



## CHAPTER III

### RESEARCH METHODOLOGY

This study was conducted in “descriptive research” format, and concentrated on skills development for subdistrict-level public-health personnel working in local public-health centers in Phanat Nikhom District, whose responsibilities covered narcotics prevention. These personnel were to become training instructors in a life-skills program focusing on interpersonal-relationship and communications skills, to develop amphetamine-preventive behaviors among junior-high-school students in the district. The study phases were structured as follows:

1. Target group setting and sample group selection
2. Instrumentation
3. Construction of the training program
  - 3.1 Preparation
  - 3.2 Construction
4. Implementation of training session and data collection
5. Statistical analysis of the collected data
6. Results and Conclusions

## **Target Group Setting and Sample Group Selection**

The target group in this study was subdistrict-level public-health personnel working in local public-health centers, whose responsibilities covered narcotic prevention for the community of Phanat Nikhom District. Of all 21 public-health centers in Phanat Nikhom area, one member was selected from each center to become a part of the sample group. The personnel in the group can be classified according to their levels of education, as follows:

- 6 technical nurses
- 9 public-health officers
- 6 midwives, and
- Junior-high-school students from 3 schools

## **Instrumentation**

A questionnaire was used to collect the required information for data analysis and testing of the hypotheses. Data were considered significant at a statistical level of 0.05. The questionnaire was divided into sections for the two target groups:

1. A questionnaire for use with subdistrict-level public-health personnel who completed training to become life-skills-program training instructors. This can be further divided into 2 stages – (a) the questionnaire used during the training process for the subdistrict-level public-health personnel who completed the training to become life-skills-program training instructors, and (b) the questionnaire used during the field practice of the life-skills-program training with junior-high-school students.

The instruments included:

**Part 1:** general socio-demographic data on the subdistrict-level public-health personnel, i.e. gender, marital status, age, education level, working position, work experience related to narcotics, and training background related to becoming a narcotics-related training instructor.

**Part 2:** measures of knowledge, attitudes, and teaching skills. The knowledge of subdistrict-level public-health personnel that needed to be studied in this research included preparation, planning, and arranging the training content, personality, communication principles, media/audiovisual aids and their applications, training techniques, and the ability to transfer knowledge. The questionnaire comprised 20 questions, with a possible maximum score of 20; 2 questions were concerned with preparation, planning, and arranging the training content; 4 with personality; 2 with communication principles, media/audiovisual aids and applications; 6 with training methodologies; and 6 with training techniques and the ability to transfer knowledge. Scores for each section were classified into levels, according to the criteria suggested by Bloom (Bloom, 1968: 60), as follows:

Good = a score > 80% of the total possible score, or 16-20

Medium = a score of 60-80% of the total possible score, or 12-15

Low = a score < 60% of the total possible score, or 0-11

The attitudes of subdistrict-level public-health personnel towards becoming training instructors comprised awareness, commonsense, confidence in becoming a training instructor, and attitude towards public speaking.

Scores for each section were classified into levels, according to the criteria suggested by Bloom (Bloom, 1968: 60), as follows:

|        |   |   |
|--------|---|---|
| Good   | = | a score > 80% of the total possible score, or 16-20     |
| Medium | = | a score of 60-80% of the total possible score, or 12-15 |
| Low    | = | a score < 60% of the total possible score, or 0-11      |

Teaching skills comprised personality (manner, posture, clothing, eye contact) (4 questions); communication (greetings, intonation/accent/rhythm when speaking, compound syllables, junk words, hand/facial/body expressions, use of media/audiovisual aids) (6 questions); and data (data preparation, introduction, order of content, adaptation of training techniques, conclusion, time management) (6 questions). Scores were classified into levels, as follows

|                      |   |           |
|----------------------|---|-----------|
| Very good            | = | 10 points |
| Good                 | = | 8 points  |
| Average              | = | 6 points  |
| Fair                 | = | 4 points  |
| Needs to be improved | = | 2 points  |

In this study, the data concerning knowledge of junior-high-school students were collected from a sample group of junior-high-school students from 3 schools--2 classes of 1<sup>st</sup>-year junior-high-school students and 1 class of 2<sup>nd</sup>-year junior-high-school students, with a total of 87 students (40 males and 47 females). The student questionnaire was used with students before and after undergoing the life-skills-program training by public-health personnel who had already been trained to become life-skills-program training instructors.

2. Knowledge of junior-high-school students concerning interpersonal-relationship and communications skills formed part of the questionnaire: 7 questions for ability to refuse to use narcotics in persuasive situations, with appropriate refusal strategies; 3 questions concerning ability to convince friends or other people at risk of narcotics abuse to avoid or change their existing behaviors to preferred behaviors.

Scores for evaluating the knowledge of junior-high-school students were allocated according to the following criteria:

|  |   |   |        |
|--|---|---|--------|
| Possess all systematic skills            | = | 2 | points |
| Possess some systematic skills           | = | 1 | point  |
| Possess incomplete non-systematic skills | = | 0 | point  |

## **Construction of the Training Program**

### **1. Preparation stage**

1.1 Study the related research, theories, and academic documents for suitable methods of developing skills among subdistrict-level public-health personnel to enable them to become training instructors in a life-skills program concerning interpersonal-relationship and communications skills, resulting in narcotics-preventive behaviors among junior-high-school students. In becoming high-quality life-skills-program training instructors, these public-health personnel should possess a good attitude and well-trained skills in being training instructors, which includes preparation and planning of the training session, a good personality, creativity in using media artistically, and good life-skills program knowledge-transfer techniques.

1.2 Consult regularly with specialists while writing up the content of the program in training subdistrict-level public-health personnel to become life-skills-program training instructors.

## **2. Construction stage and verification of the program**

2.1 Arrange the training objectives

2.2 Construct the training program, working with specialists

2.3 Arrange the media and techniques to be used in the training

2.4 Coordinate with Chonburi Provincial Public Health Office for budget support

2.5 Coordinate with Phanat Nikhom Hospital for budget support and training facilities

2.6 Coordinate with training instructors

2.7 Coordinate with the Office of Elementary Education, Phanat Nikhom District for cooperation and arranging training sessions for junior-high-school students

2.8 Arrange the assessment process, and analysis of the training results

2.9 Prepare the documents and materials to be used in the training

## **Implementation of Training Session and Data Collection**

1. Pre-training test of knowledge
2. Implement the 5-day training session for public-health personnel with the following content:
  - 2.1 Components of the life-skills techniques for preventing narcotics abuse, consisting of:
    - 2.1.1 Knowledge
    - 2.1.2 Attitudes
    - 2.1.3 Skills
  - 2.2 Techniques used when working as a training instructor, consisting of:
    - 2.2.1 Preparation and planning of training session, including the training content
    - 2.2.2 Personality and communication principles for training instructors
    - 2.2.3 Types of media and audiovisual aids used for training, including application techniques
    - 2.2.4 Art of transfer and verbal communication techniques for the training instructor
    - 2.2.5 Creating the training environment
    - 2.2.6 Knowledge and training techniques
3. Post-training evaluation of abilities and attitudes after the training session, to collect basic data
4. Strengthen skills and expertise to become a training instructor during 15 weeks' field practice with junior-high-school students. After 5 days of training to be a

training instructor in a life-skills program focused on interpersonal-relationship and communications skills, the group of public-health personnel work together to plan the 15-week life-skills training program for junior-high-school students. The process is as follows:

4.1 Public-health personnel were divided into 3 groups according to their actual geographical work areas and responsibilities, with the following result:

Group 1: 7 public-health centers

Group 2: 7 public-health centers

Group 3: 7 public-health centers

making a total of 21 centers

4.2 Coordinate with the Office of Elementary Education to choose 3 schools to participate in field practice; 2 schools at 1<sup>st</sup>-year junior-high-school level, and 1 at 2<sup>nd</sup>-year junior-high-school level

4.3 Select the school in which the trained public-health personnel perform the field practice. Each group of trained public-health personnel was responsible for 1 class of junior-high-school students per school

4.4 Perform 15 weeks of life-skills-program training activities for 3 classes of junior-high-school students in the assigned schools. Training was arranged once weekly for 1-2 hours per session, with activities that stressed life-skills refusal techniques without losing interpersonal relationships. The students were encouraged to develop their own behaviors through participatory learning with the learners as the center of the process. The training activities were as follows:

- 4.4.1 Each group of public-health personnel started field practice
- with junior-high-school students, as assigned



4.4.2 Each group of public-health personnel worked in coordination with the assigned school to arrange the training session once weekly for 1-2 hours per session

4.4.3 Each member of the public-health personnel in the group took a turn practicing as a life-skills-program training instructor for junior-high-school students in the assigned school

4.4.4 Each member of the public-health personnel performed as a training instructor at least 3-4 times

4.4.5 Throughout the field practice, the training sessions were recorded with a video-tape-recorder so that, at the end of the practice, each training instructor had at least 1 video-tape of their performance

4.4.6 Focus groups were organized to further develop the training skills of each training instructor, through discussion of the recorded training session with junior-high-school students. Two focus groups were arranged, at the end of weeks 8 and 12

4.4.7 After the life-skills-training session in week 8, by which time each of the public-health personnel had already performed as a training instructor with the junior-high-school students, the recorded video-tapes underwent their first evaluation by the specialists. The specialists and training instructors discussed the instructors' performances, to share their opinions and to improve their life-skills-program training instructor skills

4.4.8 After the life-skills training session in week 16, the video-tapes were evaluated by the specialists the 2<sup>nd</sup> time, to further improve skills working as life-skills-program training instructors

4.4.9 At the end of the 15-week field practice, each of the public-health personnel was given an overall evaluation of their life-skills-instructor abilities

#### 4.5 Evaluation of life-skills behavior among junior-high-school students

4.5.1 Before the life-skills training program, the scores for life skills concerning interpersonal-relationship and communications skills were collected as basic data for the test

4.5.2 The students underwent life-skills training once weekly, for 1-2 hours per session

4.5.3 Each training instructor was responsible for delivering one life-skills training session per work-sheet, or as deemed appropriate

4.5.4 For each work-sheet, the training instructor collected the students' post-training scores for life-skills

4.5.5 Analysis, conclusion, and report-writing

In conclusion, the training process for the subdistrict-level public-health personnel, to enable them to function effectively as life-skills-program training instructors, may be divided into 2 main groups of activities, or stages:

Stage 1: construction of the training program for subdistrict-level public-health personnel to become training instructors

Stage 2: field practice for the public-health personnel with junior-high-school students, and post-training evaluation of the public-health personnel. The schedule for the overall process is shown in tables 3.1 and 3.2:





## Statistical Analysis of the Collected Data

The data acquired from both the personnel who participated in the training to become training instructors, and the students who underwent the life-skills-program training, were analyzed statistically, to determine relationships among the variables, as follows:

1. Relationships between pre- and post-training variables for the subdistrict-level public-health personnel were analyzed by dependent t-test
2. Relationships between pre- and post-training variables for the junior-high-school students were analyzed by dependent t-test
3. Relationships between pre- and post-training variables for the subdistrict-level public-health personnel who had been trained to become life-skills-program training instructors were analyzed using dependent t-test

The mathematical relationships of the statistical values tested in this study included percentage, mean, and dependent t-test, and may be demonstrated as follows:

1. Calculation of percentage (Srisa-ard,1992)

$$P = \frac{f \times 100}{n}$$

When P = Percentage

f = Required frequency to be calculated

n = Overall frequency

## 2. Calculation of mean value (Wongrattana, 1998)

$$\bar{X} = \frac{\sum X}{n}$$

When  $\bar{X}$  = Mean value

$\sum X$  = Summation of overall score

$n$  = number of participants in sample group

## 3. Calculation of dependent t-test (Taweerat, 1997)

$$z = \frac{\frac{\sum D}{n}}{\sqrt{\frac{n \sum D^2 - (\sum X)^2}{n-1}}}$$

$$df = n - 1$$

When  $t$  = Tested value in t-test distribution

$D$  = Difference between pre- and post-test scores

$n$  = Number in sample group

$df$  = Level of dependency

$D^2$  = Summation of each D square

$(D)^2$  = Summation of overall D square

## Results and Conclusions

The pre- and post-training data were analyzed statistically before interpretation and are discussed in the conclusion. The data were compared, to ascertain the potential development of subdistrict-level public-health personnel into training instructors for a life-skills program focusing on interpersonal-relationship and communications skills.