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 design was used in this study to describe the knowledge, attitude and risk behavior regarding HIV/AIDS among Chinese adolescents.

Population and sample

The target population of this study was Chinese adolescents both male and female, age 18-21 years old who studied in the second, third and fourth year at Beijing University of Aeronautics and Astronautics and at Beijing Finance and Economy University, Beijing, P. R. China.

The two universities were randomly selected among four universities in Beijing, which were similar in aspects of size, component and number of students. In each selected university, three faculties were randomly selected among the group of Humanities and Social Sciences, Health Sciences and Sciences and Technology respectively. A stratified random sampling method was used to select subjects and draw a sample of the desired size (Polit & Hungler, 1987). Third

year students in the six faculties were proportionally selected as an eligible study population. The two universities were selected on the basis of their willingness to participate in the study.

In 1998, the total number of adolescents studying in the second, third and fourth years was approximately 3000 in the two universities. The ratio of male and female in the two universities was 1:1 and the numbers of third year enrolled students were approximately equal. According to Dempsey, and Dempsey, (1992), a minimum requirement for the number of subjects is 10% of the total population. The estimated sample size was 300.

Inclusion criteria:

1. Males and females aged 18-21 years old studying in their second, third and fourth years.

2. Agree to participate in this study.

Instrumentation

In this study, the instrument was a questionnaire composed of four parts: the Demographic Data Profile (part A), the Knowledge Regarding AIDS Questionnaire (KAQ) (part B), the Attitude Regarding AIDS Questionnaire (AAQ) (part C) and Risk Behavior Regarding HIV/AIDS Questionnaire (RBAQ) (part D).

Part A: The Demographic Data Profile

The demographic data included: age, gender, year of study, type of family, living arrangement (stay in dormitory

or stay with parents at home), living allowances, family income and sources of information regarding AIDS.

Part B: Knowledge Regarding HIV/AIDS Questionnaire

Part B is Knowledge Regarding HIV/AIDS Questionnaire (KAQ) which was modified by the investigator based on the questionnaire developed by DiClemente, Zorn, and Temoshok (1986) and from the literature review related to knowledge regarding HIV/AIDS. It was used to measure the subjects' knowledge regarding AIDS. The Knowledge regarding AIDS Questionnaire (KAQ) contained 28 items consisting of four subparts including causes, transmission, manifestation, and risk behavior reduction. Students were requested to give true, false, or don't know responses to all questions. Each item had one point for the right answer, and zero for the wrong answer or don't know answer. The total score was 28.

The groups of poor, fair and good scores of knowledge were arranged with an interval obtained by dividing the score difference between the highest and the lowest by 3. In this scale, the highest score is 28 and the lowest score is 0, the interval was (28-0)/3=9.33, and the group of score was as follows:

Range Poor score = 0 - 9.33

Fair score = 9.34 - 18.67

Good score = 18.68 - 28

With the same method, the groups of scores in subparts were as follows:

AIDS causal agent: Range Poor score = 0 - 1

Fair score = 1.01 - 2

Good score = 2.01 - 3

Transmission Range Poor score = 0 - 3.33

Fair score = 3.34 - 6.67

Good score = 6.68 - 10

Manifestation Range Poor score = 0 - 2

Fair score = 2.01 - 4

Good score = 4.01 - 6

Risk behaviors reduction Range Poor score = 0 -3

Fair score = 3.01 - 6

Good score = 6.01 - 9

Part C: Attitude Regarding HIV/AIDS Questionnaire

Part C is an Attitude Regarding HIV/AIDS Questionnaire (AAQ) which was modified by the investigator based on the questionnaire developed by DiClemente, Zorn, and Temoshok (1986). It was used to measure the subjects' attitude regarding AIDS. Attitude regarding AIDS Questionnaire (AAQ) is a five point rating scale consisting of 10 items, positive and negative items mixed together. The questions included the mental network of concepts, beliefs, feelings and actions related to AIDS. For positive statements, the scores 5, 4, 3, 2, 1 were given to choices: strongly agree, agree, uncertain, disagree, strongly disagree. The scores were reversed for negative statements, 5, 4, 3, 2, 1 scores were given to the choices: strongly disagree, disagree, uncertain, agree, strongly agree. The total score was 50.

The group of low, medium and high scores of attitude was arranged with an interval which was obtained by dividing the score difference between the highest and the lowest by 3. In this scale, the highest score is 50 and the lowest score is 10, the interval was (50-10)/3=13.3, and the group of score was as follows:

Range Low score = 10 - 23.2

Medium score = 23.3 - 36.6

High score = 36.7 - 50

Part D: Risk Behavior Regarding HIV/AIDS Questionnaire

Part D is Risk Behavior Regarding HIV/AIDS Questionnaire (RBAQ) which was developed by the investigator from the literature review related to risk behavior regarding AIDS. It was used to measure the subjects' risk behavior regarding HIV/AIDS. It is a four rating scale consisting of 10 items covering risk behavior regarding HIV/AIDS. Choices include: 0 = never practice, 1 = sometimes practice, 2 = often practice, 3 = always practice. The total scores was 30.

The group of low and high scores of risk behavior was arranged with an interval which was obtained by dividing the score difference between the highest and the lowest by 2. In this scale, the highest score was 30 and the lowest score was 0, the interval was (30-0)/2=15, and the group of score was as follows:

Range Low score = 0 - 15

High score = 15.01 - 30

Content validity and reliability

The questionnaire was originally written in English. The content validity of the English version of the instrument was evaluated by a panel of five doctoral or master prepared nursing faculty of Chiang Mai University, Thailand. Each reviewer was either an expert in pediatric nursing or in the area of HIV and AIDS. The instrument was revised according to the comments and suggestions given by the experts. The desired CVI was calculated to be equal or more than 0.7 (Davis, 1992). The content validity index (CVI) of the instrument of knowledge, attitude and behavior in this study was .85, .78 and .90 respectively.

The English version of instrument was translated into Chinese by the investigator. The Chinese version was validated by three bilingual experts in Peking Union Medical College hospital and Peking Union Medical College. Then, it was translated back to English by a professor of nursing who is very good at English. The researcher reviewed whether there were any discrepancies in wording and intended meanings and resolved the discrepancies.

Reliability of the instrument was tested among 20 students who study in Beijing teaching universities and had similar characteristics to the subjects of the study. The KR 20 coefficient was 0.94 for the knowledge regarding HIV/AIDS questionnaire. Cronbach's alpha coefficient was 0.93 for the attitudes regarding AIDS questionnaire. The correlation coefficient was 0.89 for the risk behavior regarding HIV/AIDS questionnaire.

Data collection procedure

1. Before conducting the study, permission and support were obtained from the two universities in Beijing, China.

2. The investigator met the universities administrators and the major teachers of the grades explaining the nature of the study and informed them of the objectives of the study.

3. Consent was obtained verbally from the subjects after a broad explanation of the study. The subjects were asked to complete the questionnaire anonymously.

4. Each subject was instructed on how to complete the questionnaire.

5. The subjects were separated into two groups according to gender and completed the questionnaire in different rooms without supervision. Then they put the questionnaires into the boxes prepared by the investigator.

Protection of Human Rights

The subjects were asked to participate in the study voluntarily. They were told to complete the questionnaire anonymously.

Data analysis

Statistical Package for Social Sciences (spss) was used to perform the data analysis. Descriptive statistics in terms of frequency, percentage, mean, and standard deviation were used to analyze the data.