CHAPTER 3

METHODOLOGY

This descriptive study aimed to identify ethical dilemmas and resolutions in clinical practice encountered by nursing students in Health Polytechnic Semarang, Central Java, Indonesia.

Population and Setting

The target population in this study was the third year nursing students in the Diploma III Nursing Programs of five schools in Health Polytechnic Semarang, Central Java, Indonesia, which included Nursing Programs in Semarang, Magelang, Purwokerto, Pekalongan, and Blora. The total number of the third year nursing students in Health Polytechnic Semarang, Central Java, Indonesia in 2003 was 388 students.

Health Polytechnic Semarang was established in 2001 as a union of health schools in Diploma level under Ministry of Health Department, Republic of Indonesia. Health Polytechnic Semarang is located in Semarang, the capital city of Central Java, Indonesia. Health Polytechnic Semarang consists of five Nursing Programs, two Midwifery Programs, one Radiodiagnostic and Radiotherapy Program, and one Nutrition Program. The name of the five Nursing Programs under Health Polytechnic Semarang is based on the location/city of the each Nursing Program. The national nursing curriculum is designed for all Nursing Programs in Indonesia.

Sample and Sampling

1. Sample size

Sample size was calculated using Yamane's formula (1973).

$$n = \frac{N}{1 + Ne^2}$$

n = Sample size

e = An error

N = Population

Regarding to this formula, the researcher used an error of 5 percentage points (e= 0.05). Calculating from the formula, the sample size should not be less than 196 subjects. In this study, the subjects were 225 nursing students.

2. Sampling method

The steps of proportionate random sampling used in this study were as follows:

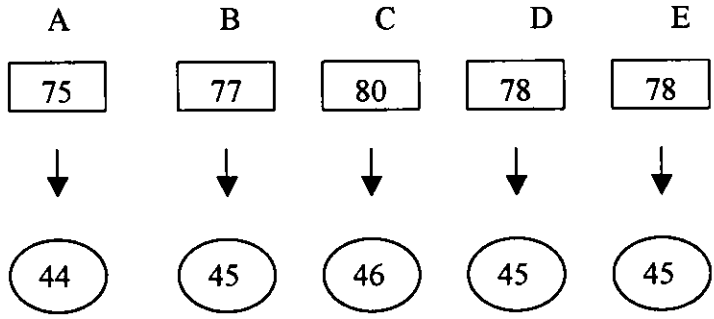
1. The researcher identified the total number of population in each target nursing program. The number of nursing students in nursing programs in Semarang, Magelang, Purwokerto, Pekalongan, and Blora were 75, 77, 80, 78, and 78 respectively. The total population was 388 nursing students
2. The researcher determined the number of subjects from five nursing schools based on the population of each nursing program.

3. The researcher recruited 225 subjects from these five nursing schools by proportionate sampling for each school. The formula used to calculate the subjects in each nursing program was

$$n = \frac{225 \times N}{388}$$

n= Number of the subjects needed

N= Population of nursing students in each nursing program



A= Semarang

B= Magelang

C= Purwokerto

D= Pekalongan

E= Blora

4. Therefore, the numbers of sample of Nursing Program in Semarang, Magelang, Purwokerto, Pekalongan, and Blora were 44, 45, 46, 45, and 45 respectively. Then, the researcher selected the subjects by random sampling method.

Instruments

The instruments in this study were modified under permission by the researchers based on Ethical Dilemmas Scale and Resolutions of Ethical Dilemmas Scale in Nursing Practice (Chaowalit, Suttharangsee, Inthanot, 2001). The modified steps of the instrument development were as follows:

1. Translated the original Thai version of the Ethical Dilemmas Scale and the Resolutions of Ethical Dilemmas Scale to English version I by a bi-lingual Thai - English expert.
2. Modified the English version I to English version II based on literature reviews in order to make it specific for nursing students.
3. Asked five experts in nursing ethics to examine the content validity of instruments (English version II). Three experts in nursing ethics were from the Faculty of Nursing, Prince of Songkla University in Thailand. Two experts in nursing ethics were from Faculty of Nursing, Diponegoro University (UNDIP) in Tembalang-Semarang, Central Java, Indonesia.
4. Revised the instruments from English version II to English version III according to experts' suggestions.
5. Translated the instruments from English version III to Indonesian version I by a bi-lingual English - Indonesian expert.
6. Conducted focus group interviews with Indonesian nursing students by using the Indonesian version I. The researcher asked 15 - 20 nursing students in each nursing school to discuss about each item of the instruments Indonesian version I based on their experiences whether or not each item was relevant in

their practice and their culture. From the focus groups, the Ethical Dilemmas Questionnaire (EDQ) consisted of 12 original items, 26 modified items, and 15 new items. In addition, the Resolutions of Ethical Dilemmas Questionnaire (REDQ) consisted of 16 original items, 5 modified items and 3 new items. Indonesian version II was the outcome of the focus group interviews.

7. Pretested Indonesian version II with 20 Indonesian nursing students who were similar to the subjects.
8. Translated Indonesian version II into English version IV.

The instruments in this study were self-report questionnaires, which were divided into four parts including (1) the Personal Data Questionnaire (PDQ), (2) the Ethics Teaching and Learning Questionnaire (ETLQ), (3) the Ethical Dilemmas Questionnaire (EDQ), (4) the Resolutions of Ethical Dilemmas Questionnaire (REDQ).

1. The Personal Data Questionnaire (PDQ)

The Personal Data Questionnaire consisted of four items including gender, age, race, and religion.

2. The Ethics Teaching and Learning Questionnaire (ETLQ)

The Ethics Teaching and Learning Questionnaire (ETLQ) consisted of seven items including credits of ethics course taken, semesters of ethics courses, course titles, methods of theoretical ethics teaching, the number of teachers who were involved in the ethics course, the number of ethics teachers who had taken ethics course in their

education, and the education background of ethics teachers. Ethics course coordinators were ones who responded to this questionnaire.

3. The Ethical Dilemmas Questionnaire (EDQ)

The Ethical Dilemmas Questionnaire (EDQ) was used to measure frequency of ethical dilemmas and level of disturbance when encountering the ethical dilemmas. The total items of the Ethical Dilemmas Questionnaire (EDQ) were 51 items, which were divided into six dimensions as follows: (1) ten items for professional obligations vs. protecting self from harm, (2) six items for maintaining patient confidentiality vs. warning others from harm, (3) eight items for truth telling vs. withholding the truth, (4) eight items for advocating for patients vs. lacking authority (5) twelve items for values conflicts in professional roles, and (6) seven items for prolonging life vs. ending life decisions.

The rating scale format was used to determine the frequency of ethical dilemmas of nursing students, which had a five-point scale from 1 to 5. The response to each item was scored as follows 0= never, 1 = seldom, 2 = sometimes, 3 = often, and 4 = almost always.

For this study, the total possible mean scores were classified into three levels for each dimension. The mean scores were 0 – 1.33 as low frequency, 1.34 – 2.66 as moderate frequency, and 2.67 – 4 as high frequency of encountering the ethical dilemmas.

Moreover, the rating scale format was used to measure the level of disturbance when encountering ethical dilemmas. The response to each item was scored as follows 0=

not disturbed 1= little disturbed, 2 = moderately disturbed, 3 = highly disturbed, and 4 = very highly disturbed. The total possible mean scores were classified into three levels by using mean score, score 1 – 1.33 as low disturbance, 1.34 – 2.66 as moderate disturbance, and 2.67 – 4 as high disturbance.

4. The Resolutions of Ethical Dilemmas Questionnaire (REDQ)

Self-report questionnaire was used to measure frequency of each resolution of ethical dilemmas. Resolutions of Ethical Dilemmas Questionnaire (REDQ) consisted of 24 items, which was divided into three dimensions including (1) ten items for taking moral actions, (2) eight items for discussing and consulting with others, and (3) six items for using emotional coping strategies.

The rating scale was used to determine the frequency of resolutions of ethical dilemmas. The response to each item was scored as follows 0= never, 1 = seldom, 2 = sometimes, 3 = often, and 4 = almost always. For this study, the total possible mean scores were classified into three levels for each dimension. The mean scores were 0 – 1.33 as low frequency, 1.34 – 2.66 as moderate frequency, and 2.67 – 4 as high frequency of using the strategy of resolutions of ethical dilemmas.

Reliability of the instruments

Instruments were administered to 20 nursing students in nursing program to assess reliability. In this study, Cronbach' alpha coefficient was used to determine reliability of the instruments. The coefficient reliabilities of the Ethical Dilemmas Questionnaire (EDQ) were .89 for the frequency of ethical dilemmas, and .95 for the

level of disturbance of ethical dilemmas. For the Resolutions of Ethical Dilemmas Questionnaire (REDQ), the coefficient alpha was .68.

Ethical Considerations

1. Approval from the Institutional Review Board (IRB) of the Faculty of Nursing, Prince of Songkla University was obtained.
2. Permission for data collection in this study was obtained from The Director of Health Polytechnic in Semarang, Central Java, Indonesia
3. Subjects who were willing to participate in the study gave oral consent to the researcher. They were informed that they had freedom to withdraw at any time with no consequences to their academy.
4. Subjects were assured that their data would be kept confidential. The researcher protected subject's privacy through anonymity. The researcher used coding system to identify subjects. Anonymity and confidentiality of each subject were protected at all times.

Data Collection Procedures

Preparation phase:

1. The researcher contacted the Dean of Faculty of Nursing, Prince of Songkla University (PSU) in Thailand to ask for a letter to collect data in Health Polytechnic Semarang, Central Java, Indonesia.

2. The researcher asked for permission to collect data to the Director of Health Polytechnic Semarang and the Head of Nursing Programs in each targeted nursing school and informed them concerning the research objectives, procedures, and benefits of this study.
3. The researcher asked the coordinator of educational program in each targeted nursing school for a name list of nursing students of each targeted nursing school and recruited the subjects by using proportionate random sampling.

Implementation Phase:

1. The researcher asked the coordinator of educational program in each targeted nursing school to set the appropriate time for the researcher, the coordinator of ethics courses, and the students.
2. The researcher explained to subjects the objectives, subjects' rights, and benefits of this study and asked subjects for participation in this study. Subjects who were willing to participate in this study gave oral consent to the researcher.
3. The researcher distributed directly to the subjects a set of the questionnaires including the Personal Data Questionnaire (PDQ), the Ethical Dilemmas Questionnaire (EDQ), and the Resolutions of Ethical Dilemmas Questionnaire (REDQ) and explained to the subjects about the questionnaires in order to assure their understanding of all the questionnaires.

4. The researcher collected most of the filled-in questionnaires from the subjects the same day. However, in the case that a subject wished to complete the questionnaires at home for individual reasons, the researcher received the questionnaires from the subject within one week.
5. The researcher checked the completeness of all the questionnaires. If any of the questions had not been answered, the researcher asked the subjects to fill in the missing answers.
6. For the Ethical Teaching and Learning Questionnaire (ETLQ), the researcher read the questions each item of the questionnaires to the ethics course coordinators and filled in the answer as their responses.

Data Analysis

Statistical Package for Social Science (SPSS) version 10.00 for Windows was used for data processing. Descriptive statistics were used to analyze data. The personal characteristics of the subjects, the ethics teaching and learning were described in frequencies and percentages. Ethical dilemmas and resolutions of ethical dilemmas were described in frequencies, percentages, means, and standard deviations.