CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

In this chapter, the presentation of a summary of the findings and conclusions of the present study, implications for nursing practice, nursing education, and nursing research, recommendations for further study, and limitations of the present study are described in order below.

Findings and Conclusions

The sample consisted of sixty-two breast cancer survivors who were post diagnosis one to three years and cancer free, aged between 35 to 65 years old. All of subjects were living in the Northern region of Thailand. The sample was assigned to either the experimental or the control group. However, the attrition rate of the experimental group was 20%. One subject refused to participate in the study because of health problems and three subjects were incapable of attending at least one session of the self-help group. In the control group, only thirty-two subjects returned quality of life assessments all three times with the attrition rate of 23.81%. As a result, the eligible subjects for this study were forty-eight (16 in the experimental group, 32 in the control group). Data collection was conducted from July, 2003 to February, 2004. The sample was breast cancer survivors who had received treatment and follow up at the university hospital, the provincial hospital, and the Regional Cancer Center in the Northern part of Thailand.

This study used two types of instruments. One was an instrument for data collection and another was an instrument for intervention. The instruments for data collection were three forms for quantitative data and the question guidelines including; 1) the Demographic Data Tool developed by the researcher used to collect the selected basic conditioning factors and other important characteristics influencing self-care behavior and quality of life; 2) the Self-Care Behavior Log developed by Dodd (1988) was employed to measure the self-care behavior. Data collected from this instrument at three time periods including the baseline, immediately upon completing the intervention, and at the fourth week post intervention; 3) the Quality of Life Breast Cancer (QOL-BC) developed by Ferrell and colleague (1995) was used to measure the quality of life. It was used to collect data at baselines, immediately upon completing the intervention, and at the fourth week post intervention.

Regarding the instruments for intervention, they were the supportive-educative nursing intervention plan, material for breast cancer survivors, and intervention record. In addition, the intervention for the experimental group was one session of group education, which was carried out at the beginning of intervention, four sessions of weekly self-help group in consecutive weeks led by the breast cancer survivors themselves, and two times telephone calls led by the researcher every two weeks. After completing the intervention, the focus group question guidelines were developed by the researcher in order to test the effects of the intervention on self-care and quality of life as well as the potentiality of the intervention program.

For analyses of the data, descriptive statistics were used to describe the demographic and clinical characteristics of the subjects. The *t*-test, Mann-Whitney *U* test, and chi-square test were used to test the equity between groups. It was found that there was similarity between demographic and clinical characteristics, self-care, and quality of life between the two groups at the beginning of the intervention. In addition, a repeated measure analysis of variance and *t*-test were applied to test the research hypothesis.

Research Findings

Out of the two hypotheses posed in this study, only hypotheses I was accepted. The findings showed that the change of self-care behavior scores of the subjects in the experimental group were statistically significant higher than the control group. The self-care behavior scores changed significantly both between immediately post-intervention and baseline (Z = 3.09, p = .002) and at four weeks post-intervention and baseline (Z = 2.45, p = .014). This clearly indicated that a supportive-educative nursing intervention did improve the self-care behavior among breast cancer survivors post-diagnosis one two three years and cancer free. However, the interpretation should be taken with caution due to the small sample size.

Hypothesis II was rejected. The findings illustrated that there were no statistically significant differences in total quality of life or four dimensions at any point of evaluation time between the experimental group and the control group. Moreover, there may be other factors which influenced the breast cancer survivors' quality of life, such as fear of cancer recurrence and their family life situation.

In summary, in this study, the designed intervention demonstrated the positive outcome on the scores of self-care behavior, but the intervention failed to demonstrate the effectiveness in improving quality of life among breast cancer survivors post diagnosis one to three years. However, the subjects in the experimental group had a perceived benefit, such as a sense of awareness in self-care, self-management in daily life, being cheered up, added self-value, and benefit recognition after finishing the intervention. Therefore, these findings illustrated the possibility and workability of a supportive-educative nursing intervention in Thai breast cancer survivors. The intervention program of the study could be used as one strategy to provide continuing support for Thai breast cancer survivors to maintain an optimum level of well-being of their health as much as possible.

Implication to Nursing

Based on findings of the present study, implication can be made for nursing practice and nursing education as follows:

Implication for Nursing Practice

The findings have three significant implications for practice.

First, this study provides one strategy to generate an effective program to enhance self-care behavior or quality of life among breast cancer survivors after completion of primary treatment in the outpatient clinic or oncology care unit. Also, the protocol of intervention program can be integrated to the routine care of the unit. In addition, well-trained nurses should initiate a telephone call intervention and a self-help group in the health care setting. They should take the facilitator role to help the breast cancer survivors in conducting a self-help group among themselves.

Second, the subjects gained advantage from the communication by telephone because it was more readily available and created less cost than traveling to visit the doctor. Either proactive or reactive telephone contact lead by clinical oncology nurses or nurses in the outpatient clinic who provide care for breast cancer survivors should be initiated. This may be a good opportunity for health care providers who aim to assess breast cancer survivors' health, and maintain continuing care, to provide information and help promptly without necessitating a visit to a doctor. This would be of benefit in terms of their economy and time.

Lastly, the researcher of this study developed written material explaining how to manage the side effects of treatment and fear of cancer recurrence. They should be distributed to breast cancer survivors as part of either nursing care to improve self-care behavior at the time of their diagnosis or after completing primary treatment. It is hoped that they can share the knowledge with family members, friends, or other breast cancer survivors.

Implication for Nursing Education

The findings of the present study can be adopted to teach nursing students at both the undergraduate and master level by extending their knowledge and skills in cancer nursing related to breast cancer survivors post completion of primary treatment. Nursing educators should emphasize in the preparation of students how to assess health problems and concerns as part of a holistic nursing approach. In addition, this newly designed intervention should be provided as one strategy to provide care for breast cancer survivors. Moreover, training programs for nurses who will facilitate a telephone intervention and a self-help group should be conducted to enhance their ability to provide immediate guidance, support, and assistance. The essential competencies are knowledge related to breast cancer survivor issues, communication skills both face to face and by phone, ability to reinforce and clarify complex information, and knowledge of social and community health services.

Recommendations

The following recommendations for further research are derived from the findings of the present study.

1. The present study was limited to a small sample size and non-randomized assignment. Therefore, the replication of the design in a large population sample, employing a randomized clinical trial, and comparison between multiple settings needs to be conducted in order to demonstrate the intervention effects.

2. With regards to the actual environment of breast cancer survivors, it is their daily life, in particular their family life. Therefore, an intervention to enhance quality of life of breast cancer survivors should extend to cover their interrelationships with family members. It will have an impact on quality of life of these groups, either as family as an individual or unit.

3. Because the quality of life concept has both objective and subjective aspects, it should be evaluated not only from an objective aspect, such as using questionnaires, but it also should be evaluated from a subjective aspect. In addition,

the content validity of quality of life may have limitations. Therefore, the quality of life among this group should be developed based on Northern Thai culture.

4. Fear of recurrence was reported as the major concern of breast cancer survivors in both individuals and during the self-help group session as well as in both the experimental and the control groups. Fear of recurrence was classified as one symptom of posttraumatic stress disorder (PTSD) which may be long-lasting and seriously affect breast cancer survivors' ability to maintain a normal lifestyle, as well as interfering with personal relationships, education, and employment. Therefore, further study should be conducted to explore this phenomenon and details of its impact on Thai breast cancer survivors, trigger events, and how they relieve this feeling. Such a study is needed to provide an understanding of this phenomenon and give guidance for a related nursing intervention. Also, fear of recurrence in every stage of breast cancer survivorship, such as undergoing treatment, post primary treatment, and long-term survivorship, should be studied.

5. The subjects in the experimental group responded that the Self-Care Behavior Log was difficult to record and time consuming. In addition, the control group had some attrition as a result of incomplete recording or incorrect recording. Therefore, future study, which would employ this instrument, should be done on a face to face basis or utilizing two ways communication in order to clarify the methods of reporting this questionnaire.

Limitation of the Study

The study had some limitations as presented below.

1. The internal validity of this study was limited by the small sample size of breast cancer survivors living in the Northern region of Thailand and it was not randomized. Additionally, the subjects also participated on a self-selected basis. Therefore, findings may either fail to represent the breast cancer survivors in the larger population or not be directly generalizable to the entire nation. Moreover, without randomization it may be argued that the bias in allocation of subject into either the experimental group or the control group as well as the confounding variables might not have been distributed equally between the groups.

2. The researcher worked alone in conducting the individual intervention by telephone and focus group discussion. This may have resulted in a threat to external validity in terms of experimental effect and measurement effect. Thus, it is necessary to train potential research assistants in providing telephone intervention, and facilitating a self-help group. Moreover, an external evaluator should conduct the focus group discussion.