II

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Literature review and related researches

The review of the literature included the articles and researches on breast cancer, needs of postmastectomy patients, factors influencing needs of postmastectomy patients, and assessment of postmastectomy patients' needs.

Breast cancer

Breast cancer is defined as the uncontrolled growth of cells within the breast tissue (Monahan et al, 1994). These cells have the unique ability to metastasize. It can break away from the main tumor and invade through the lymphatic system and blood stream to other sites, such as the lung, liver, or bones. Because the involvement of the lymph nodes is presented in about two third of the women at the time of diagnosis, even when the lymph nodes are negative, it is believed that micrometastasis is present. So breast cancer is now considered to be a systematic rather than a local disease (Long & Phipps, 1993). The medical treatment of which has now changed from primary local therapy (surgery of the breast) to include additional therapies (radiation, chemotherapy, hormone therapy). Often two or more therapies are combined.

The staging of breast cancer is a method of identifying the extent of the disease. The most common used clinical and pathological staging method is TNM classification (Monahan et al, 1994). It is used to categorize breast cancer into stage I, stage II, stage III, and stage IV in terms of the primary breast tumor (T), the presence or absence of tumor in the regional lymph nodes (N), and the presence or absence of distant organ metastases (M). In the United States, 99% of patients with newly diagnosed breast cancer are in the early stages, stage I and stage II, which mean that the cancer is in the breast and axillary lymph nodes, and there is a very good chance for complete recovery (Monahan, 1994). Eighty to ninety percent of breast cancer are operable (Long & Phipps, 1993). The type of surgery depends on the extent of the growth of cells and patients' choice.

Though there are several options of treatment, the primary treatment of breast cancer is surgical removal and pathologic study of the tumor (Monahan et al, 1994). Currently, there are several surgical options that are used to treat breast cancer, which include lumpectomy, modified radical mastectomy, and radical mastectomy. The standard and most common used surgical approach for primary breast cancer has been modified radical mastectomy (Monahan et al,1994).

1. Lumpectomy is a type of segmental mastectomy in which only the tumor and small amount of surrounding tissue

are removed, not the entire breast. It's a breast preserving procedure used in conjunction with axillary lymph nodes dissection, radiation and chemotherapy. It is an option when there is no metastasis and the breast tumor is well defined, less than 5 cm in diameter, and does not involve the nipple (Long & Phipps, 1993).

2. Modified radical mastectomy (MRM) involves removal of the entire breast, skin, axillary lymph nodes, and fascia underlying the breast, but preserves the major pectoral muscles (Monahan, 1994). Currently, MRM is used in conjunction with radiation and chemotherapy.

3. Radical mastectomy (RM) involves removal of the entire breast, skin, axillary lymph nodes, and the muscles of the chest wall, including the major and minor pectoral muscles (Monahan et al, 1994).

Studies have shown that lumpectomy followed by chemotherapy is as effective as mastectomy for early stage breast cancer (Monahan et al, 1994). When lumpectomy is combined with a course of radiation, the long-term results are similar to those following a mastectomy. No difference in survival between patients treated with modified radical mastectomy and those treated with radical mastectomy (Monahan et al, 1994).

Needs of postmastectomy patient

The basic human needs of the subjects had been studied and organized in various ways by numerous social scientists since the middle of the last century (Henderson, 1978).

Maslow (1970) viewed a need as an unmet desire. A person will usually persist in need-attaining behaviors until an unmet desire is fulfilled.

According to Maslow (1970), basic human needs may be organized into a hierarchy of relative potency, that is, when lower needs are satisfied, higher needs emerge. Maslow rank-ordered human needs, placing the physiological needs at the base and the psychological needs at the top to illustrate that certain needs are more basic than other needs. Although all of the needs are present within each person all the time, the person strives to meet certain of
the needs before attending to other needs.

Maslow (1970) pointed out the growth that can occur in individuals as they move from seeking the fulfillment of physiological needs to seeking the attainment of those higher and more individually new rewarding needs. He believed that the fulfillment of the basic or physiological needs is essential to survival. A person's attention to fulfill higher needs such as love and belonging, self-esteem, and self-actualization can only be given after the physical needs have been met.

Maslow identified five level hierarchical human needs as: (1) physiological needs, (2) safety needs, (3) belonging and love needs, (4) esteem needs, and (5) self-actualization needs.

Physiological needs: they located at the base of the hierarchy, and are the most prepotent needs of all that are experienced by all human beings at all levels and must minimally met to maintain life. Some of the more basic are the need for oxygen, food, water, sleep and rest, activity, elimination and sexuality.

Safety needs: they come next in priority and involve both physical and emotional components. Physical safety means protecting a person from potential harm or actual harm. Emotional safety involves trusting others and being free of fear, anxiety and apprehension.

Belonging and love needs: it is a higher level needs which include the understanding and acceptance of others in both giving and receiving love, and feeling of belonging to others namely friends, peers, families, neighborhoods, and communities.

Esteem needs: the second highest priority on the hierarchy which include self-respect and respect by others. Esteem needs include desire for strength, adequacy, achievement, mastery, competence, independence and freedom, confidence, reputation or prestige, status, fame, glory,

recognition, attention, importance, and dignity.

Self-actualization needs: the highest level on the hierarchy which are the needs for an individual to reach his or her potential through full development of the individual's unique capabilities if all the lower needs are fairly well met.

Montagu defined a basic or vital human need as one that must be satisfied if the person or the group is to survive (Montagu, 1970, cited in Yura & Walsh, 1983). He specified two hierarchy of human needs: (1) vital basic human needs which include the needs for inhaling air, ingesting food, taking in liquid, rest, being active, sleeping, urination, defecating, escaping from danger, a craving for internal equilibrium, and (2) nonvital basic human needs which include sex (Yura & Walsh, 1983).

Combs et al (1976, cited in Yura & Walsh, 1983) defined man's basic need singularly as a need for adequacy which is comparable to the description of the need for self-actualization expressed by Maslow. They considered the physiological, safety, and love and belonging needs specified by Maslow as goals, and the achievement of which satisfy the fundamental needs of the person for adequacy or self-actualization.

According to Yura and Walsh, Lederer viewed a human need as what is lacking perceived by a person (Lederer, 1980,

cited in Yura & Walsh, 1983). He suggested that social and cultural factors play important parts in the expression of physiological needs, and pointed out that need satisfaction must account for differences related to age, sex, socioeconomic status, occupation, and educational level. He also identified a relationship of positive mental health with satisfaction of human needs and concluded that if human needs are unsatisfied, strong feelings of deprivation or frustration may lead to aggression or resentment, regression, or various states of unhappiness.

In summary, needs are those basic human needs which are common to all people and are essential to the health and survival of all people which include physiological needs, safety needs, belonging and love needs, esteem needs, and self-actualization needs.

The influences of mastectomy on the patients are both physically compromising and psychologically threatening. Women who had undergone mastectomy may experience a variety of physical and emotional distress, which include worry about recurrence and shortened life span (Northouse, 1989; Wong & Bramwell, 1992); concern with the meaning of physical symptoms (Wong & Bramwell, 1992), the treatment during hospitalization and after discharge from hospital (Wong & Bramwell, 1992; Suominen, 1991), and the loss of body image and self-worth (Feather & Wainstock, 1989).

After operation, the removal of breast, skin, lymphatic tissues and pectoral muscles, as well as the pressured dressing and tube drainage from incision within 72 hours may lead patients suffering from arm and wound pain, arm swelling, tightness of breath, limited arm and shoulder motion, fatigue, abnormal bowel movement, and phantom breast sensation (Long & Phipps, 1993). Their major needs are free from pain, maintaining effective breath and normal bowel movement, having adequate rest and sleep. Getting information and instruction on nutrition, prevention of infection and lymphedema, arm exercises, and skin care are also important to increase their physical comfort and facilitate their restoration of normal life (Long & Phipps, 1993; Wong & Bramwell, 1992). The training of accurate and regular arm exercises before discharge is specifically important for patients' restoration of full range of arm motion and prevention of lymphedema (Long & Phipps, 1993). For the women experiencing fatigue, the rest periods before and after activities is needed, and support by family and friends is also helpful in facilitating their rest (Long & Phipps, 1993). After 3-5 days, with the removal of drainage tube and reduced dressing pressure (Monahan,1994), patients' physical discomfort such as pain and tightness of breath may be reduced. Their major concerns may be changed from physical aspects to psychological aspects.

For most women, the loss of breast means not only loss of body part, but also loss of body image (Ferrans, 1994). Avoiding looking at incision can be expected initially from patients. Considerable support is needed when viewing the incision and her new image (Long & Phipps, 1993). Feelings of decreased femininity, self-worth and self-esteem plus increased dependency needs often produce depression, anxiety, and difficulties in interpersonal relationships (Feather & Wainstock, 1989). Anxiety and uncertainty associated with fear of recurrence of cancer may lead to emotional distress (Wong & Bramwell, 1992). Survival of the disease are their predominant concerns (Northouse, 1989). Emotional support, adequate information about treatment and more emotional contact are important to meet their psychological needs (Pallson, 1995).

Northouse (1989) conducted a study on 50 postmastectomy patients in the hospital just after surgery and one month later. The findings indicated that survival concerns were the predominant worries of patients in the hospital and one month later after surgery. Patients reported that emotional support, information, attitude,and religion were helpful for their coping with illness during this time. Women viewed the love and understanding by others were important to them. Religious beliefs, especially faith, was another factors that helped their coping.

In Wong & Bramwell's study (1992), twenty-five postmastectomy women age 33-76 years were interviewed 1-2 days before and 1-2 weeks after discharge to identify women's responses to partial or complete mastectomy. The findings indicated that anxiety and uncertainty regarding treatment and fear of recurrence were the most common responses during the immediate predischarge period. Accurate and adequate information provided by professionals; instructions about coping with disease and life style changes, and prostheses choosing; and professional and familial support were viewed important to their coping with the uncertainty.

Palsson & Norberg (1994) conducted a study on emotional support among 26 Swedish women aged 35-69 and 6 months after primary treatment of breast cancer. The findings indicated that emotional support lead to feeling of safety and security. Adequate information about treatment and nursing care, and confirming relationships with health care professionals, family members, friends, especially those women who had undergone mastectomy are needed to meet patients' psychological needs. They suggested that open communication, giving hope, help and feelings of not being alone, and involvement patients in treatment decisions was important to some patients.

Suominen (1991) conducted a study on 109 women 32-78 years who had developed breast cancer in the previous 3 years

to analyze the opportunities and willingness of women to take care of themselves after an operation for breast cancer. Patients reported that during hospitalization, they wanted to know more about breast cancer, the operation, and the treatment during hospitalization and after discharge from hospital. Also they had expected to get information about coping with disease, prostheses, and information organized by the Cancer Association.

In summary, mastectomy influences postmastectomy patients' physical and psychosocial function. Women who had undergone mastectomy need not only physical support, such as free from pain and infection, maintaining of effective breath and restoration of full range of arm motion, but also emotional support from the supporting systems. Adequate information about illness, treatment and its effectiveness, test results, sequelae, nursing care; instructions on arm exercises, prostheses choosing, breast reconstruction, and coping strategies; confirming relationships with nurses and physicians; emotional support from family, friends, nurses, especially those women who had undergone mastectomy; Open communication about their feelings with health care professionals; love and understanding by others, as well as caring from health care professionals; participation in the decision-making of treatment options; and religion are important to maintain their physical and psychosocial well-

being.

Factors influencing needs of mastectomy patients

1. Age: Repeated findings suggested that the emotional distress of postmastectomy patients are affected by women's age. Distress from crisis increase significantly with age (Bloom et al, 1987). Patient's adaptation with cancer is influenced by age (Krumm , 1982).

According to Ferrans (1994), age at the time of breast cancer surgery may influence the severity of the impact of surgery on the patients, and which is supported by the findings of Asken's (1975) literature review on psychoemotional aspects of mastectomy that the young patient may have a strong reaction to mastectomy as the operation suddenly forces her to confront her own mortality.

Studies of Jamison et al (1978) and Vinokur et al. (1989) on breast cancer survivors also suggested younger women coped less well and were more poorly adjusted.

Jamison et al (1978) conducted a study on the effect of age on mastectomy among 41 postmastectomy women. The findings indicated that the younger group (<45 years) of subjects had significantly poorer adjustment, and have more needs of getting professional help with psychological problems secondary to mastectomy. Also those women who reported better emotional adjustment had significantly older age. They

concluded that the effects of mastectomy are much more far-reaching in younger women.

Vinokur et al (1989) suggested that older women (> 64 years) coped better with the stress of cancer than did younger women, but had more physical difficulties in adjusting to mastectomy. The younger women (<64 years) had more difficulties in psychological coping with mastectomy. So, after mastectomy, older women may need more physical support, and younger women may need more psychosocial support.

Feather and Wainstock (1989) conducted a study on 456 postmastectomy women within 24 hours after surgery and found that younger women were more concerned with appearance. Those women might want more suggestions related to prostheses selection that would enhance and normalize their appearance. They also found that being older (60-69 years) was related to higher self-esteem.

Harrison-Woermke & Graydon (1993) conducted a study on 40 breast cancer women receiving radiation therapy after excisional biopsy and axillary node dissection. The findings indicated that those women younger than 55 years of age had a greater overall informational needs than did those older than 55 years of age.

2. **Family relationship:** Family is part of the patient's primary social support system. The importance of family and significant others in helping individuals cope with

threat has been studied. The threat is lessened in the presence of effective support systems. Lazarus (1996) found that people who were exposed to threatening situations often increased their number of interpersonal relationship as a mean of utilizing their social resources against threat.

Family relationship is the unique interpersonal interactions existing within family which are perceived by postmastectomy patients. Family relationship as one of the measurements of the effectiveness in family function of patients has been used in some studies. The dimensions of relationship which were concluded by Moos (1986) include: cohesion (help and support provided to other family members), expressiveness (members are encouraged to express their feelings openly), and conflict (the amount of openly expressed anger in the family). Neuling and Winefield (1988) described the support by four aspects: emotional support which involves closeness with others in an environment of acceptance or love; informational support which allows for organization of thoughts and provides a framework for appraisal; tangible support which involves direct aid; and reassurance support which leads to increased confidence.

Family as being the greatest influence on the health of individual was shown in Stolar's (1982) study of 90 postmastectomy patients. Eighty-five percent of the supjects stated that their family gave them support and affection when

the doctor confirmed the need for a biopsy and mastectomy.

Neuling and Winefield (1988) studied the social support and recovery after surgery for breast cancer in 59 women. They found that satisfaction with support from family members was of prime importance for psychological adjustment in the initial stages, whilst patients were accustoming themselves to the fact that they had cancer and were undergoing the operation. Anxiety in hospital was significantly related to satisfaction with support from family members. Although a considerable amount of empathic support was given from family members.

Studies have found that greater level of expressive support from the family were related to enhanced well-being and better level of physical and psychosocial functioning (Primomo et al, 1990). Higher levels of tangible aid and material assistance from the family were related to higher self-esteem, improved physical recovery, and lower illness demands (Primomo et al, 1990). The family usually provide the most effective support throughout the course of the disease (Krumm, 1982).

Palsson and Norberg (1995) suggested that the presence of a supportive husband, sisters, and child were helpful in coping with breast cancer. For the postmastectomy women, family relationship can be the greatest source of emotional support during difficult periods or a source of intense

emotional pain (Rice & Szopa, 1988). The support of husbands was extremely important to the recovery of many of the survivors of breast cancer (Ferrans, 1994). Jamison et al (1979) found that low relationship with husband was associated with the occurrence of breast phantom breast sensations, and those women who reported better emotional adjustment had significantly longer marriage, and perceived more understanding and emotional support from their spouses and children. They also found that spouses were the primary sources of emotional support of postmastectomy patients.

3. **Marital status:** Ganz et al (1992) found a positive relationship between age, psychosocial status and quality of life in married women who received segmental mastectomy. Jamison et al (1978) found that women who reported better emotional adjustment with mastectomy and perceived more understanding and emotional support from their spouses had significantly longer marriage.

4. **The stage of breast cancer:** Krumm (1982) suggested that patients' adaptation to cancer is influenced by the stage of cancer, and which is supported by the findings of Bloom et al (1987) that more distress was seen in women with stage II breast cancer than in women with stage I breast cancer, and those women have more concerns with physical symptoms, anxiety, strains and difficulties. Vinokur et al (1987) found that the more severe case of breast cancer

produced more serious difficulties in psychological adjustment for younger and middle aged (< 64 years) women, and particularly serious medical problems and physical difficulties in adjustment for older women.

5. **Social economic status and educational level:** According to Bloom et al (1987), postmastectomy patients' emotional distress are affected by social economic status. Distress from crisis increase significantly with education and family income. Feather and Wainstock (1989) conducted a study on 456 postmastectomy women within 24 months after surgery and found that having more than a college education was related to higher self-esteem. They suggested that higher education can help women make decision about treatment and adjust themselves emotionally and physically.

In summary, some factors, such as age, family relationship, marital status, stages of breast cancer, social economic status, and educational level may influence the needs of postmastectomy patients. But up to date, few studies have explored the relationship between the needs of postmastectomy patients within one week after surgery and their ages, and family relationship. In most of the literature reviewed, age and family relationship were the most often reported factors influencing the physical and psychosocial functioning of postmastectomy patients. The selecting of study the relationship between needs of postmastectomy women and age,

and family relationship may have more study support.

Assessment of postmastectomy patients' needs

There were many kinds of needs assessment instruments including the Needs Assessment Instrument used in a study of needs of cardiac patients and their spouses (Moser et al, 1993), the Patients Needs Scale used in a study of care needs of home-based cancer patients and their care givers (Longman et al, 1992), and the Needs Assessment Scale used in a study of human need fulfillment alteration in the client with uterine cancer (Lilley, 1987). In this study, a self-report Needs Assessment Scale (NAS) modified from Lilley's (1987) Human Needs Assessment Scale (HNAS) was used to assess the needs of postmastectomy patients.

According to Lilley (1987), the Human Needs Assessment Scale was originally constructed by Kathleen Waite. It was developed based on the Nursing Needs Theory which include Maslow, Montagu, Mallman, Galtung, Yura and Walsh's human needs concepts. It consisted of 35 basic human needs with definitions of each human need.

After a major revision in the definitions of each human need, Lilley (1987) conducted a study of needs in the clients with uterine cancer among 15 paired registered nurses and their clients. The scoring of this 35-item rating scale was rated from 1 (little to no importance) to 4 (critical

importance) to indicate the level of importance of needs. The internal consistency of the tool was ascertained using Cronbach's alpha coefficient in her pilot study. A reliability of 0.95 , the easy application of the NAS in nursing practice, and the NAS contained all aspects of human needs was reported by Lilley (1987). After comparing the means, F values, and standard deviations calculated from the responses, Lilley (1987) found that the registered nurses' perception of human need fulfillment alterations were consistent with their clients.

Theoretical framework

Maslow's hierarchy of basic human needs theory was used as the theoretical framework of this study.

Maslow (1970) categorized five levels of basic human needs in order of priority: (1) physiological needs, (2) safety needs, (3) belonging and love needs, (4) esteem needs, and (5) self-actualization needs.

Maslow (1970) rank-ordered human needs, placed the physiological needs at the base and the self-actualization needs at the top to illustrate that certain needs are more basic than other needs. Although all of the needs are presented within each person all the time, the person strives to meet certain of the needs before attending to other needs. He believed that the fulfillment of the basic or physiologic

needs is essential to survival. Only when these needs have been met can a person give attention to fulfill such higher needs as love and belonging, esteem, and self-actualization.

Maslow pointed out the growth that can occur in individuals as they move from seeking the fulfillment of physiological needs to seeking the attainment of those higher needs (Ellis & Nowlis, 1985). In different stages of growth and development, people have different needs. Therefore, age may be an influencing factor of people's needs.

Maslow (1970) suggested that higher needs require better environmental conditions, such as familial, economic, political, and educational conditions to make them possible. Therefore, family as an important part of social support system may influence people's needs.

Breast cancer as a very life threatening disease, the surgical treatment may influence both physical and psychosocial well-being of the patients. The predominant physical suffering within 72 hours after mastectomy such as pain, tightness of breath from surgical trauma and pressured dressing, and restriction of arm and shoulder motion may severely interfere with their basic life and lead them mainly concern with physical (survival) needs such as relieving from pain, maintaining of effective breath and enough rest and sleep. After 72 hours, with the reducing of physical discomfort, postmastectomy patients' major needs may be

changed from physical to psychosocial aspects. With the increasing concerns about the loss of body image and self-esteem, they may predominately need of love and care from others, a sense of belonging to significant others or a community group, and participation in decision-making of her treatment and her life. Identification of their needs will be helpful for making holistic nursing care plan to meet their needs, and finally to facilitate their recovery and promote their health.