



CHAPTER III

RESEARCH METHODOLOGY

RESEARCH DESIGN

Experimental Design : Pre-test, Post-test with control group.

SAMPLE SPECIFICATION

Target population

Population to be sampled in this study is intended to comprise of registered nurses who work at Cholburi Hospital.

Eligible criteria

Inclusion criteria

1. Registered nurses who have been working at Cholburi Hospital for more than 6 months.
2. Registered nurses who provide cares directly to patients.

Exclusion criteria

Those who are not present during the period of study.

Sample size

The pilot study was done in 10 cases of Cholburi Hospital nurses and 10 counselors. Pool variance is calculated from the following formular

S_1^2 = Variance of 10 cases of Cholburi Hospital nurses

$$= 1/n (\sum x_i^2) = 74$$

S_2^2 = Variance of 10 counselors.

$$= 1/n-1 (\sum x_i^2 - nx^2) = 41$$

$$\begin{aligned}
 Sp^2 &= (n1-1)s_1^2 + (n2-1)s_2^2 / n1+n2-2 \\
 &= (10-1)74 + (10-1)41 / 10+10-2 \\
 &= 1035/18 \\
 &= 57.5 \\
 o &= \sqrt{57.5} \\
 &= 7.58
 \end{aligned}$$

$$n/\text{group} = 2[(ZS + Zb)o]^2 / (Mt-Mc)^2$$

n = Sample Size

ZS = From table when Type I error = 5% = 1.96

Zb = From table when Type II error = 10% = 1.28

o = Pool variance from pilot study = 7.58

Mt = Mean score in the experimental group

Mc = Mean score in the control group

$$Mt-Mc = 5$$

$$\begin{aligned}
 n &= 2[(1.96 + 1.28)7.58]^2 / (5)^2 \\
 &= 2[3.24 \times 7.58]^2 / 25 \\
 &= 2[24.6]^2 / 25 \\
 &= 2[602.9] / 25 \\
 &= 1205.8 / 25 \\
 &= 48.2
 \end{aligned}$$

When we calculate the sample size from pilot study, the sample size was 49 cases. To cope with the problem of drop-out, we increased it by 10 % of the total sample size. Therefore ; 60 subjects was be included in the study.

Allocation technique

Simple random sampling technique was used to assign the studied nurses into experimental group and control group.



Intervention

1. After simple randomization was done 3 steps were followed :
 - 1.1 Perform a pre-test attitude's questionnaires to the studied subjects one week before intervention in October 1994.
 - 1.2 Provide the GN book to 60 clients one week before the meeting.
 - 1.3 Ask the clients to do one role-play about AIDS
2. Prepare the assembly hall by setting the round table with 5-6 microphones.
3. The experimental group was given an intervention by using G.N. Training.

Schedule on the first seminar day

8.00-8.30 : Introduction. The early stages of the interview was to create a relaxed atmosphere, break the ice and encourage the group to 'form' as quickly as possible.

8.30-9.30 : Explanation about General Network Model by the leader. The main role of qualitative research are explanation and understanding of the consumer as an individual.

9.30-10.00 : Role-Play by participants about living with AIDS.

Action-oriented techniques such as modeling, role - play, and behavioral rehearsal were combined with discussion and praise for effective interaction.

10.30-11.30 : Discussion and Expressing one's thought.

Qualitative research is small-scale market research, where one interviews the consumer in a detailed and unstructured way about their attitudes, imagery, feeling, values, beliefs and motives related to a particular market.

11.30-12.00 : Evaluation and drawing picture.

Schedule on the second day.

8.00-8.30 : Revision of the knowledge from the first day . Discussion about the meanings of the pictures that the drawer wanted to express.

8.30-9.30 : Interview the HIV infected patients from Wednesday club, Thai Red Cross Society, Chulalongkorn University.

10.00-10.30 : Break.

10.30-11.30 : Discussion and expressing one's thought, using persuasion to change attitudes. The change represents alternation of past behaviour and involvement of some feelings of risk. Changes in behaviour begin with changes in attitude. An attitude is a positive or negative feeling that we associate with an object, an event, another person, a situation, and so on.

11.30-12.00: Evaluation by using post-test attitudes questionnaires.

PROCEDURE

This study was conducted in order to develop the training program which is based on GN theory for developing holistic approach. The study was action research in design. The strategies of approach were designed; the 40 items rating scale attitude questionnaires and the manual and four evaluative questionnaires were developed and utilized as educational tools for the study. The training programs were operated by means of two sessions of the two-day workshop on a study topic of "Living with AIDS" at Cholburi Hospital. The population was consisted of a random sampling nurse in Cholburi Hospital .There were 55 nurses who completed this study.

Educational tools used in this study were:

- 1) a manual as a guideline for participants**
- 2) role play, performed by participants and**
- 3) real case study, two HIV carriers invited from the Wednesday Club of Thai Red Cross society, Chulalongkorn Hospital, Bangkok to attend each workshop.**

Evaluation of the program was done by means of :

- 1) 40 items rating scale attitude questionnaires**
- 2) having participants respond to four questionnaires, and**
- 3) discussions of feelings and opinions of participants about the topic study and the program**

Strategies of the training program on holistic approach of this study were as follows :

- 1) preliminary stage was concerned with the distribution of the manual to prospective participants and informing them of the preparation of role play on the topic of living with AIDS.**
- 2) Discussion for various purposes which were :**
 - 2.1 Discussion about GN theory for developing holistic approach.**
 - 2.2 Discussion about the study topic which were on Living with AIDS.**
 - 2.3 Discussion for the purpose of evaluation and feedback of feelings, opinions, and ideas about each of particular sessions such as GN theory, study topic, role play, real case study and the program.**
 - 2.4 Responding of the participants to five evaluative questionnaires by making choices to the rating scale items and writing comments and/or drawing illustrations.**
- 3) Note taking for the purpose of evaluation and report writing of the study by one of the research team.**
- 4) Role play on the subject of Living with AIDS by participants of the program.**

- 5) Real case studies of carriers.
- 6) Several meetings of the researcher teams to make plans and evaluations of the program process and the program product.

Outcome Measurement

Data were collected by using pre and post attitudes questionnaires for qualitative study; and the manual with four evaluative questionnaires, note taker, tape recorder and videotape for quantitative study.

Data collected were analyzed in qualitative and quantitative manner. Pre and post 40 items rating scale of attitude scores was analyzed by mean scores, and T-Test by SPSS-PC program. The percentage was computed for the rating scale items and subjective data were summarized and presented in narrative nature. Findings were applied immediately to the group of participants at the end of discussion of the workshop.

Observation and measurement

All of the necessary data were gathered by using the questionnaires. The respondents were asked regarding attendance of the HIV - POSITIVE patients and no one knew about their answers except the researcher because they returned the questionnaires directly to the researcher.

Validity and Reliability

To assess content validity of questionnaire, 4 experts were requested to determine how well the matching among the content in the questionnaire and the clarity of questionnaire.

Reliability of the instrument was accessed by test-retest method. After test-retest, both scores were used to calculate intraclass correlation. If r-value closes to 1, it means that this questionnaire has high reliability. In practice, researcher may accept the instrument which has $r > 0.70$.

DATA COLLECTION

1. Attitude of nurses were measured as the pre-test using Likert's scale.
2. The self administered questionnaires were used and confidentiality was assured.
3. Two weeks after the researcher recieved all of the questionnaires, the intervention by using the general network model was used to improve the attitudes of nurses at Cholburi Hospital and the qualitative results was collected by open-ended questionnaires. Some pictures, note-taker, tape recorder and videotape were also used.
4. Post - attitudes' questionnaires were applied after intervention.
5. Comparison of pre and post questionnaires. Conclusion of the ideas, the picture, and wordings recorded by note-taker.

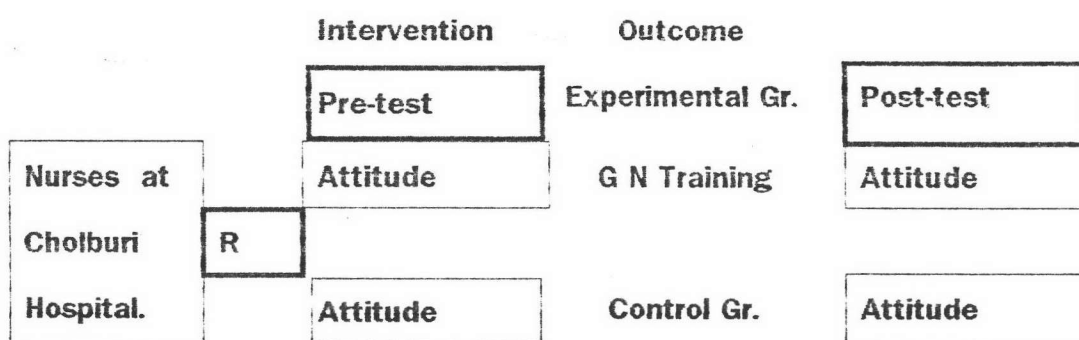


Figure 3 The strategies in this research.

DATA ANALYSIS

The completed questionnaires were interpreted. The Statistical Package for Social Sciences (SPSS/PC) software programme were used to analyse the data.

Summarization of data

For discrete variables, data were summarized in terms of proportion.

For continuous variables, data were summarized in terms of mean.

Statistical tests

Unpaired Nurses t-tests were used to compare the mean changes attitude score between the experimental group versus controls. To evaluate sustainability of change, repeated measurement were done after intervention.