

# CHAPTER 3

## Research methodology

### 3.1 INTRODUCTION

This chapter describes the research methodology of the study, including sampling, data collection and ethical guidelines. Ethical considerations concern the protection of the respondents' rights. Therefore the respondents signed an informed consent form indicating that they were participating voluntarily and were aware of the study objectives and methods.

### 3.2 PURPOSE OF THE STUDY

The specific purpose of nursing research includes identification, description, exploration, explanation, prediction and control (Polit & Beck 2004:74). This study describes professional nurses' perception of nursing mentally ill people in a general hospital setting. The study should assist the generalisation of findings to the broader population of nurses.

### 3.3 RESEARCH DESIGN

Burns and Grove (200:42) define a research design as "a blueprint for the conduct of a study that maximises control over factors that could interfere with the study's desired outcome. Furthermore, the type of research design directs the selection of a population, procedures for sampling, methods of measurement and plans for data collection and analysis." The research design guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goals.

The researcher adopted a descriptive design in planning for data collection and analysis as well as internal and external validity.

### **3.3.1 Descriptive design**

The researcher described and documented aspects of a situation as it occurred naturally, using a self-administered questionnaire as data-collection instrument in order to obtain accurate information about professional nurses' perception of nursing mentally ill people in a general hospital setting.

Burns and Grove (1999:26) describe descriptive research as “the exploration and description of a phenomenon in a real-life situation. It provides an accurate account of characteristics of particular individuals, situations or groups.”

The data was used to justify and assess current conditions and practices to make plans for improving health practices.

### **3.3.2 Survey**

According to Polit and Beck (2004:234), “a survey is designed to obtain information about the prevalence, distribution, and interrelations of variables within a population”. Avis (1994:228) states that surveys are generally used to collect extensive data from a large number of people or situations for the purpose of description and comparison.

The researcher used the survey method to obtain information from a large sample of professional nurses nursing mentally ill people in a general hospital. This method facilitated the description of professional nurses' perception of nursing mentally ill people.

The two main advantages of survey are that a great deal of information can be obtained from a large population in a fairly economical manner and the information is accurate (Polit & Beck 2004:235-236). In other words, if a sample is representative of the population, a relatively small number of subjects can provide an accurate picture of the population.

According to Avis and Haber (2002:224), a survey has two disadvantages. Firstly, the information obtained tends to be superficial; that is, breadth rather than the depth of the information is emphasised. Secondly, the large-scale size can be time consuming and costly, although the use of on site personnel can reduce costs.

To reduce costs, therefore, the researcher used on site personnel, which allowed a broader sample that was accessible and encouraged participation in the study. This process assisted the researcher to probe respondents' behaviour, feelings, and perceptions and to verify Mavundla's (2000) findings.

### **3.4 RESEARCH METHODOLOGY**

The methods and procedures of the study included ethical rigor, population, sampling, data collection, development of the data-collection instrument, pilot study, validity and reliability, and data analysis.

#### **3.4.1 Ethical rigor**

The researcher obtained the necessary permission to conduct the study from the Assistant Director of Helen Joseph Hospital (see annexure A). In research, the rights of the respondents must be considered and protected. Therefore informed consent is essential for the conduct of ethical research. Respondents should have an opportunity to choose whether or not to participate in research. According to Polit and Beck (2004:142-152), consent should entail the following: anonymity, confidentiality, the right to privacy, the right to fair treatment, protection from harm and discomfort, and the right to withdraw from the study at any time should they so wish. The consent form contained all the rights to which the respondents were entitled (see annexure B). Confidentiality was explained and ensured by researcher.

#### **3.4.2 Population**

Polit and Beck (2004:289) define the population or target population "as the entire set of population or individuals or elements that meet the sampling criteria". Helen Joseph Hospital is a provincial hospital situated about 2 kilometres to the east of Coronation Hospital, west of Rand Afrikaans University, and

north of Brixton suburb, Johannesburg. The hospital has a total of 225 professional nurses, of whom 3 are Assistant Directors, 60 are Chief Professional Nurses, 36 are Senior Professional Nurses and 126 are Professional Nurses. The average bed occupancy is 85% of the 516 usable beds.

The population of this study consisted of all the professional nurses working in Helen Joseph Hospital who had been involved at some stage in nursing mentally ill people in their respective departments, including the Outpatient Unit. A minimum working experience of at least 2 years as a professional nurse was a requirement, as this period guaranteed that the respondents were well acquainted with the atmosphere of a general hospital.

### **3.4.3 Sampling**

According to Avis and Haber (2002:220), sampling is the process of selecting representative units of a population for a study in a research investigation, whereas a sample is a portion of the population that represents the entire population. Burns and Grove (2003:233) point out that “a sample plan should be designed to increase representativeness in order to decrease systemic bias”.

In this study the target population was all the professional nurses who had been involved at some stage with nursing mentally ill people in a general hospital setting. Professional nurses working on day shift were voluntarily recruited from various departments. Professional nurses on night shift, annual leave, maternity leave, special leave, study leave or sick leave were excluded. These were considered extraneous variables that were difficult to control.

Random sampling was done after these special considerations. According to Burns and Grove (2003:241) and Polit and Beck (2004:291), random sampling is the basic probability design that gives each element an equal chance of being chosen. Each subject in the accessible population has an equal opportunity of selection in the sample. The inclusion criteria ensured that every member in the population had the essential characteristics. A sample of 124 nurses was obtained by specifying the inclusion characteristics.

### **3.4.4 Tool construction**

According to Avis and Haber (2002:300), “questionnaires are paper and pencil instruments designed to gather data from individuals about knowledge, attitudes, beliefs, and feelings”. Polit and Beck (2004:349) state that “structured instruments consist of a set of questions in which the wording of both the questions and response alternatives is predetermined”.

The researcher found no data-collection instrument in the literature review that met the specific requirements. Accordingly, the researcher developed a new self-administered questionnaire guided by the categories of the conceptual framework of this study and the literature review. The questionnaire was divided into two sections and used a Likert-type scale. A numerical value was assigned to each category. Section 1 comprised demographic data and Section 2 comprised the respondents’ perception of nursing mentally ill patients, including perception of self, patients, the environment and feelings.

The self-administered questionnaire gave the respondents an opportunity to rate all the items. The questionnaire contained 53 items to be rated according to a 4-point Likert scale (for example, *1=Strongly Disagree, 2=Disagree, 3=Uncertain, 4=Agree, 5=Strongly Agree*). The questions were developed carefully with regard to wording questions clearly, simply, self-explanatory, and unambiguously.

According to Acorn and Barnett (1999:33-36), the advantage of using questionnaires is that they ensure client anonymity and no researcher bias. The respondents were asked to respond to the self-administered questionnaires. The completed questionnaires were collected from the central point of collection each day. A total of 124 responses were collected.

### **3.4.5 Pilot study**

A pilot study was conducted with 9 Professional Nurses who would not participate in the main study. The purpose of the pilot study was to determine the reliability, validity and clarity of the questionnaire. The return rate was 7 (98%) and positive feedback was received about the content of the questionnaire.

Feedback discussion was mostly negative, however, especially from those who had had previous

experience with mentally ill people. Discussion centred on staff shortages, feeling threatened, restless, uncomfortable, verbal aggression from mentally ill people, feeling of rejection which was expressed through body language from mentally ill patients, patients not showing any sign of improvement, the stigma attached to nursing mentally ill people, being labelled “mad” as well by other staff members when nursing mentally ill people, integration with other patients imposed stigma and susceptibility to commit crime.

One study participant put it as follows: “Since I did my psychiatry training in 1975, perceptions about mentally ill people remain negative till today. I don’t want to see myself there anymore.” The researcher acknowledged their input, which was of great importance to the study.

### **3.4.6 Validity and reliability**

Polit and Beck (2004:422-423) state that “validity is the degree to which an instrument measures what it is supposed to measure”. It also concerns soundness of the study’s evidence, that is. whether the findings are convincing and well grounded. In this study the researcher ensured validity of the tool by measuring the perception of professional nurses nursing mentally ill people in a general setting through self-administered questionnaires that were constructed clearly, easy to read, provided clear instructions and sufficient options.

The researcher ensured face validity by using clear, professional and easy to read and comprehend questionnaires. According to Polit and Beck (2004:424), “content validity is the degree to which an instrument has an appropriate sample of items for the construct being measured”. The researcher measured different themes with regard to content such as intellect (perception of self), cognitive measure (perception of patients), perception of environment and expressions (perceived feelings).

Validity was ensured and measured by giving the tool to various professional nurses who were supervisors and experts in psychiatric nursing. Their input helped to upgrade the standard of the questionnaire. For example, when they responded to some of questionnaires, they wrote additional information next to the alternative responses chosen. There was an overwhelming negative perception discussed by these nurses, mostly on staff shortage, which created a negative perception of nursing mentally ill people in a general hospital. They stated further that there should always be security guards, high fences, doors to be locked all

the time, feeling threatened by mentally ill people because they are susceptible to committing crime, are unpredictable, especially when they use body language when they communicate with staff members, medical and surgical patients feel insecure due to the presence of mentally ill patients in a general ward.

Measures of accuracy were also considered in order to ensure reliability. An instrument is reliable to the extent that its measures reflect true scores, to the extent that errors of measurement are absent from obtained scores (Polit and Beck 2004:426). The instrument used was accurate and dependable; there were clear instructions, and the questions were constructed clearly and unambiguously. Acorn and Barnett (1999:33-36) state that reliability can be affected by problems of the instrument, such as poorly constructed questions, improper instructions to subjects, characteristics of subjects such as fatigue, poor reading and perception resulting in variation of answers.

### **3.4.7 Data collection**

Burns and Grove (2003:45) describe data collection as “the precise, systematic gathering of information relevant to the research purpose or specific objectives, questions, or hypothesis of the study”. The researcher used a self-administered questionnaire as a formal instrument for data gathering. The formal instrument used was tested for validity and reliability to ensure scientifically sound findings. The researcher explained the nature of the questions, respondents’ anonymity and how to answer.

The researcher distributed 150 questionnaires immediately after the pilot study and 117 participated in the study, a specific accessible central point was identified to return the completed questionnaires. The researcher collected the completed questionnaires.

### **3.4.8 Data analysis**

The collected data was captured and analyzed using SPSS (Statistical Package for Social Sciences). The analysis was carried out at both descriptive (central tendencies) and inferential (Chi-Square) levels. The descriptive data gives mean and frequencies of participants, including their perceptions while the inferential analysis looks for variations in perception among respondents of different demography.

### **3.5 CONCLUSION**

This chapter discussed the research design and methodology, including population, ethical rigor, sampling technique, tool construction, pilot study, measures of validity and reliability, generalisabilty, data collection and analysis. Chapter 4 presents the findings.