation to religious beliefs and witchcraft.

The interviewer needs to be an expert in the field being studied, but alert to follow up new ideas and identify important issues. In this study, the interviewer had already undertaken some studies in transcultural nursing, had studied Chagga culture (Savage 2002:248-253) and performed a literature search specific to the research question. Suggested effective interviewer qualities include being knowledgeable, clear, gentle, sensitive, open, steering, critical, remembering and interpreting (Kvale 1996:147–151). The researcher made an effort to ask questions in clear Swahili, using a non-judgmental and enquiring approach. She tried to be sensitive to understand the meaning of what the informant was saying and asked for clarification when necessary. She also tried to be sensitive to the feelings that were being expressed by informants verbally and non-verbally to allow for appropriate supportive reactions.

The interviewer found that she had to steer the interview at times; for example, several informants were concerned to relate their experiences in health facilities at some length. The interviewer expressed interest and concern, asked for constructive suggestions for improving care in health facilities, and then returned to issues directly related to the research question. She tried to be open to what the informant was saying, whether it was expected or unexpected data. She tried to follow up interesting and unexpected information. She made an effort to remember what the interviewee had already said. This demonstrated interest in the interviewee, as well as reducing time wastage.

3.5.1.1.7 Interview models

An interview may involve control, freedom or a balance of the two. The interview model of control is content-oriented, structured and directive. The interview model of freedom is process-oriented, non-structured, nondirective and open-ended. Establishing rapport and a positive emotional atmosphere is important. The interview model of balance was used in this study, to allow the interviewer to achieve particular goals, using some measure of structure, while giving the informant the opportunity to express himself freely (Hein 1980:29-39). The schedule of guiding questions

provided some structure but was used flexibly (see paragraph 3.4.2.2). It used open ended questions, to allow informants freedom to express themselves (see Annexure B).

Interviews can also vary with respect to the emphasis on exploration versus hypothesis testing, with respect to description versus interpretation and also on an intellectual-emotional dimension. Exploration was required as it appeared to be the first time the study's research question had been studied. Exploration involved the use of the guiding questions and probing questions. The informants were asked to describe their health beliefs and cultural patterns; they were not asked to interpret or explain them. The informants were asked to provide information from their life experience, rather than describing their feelings. Thus, this study involved exploration, description and intellectual emphases.

3.5.1.1.8 Stages in an interview

An interview has an introductory stage, a middle stage and a closing stage. In the introductory stage, the interviewer took some time to become acquainted with the informant, and to explain the purpose of the interview, what was being requested of the informant, and all the information that was required to obtain informed consent (see Annexure A). This included the issue of confidentiality, and the right of the informant to refuse to answer any question and to terminate the interview at any stage. In this introductory stage, the interviewer began to observe the informant and his surroundings, and to establish a rapport with him. This introductory stage was largely a time for briefing the informant.

The middle stage of an interview involves work; it demands interaction so as to achieve the goals of the interview. In this stage the interviewer used skills in observing, listening, questioning and responding, to help encourage informants to answer questions in detail.

The closing stage of an interview involves consolidation. The interviewer used this stage for final clarifications, review, sharing, reflection, and summary. The interviewer expressed appreciation for the co-operation of the informant. This was an

appropriate time for debriefing, and for relieving emotional tension or dealing with any distress produced (Hein 1980:69–79; Kvale 1996:127-128), for example in several informants who had described unpleasant experiences in health facilities.

3.5.1.1.9 Skills / techniques of interviewing

The interviewer tried to select an appropriate setting for the interview, in consultation with the informant, where comfort and privacy could be maintained and where there would be a minimum of distractions. This was at the informant's own home, either inside the house or in a quiet area of their garden. The interviewer tried to be skilful and sensitive in use of time (Hein 1980:75). Each interview took around one hour, and the interviewer took note of verbal and non-verbal cues suggestive of the informant's willingness or unwillingness to continue the interview.

The interviewer needs to be able to use and adapt the methods of control, freedom and balance, to be able to use different types of questions, to be sensitive to the dynamics of questions and the atmosphere that is created. It is important to create and maintain a good relationship with the interviewee. Interviewing involves the skilful use of questions of different types.

Clarification during an interview was achieved by different techniques such as by example, identifying similarities and differences, by further questions, by restatement and reflection, and through summary. Restatement involved the interviewer putting what was said into her own words so that the informant could validate it. Reflection involved reflection of content, such as by echoing what the informant had just said to encourage him to expand on it. Reflection of feeling involved the interviewer suggesting how she thought the informant might be feeling, for validation. Summarization involved the interviewer in reviewing briefly what had been covered for validation; it was a useful signal to the informant that a topic or even the whole interview was reaching a conclusion (Hein 1980:41–62). The interviewer used observation, listening, questioning and responding throughout the interview (Hein 1980:72).

3.5.1.1.10 Use of and interpretation of non-verbal behaviour

Non-verbal behaviour includes proximity, physical touch, posture, physical movements, gestures, looks and eye contact. The use of non-verbal behaviour by the interviewer should be appropriate for the culture of the informant, considering individual differences relating to age, sex, subculture and personality (Evans 1971:119; Hein 1980:207). For example, a traditional elderly Pare would expect respectful greetings from a younger person to include a handshake, perhaps some genuflection, and limited eye contact. The informal observations of the researcher, through living and working with Pares and other African cultural groups, as well as a previous study of the Chaggas suggested the need to be respectful, friendly and to show genuine interest. These attitudes appeared to facilitate co-operation of informants, who were generally proud of their cultural heritage.

The relaxed posture the interviewer subsequently used, the appropriate eye contact, gestures and facial expressions were all important in conveying respect and interest in the informant. These encouraged the informant to continue responding to questions with details and examples from his experience.

The interviewer was aware of any non-verbal signs of discomfort such as restlessness, reduction in eye contact, closed posture, tense facial expression, answering with gestures (Hein 1980:203-220). These were considered to reflect a problem such as discomfort with the questions, the way of questioning, or overuse of time. The interviewer tried to be sensitive to any incongruence between verbal and non-verbal messages.

3.5.1.1.11 Listening

Listening is the “*dynamic process of attaching significance to what we hear*” (Hein 1980:223). It requires attention, time and interest; it is an active process and is a learnt skill. It involves “*attending to a person as a person*” (Hein 1980:225). It implies respect and concern for another person in their own right; it implies suspension of judgment and openness to another’s viewpoint.

The interviewer was concerned to listen to informants. She tried to be sensitive not only to the overt content of verbal messages but also to the tone of voice, rhythm and speed of speech. The interviewer tried to listen carefully as a way of assessing: it involved identifying important, new or unusual themes; it involved differentiating between the relevant and the irrelevant and deciding what required further explanation or clarification (Hein 1980:223-246).

The interviewer tried to be an active listener, which involved avoiding prejudice, and limiting interruptions. It required the willingness to continuously reassess what was being said in the context of the interviewer's awareness of her own preconceived ideas (Kvale 1996:135).

3.5.1.1.12 Use of silence

The effective use of silence is important in interviewing. The interviewer used silence to provide a period for reflection and observation, and to suggest to the informant that she was not rushing on to another question until the informant had finished what he wished to say. The interviewer tried to be sensitive to individual differences in the use of silence; a prolonged period of silence might produce discomfort (Hein 1980:41–62).

3.5.1.1.13 Creativity

The creative interviewer uses each interview situation with skill to adapt to the particular informant's style of communication, knowledge and interests. The interviewer tried to be creative to maximise the potential of the situation and used humour, concern and sympathy. The interviewer used the components and skills of interviewing in different ways with different informants (Hein 1980:267-277).

3.5.1.1.14 Quality criteria for an interview

The quality of the qualitative research interviews was judged according to various criteria. These included whether relevant and rich answers were forthcoming, and whether informants' answers were long in comparison to the interviewer's questions.

Generally, the interviews were judged to be satisfactory in these respects, with considerable variation depending on the personality of the informant. Other criteria for quality interviews include whether the interviewer clarifies relevant issues; whether interpretation occurs throughout the interview; whether verification occurs during the interview; and whether the interview communicates clearly the meaning without the need for additional explanations. These criteria were also generally met. The interviewer needed to be flexible in approach to motivate and encourage people with different personalities and backgrounds (Kvale 1996:146–147).

3.5.1.2 Tape-recorder / field notes

Grbich (1999:99–100) assumes that interviewees may find videotaping distracting, but would find tape recording acceptable, and the interviewee can be instructed to control the tape recorder. Tape recording requires a reliable recorder and a quiet environment. If the tape recorder is placed on a table, the table should not be in use for other purposes (Kvale 1996:162). It was found in this study that although some informants were not used to being interviewed, they were willing to consent to be interviewed and tape-recorded.

3.5.1.3 Timing and location

Interviews took place when convenient to the informant, at a prearranged time, in the informant's home. An undisturbed area of the house or garden was chosen for interviewing; the interviews all took about an hour.

3.5.1.4 Assistance with translation

The researcher was accompanied by an assistant who is fluent in English and Swahili, in order to help with translation as necessary. Minor clarifications were sometimes needed.

3.5.1.5 Transcription

“Transcribing involves translating from an oral language, with its own set of rules, to a written language with another set of rules” (Kvale 1996:165). The interviews were transcribed from audio-cassette by the assistant within a few days of the interview, and then reviewed by the researcher. Difficulties in transcription include reliability, which is improved by having two different people check on the transcription. It is not possible to have a completely objective ‘correct’ transcription of a verbal report; however, a clear and careful transcription should meet the requirements of the study. Word for word transcriptions were made, but records of intonation and pauses were not considered necessary for this study (Kvale 1996:165-170). Annexure C provides an example of a transcribed interview in Swahili.

3.5.1.6 Use of Swahili

Eight of the interviews were conducted in Swahili. One was conducted in English as the informant was fluent in this language. The transcribed material was translated by an experienced Swahili translator, and reviewed by the assistant and the researcher. Annexure D provides an English translation of the Swahili interview in Annexure C.

Juntunen (2000:45–49) notes that *‘language barrier and the role of the research assistant are in focus when evaluating the relevance of the data collection’*. Choosing informants who were all fluent in English would have severely restricted the choice of informants, so Swahili was used for most of the interviews. The researcher is fairly fluent in Swahili, and was helped by an assistant on a few occasions when a word or two in the answer was not fully understood, and seemed to be critical in understanding the response, or where a ‘new’ subtopic opened up for which the researcher needed an additional phrase to probe the issue.

3.5.1.7 Return to informants

The informants were requested to allow a second visit if there were any difficulties with understanding the interview records, or if there were need for more clarification

and information. A second visit was made in the case of two of the informants, to obtain more information.

3.6 DATA ANALYSIS

The purpose of data analysis is to arrange, make sense of, and reformulate the research data so as to be able to present it in a logical and clear account. It is a difficult task, and in the case of qualitative research, identified challenges include there being no fixed rules for data analysis, a large amount of data to analyse, and the difficulty of summarising the findings (Polit & Hungler 1995: 520). These challenges were encountered in this study.

Morse (1994:25) describes the complexity of qualitative data analysis. She suggests that it involves piecing data together, making the invisible clear, differentiating between the significant and insignificant, providing logical links between facts that at first sight may seem unrelated, identifying categories and their interrelationships and critically analysing what are consequences and what are antecedents. It is a creative process requiring ingenuity and flexibility.

3.6.1 Data analysis procedure

3.6.1.1 General considerations

A preliminary analysis of data occurs during collection of data. There is a search for relevant data which is then grouped into domains or broader categories (Lobiondo-Wood & Haber 1994:270). While analysing and interpreting data, the researcher needs to keep in mind that she has 'fore understandings' or preconceived ideas about the subject and anticipated findings, and while putting these aside completely is not possible, she should be aware of their impact on her activities (Andrews et al 1996:443). The aim of the data analysis is "*to impose some order on a large body of information so that some general conclusions can be reached and communicated in a research report*" (Polit & Hungler 1995:520). The issue of how much of qualitative analysis is intuitive is debatable (Polit & Hungler 1995:520; Andrews et al 1996:442). Defining intuition is problematic. The use of intelligence (particularly in the sense of

good application of prior knowledge and experience in a new situation), creativity and sensitivity would appear to be important.

3.6.1.2 Thematic analysis

As noted above, tape recorded interviews were typed verbatim and then a full translation made into English. The text was printed out in double spacing with wide margins to allow for notes and comments to be written. Important concepts, recurring themes, and ideas were derived from the content; careful reading was done “*with an eye to identifying underlying concepts and clusters of concepts*” (Polit & Hungler 1995:522). These themes were then examined to identify which ones could be grouped into a smaller number of broader categories. The complete transcript was reviewed to identify any important concepts not noted at first. The researcher was aware that different important concepts may occur within a short piece of text. She was willing to revise categories in the light of new material or new insights. Relationships within the data, such as the similarities and variations between different informants were noted. When no new themes or concepts were forthcoming from new informants data saturation had occurred, and the sample size was considered to be sufficient. The different themes were subsequently presented in an integrated description of the findings (Polit & Hungler 1995:521-533).

3.7 TRUSTWORTHINESS

Quantitative studies are evaluated in terms of reliability and validity. The measures normally applied to determine reliability and validity in quantitative studies are not all appropriate to qualitative research with its differing aims. The final test of qualitative studies may be said to be “*whether the subjects of the research accept it as a true account of their way of life*” (McNeill 1990:83). The draft of the data analysis was submitted to an urban Pare who had not been interviewed, for review. He found it to be an accurate representation of health beliefs in urban Pares. Guba has developed a model to assess the trustworthiness of research studies including qualitative studies. This includes the issues of truth value (credibility), applicability (transferability), consistency, and neutrality (Krefting 1991:1-15).

A summary of the strategies used in this study to ensure trustworthiness are presented in Table 3.2.

Table 3.2: Strategies used to ensure trustworthiness

STRATEGY	CRITERIA	APPLICATION BY RESEARCHER
Truth value	Prolonged experience	The researcher has been living and working with Pares for more than 5 years. Involved with the study for more than 2 years.
	Reducing the risk of preferred social response	Careful wording of questions. Use of sensitivity, respect and local language. Use of hypothetical examples.
	Avoiding over-involvement	Researcher aware of the risk. Limited time available with each informant to form lasting relationship.
	Reflexivity	Constant awareness of researcher's own background and its possible impact on interpretation of data.
	Use of interviewing process	Use of different types of questions and techniques in the interviewing process.
	Establishing structural coherence	Findings examined by an urban Pare reviewer.
	Authority of the researcher	The researcher's previous studies, life experience and publication.
Applicability / transferability	Sample design	Sample characteristics and sampling method described.
	Background data	Background data provided.
	Dense description	Data provided about informants and research context. A "thick" representation of data is presented
Consistency / dependability	Methods described and auditable	Methods of data collection and analysis described. Individual informants' code of identification is inserted after data units to ease the data trail expedition. Records of interviews and transcriptions stored.
Neutrality / confirmability	Ensure truth value and applicability	See application by researcher sections relating to truth value and applicability
	Methods described and auditable	Methods of data collection and analysis described. Records of interviews and transcriptions stored.

(Adapted from Krefting 1991:1-15)

3.7.1 Truth value

Truth value in qualitative research involves "*representing those multiple realities revealed by informants as adequately as possible*" (Krefting 1991:3). Those who experience the phenomenon under study should be able to recognize the descriptions as representing their lived experience (Krefting 1991:4).

3.7.1.1 *Prolonged experience*

It is suggested that credibility can be enhanced by spending sufficient time with informants (Krefting 1991:7; Polit & Hungler 1995:362). In this study, the researcher has lived and worked with Pares for more than 5 years, and the assistant who helped with translation during interviews is a Tanzanian who has always lived in Moshi. However, the period of time available for interviewing was limited.

3.7.1.2 *Reducing the risk of preferred social response*

There is a risk of preferred social response (Krefting 1991:8), especially with someone who may be seen as a visitor (visitors are prized) or an authority figure (nurses and doctors are generally respected (Moland 2002:166-168)). Care was taken to reduce response set bias; for example, the question “what can promote good health?” allows the respondent to provide any answer.

The researcher has previously noted that some Chagga informants seemed shy to admit, for example, that sacrifice to ancestors is a practice that still continues in some families. Chaggas (and perhaps Pares) appear to place a high value on maintaining good personal relationships, while strict truth-telling appears to sometimes receive lower priority (personal experience). This is congruent with the findings of Swartz in the Swahili of Mombasa (1984:85). Tanzanians are aware of western cultural values, and may not want to offend a European. The researcher tried to show sensitivity to informants’ values, and also asked some questions in such a way that the informant would know that she already has some insight into beliefs. For example, rather than asking directly if urban Pares think that witchcraft can affect their health, she might ask “I understand that some Chaggas feel that witchcraft can affect their health. Do urban Pares have similar views?”

Carefully worded questions do not guarantee accuracy of responses. Espoused beliefs and those that are carried into practice may be quite different. For example, Swartz (1984:78–89) found a lack of correlation between interview responses to observed behaviour, when studying the Swahili of Mombasa. *‘It is less than startling to*

observe that people in a wide variety of societies say things for reasons other than that they believe them to be true ... the survey interview data ...[was] ... different from the informally gathered information, and that they do not seem to be in accord with observed behaviour” (Swartz 1984:85).

The researcher used Swahili as much as possible to reduce the barrier between herself and the informants and adopted an interested and respectful manner. The use of hypothetical cases (Krefting 1991:8), such as “what would a Pares normally do if ...” were used to improve the accuracy of some responses.

3.7.1.3 Avoiding over-involvement

There is a risk of over-involvement with informants, and loss of ability to interpret findings (Krefting 1991:8). The researcher was aware of this risk, particularly when informants started sharing negative experiences and associated feelings. However, the length of each interview was around one hour, and a second visit was made with only two of the informants. Although the researcher was invited to return by many of the informants, and was even invited to accompany the informant to their home village in two cases, she did not have time to do this.

3.7.1.4 Reflexivity

Reflexivity, the “*assessment of the influence of the investigator’s own background, perceptions and interests*” on all aspects of the research process is recommended to promote credibility (Krefting 1991:8). In this study it involved the researcher being aware of the impact of her own biomedical / nursing background, her European ethnic background and Christian religious beliefs, for example. The completely different cultural, ethnic and life experience background of the assistant was valuable so that preconceived ideas could be highlighted during discussions.

Grbich (1999:166) warns that “*reflexivity, which is supposed to decentre the researcher, and which needs to address power relations and encourage non-exploitative ones, may be insufficient to address major differences in status, power and values ... the fact that the researched are the object of the study must impact on both current and future relationships*”.

3.7.1.5 Use of the interviewing process

Credibility can be assisted by skilful use of the interviewing process as discussed above (Krefting 1991:11). Reframing of questions and expansion are used, as well as indirect questions such as “do you think most urban Pares”

3.7.1.6 Establishing structural coherence

Data cannot be expected to be consistent from every informant. People experience life in different ways and truth is subjective and context dependent (see paragraph 3.2.1.2). Data was not always consistent from an individual informant within one interview. This may relate to holding beliefs from different paradigms, or an initial desire to provide the interviewer with “acceptable” information. When a relationship of trust was established during the interview, the informant may have felt secure enough to describe his “real” beliefs (see paragraphs 4.4.2 and 4.4.3). The integration of different responses into a cohesive whole depends on accurate interpretation (Krefting 1991:11). This was checked by the urban Pare reviewer.

3.7.1.7 Authority of the researcher

The overall credibility of the human instrument depends on familiarity with the subject, interest in theoretical knowledge, ability to work with qualitative data, ability to consider different theoretical viewpoints and developed investigative skills (Krefting 1991:11). The researcher has studied transcultural nursing at Bachelor and Master’s levels, as well as having lived in Africa for 17 years, allowing contact with different cultural groups. Having pursued nursing studies with Unisa for the last 11 years attests to her continuing interest in theoretical knowledge, tempered only by the time demands of teaching nursing. The ability of the researcher to work with qualitative data is supported by the acceptance of a study of Chagga culture for publication in the *Journal of Transcultural Nursing*.

The ability to consider different theoretical viewpoints may be judged from the literature review of Chapter 2. The development of investigative skills is a part of the

continuing education provided by Unisa. The preparation of new material for the faculty of nursing where the researcher is working also demands investigative skills.

3.7.2 Applicability / transferability

Applicability refers to the ability to generalise the findings of one study to other situations (Krefting 1991:12; Polit & Hungler 1995:362). However, a qualitative study set in the framework of transcultural nursing that explores an area not previously explored, and then describes the findings, produces data that is intrinsically valuable in building up the knowledge base of nursing. It does not need to be generalisable to be of value. Indeed, generalising from one cultural group to another is inappropriate, as pointed out by Holt (2001:146,153) in her study of Eritrean immigrants. Transcultural nursing literature warns that generalising is inappropriate, and even that generalising about one individual within a culture - stereotyping - is inappropriate (Andrews & Boyle 1999:54). The studies reviewed in the literature review of Chapter 2 are used as pointers to guide the research, for example in the development of suitable guiding questions for interviews, but findings from them cannot be generalised to the Pare tribe.

To allow readers of this study to know to what extent the findings of this study may be relevant to their situation, background information about the population being studied is presented in Chapter 1 and demographic data of the sample selected is presented in Table 3.1 (Krefting 1991:4,12). A “thick” representation of evidence relating to all the categories of data is presented in Chapter 4, which should assist readers to decide on the relevance of the findings to their own situation.

3.7.3 Consistency / dependability

Variability is to be expected in qualitative research, while repeatability may be expected from quantitative studies. Consistency is therefore assessed in terms of dependability, which is ‘trackable variability’, ascribable to particular sources. Also, a range of experience is sought, not necessarily the ‘average’ or commonest experience. Atypical findings are valuable as well as general patterns (Krefting 1991:4–5).

Providing sufficient information for an inquiry audit by an external reviewer supports dependability and confirmability (Polit & Hungler 1995:363); see paragraph 3.7.4. To allow for dependability, there is a need to describe clearly the methods of data collection, analysis and interpretation, to make the study auditable. This is attempted in this chapter. Individual informants' code of identification (see paragraph 4.2) is inserted after data units to ease the data trail expedition. The stepwise replication technique (Krefting 1991:13) is not feasible for a study of limited scope.

3.7.4 Neutrality / confirmability

While objectivity is required in quantitative studies, qualitative studies require the researcher to be involved with her subjects. Neutrality of data is considered a more appropriate consideration, which is achieved when truth value and applicability are ensured (Krefting 1991:5).

An auditor should be able to examine the records of the researcher and arrive at similar conclusions; for this, complete detailed records should be kept, including those relating to field notes, summaries and instruments used. Detailed records were kept in this study for peer review or outside audit if required. Using a team of researchers although ideal was not feasible: reflexivity was used throughout (Krefting 1991:14).

3.8 ETHICAL CONSIDERATIONS

Ethical considerations in a qualitative research study may be more complex than those of quantitative research. This complexity relates to issues such as the involvement in people's life experiences, and changing directions that qualitative research may take (Holloway & Wheeler 2000:43; Silverman 2002:201). All the aspects of trustworthiness (see paragraph 3.7) are part of the ethical commitment of the researcher towards sound research. The principles of beneficence, respect for human dignity, and justice were considered, as well as the issue of vulnerable subjects.

3.8.1 Principle of beneficence

3.8.1.1 Freedom from harm

Freedom from harm involves the researcher taking any measures necessary to reduce risks to the subjects of the study including physical harm such as injury or fatigue, harm to the participant's development, loss of self-esteem, stress, fear or economic harm such as loss of wages (Bryman 2001:479; Polit & Beck 2004:143). The researcher was aware that although physical harm was unlikely to arise from a study like this, some "*queries might require people to admit to aspects of themselves that they dislike and would perhaps rather forget*" (Polit & Hungler 1993:356). The researcher made an effort to be sensitive to any psychological discomfort and was prepared to provide debriefing when necessary. The risk of economic harm was addressed by discussing the use of time when informed consent was obtained, and the commitment made regarding use of time was adhered to by the researcher.

3.8.1.2 Freedom from exploitation

Freedom from exploitation involves the researcher in taking measures to prevent any abuse or disrespectful treatment of subjects in a study. There was a risk of exploitation in terms of use of time of the informant in this study (Polit & Hungler 1993:357). The researcher stated the amount of time likely to be used when obtaining informed consent. The researcher was especially aware that it is possible to misuse the privilege of her position as an employed nurse tutor and did not include patients or her own students as informants. Children were not included as informants.

3.8.1.3 Risk/benefit ratio

Risk/benefit ratio refers to the result of a careful analysis of possible risks and benefits of a study. The outcome of the study should be predicted on the basis of previous research, clinical experience and theory, then actual and potential risks and benefits can be identified. If risks are identified, they must be fully justified, and outweighed by the expected benefits. An effort should be made to maximise benefits and minimise risks (Burns & Grove 2001:205, Polit & Hungler 1993:357-8). In this

study, informants were informed of expected benefits and risks. Likely benefits were not direct or immediate to the informants in this study. Short term benefits are for the researcher, to enable her to complete a course of study. This would allow her to teach nurses more effectively, and to increase the nursing knowledge base. In the long term, these benefits would be expected to improve nursing care. Likely risks were loss of time and possible psychological discomfort.

3.8.2 Principle of respect for human dignity

3.8.2.1 Right to self-determination

The right to self-determination involves the principle that subjects of a study should be able to make choices about their involvement, without coercion. Informants were informed that they had the right to stop participating at any time, were free to refuse to give information on any question, and were welcome to ask for clarification at any point (Polit & Hungler 1993:358-359). The risk of coercion was reduced by not including the researcher's students or patients.

3.8.2.2 Right to full disclosure

The right to full disclosure implies that subjects of research have the right to be fully informed about all aspects of the study (Polit & Hungler 1993:359). Informants were fully briefed about the nature and purpose of the study before being interviewed.

3.8.2.3 Informed consent

Informed consent relates to the ethical requirement that subjects of a study need to be able to make choices based on adequate information. There is a need to explain the research in understandable terms to the informants (Brink & Wood 1998:301; Polit & Hungler 1993:359-360). The aim of informed consent is to ensure that participation is voluntary (Silverman 2002: 201). Informants were instructed that this study about health beliefs should help nurses to understand Pares better, and to be able to provide them with better nursing care. They were requested to answer any questions as accurately as possible, that they felt able and willing to answer. They were informed

that the first interview might take up to one hour, and a subsequent brief interview might be undertaken if clarification was needed. If they were willing for the interview to be tape-recorded that would be done, but otherwise the interviewer would write notes of the responses. They were welcome to see a summary of the study when it was completed. Their co-operation was appreciated, but they could terminate the interview or co-operation at any stage. Means of maintaining confidentiality, anonymity and privacy were explained.

Written signed consent was accepted, and willingness to continue with the interview was taken as continued consent. The document providing information for informed consent is included as Annexure A.

3.8.3 Principle of justice

3.8.3.1 Right to fair treatment

Informants have the right to fair treatment, which involves respect for each individual and ensuring that any commitments made by the researcher are honoured (Polit & Hungler 1993:362–363). This principle requires that a clear agreement is made regarding the subject's participation and the role of the researcher (Burns & Grove 2001:203). Informed consent is thus a prerequisite for protecting an informant's right to fair treatment (see paragraph 3.8.2.3). The concept of fair treatment also includes respect for cultural and other forms of human diversity (Polit & Beck 2004:149). The issues which related to this study included access to debriefing, and respectful and courteous treatment. The researcher made an effort to ensure that all informants were treated courteously, including such issues as keeping planned appointments, dressing appropriately, and greeting respectfully with consideration to the age and culture of the informants.

3.8.3.2 Right to privacy

“Privacy concerns respect for limited access to another person” (Burton 2000:64). The right to privacy implies that an individual should decide what personal information should be shared with others, and under which circumstances (Burns &

Grove 2001:200). Issues that are involved in the right to privacy include anonymity, confidentiality (Polit & Hungler 1993:363–364), and risk of invasion of privacy.

Confidentiality and anonymity are ethical problems of exploratory research (Brink & Wood 1998:326). “*Qualitative health care research might be more intrusive than quantitative research ... qualitative researchers work with small samples, and it is not always easy to protect identities*” (Holloway & Wheeler 2000:46). The names of those interviewed were not published in any draft or submission of this study, and while data was being analysed notes and tape recordings were kept in a safe place not accessible to other people. Names were deleted from the records when the study was completed. Quotations were referenced with codes A to I (see Chapter 4). Interviews took place in a setting where other people could not hear the conversation.

There is a risk of invasion of privacy (Brink & Wood 1998:326) when asking questions of a personal nature. The informants were instructed at the beginning of the interview that they were not obliged to answer all of the questions.

3.8.4 Vulnerable subjects

The term “vulnerable subjects” can be used to refer to people who are unable to give informed consent (Burns & Grove 2001:197; Polit & Hungler 1993:364–365). Informants of this type, such as children, mentally ill or emotionally disabled persons, the severely ill or physically disabled, the terminally ill, the institutionalised or pregnant women were not used in this study.

The informants in this study could be considered to have made themselves vulnerable by describing certain aspects of health beliefs. For example, describing beliefs in ancestral spirits to someone outside their cultural group who is unlikely to share these beliefs, makes an informant open to negative reactions from the interviewer. The interviewer made an effort to use a non-judgmental and interested approach to avoid harm to informants who had made themselves vulnerable in this way.

3.9 DESCRIBING THE FINDINGS

Findings are described and discussed in Chapter 4 of this study. A narrative style with examples of informants' words is included. Feedback was provided to those informants who requested it.

3.10 RECOMMENDATIONS

These are discussed in Chapter 5 of this study. Recommendations relate to the findings about health beliefs with the aim of providing culturally congruent nursing care for urban Pares.

3.11 CONCLUSION

A qualitative approach was used in this study, using a literature review prior to data collection, and giving attention to issues of trustworthiness and ethical concerns. A purposive sample was used, and guided interviews were performed using open-ended questions. These were then analysed and themes identified which were described and discussed, prior to describing recommendations.