CHAPTER III

RESEARCH METHODOLOGY

3.1   Research Design

This is the cross-sectional descriptive research with the purpose to study the rate of cervical cancer screening among a select group of woman ages 35 to 64 years in Naikuan Sub-district, Yan Ta Khao District, Trang Province; to study the related factors for coming to cervical cancer screening; and to find out their association

3.2   Population and Sampling

This study includes 1,350 women age 35 to 64 years, of nine villages in Naikuan Sub-district, Yan Ta Khao District, Trang Province.

Sampling technique was a systematic. The sampling frame was already available from the list of 1,350 women of health center. The sampling interval was about 5, then picking out one from each five in order to make 250 samples.

The sample size was calculated using the following W.G. Cochran (1983) formula for finite population

$$n = \frac{NZ^2 \; pq}{d^2 (N-1) + Z^2 pq}$$

when   n = the desired sample size

N = the total population (1,350)

Z = standard statistical value, under normal distribution curve, with significant level at $\alpha = 0.05$ ($Z_{a/2} = 1.96$)

P = the proportion of cervical cancer screening at Naikuan Sub-district (2001)= 0.073

q = 1- p   (1- 0.073 = 0.927)

d = acceptable error allowed = 0.03

$$n = \frac{1{,}350(1.96)^2 (0.073) (0.927)}{(0.03)^2 (1{,}350-1)+(1.96)^2 (0.073) (0.927)}$$

n = 223.4

Therefore the sample size for this study was at least 250 cases.

Inclusion criteria

The women with the age of 35 to 64 years in Naikuan Sub-district, Yan Ta Khao District, Trang Province and willing to participate.

Exclusion criteria

1. Person with communication disability

2. Unwilling person and who does not consent

Person who does not live in the village when collecting data will be skipped to the next person.

3.3   Instrumentation

To achieve the aims, the questionnaires that were comprised of three parts were constructed regarding:

1. Socio-demographic characteristics of population and the experience of cervical cancer screening.

2. Knowledge of cervical cancer.

3. Perception of three factors: susceptibility, severity, and perception of the advantage and obstacles of cervical cancer screening.

The details of questionnaires:

Part 1.   The socio- demographic characteristics include factors such as age, marital status, religion, education, occupation, income, age at first married, number of children, and the experience of cervical cancer screening. There were 20 questions.

Part 2.   Knowledge assessment that were specific for cervical cancer concerning the causes, symptoms, treatment, and prevention of the disease. There were 10 questions that the respondents could reply in right or wrong answers, which were as follows:

The positive items were number 1, 2, 3, 5 and 9 and the negative items were items 4, 6, 7, 8, and 10.

Part 3. The factors in perception were divided into 3 types.

    1. Perception of susceptibility of cervical cancer. There were 10 questions.

        - Items 1, 2, 3, 7, and 8 were the positive questions.

        - Items 4, 5, 6, 9, and 10 were the negative questions.

    2. Perception of severity of cervical cancer. There were 10 questions.

        - The positive items were included in items 2, 3, 4, and 9.

        - The negative items were 1, 5, 6, 7, 8, and 10.

    3. Perception of advantage and the obstacles in cervical cancer screening was comprised of 9 questions.

        - Items 1, 2, 3, 6, and 7 were the positive questions.

        - Items 4, 5, 8, and 9 were the negative questions.

Perception was categorized into 4 levels by the researcher, using of Likert's rating scale. The response categories were assigned numbers in the strongly agree, agree, disagree, and strongly disagree.

3.4   Quality of Measuring Tools

Since the measurement is of vital importance in this study, the quality of measuring tools were tested with the following two characteristics: validity and reliability.

    ♦ Content validity. The study had to be tested how adequate the sampling of questions reflected the aims of study. After reviewing related literatures, the investigator listed all possible questions, which were

needed in the study and consulted with the thesis advisor and three experts.

♦ Reliability test was done before the real data collection. The questionnaires had to be corrected and modified in the final step, just before the real test (KijpreedaBorisoot, 1999). The 30 cases at Prongjorakae Sub-district, Yan Ta Khao District, Trang Province were selected for pre-testing as it had comparable health care services and the clients to the real study site. The formula KR-20 was applied to measure reliability and the knowledge's score of this test was 0.6. Cronbach's Alpha Coefficient formula (perception = 0.7) was also applied.

3.5   Data Collection

The knowledge assessment involved the collection and storage of important personal information; therefore all information of the study were kept as confidential in order to protect human rights.

1. Creating the informed consent form.

2. Planning of questionnaire distribution, by arranging the data name list from health center in order, and selecting one in every five skipped people.

3. Making record control, by fixing the numbers to the questionnaires for the complete data collection.

4. Training the researcher assistants regarding the role and duty as well as how to distribute and collect the questionnaires without error. The

coverage and completion of questionnaires were checked at first. Two data collection assistants were needed with the following qualifications.

- Must live in Naikuan Sub- district.

- Must have at least a diploma or an equivalent.

- Prerequisite in assistant data collection course, trained by the researcher.

5. Creating a coded record handbook for recording the data.

6. Re-checking for the completion of the questionnaires before recording the data.

7. The data were re-checked by the two recorders.

3.6 The Analysis

The data were analyzed with descriptive and inferential statistic from SPSS for windows package.

- Socio-demographic data were calculated by frequency, percentage, mean and standard deviation.

- Knowledge assessment had the criterion of point with

   Incorrect answer   score   =   0   (item 4, 6, 7, 8, 10)

   Correct answer   score   =   1   (item 1, 2, 3, 5, 9)

The result was analyzed by calculating scores in comparison to the three levels of knowledge (Sukothaitammatirat University. 2003).

Range of mark   1-50 % (< 6 of right score)   low level of knowledge

51-80 %   (6-8 of right score)   moderate level of knowledge

81-100 % (> 8 of right score)   high level of knowledge

- The questionnaires in perception had criteria of points to be given:

Positive questions				Negative questions			
Strongly agree	=	4	score	Strongly agree	=	1	score
Agree	=	3	score	Agree	=	2	score
Disagree	=	2	score	Disagree	=	3	score
Strongly disagree	=	1	score	Strongly disagree	=	4	score

Analysis was done by calculating the scores in comparison with the three levels of perception.

1-50 %   low level in perception

51-80 %   moderate level in perception

81-100 %   high level in perception

- Testing of the association between related factors and cervical cancer screening was done by the Chi-square test.