CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Literature review

The literature related to the effect of informational support on psychological well-being of postmastectomy patient was reviewed and presented into the following four parts:

1. Breast cancer, mastectomy and its effect on patient.

2. Psychological well-being and mastectomy patient.

3. Informational support and mastectomy patient.

4. The effect of informational support on psychological well-being.

Breast cancer, mastectomy and its effect on patient

Breast cancer is a malignant neoplasm involving breast tissue. It commonly occurs in the female breast and infrequently in the male breast. The incidence rate of breast cancer has been increasing worldwide and also in China. At present, breast cancer ranks second only to lung cancer as the major cause of death as a result of cancer in women (Harkness, & Dincher, 1996).

The incidence rate of breast cancer increased with

age. The likely age of breast cancer is 30-80 and the risk increases after the age of 50. The incidence of breast cancer among woman at 30 years of age is 20 per 100,000, whereas it increases to 310-330 per 100,000 in women more than 75 years of age (Margert, 1995). Although the incidence rate of breast cancer has been increasing over the past 50 years, longer survival rate has stabilized the mortality rate. With continued advances in detection and treatment, survival rate may improve in the future (Wong, & Bramwell, 1992).

Clinical staging of the cancer is a part of the pretreatment evaluation. Schematic classification of the stages of breast cancer has been divided into four clinical stages by the International Union Against Cancer and the American Joint Committee on Cancer (Smeltzer, & Bare, 1992).

Stage I consists of a small tumor, less than 2 centimeters with negative lymph nodes and no detectable metastases. Stage II consists of a tumor greater than 2 centimeters but less than 5 centimeters with negative or positive unfixed lymph nodes and no detectable metastases. Stage III is a large tumor, greater than 5 centimeters, or a tumor of any size with invasion of the skin or chest wall or positive fixed lymph nodes in the clavicular area without evidence of metastases. Stage IV is a tumor of any size with lymph nodes positive or negative with distant metastases (Smeltzer, & Bare, 1992).

At stages I and II, the most common performed operation is modified radical mastectomy. This operation is the removal of the entire breast tissue including the nipple and an axillary lymph nodes dissection (Luckmann, 1997).

Mastectomy is the primary treatment of breast cancer, especially when the disease is localized without distant metastasis. Nowadays, with the development of the diagnostic technique, more patients were diagnosed with breast cancer at the early stage. Eighty to ninety percent of breast cancer are operable (Black, & Matassarin-Jacobs, 1993).

After modified radical mastectomy, the patient not only lives with loss of a body part, but also faces some physical problems. Following the completion of tissue dissection, a wound closure is made with a drainage catheter inserted and attached immediately to a low suction system. The catheter is usually removed within 3 to 5 days or when the amount of drainage is less than 5 to 10 milliliters in 24 hours. After 10-14 days, the wound will heal and the suture stitches will be removed.

Acute pain after operation usually decreases gradually during 24-48 hours after operation. Sensations of numbness and tingling over the chest that are painful may influence the patient's breathing. Pain in the operated area may be referred to the affected arm or shoulder after that.

They may have some complications. Lymphedema is

the blockage of lymph drainage in the arm due to scarring of surgery. Stiffness of shoulder is caused by alternations in mobility after axillary node dissection. The stiffness of shoulder can also cause difficulty in movement of the affected arm (Luckmann, 1997). Other physical problems include fatigue, weight gain, and fertility and reproduce changes (Ferrell, Grant, Funk, Otis, & Schaffner, 1996).

However, 85 percent of the breast cancer patient at the early stage will survive about or more than 5 years. The American Cancer Society estimates the 5 year survival rate for women diagnosed with breast cancer as follows: 100% with in situ breast cancer, 93% with localized breast cancer, 73% with regional spread, and 18% with distant metastases (American Cancer Society, 1993, cited in Wyatt & Liken, 1993).

In summary, breast cancer is the most common cancer in women. Modified radical mastectomy is the primary and most common treatment of breast cancer at the early stage. However, it can cause great physical affects.

Psychological well-being and mastectomy patient

Concept of psychological well-being

Psychological well-being has different meaning in some studies. The most common dimension which represents attributes of psychological well-being consists of an affective component and an evaluation of one's life

(Campbell, 1981 cited in Friedman, 1993); attributes of worthwhileness, value, or satisfaction of life (Padilla, Present, Grant, Metter, Lipsett, & Heide, 1983); usefulness, body image, or adjustment (Ferrell, Wisdom, Wenzl, & Brown, 1989); emotions and anxiety (Ware, 1984), internal locus of control (Presant, Klahr, & Hogan, 1981); recreation and fun (Lewis, 1982); happiness (Padilla, & Grant, 1985);and developing, learning, and fulfillment (Burckhardt, 1985).

Campbell (1981 cited in Friedman, 1993) conceptualized psychological well-being includes both an affective component and an evaluation of one's life. The affect is unidimensional, with positive affect the polar opposite of negative affect. Friedman's (1993) research, however, indicated that positive affect is relatively independent of negative affect. The positive affect includes the feeling of alertness, enthusiasm, activity, and energy. The negative affect, on the other hand, is characterized by negative emotions such as nervousness, fear, anger, and worry.

The second component of psychological well-being which is evaluation of one's life is influenced by both one's current situation and a reflection of one's life to date. The dimensions commonly related to a positive evaluation of life are standard of living, leisure activities, and residential environment (Friedman, 1993).

Andrews and Witney (1975 cited in Burgener, &

Chiverton, 1992) found three major components of well-being: positive affect, negative affect, and life satisfaction. Positive and negative affects were conceptualized as the affective, emotional aspects of the construct, with life satisfaction being the cognitive-judgmental aspect.

Lawton's definition of psychological well-being is a balance between positive and negative affects. The formulation of psychological well-being consists of four aspects: (1) negative affect, which includes anxiety, depression, agitation, worry, and distressing psychological symptoms and represents the underlying trait of neuroticism; (2) happiness, which is a cognitive judgment of positive affect over a relatively long time interval; (3) positive affect, which is an active pleasure or emotional state versus a cognitive judgment; and (4) congruence between desired and attained goals (Lawton, 1983 cited in Burgener, & Chiverton, 1992).

In the study of Padilla, Ferrell, Grant, and Rhiner (1990), the psychological well-being was included in the content of the quality of life. It includes affective-cognitive attributes, coping ability, meaning of pain and cancer, and accomplishment attributes of quality of life. The content of affective/cognitive domain is enjoying or not enjoying life, happiness, spiritual support, inner peace/turmoil, ability to concentrate, communication, and self-esteem. The content domain of coping ability is the

feeling of security/insecurity, mental attitude, and expression of adaptation and adjustment to life events. The third is focus on the meaning of pain and cancer. The fourth is accomplishments, which includes feeling of successful, satisfied, and usefulness.

Psychological well-being were defined by Ferrell (1996) as seeking a sense of control in the face of a life threatening illness characterized by emotional distress, altered life priorities and fear of the unknown, as well as positive life change. It covers concerns such as fear of recurrence, anxiety, depression, body image, and sense of usefulness, satisfaction, and happiness.

When psychological well-being changes, the patient often performs as some psychological symptoms, such as anxiety, depression, sense of loss of control, or feeling of diminished usefulness. Psychological well-being can be effected by many factors, which include age, marital status, social economic status, educational level, perceived health, disease symptoms, activity and function (Downe-Wamboldt & Melanson, 1995; Gill, Williams, Williams, Butki, & Kim, 1997).

In the study of Downe-Wamboldt & Melanson (1995), the relationship between social economic status, severity of impairment, sex, stress emotions, types of coping strategies, and psychological well-being was explored. Fifty-nine women and 19 men with rheumatoid arthritis were

selected in this study. It was reported that social economic status had a significant, direct influence on confrontive coping. Severity of impairment had a significant, direct and negative effect on psychological well-being. The stress emotion of threat had a negative impact on psychological well-being. Use of more optimistic strategies was directly related to higher psychological well-being.

In a study of Heidrich (1996), 102 old women with osteoarthritis and 86 with breast cancer were involved in this study. It was reported that each psychological well-being outcome was regressed hierarchically on age and diagnosis, physical health, and interpretive mechanisms. In Heidrich's (1993) another study, 243 elderly women were assessed and it indicated that poor health, regardless of age, was associate with more depression and anxiety and low levels of autonomy.

Gill, Williams, Williams, Butki, & Kim, (1997) studied the physical activity and psychological well-being in older women. A descriptive correlational design was used to study 130 older women, whose ages were ranged from 65-95 years old. They reported that psychological well-being was correlated with activity, however, with the women who reported greater activity reporting more positive well-being.

In adults with cancer, the perception of their

illness, which include one's belief about the severity, chronically, or controllability of illness, has been associated with decreased score of psychological well-being. For cancer survivors, they are fear of cancer recurrence and metastasis, uncertainty over the future, loneliness and isolation, and depression. Approximately 20% of cancer survivors may experience clinical depression (Ferrell, Dow, Lecgh, Ly, & Gulasekaram., 1995).

In summary, the psychological well-being refers to both an affective component and an evaluation of one's life over the distressing situations related to mastectomy at present as well as the thought of well participation in daily living. The affective component includes both positive affect and negative affect. It can be influenced by many factors, such as physical health, age, marital status, educational level, socioeconomic status, activity, and function.

Measurement of psychological well-being

There were many measurements of psychological well-being. The instruments included Positive and Negative Affect Schedule, Mental Health Inventory, CES-D depression scale, Ryff scales, Health and Well-being Rating and General Well-being Schedule.

In the study of Friedman's (1993; 1994) research, the psychological well-being of was measured by two instruments. One was 20-item Positive and Negative Affect

Schedule (PANAS), which was used to measure the affective component of psychological well-being. The other is the Satisfaction with Life Scale, which was used as the evaluative indicator of psychological well-being. These two instruments were used to measure the psychological well-being of the older women with heart disease.

In the study by Downe-Wamboldt and Melanson (1995), psychological well-being was measured through the use of the Mental Health Inventory (MHI). It consists of 38 items that measure anxiety, depression, loss of behavior/emotional control, general positive affect, and emotional ties, reflecting the multidimensional nature of psychological well-being. Reported internal consistency coefficients ranged from .83 to .92 for the five scales and .96 for the overall score.

In the study by Heidrich (1993; 1996), both positive and negative dimensions of psychological well-being were assessed. These included depression, self-esteem, autonomy, positive relations with others, and purpose in life. The CES-D depression scale was a 20-items scale based on reports of mood and symptoms over the past week. The reliability (alpha) in this study was .85. Self-esteem was assessed by 10- items self-esteem scale that has been used in many studies. Reliability and validity were excellent. Personal growth, purpose in life, and positive relations with others were measured with Ryff scales of psychological

well-being, which the reliability in this study ranged from .85 to .86.

Gill and colleagues (1997) measure the psychological well-being by using Health and Well-being Rating (HWR) and General Well-being Schedule (GWS). The former one used a 5-point scale (1=poor, 5=excellent). The later one used a 6-point response scale for the first 14 items and 0-10 rating scales for the final four items. The reliability and validity were not explained in the article.

Although there are some instruments to measure the psychological well-being, most of them focus on the different groups of people. The physical condition is not the same as in this study. Therefore, the researcher develop the instrument in this study based on the reviewed literature.

Psychological well-being and mastectomy patient

The female breast presents a source of nourishment, comfort, love, and sexuality (Spencer, 1996). Although it is not essential to life, it has considerable impact on body image, self-esteem, sexual attractiveness, and intimacy and love. The magnitude of the change is thought to depend on the degree of physical change and the meaning of the breast to the woman (Mock, 1993).

Review of the studies relating to the psychological well-being of breast cancer patients indicates that many patients may experience several psychiatric problems. They

include persistent depression, increase anxiety, change in body image, feeling of worthlessness and shame, occasional suicidal ideation, and fear of the recurrence of the cancer or side effect of the following treatment (Jamison, Willisch, & Pasnau, 1978; Ferrans, 1994). When a woman is faced with the loss of a breast because of the cancer, fear and anxiety that result from unknown outcome, the threat of death, and uncertain future (Knobf & Stahl, 1991) can overwhelm her.

Psychological aspects of Breast Cancer Study Group (1987) studied the psychological response of mastectomy patient. Four hundred and twelve women were studied during a one-year period. A prospective comparison study was used to compare the presence and degree of psychopathological symptoms, mood, physical complaints, self-esteem, and quality of interpersonal relationship among the women with mastectomy and other diseases. The result of this study showed that women with breast cancer showed greater psychological distress related to social and interpersonal relationships. More distress was seen in women with stage II breast cancer, and they also had more negative attitude toward self and future, concern with physical symptoms, anxiety, strain, and interpersonal difficulties.

In the study of Steinberg, Juliano, & Wise (1985), they compared 46 patients with modified radical mastectomy with 21 lumpectomy patients. The results revealed that

mastectomy patient show more loss of feeling of attractiveness and femininging, as well as more self-conscious about their appearance.

Jamison, Willisch, & Pasnau (1978) reported that 41 women who had mastectomies were investigated. Fifty four percent of the subjects had modified radical mastectomy. Approximately one-fourth of the woman stated that they had suicidal ideation after mastectomy. More than a third stated that their tranquilizer used was greater or much greater than it had been before the mastectomy, and 15.4% reported that their alcohol used significantly increased. Furthermore, mastectomy had profound negative effects on the woman's body image and her sexual relationships.

Ferrans (1994) studied 61 women who had been diagnosed with breast cancer. Fifty nine percent had modified radical mastectomy. Many subjects expressed that losing a breast through mastectomy was devastating. Some felt ashamed of their bodies. The loss of breast negatively affected their self-esteem, sex life, and relationship with others. Thirty to forty percent of women who had mastectomies experience significant sexual problems, for example, loss of desire, reduce frequency of intercourse. Some subjects reported that they had experience significant depression. Many of them said that they fear about the recurrence of the breast cancer and worried about each new symptom.

Wong and Bramwell (1992) studied anxiety and uncertainty after mastectomy for breast cancer. Forty eight percent women expressed the desire to determine whether the cancer cell were still in their body or had nagging thoughts that the cancer could recur. Eighty eight percent women experienced some degrees of anxiety regarding to recurrence, physical symptoms, and chemotherapy treatment.

Ferrell and colleagues (1996) studied 21 survivors of breast cancer. They found that the subjects develop feeling of fear of spread of cancer, distress from surgery, recurrence, fear of secondary carcinoma, impact on self-concept, and fear of the result of future tests.

In summary, mastectomy results in decreased psychological well-being. It performs as the negative affects as anxiety, depression, fear of the future, feeling of uselessness, not satisfying with the appearance, and other negative evaluation of life.

Informational support and mastectomy patient

Informational support is one aspect of social support, which is a significant concept for nurses and other health professionals. Social support includes emotional, instrumental, informational, and appraisal support (House, 1981). Informational support is defined by House (1981) and Krause (1986) as that information provided to another during a time of stress. It includes providing information, giving

advice, suggestion, direction and guidance. According to Cronenwett (1985), informational support assists the person in problem solving. Informational support means the individual with information or advice that she/he in coping with personal and environmental problems. It also includes giving feedback about she/he is doing (Fridfinnsdostir, 1997).

In Friedman and King's (1994) research, informational support is one component of social support. It entails the extending of information and guidance relevant to a stressful situation. Informational support may offer the individual alternative strategies to change the stressor itself or reduce the negative emotional responses associated with the stressor.

Seeking information is the most primary of coping with situation that is novel or ambiguous and unfamiliar. Individuals facing a threatening event are likely to induce feeling of powerlessness and therefore a need to strengthen their sense of personal control.

After receiving information, the patient will retrieve store-up memories, make comparisons and decisions to solve problems, and produces outcome in the form of behavioral responses. Receiving the information is processed in various ways: selected, compared, and combined with other information already in memory, transformed, rearranged and so on. After rearrange the information, the

patients can utilize the knowledge of past events in dealing with the future, and in every way to react in much fuller, safer and more competent manner to the emergencies which face it (Darley, Clucksberg, Kamin, & Kinchla, 1984).

A study by Christ and Siegel (1990) reported that the most common barriers to delivering services are the patients' and families' lack of information about the services that exist and their ability to negotiate the systems needs to obtain help. The most common reported needs occurred in the instrumental activity domain, which include information and other needs.

In support of cancer patient's being concerned about receiving information from health care team members, a study examined factors that influence the amount of participation of 154 subjects on two cancer support groups. It was determined that one of the subject's primary requests was to receive more information about their illness (Bauman, Gervey, & Siegel, 1992).

Most studies have concluded that the informational need of adults with cancer is of considerable importance and is linked to maintaining or gaining a sense of personal control (Cassileth, Sutton, Sutton, & March, 1980; Brockcopp, Hayko, Davenport, & Winscott, 1988). Through seeking information, the individual try to find out whether the problems exist and what must be done about them.

Wong and Bramwell (1992) studied 25 subjects who

had mastectomy. During the study, many subjects asked many questions regarding the etiology and progression of cancer. They also asked about ways in which they could change their diet, exercise habits, and general life style and pattern of living to prevent recurrence. More specifically, the importance of instructing patients in arm exercises, skin care, and choosing prostheses was also mentioned.

Ferrans (1994) reported that many survivors of breast cancer reported that information was as important as the psychological, emotional, and physical care. Understanding the effects of treatment could help alleviating anxiety. Conversely, some did not receive the information they needed. The research also reported that more information was needed regarding current health concerns. Survivors requested information focusing on cancer control through diet. They also asked for information about exercise as well as for diabetes and control of obesity for older patient with cancer. Loescher, Clark, Atwood, Leigh, and Lamb (1990) reported similar findings.

It is important that options be clearly outline regarding the length of hospital stay, time frame for treatment, expected outcome, and the complications may be encountered. Of equal importance is the alternation of how the loss of a breast will affect sexuality, marital adjustment, and expectations (Knobf & Stahl, 1991).

Wang (1996) studied the needs of postmastectomy patients in Teaching Hospital of West China University of Medical Sciences. Forty eight postmastectomy women aged 30-70 years participated in the study on the third and seventh days after surgery. She found that physical needs, which focused on nutrition, arm exercises, sanitation, and sleep and rest were very important after surgery.

As a nurse, one independent role of nursing is to provide informational support for patient. Since the holistic care should be given to the patients, the nurses should not only provide information directly to the patients but also concern about their emotion and appraisal.

In summary, the informational support is a set of nursing activities providing to the mastectomy patients. It includes the information about nursing knowledge and other support such as giving advice, encouragement, listening, stay with the patients with expression of care and sympathy. The nursing knowledge includes pain relief, wound care, arm exercises, care for affected arm, activity of daily living, choose the prostheses, breast self-examination and follow up.

Effect of informational support on psychological well-being

Most informational support outcomes can be subsumed under the general rubric of positive health states or behaviors. Patients who receive more information tend to

report greater satisfaction with the medical care, and less anxiety and depression (Meyerowitz, 1993).

The goal of giving information to the patient is to improve patient's health outcomes by promoting recovery, speeding return to function, promoting health behavior, and involving the patient in his or her own care decisions. It is the most affective means of returning control to the patient by reducing feeling of helplessness and enhancing the ability to be the chief decision maker in the management of one's health and illness problems (Rankin, & Stallings, 1996).

Many researches suggest that assisting individuals in gaining cognitive/behavioral control in relation to possible threats (such as medical procedures) can enhance their psychological well-being (Brockopp, Hayko, Davenport, & Winscott, 1988). Informational support may offer the individual alternative strategies to change the stressor itself or reduce the negative emotional response associated with the stressor. It may demonstrate an effect in populations where the demands made by the stressful situation result in a need for this kind of support (Frideman & King, 1994). Information from others about proper health care may influence perceived and actual ability to affect health status. The perception that others are willing to help could result in increased overall positive affect and in elevated sense of self-esteem (Cohen,

& Syme, 1985).

Derdiarean (1989) studied the effect of information on recently diagnosed cancer patients' and spouses' satisfaction with care. Experimental design was used in this study. Sixty patients and their spouses were randomly separated into two groups. The result showed that the information which given to the experimental group had a significant effect on the satisfaction. It supported the prediction that providing information would increase their information base, satisfaction, and perhaps coping.

A study by Dakof and Taylor (1990) suggested that information support from health care professionals was more valued than emotional support. Similarly, Northouse (1988) found that nurses and physicians were identified as significant sources of support for mastectomy patient. However, the study did not determine what kinds of support were the most helpful.

Caldwell (1991) studied the subjects who were undergoing outpatient surgery for the first time. The study reported that subjects who had a high preference for information were found to have significantly lower level of preoperative stress than the subjects who had low information.

The study by Krishnasamy (1996) reported that at the time of diagnosis or recurrence, information may be significant in its ability to minimize feeling of isolation,

fear, and stigmatization commonly experienced by cancer patients.

Mished and Braden (1988) studied 61 women with gynecological cancer to determine how social support influence their experiences with the disease. They found that providing knowledge about the disease can reduce patients' uncertainty.

A study by Ali and Khalil (1989) examined the effect of psychoeducational preparation, which is a kind of informational support, 1-2 days before surgery on postoperative state anxiety among Egyptian bladder cancer patients with urinary diversion. A total of 30 patients were randomly assigned into two groups. The result revealed that the psychoeducational preparation lowered state anxiety significantly on the third day postoperatively and before discharge for those patients who had the intervention.

In summary, the informational support as a kind of social support can improve health in three ways. First, it can directly enhance psychological well-being because it meets mastectomy patient's needs. Second, it can directly reduce level of stress in variety of ways and enhance the psychological well-being indirectly. Third, it buffers the impact of stress, and modifies the relationship between the psychological well-being and stress. It can reduce the feeling of anxiety, fear, and depression, increase their satisfaction, and enhance their self-control. Thus it can

increase the patients' psychological well-being.

Conceptual framework

The conceptual framework of this study derived from reviewing the literature.

The psychological well-being refers to both an affective component and an evaluation of one's life over the distressing situations related to mastectomy at present as well as the thought of well participation in daily living. The affective component includes both positive affect and negative affect.

After having mastectomy, the patient may express anxiety, depression, feeling of uselessness, not satisfying with the appearance, fear, and other negative feelings. Thus the patient's psychological well-being may decrease.

When facing mastectomy, seeking information is the most important coping with this situation. The informational support is a set of nursing activities providing to the mastectomy patients. It includes the information about nursing knowledge and other supports such as giving advice, encouragement, listening, stay with the patients with expression of care and sympathy. The nursing knowledge includes pain relief, wound care, arm exercises, care for affected arm, activity of daily living, choose the prostheses, breast self-examination and follow up.

The informational support as an aspect of social

support can improve health in three ways. First, it can directly enhance psychological well-being because it meets postmastectomy patients' needs. Second, it can directly reduce level of stress in variety of ways and enhance the psychological well-being indirectly. Third, it buffers the impact of stress, and modifies the relationship between the psychological well-being and stress. It can reduce the feeling of anxiety, fear, and depression, increase their satisfaction, and enhance their self-control. Thus it can increase the patients' psychological well-being.