

CHAPTER 3

Research methodology

3.1 INTRODUCTION

In this chapter the research methodology is described in terms of design, methods, population, instruments and procedures used for data collection as well as procedures used during the data analysis. The research design chosen enabled the researcher to achieve the purpose and objectives of the study. The purpose of the study was to describe the perception of R425 diplomates' psychiatric nursing competencies upon the completion of their training; and to recommend ways for improving their psychiatric nursing competencies of future R425 diplomates.

The objectives of the study were to

- identify specific psychomotor affective and cognitive psychiatric competencies of the R425 programme diplomates in the psychiatric clinical units as perceived by themselves
- recommend ways of improving psychiatric competencies of the R425 programme diplomates based on the findings

3.2 THE RESEARCH DESIGN

A quantitative exploratory descriptive survey was used to investigate specific psychiatric competencies of the R425 diplomates in the psychiatric clinical units. A brief classification of these methodological concepts follows:

3.2.1 Quantitative

The design was quantitative in that the strategies the researcher used to collect data were in numerical form. Quantitative research is a formal, objective, systematic process to obtain information and describe variables and their relationships (Burns & Grove 1993:26).

3.2.2 Exploratory

The research design was exploratory as it met the criteria described by Polit and Hungler (199:193), because it was designed to gain insight into the situation (implying the specific competencies of the R425 programme diplomates working in psychiatric nursing clinical units).

3.2.3 Descriptive survey

A descriptive survey was employed to investigate specific psychiatric competencies of the R425 programme diplomates. Burns and Grove (1993:293) describe the purpose of a descriptive survey as providing the opinions of respondents regarding the phenomenon studied. Descriptive research provides an accurate account of characteristics of a particular individual, event or group in real life situations. Polit and Hungler (1991:189) defined the survey as designating any research activity in which data is obtained from a specific population for the purpose of examining characteristics, opinions or intentions of that population. Advantages of using the survey method include that it

- is flexible
- is useful for the discovery of new insights as well as for pointing out typical responses
- can be applied to many people
- provides data about the present, what people are thinking doing and anticipating (Polit & Hungler 1991:193)

3.3 THE POPULATION AND SAMPLING METHODS

3.3.1 The research population

Population might be defined as the totality of all subjects that conform to a set of specifications (Polit & Hungler 1995:43). The population in this study comprised all registered psychiatric nurses who graduated from the R425 programme and who were working in the psychiatric clinical units in the KZN Province during 2003.

The psychiatric clinical units that were involved in the study included Chatsworth, Phoenix Clinic, Escovel House Clinics and King George V Hospital in Durban, as well as Townhill Hospital and Fort Napier Hospital in Pietermaritzburg in the KZN Province.

3.3.2 Sampling approach

The sampling approach is a process of selecting a portion of the population to represent the entire population (Polit & Hungler 1991:654).

The nonprobability sampling approach used in this research was purposive sampling because only the R425 programme diplomates who were working in the psychiatric units in the KZN Province during 2003 participated in the study. R425 diplomates working other clinical units were excluded, as they were not regarded as being experts capable of evaluating their own psychiatric nursing competencies. According to Polit and Hungler (1991:260) this sampling approach is practical and economical. A disadvantage of this method is the one that stems from the fact that not every element of the population has an equal opportunity of being included in the sample, therefore the sample cannot claim to be representative which limits the generalisability of the research results.

3.3.2.1 Criteria for inclusion of respondents

The respondents had to meet the following criteria to be included in the sample:

- Professional nurses who graduated from the R425 programme.
- R425 programme professional nurses who were working in the psychiatric units namely the clinics of Chatsworth, Phoenix and Escovel House, or King George V Hospital in Durban; or at the Townhill or Fort Napier hospitals in Pietermaritzburg in the KZN Province.

3.4 DATA COLLECTION

3.4.1 Data collection instrument

A self-administered questionnaire was used to collect data regarding the perceptions of the R425 programme diplomates on specific cognitive, affective and psychomotor psychiatric clinical aspects. After an in-depth literature review, the questionnaire was designed by incorporating aspects from the literature reviewed.

According to Polit and Hungler (1991:193), a questionnaire is a tool for gathering self-report information from the respondents about their attitudes, knowledge beliefs and feelings. The items for inclusion in the questionnaire were based on the SANC's regulations relating to the scope of practice of registered nurses in the RSA (R2598 of 30 November 1983, as amended) and R425 (of January 1985, as amended).

3.4.1.1 Administration of questionnaire

The researcher went to the selected institutions personally to deliver questionnaires. The institutions were requested to provide the researcher with a contact person who assisted with the distribution of questionnaire to the participants. The researcher was available to clarify problems when the need arose. Each participant was asked to complete the questionnaire and return it to the contact person of the institution. The researcher collected the completed questionnaires from the contact person of each participating institution.

Table 3.1: The number of questionnaires administered and returned

RESPONDENTS	ADMINISTERED	RETURNED
Professional nurses	50	48

The high response rate might be attributed to the ease of completing the questionnaire and the control of time for the completion of questionnaires.

3.4.1.2 The advantages of a questionnaire

The advantages of using a questionnaire in the study included that:

- Questionnaires are more cost effective to administer than conducting interviews as interviews might have required the researcher to travel from one institution to another at several occasions.
- The researcher was not present during the completion of questionnaire so there was no bias, the respondents were free to answer questions as they wanted to.
- A sense of anonymity was ensured during data collection as findings could not be linked to specific respondents.
- The questionnaire format was standardised for all respondents.
- The questionnaire was a rapid and efficient data collection tool (Lowane 1990:27).

3.4.1.3 Disadvantages of using a questionnaire

Disadvantages of using a questionnaire as a tool for data collection included:

- Omission of items by R425 programme diplomates due to poor or ambiguous instructions.
- Forced rating scales for certain questions which might have caused the respondents to choose an available response, even if it did not portray their perceptions accurately.

To overcome these disadvantages open ended questions were included in the questionnaire in an attempt to enable respondents to express their perceptions and recommendations or suggestions in their own words. It was hoped that these responses would enhance the meaningfulness of the R425 diplomates' perceptions about their psychiatric nursing competencies as portrayed in their responds to the closed-ended questions.

3.4.1.4 Format of the questionnaire

The questionnaire consisted of the following sections:

Section A requested the R425 diplomates to provide general information which included their working profile. Respondents were requested to indicate their ages, number of years of working in the psychiatric clinical unit(s), professional qualifications and positions in the nursing hierarchy in their psychiatric clinical units. **Section A** consisted of ten closed-ended questions.

Section B intended to identify which competencies R425 programme diplomates have upon entering the psychiatric clinical unit as perceived by themselves. **Section B** consisted of 85 closed-ended questions.

The expected competencies were outlined under the three areas namely cognitive, affective and psychomotor. Each areas of competency was further categorised as follows:

- Cognitive skills
 - Problem-solving
 - Research
 - Management
- Affective skills
- Communication skills
- Ethical conduct and caring skills
- Psychomotor skills

Competency was measured on a four point Likert scale based on the following:

- 4 = Mastery: able to perform competently without supervision.
- 3 = Competent: able to perform without supervision and with reasonable efficiency.
- 2 = Partially incompetent: requires further practice and supervision.
- 1 = Incompetent further instruction and supervision are needed (Benner 1979:127).

Section C requested perceptions or views of the R425 diplomates about factors which contributed towards their psychiatric incompetence in the psychiatric clinical units. **Section C** consisted of one open-ended question.

Section D requested the general views of R425 programme diplomates on which competencies they deemed to be essential to function as competent psychiatric professional nurses in the psychiatric clinical units. **Section D** consisted of one open-ended question trying to ascertain which competencies are essential for the R425 professional nurse in a psychiatric clinical unit.

Section E requested R425 diplomates to make suggestions to improve the competencies of R425 programme diplomates in psychiatric clinical units. **Section E** consisted of two open-ended questions.

3.4.1.5 The research questions

The following research questions guided the study:

- Which cognitive, affective, psychomotor psychiatric competencies do R425 diplomates have upon entering the psychiatric work setting, as perceived by themselves?
- Which factors, according to R425 diplomates' perceptions, contribute towards their psychiatric incompetence in psychiatric clinical units?
- Which factors could contribute to R425 diplomates' competence in psychiatric clinical units

3.4.1.6 The validity and reliability of the research instrument

"The validity of an instrument is the determination of the extent to which the instrument actually reflects the abstract concept being examined" (Burns & Grove 1987:294). The reliability of a research instrument "is the degree of consistency with which the instrument measures the attribute it is supposed to be measuring. Reliability can be equated with the stability, consistency or dependability of a measuring tool" (Polit & Hungler 1991:242).

Although validity and reliability were not measured through repeated testing of the instrument, the following issues were observed in the study:

- Construct validity was ensured by using the SANC's regulations (R2598 and R425) as a basis for identifying competencies which R425 diplomates should have mastered.
- In order to test for content validity of the instrument experts and specialists in the field of psychiatric nursing science were used to validate the tool. Psychiatric nursing colleagues who did not participate in the actual survey, psychiatric nurse educators, a statistician and two supervisors also judged the research instrument's questions to relate to the psychiatric nursing competencies which R425 diplomates should have mastered. The use of experts is supported by Polit and Hungler (1997:300) who maintain that experts on the content should be called upon to analyse the adequacy of each item in the instrument.

3.4.1.7 Pretesting the instrument

A pretest is a trial run to determine whether the instrument is clearly worded and free from major biases and whether it solicits the desired information (Polit & Hungler 1997:257).

The questionnaire was administered to five psychiatric nursing science tutors and two preceptors who did not form part of the research sample. This was done in order to identify and address possible problems such as ambiguities, vague or difficult language or confusing statements. The following

aspects of the questionnaire were corrected, based on the recommendations of the participants in the pretest:

- Section A: Item 4 – present designation: Chief Professional Nurse was added. The time required for completing the questionnaire was increased from twenty minutes to thirty minutes in the covering letter to the respondents.
- Section A: Item 7 – second block was added for the respondents to indicate number of months or years of working in their present unit.

3.5 DATA ANALYSIS

Ethical principles regarding data processing to which the researcher adhered included:

- Data were entered onto the computer as presented by the respondents.
- The researcher involved a statistician during the analysis of the data.
- Quantitative data obtained by analysing responses presented on the Likert scale were analysed by means of descriptive statistics using the Statistical Package for Social Sciences (SPSS).

3.6 ETHICAL CONSIDERATIONS

In observance of the ethical constraints underlying the undertaking of a research project, the following aspects were considered:

3.6.1 Permission to collect data

Permission to conduct the study was requested from and granted by the Secretary for Health, KZN Province (included as Annexure C to this dissertation). Permission was also granted by the Research and Ethics Committee of the Department of Health Studies, Unisa, subsequent to the review and approval of the questionnaire.

3.6.2 Informed consent

Written consent was asked from each participant. The purpose of the study, data collection method and participation needed from the respondents were explained to them. The respondents were informed in writing that participation was voluntary and they could withdraw from the study without fear of being penalised by the researcher or the institution. Each participant signed consent and placed this sheet of paper in a separate envelope prior to completing the questionnaire. In this way no signature could be linked to any completed questionnaire.

3.6.3 Confidentiality and anonymity

A letter to guarantee confidentiality and anonymity was sent to the participants together with the questionnaire. To ensure anonymity neither respondents' nor institutions' names were required on the questionnaire. Contact persons were used to distribute and collect questionnaires from the respondents.

To ensure confidentiality, the respondents were reassured that the information would be treated confidentially. Although a research report would be published, it would only contain figures, percentages and facts obtained from analysing and interpreting the responses from the completed questionnaires. No person, and no institution, would be identified in the research report.

3.6.4 Benefits

The participants were informed that they would receive no monetary benefits from participating in the study. The research findings could benefit the institutions in terms of providing inputs for improving competencies of R425 diplomates in psychiatric clinical units.

3.7 SUMMARY

Chapter 3 discussed the research methodology followed in conducting the study. Chapter 4 will present the analysis of data obtained from the questionnaires completed by the R425 diplomates.