

# Integrated Social Support through Social Networks to Enhance the Quality of Life of Metastatic Breast Cancer Patients

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**Abstract**—Being diagnosed with metastatic breast cancer, the patients as well as their caretakers are affected physically and mentally. Although the medical systems in Thailand have been attempting to improve the quality and effectiveness of the treatment of the disease in terms of physical illness, the success of the treatment also depends on the quality of mental health. Metastatic breast cancer patients have found that social support is a key factor that helps them through this difficult time. It is recognized that social support in different dimensions, including emotional support, social network support, informational support, instrumental support and appraisal support, are contributing factors that positively affect the quality of life of patients in general, and it is undeniable that social support in various forms is important in promoting the quality of life of metastatic breast patients. However, previous studies have not been dedicated to investigating their quality of life concerning affective, cognitive, and behavioral outcomes. Therefore, this study aims to develop integrated social support through social networks to improve the quality of life of metastatic breast cancer patients in Thailand.

**Keywords**—Social support, metastatic breast cancer, quality of life, social network.

## I. INTRODUCTION

As a family member or even society in general, one of the arising questions is how we can be part of the support and improvement of the patients' quality of life, both physical and psychological, throughout their survival period.

Breast cancer is a leading disease in women in Thailand and the number of patients tends to increase continuously. Most female patients are diagnosed with this disease at the age of 45-50 years. While 80% of the cases are discovered in the early stages, 10% of them are in metastatic stage [19]. Findings from previous research have showed that nearly 30% of people with breast cancer have experienced chronic pain for up to 5 years after the treatment [25]. Some physical problems that are caused by pain and may affect their lifestyle are fatigue, tiredness, nausea, anorexia, arm swelling, hair loss

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and weight loss.

The goal of metastatic breast cancer treatment is to prolong the survival duration with palliative care. However, the key problems faced by patients with metastatic breast cancer are emotional and psychological difficulties [31]. Surviving patients are concerned about their daily lives during and after the treatment. The patients, for instance, are worried about returning to work, having social life, covering living expenses and confronting the recurrence of the disease. These issues may result in the uncertainty in the future for those who want to return to normal life with good health [8]. These patients have suffered psychologically and expressed a strong desire to receive emotional support [26]. In addition, anxiety and depression are the most prevalent psychiatric symptoms. If untreated, they may have long-term psychological effects and reduce their quality of life [14]. Moreover, the previous research [15] studied the psychology of patients undergoing breast cancer surgery, it has been found that 20%-45% of the patients still have psychiatric disorders a year after the surgery. In addition, 10% still have psychological issues 6 years after the surgery. Psychiatric disorders found among this group of patients include depression, minor depression, and anxiety. The diagnosis and treatment of psychiatric disorders may be helpful in increasing the treatment consistency and quality of life of the patients [15].

Encountering the disease alone and managing stress are difficult for the patients; therefore, people in their social networks, such as spouses, children, friends, doctors, or nurses are extremely important. Social network members can provide information that is useful in decision-making together with emotional support. This support tends to greatly influence the patients' ability to confront the illnesses [2].

Previous research has found that communication between patients and doctors is a big barrier due to the heavy daily workload of physicians. The complicated processes of the medical system result in time restriction which allows a limited number of patients to receive consultation. Doctors are unable to provide good assistance and meet the needs of the patients thoroughly, causing poor physician-patient relationships [22]. As a result, patients must deal with various problems by themselves. For example, they have to find information about the symptoms of the disease and learn how to deal with the side effects that may occur [20]. In this regard, improving communication skills of doctors and nurses in order to provide recommendations for patients may help improve their quality of life [24].

Another approach to improve the quality of life is through social support which stimulates behavioral changes by using social factors in many areas, such as mental and emotional health promotion, information seeking and self-assessment [25]. In addition, rehabilitation instruments can make the patients feel self-worth especially in these difficult times and reduce emotional distress and mood disorders [10]. Moreover, support through exercises can improve the quality of life of patients [30]. To access this social support, online social networks are an effective way for patients to access information easily and they also help promote good health and quality of life [29]. In addition, they also improve the provision of patient health care services. It is a means to access health information, to participate in the information and to plan their own health care [12]. Online social networks are a mechanism or channel to promote social support [7]. Moreover, gaining specific knowledge and understanding from their network participants can develop the patients' trust in expressing their own issues [28].

## II. LITERATURE REVIEWS

### A. Issues and Problems of Metastatic Breast Cancer Patients

A review of various research studies has shown that metastatic breast cancer affects the patients both physically and psychologically, and the roles of individuals around them, including physicians, change. Nurses and families who help and heal the patients are important factors that affect the overall quality of life of metastatic breast cancer patients.

Metastatic breast cancer treatment generally refers to breast surgery which is often followed by radiotherapy, chemotherapy, and the use of hormonal drugs to control the spread of the disease to other organs, depending on the diagnosis of an oncologist, and each treatment affects the quality of life of the patients [6]. The patients may, for example, experience arm and hand muscle weakness, swelling of arms and armpits caused by lymph node cuts and numbness in arms and hands [27].

Nausea and vomiting are symptoms that indicate the severity of metastatic breast cancer of patients undergoing chemotherapy. On average, nausea lasts approximately five days after each treatment [23]. Other side effects of breast cancer treatment are headaches, dizziness, loss of appetite, diarrhea, weight loss and anemia [27]. Women treated for breast cancer often experience premature menopause and sexual impairment, while chemotherapy can also damage the central nervous system, causing memory loss and reduced data processing speed. In addition, fatigue is the most reported symptom in cancer patients and has a profound effect on patient quality of life that occurs on a consistent basis in approximately three quarters of patients treated for cancer [12]. Research studies on the relationship of breast cancer patients and fatigue have revealed that fatigue directly affects the patient's physical well-being due to aches and pains in their bodies [3]. Moreover, fatigue also causes cognitive and memory impairment during treatment, and the symptoms may

persist for months or years after treatment [3]. In addition, one research study showed that a third of the sample patients undergoing chemotherapy experienced a decrease in cognitive abilities which hindered their quality of life [18].

### B. Social Support Dimensions

Regarding emotional issues, many patients have negative emotional expressions, such as distress, worry, sadness and anger. Negative emotions can lead to devastating mental disorders, such as depression and anxiety. According to one study, the most common concerns of patients were managing stress and dealing with fear of disease recurrence [5]. In addition, patients who still had anxiety and depression six months after being diagnosed with breast cancer did not receive good psychological support or remedies, causing them mental health problems [5]. The statistics showed that patients who had survived breast cancer more than 5 years needed to have both good mental health and a good quality of life [9].

Previous research has confirmed that mental health support helps lower psychological distress, depression, and anxiety, resulting in a better quality of life. In addition, changes in behavior, stress and health beliefs enable patients to have good health. Social integration also helps decrease anxiety, depression, and cognitive decline even in an aging population [11]. A sense of satisfaction towards support has brought about feelings of self-worth and decreased late-life depression symptoms [4].

Network support can create relationships that have a positive impact on both mental and physical health. Those who participate in social networks receive social support and social pressures for health behavior changes. For example, networks such as aerobics and yoga groups promote physical activities [4]. Participating in a social network with a goal to eat a low-fat diet or to abstain from smoking creates greater motivation to take care of oneself or results in neurological and immune responses [4].

Providing informational support, such as advice, guidance and feedback, helps patients recognize the current situation of their problems. The information required for cancer survivors may come from family members, friends and neighbors. These survivors should be encouraged to ask for what they want, and the informational support should be clear and easy to understand. Previous research showed that one in four people with cancer had trouble communicating with their partner [16]. The majority who reported such problems were women who wanted to talk openly about their fears and anxieties, while their husbands were more likely to diminish feelings of fear and anxiety [16].

Instrumental support, especially for metastatic breast cancer patients after receiving chemotherapy, is needed as the treatment causes fatigue and affects their daily activities, such as food preparation and house cleaning. Receiving social support, such as consultation from healthcare professionals who can provide disease-related information and good treatment plans, can help reduce fatigue and mental health problems [22].

Appraisal support or self-esteem helps the patients to realize

the value and thoughts. It allows the patients to be treated equitably, and to express themselves creatively in a way that agrees with their thoughts or feelings, creating a sense of self-worth. They should be able to continue their daily activities, such as self-caring, cooking, house cleaning and working outdoors. Physical well-being can encourage patients to realize the value of life and living happily. Such activities can help them relieve anxiety and depression [1].

### III. THE OBJECTIVES

1. To develop a measurement tool for evaluating the quality of life of metastatic breast cancer patients in terms of affective, cognitive, and behavioral outcomes
2. To develop integrated social support through social network to enhance the quality of life of metastatic breast cancer patients

### IV. THE CONCEPTUAL FRAMEWORK

The research framework begins with the creation of integrated social support, including network support, emotional support, instrumental support, appraisal support and informational support, to discover how integrated social support can improve the quality of life for metastatic breast cancer patients in terms of affective, cognitive, and behavioral outcomes.

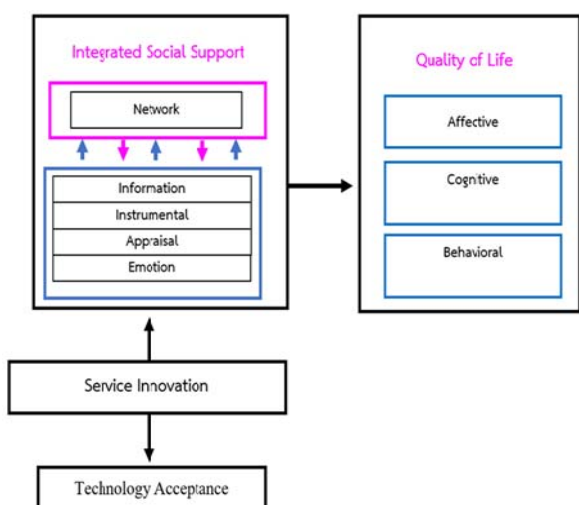


Fig. 1 The Conceptual Framework

#### A. Methods

This study utilizes a mixed methods research methodology to identify the unmet needs of metastatic breast cancer patients. Qualitative data will be collected through a focus group discussion, while quantitative data will be obtained using the European Organization for Research and Treatment of Cancer's Quality of Life Core Questionnaire (EORTC QLQ-C30) and the European Organization for Research and Treatment of Breast Cancer Quality of Life Questionnaire (EORTC QLQ-BR23) to evaluation quality of life of breast cancer patients [17].

The population of this study includes metastatic breast

cancer patients at King Chulalongkorn Memorial Hospital. The study will be divided into 3 phases as follows:

1. Developing a quality-of-life (QOL) measurement tool for metastatic breast cancer patients concerning with affective, cognitive, and behavioral outcomes by conducting three focus group discussions with patients, caregivers, and medical professionals
2. Identifying the unmet needs of metastatic breast cancer patients towards the development of integrated social support by conducting focus group discussions with 12 metastatic breast cancer patients, two oncologists and two psychologists
3. Designing integrated social support by conducting a pre-and post-assessment of quality of life with 30 outpatients with metastatic breast cancer at King Chulalongkorn Memorial Hospital

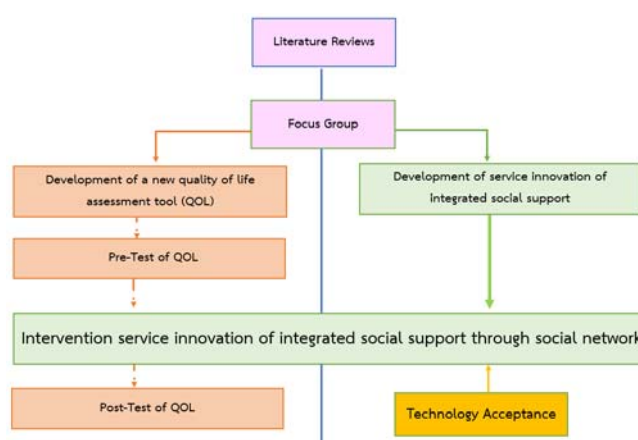


Fig. 2 The Methods Framework

#### B. Populations

The population criteria of this research are as follows:

- a. Patients are diagnosed with metastatic breast cancer.
- b. Patients are aged between 18 and 70 years old.
- c. Patients must be conscious and willing to participate in the research.

#### C. Research Gaps

Social support channels are found to be an effective way for patients to access information, improve health outcomes and achieve better quality of life. Social networks also promote the provision of patient health care services. They are channels for patients to access health information and participate in their own health care planning [12]. It can be said that social networks are a mechanism for promoting social support. The development of new services on the social network platforms aims to provide services that integrate social support into various domains. The researchers are looking for a new platform whether it is emotion, networking, information, resources or assessment. This innovative service is considered a new dimension in providing social support to patients with metastatic breast cancer. In addition, this service innovation is tailored to the needs of the users and, hopefully, this innovative service will lead to social change.

## V. CONCLUSION

Given the issues and related priorities, the researchers recognize the importance and problems of breast cancer patients in the metastatic stage. It is undeniable that social support in various domains is important in promoting the quality of life of the patients. Furthermore, studies and review of literature have suggested that social support in different dimensions is required. When it comes to quality of life in this context, the goal of metastatic breast cancer treatment is to empower the patients to live a happy life; however, this is not generally apparent. To achieve the goal of metastatic breast cancer treatment, the survival period must be extended and the quality of life in terms of emotional well-being must be improved. Self-awareness, self-esteem, and behavior to improve the quality of life are key factors that contribute to a good quality of life. In addition, the quality of life of the patient is clearly linked to the response to treatment. For this reason, the researchers are interested in developing innovative services that integrate social support into social networks to help improve the quality of life and develop a positive attitude of breast cancer patients in Thailand. We hope that this research will have a positive impact on the development of the quality of life of patients with other diseases, delivering positive outcomes across the society and the country.

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