Original Article

Quality of life among women with breast cancer living in Wuhan, China

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ABSTRACT

Background: Quality of life is an important indicator in patients with breast cancer. Studies here reported that the quality of life in patients with breast cancer is low and many factors contribute to this poor quality of life.

Purpose: To examine the relationships among demographic characteristics, optimism, social support, illness related factors, appraisal of illness, coping strategies and the quality of life of Chinese women with breast cancer residing in Wuhan, China.

Methods: A convenience sample of 156 Chinese women with breast cancer was recruited from five teaching hospitals in Wuhan, China. Participants completed the Revised Life Orientation Test, the Perceived Social Support Scale, the Symptom Distress Scale, the Appraisal of Illness Scale, the Medical Coping Modes Questionnaire, and the Functional Assessment of Cancer Therapy-Breast. Path analysis was used to examine factors influencing quality of life.

Results: Significant relationships were found between optimism, symptom distress, social support, appraisal of illness, a give-in coping mode and quality of life. Optimism, social support, symptom distress, lymph node status, appraisal of illness, and a give-in coping mode accounted for 66.6% of the variance in quality of life.

Conclusions: The findings of this study underscore the importance of helping women reduce symptoms distress, appraise their illness positively, use less negative coping modes, and maintain optimism, maintain good social support, because all of these factors indirectly or directly affect their quality of life.

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1.   Introduction

Breast cancer is one of the most common malignant tumors in women, and the incidence is increasing worldwide. In China, about 400,000 women die of breast cancer yearly and the incidence has reached to about 40/100,000 recently compared to 27/100,000 in the seventies of 20th century [1]. Breast cancer is one of the most prevalent cancers and the leading cause of death among women in major metropolitan areas in China [1,2]. The incidence of breast cancer has increased by over 51% in the past 25 years in major cities such as Beijing, Shanghai and Guangzhou [1,2]. In Wuhan, central China, breast cancer ranks second among malignant tumors in women [3].

The world health report 2007 (WHO) reported that Chinese women's average life expectancy is 74 years. Although it is not known the average life expectancy of Chinese women with breast cancer, the median age of women diagnosed with breast cancer in China is 48 years, nearly 10 years younger than among women in Western countries [4]. In China, patients with breast cancer receive surgery and/or adjuvant therapies including chemotherapy, radiotherapy, and hormone therapy. In addition to traditional biological indices, in recent years, quality of life has been used to evaluate the effects of cancers. Quality of life includes social functioning, psychological functioning, and physical functioning [5].

Many studies have found that the quality of life (QOL) of patients with breast cancer is low [6,7]. Researchers have also identified factors related to quality of life in these patients, including marital status, income, age and educational status [3,8]. In China, prior studies have examined relationships between QOL and symptoms, social support, and coping methods [6]. However, the relationships of personal optimism and appraisal factors with quality of life have not been examined in women with breast cancer in China. Therefore, this study examined effects of demographic, medical and other psychosocial factors, appraisal of illness, and coping strategies on the quality of life of women with breast cancer living in Wuhan, China.

2.   Background

A cognitive appraisal model of stress and coping guided the study [9]. According to the stress and coping theory, outcomes in response to a stressor (e.g., being diagnosed with breast cancer) are influenced by the attributes of the individual (e.g., personality traits, demographics), the individual's cognitive appraisal of the situation, and the coping strategies the individual uses to manage the situation [9].

2.1.   Quality of life

Quality of life has been defined as a multidimensional concept encompassing the individual's physical well-being, social/family well-being, emotional well-being, functional well-being and concerns about breast cancer. Zhao and Li found that patients with breast cancer had lower scores in the physical, mental, and social areas [7]. A number of factors influencing the QOL in women with breast cancer have been identified as personal factors [8], optimism [10], social support [11], symptom distress [12], medical characteristics [13], appraisal of illness [14], and coping strategies [7].

2.2.   Demographics and optimism

Personal factors include demographic characteristics and optimism. Age has been considered as the important factor where younger women have been reported to have greater emotional distress than older women during the first year after diagnosis and during the survivor phase of the disease [7,15,16]. In China, studies also showed that younger women had a lower quality of life [8]. Education also has been related to adjustment. In western countries, women having less education reported more adjustment difficulties than women with higher levels of education [17]. However, the situation is opposite in China. The more education women had, the lower quality of life they perceived [7]. Patients with higher income scored higher scores on a QOL scale than that of those with lower incomes. Women who were married had higher scores on a QOL scale than that of those who were unmarried or divorced or whose husbands had died [7].

Optimism has been defined as the general expectancy that one will have a positive future [18]. Optimism is important in how individuals face difficulty, such as specific health threats for example, the diagnosis of breast cancer [19]. Optimism is a protective factor that is associated with resilience under stress. Optimism has been associated with a number of positive health benefits for healthy individuals as well as cancer patients, including enhanced well-being [20], decreased distress [21], and decreased anxiety and depression [22]. Prior research has also found that optimism was also associated with better QOL in people with breast cancer [23]. However, this relationship has not yet to be fully examined in Chinese women with breast cancer.

2.3.   Social support

Social support has been defined as resources obtained from others or a social network, which can help an individual to cope with the problems and/or a crisis [24]. Social support has also been linked to the quality of life in patients with breast cancer. Higher levels of social support have been associated with better adjustment to breast cancer [11]. In China, studies have found that social support is one of the most important factors that influence the quality of life in patients with breast cancer [25,26]. Zhang et al. reported that patients with breast cancer received less social support [27]. However Li and her colleagues found that women with breast cancer received more social support than healthy people [28]. Zhao and Li found that social support positively associated with quality of life [7].

2.4.   Symptom distress

Symptom distress was defined as "the degree of discomfort from the specific symptom being experienced as reported by the patient" [29]. Symptom distress has been associated to the quality of life in individuals with cancer [12]. Chinese women with breast cancer had low levels of psychological health and well-being and these symptoms were correlated with the QOL of women with breast cancer [6].