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## CHAPTER 3

### METHODOLOGY

In this chapter, design of the study, subjects, instrumentation, data collection procedure, and analysis of data are presented.

#### Design of the Study

A descriptive correlational design was used in this study to identify the knowledge and attitudes toward AIDS and universal precautions practices of professional nurses at PUMC hospital and to examine the relationships among these variables.

#### Subjects

The target population in this study was nurses at PUMC hospital. The purposive sampling method was used to get subjects who worked in medical department, surgical department, pediatric department, OB&GYN department, emergency department, ICU department, foreign patient department and outpatient department. The sample consisted of 430 nurses at PUMC hospital. There were 390 nurses who finished the questionnaire completely yielding respondent of 90.7%.

### Instrumentation

The instrument for this study is a questionnaire which was modified by the researcher based on the questionnaire developed by Senaratana, Leksawasdi and Nantasupawat (1996). It is used to collect data relating the knowledge and attitudes toward AIDS and universal precautions practices of nurses. The questionnaire was composed of four parts:

Part 1 : Demographic Data Profile includes the questions covering subjects' age, years of working experience, marital status, educational level, area of nursing practice, present position and experience of caring for AIDS patients. The information included attendance any training related to AIDS care previously and duration of the training attended.

Part 2 : Knowledge Toward AIDS Questionnaire. This is a multiple choice questionnaire consisting of 22 items covering information about AIDS definition, AIDS causal agent, epidemiology, transmission, manifestation, testing, treatment and universal precautions to be taken. Each item has one point for the right answer, and zero for the wrong answer. The total score is 22. The higher score means the higher level of the knowledge as categorized as follows:

poor : the mean score less than 13.2, or <60%

fair : the mean score of 13.2 up to 16.5, or  $\geq 60\%$  - <75%

good : the mean score of 16.5 up to 18.7, or  $\geq 75\%$  - <85%

very good: the mean score of or more than 18.7, or  $\geq 85\%$

Part 3: Attitudes Toward AIDS Questionnaire. This is a four point rating scale consisting of 22 items and mix

positive and negative items together. The questions include the beliefs, feelings and behavioral intentions related to AIDS by which attitudes of nurses toward AIDS will be reflected. For positive statements, the score 3,2,1,0 were given to the choices: strongly agree, agree, disagree, strongly disagree. And the scores were reversed for negative statements, the score 3,2,1,0 were given to the choices: strongly disagree, disagree, agree and strongly agree. The total score was 66. The higher score means a better attitude. After calculating the scale, the attitudes toward AIDS were categorized as following:

poor : the mean score less than 39.6, or  $< 60\%$

fair : the mean score of 39.6 up to 49.5, or  $\geq 60\% - < 75\%$

good : the mean score of 49.5 up to 56.1, or  $\geq 75\% - < 85\%$

very good: the mean score of or more than 56.1, or  $\geq 85\%$

#### Part 4: Universal Precautions Practices Questionnaire.

This is a four rating scale consisting of 25 items covering the behaviors required by the universal precautions. Choices include: 0 = no practice; 1 = seldom practice; 2 = sometimes practice; 3 = always practice. The total score is 75. The higher score means the better practice of the UPs as categorized as follows:

poor : the mean score less than 45, or  $< 60\%$

fair : the mean score of 45 up to 56.25, or  $\geq 60\% - < 75\%$

good : the mean score of 56.25 up to 63.75, or  $\geq 75\% - < 85\%$

very good: the mean score of or more than 63.75, or  $\geq 85\%$

### **Content validity and reliability**

The questionnaire was originally written in Thai language. After being translated into English and being modified, content validity of the English version of instrument was evaluated by three experts in this field at Chiang Mai University, Thailand. The instrument had been revised according to the comments and suggestion given by the experts.

The English version of instrument was translated into Chinese by researcher. In order to assure the accuracy and clarity of the translation, the questionnaire was translated back by the bilingual experts in Peking Medical College and Peking Union Medical College. Then two experts in AIDS field assessed the validity of the Chinese questionnaire before applying it to the study subjects.

Reliability of the instrument was tested among 45 nurses who work in RENMIN hospital and had the similar characteristics as subjects in this study. The Kuder-Rechardson formula 20 coefficient was 0.7120 for the knowledge toward AIDS questionnaire, the Cronbach alpha coefficient was 0.7968 for the attitudes toward AIDS questionnaire and the Cronbach alpha coefficient was 0.8079 for the universal precautions practices questionnaire.

### **Data collection procedure**

1. Before conducting the study, the permission and support were obtained from the hospital nursing service

department. The number of the nurses with diploma or associated degree of nursing science was obtained from the service department as the study subjects.

2. The researcher met the nursing administrator and the head nurses of the departments explaining the nature of the study and informed them of the objectives of the study.

3. Consent had been obtained from the subjects after a broad explanation of the study. And the subjects were asked to perform the questionnaire anonymously by themselves.

4. The questionnaires were distributed by the researcher during working hours.

5. In case the subject was not on shift, the researcher asked the head nurse of the unit to give the questionnaire to the subject. Along with the questionnaire a cover letter and a subject consent form was given to the subject. The cover letter explained the nature of the study, and invitation for the participating in the study, method for insuring confidentiality and assurance that participation was voluntary. Subjects were requested to complete the questionnaire in private and then the researcher collected them in a week.

6. The researcher edited the questionnaires and analyzed the data from these questionnaires.

#### **Analysis of data**

Data obtained from the study were analyzed by using SPSS/PC software on the computer. Descriptive statistics were

used to present the findings of the study.

1. Frequencies and percentages were used to describe the demographic data of the subjects.

2. Mean, standard deviation, frequency and percentage were calculated for scores of knowledge, attitudes and universal precautions practices of subjects.

3. Partial correlation analysis was used to examine the relationships among the knowledge and attitudes toward AIDS and universal precautions practices.