

## Understanding the Roles of Patient Symptoms and Subjective Appraisals in Well-Being Among Breast Cancer Patients

### **BACKGROUND**

With over 250,000 new cases reported a year, women in America are more likely to experience breast cancer than any other type of cancer. While progress has been made in direct cancer treatment, the subsequent physical and emotional symptoms still have a lasting impact on many patients. Some of the symptoms commonly found in patients during and after their cancer treatment include insomnia, fatigue, musculoskeletal pain, impaired limb movement, and cognitive impairment. All of these symptoms can contribute to higher levels of stress, which can also result in symptoms like those previously mentioned. While symptom management outside of the cancer treatment itself is an important aspect of these patients' care, it does not account for all of the factors that may impact quality of life (QOL), such as symptom distress, barriers to symptom management, and self-efficacy. However, previous research utilizing stress process theories has shown that a person's perception of his/her stressors plays an important role in how much the person's health is impacted by those stressors. Therefore, the goal of this research is to understand how a person's perception of his/her condition may influence health outcomes among breast cancer patients.

### **STUDY METHOD**

*Measures.* The sample for this study included 104 women with breast cancer. Each of these women

self-reported the occurrence of symptoms related to cancer/ cancer treatment using the Cancer Symptom Scale (CSS). The CSS was also used to evaluate patients' distress related to these symptoms. An additional measure used was the Cancer Behavior Inventory-Brief (CBIB). The CBIB asked patients to report their self-efficacy levels, or their perceived ability to reach a desired goal related to their cancer treatment. Next, perceived barriers to symptom management were examined using the Symptom Barrier Questionnaire (SBQ). This tool assessed the patients' perceptions of barriers to manage symptoms other than pain. The appraisals gathered from these assessments were then used in conjunction with other outcome measurements for QOL (i.e., Multidimensional Quality of Life– Cancer scale), physical and mental well-being (i.e., Medical Outcomes Survey), anxiety (i.e., Medical Outcome Survey), and depression (i.e., Centers for Epidemiological Studies- Depression Scale).

*Analytic method.* Mediation analyses were done between three appraisals (self-efficacy, symptom barriers, and symptom distress) and five outcomes (anxiety, depression, overall quality of life, mental health, and physical health). Correlation analyses between appraisals, outcomes, stressors and variables were also done to determine which conditions lead to which outcomes. Additionally, the degree to which appraisal tempered influences was assessed using the stress process model (SPM) in conjunction with the Hayes PROCESS model.

## **FINDINGS**

Findings from this study indicated that all three appraisal variables (low self-efficacy, high symptom barriers, and high symptom distress) were significantly associated with the presence of symptom occurrence. Additionally, at least one mediated path was found between each appraisal variable and symptom occurrence for all of the outcome variables, except depression.

Self-efficacy was found to have a significant impact on patients' outcomes. Specifically, lower self-efficacy was related to increased levels of anxiety and overall worse mental health, but high self-efficacy was related better quality of life. Symptom distress was also found to have a significant effect on patients' outcomes. Higher symptom distress was associated with higher levels of anxiety and lower levels of mental health and physical health. However, lower symptom distress was related to a better quality of life. The final finding was that lower symptom barriers was related to a better quality of life for patients. Overall, this research suggests that there is tangible value in symptom management in sustaining patient well-being.

## **POLICY IMPLICATIONS**

Overall, the findings of this research support the use of SPM to relieve negative perceptions of symptoms and improve outcomes. In particular, the results found that patients' perceptions of

their condition are as important to address as the symptoms of cancer themselves. Given these implications, it would be beneficial for healthcare workers to consider the appraisals and perceptions of their patients to improve outcomes. According to the results from this study, the overall ability to recover from breast cancer is not only related to the patients' symptoms, but to their well-being throughout the process. Policy makers should incentivize more research efforts aimed at expanding the scope of treatment to include managing patients' perceptions, as well as their physical symptoms, to improve patient outcomes.

## **Original Article**

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