

Factors in Cancer-Related Fatigue Self-Management Behaviors of Outpatients Undergoing Chemotherapy

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Received: December 25, 2018, Accepted: January 02, 2019

It is important to understand the factors related to self-management behaviors pertaining to cancer-related fatigue (CRF) to provide appropriate nursing interventions to facilitate the same. However, few studies have examined such factors in Japanese patients. This study examined the relationships between CRF self-management behaviors and related factors based on the Health Belief Model. This was done to identify appropriate theory-based nursing assessment methods and interventions. This study was presented at the International Conference on Cancer Nursing (ICCN) 2018. The purpose of this paper is to summarize the presentation. This cross-sectional survey was conducted at a cancer institute in Japan. A logistic regression analysis was conducted. Eight CRF self-management behaviors (“Take short sleeps during the day,” “Rest during the day,” “Do aerobic exercise,” “Do stretching exercises,” “Do strength exercises,” “Delegate tasks to others,” “Pace your activities throughout the day,” and “Do things to improve your sleep at night”) were the dependent variables, while the components of the Health

Belief Model (perceived susceptibility, perceived severity, perceived benefit, perceived barrier, and cue to action) were the independent variables. The analysis revealed that greater perceived benefits were significantly related to engaging in all the eight CRF self-management behaviors. Further, the usage rate of these behaviors ranged from approximately 25%–70%. Behaviors related to exercises (“Do aerobic exercise,” “Do stretching exercises,” or “Do strength exercises”) had lower usage rates (approximately 25%–40%) as compared to that of the other behaviors. The present findings suggest that nursing interventions should focus on improving the perceived benefits of CRF self-management behaviors among outpatients undergoing chemotherapy. The authors would have liked to address the importance of patient education regarding CRF self-management behaviors and discuss ways to eliminate provider-related barriers to CRF management with the conference participants, who were from several countries, because perceived benefits may be enhanced through the implementation of patient

Access this article online

Quick Response Code:



Website: www.apjon.org

DOI:
10.4103/apjon.apjon_1_19

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Cite this article as: Chiba I, Sasahara T, Mizuno M. Factors in Cancer-Related Fatigue Self-Management Behaviors of Outpatients Undergoing Chemotherapy. *Asia Pac J Oncol Nurs* 2019;6:209-11.

education programs by health-care providers. However, there was not enough time to engage in this discourse during the conference. The theme for ICCN 2018 was “*Global Actions: Working towards Unity and Excellence in Cancer Care.*” It would have been beneficial to share these findings through the conference proceedings.

Cancer-related fatigue (CRF) is a multi-dimensional symptom that is defined as a distressing, persistent, and subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or its treatment, which is not proportional to recent activity and interferes with usual functioning.^[1] It is characterized by not being relieved by rest or sleep.^[2] The prevalence of CRF in Japanese outpatients undergoing chemotherapy was reported to be 72.6%.^[3] It is known that CRF reduces the quality of life of patients, such as decreasing daily activities and limiting work, socializing, and maintaining relationships with others.^[4]

Managing CRF involves a combination of pharmacologic and nonpharmacologic strategies.^[1,5] Although CRF is one of the most difficult symptoms to manage, nonpharmacologic strategies such as exercise, energy conservation activity management, and cognitive behavioral interventions to improve sleep have been reported to be effective.^[6] These strategies require patients’ self-management. Thus, the importance of patients’ self-management for alleviating CRF is acknowledged. To provide appropriate nursing interventions, it is essential to understand the factors related to self-management behaviors. However, there is little information regarding this with respect to Japanese patients. Therefore, the present authors explored the factors related to patients’ self-management behaviors.

The authors also believe that theory-based nursing interventions and assessment methods for CRF self-management behaviors are not sufficient for Japan’s clinical nursing context. Therefore, the authors utilized a theoretical model in the present study. The Health Belief Model^[7] addresses the attitudinal components of health behaviors. It considers health behaviors as resulting from a combination of attitudes related to perceived susceptibility, perceived severity, perceived benefit, perceived barriers, and cue to action. Many studies have examined the relationships between some aspects of health behaviors and the Health Belief Model. However, no study has examined the association between CRF self-management behaviors and the components of the Health Belief Model. Therefore, the authors examined if the components of this model affected CRF self-management behaviors, to obtain suggestions for designing appropriate theory-based nursing interventions and assessment methods.

Thereupon, the authors examined the relationships between CRF self-management behaviors and the

components of the Health Belief Model in outpatients undergoing chemotherapy in Japan. This study was presented at the ICCN 2018 to share the findings and discuss theory-based assessment methods and interventions for CRF in the clinical setting. The purpose of this paper is to summarize the presentation.

This cross-sectional survey was conducted at a cancer institute in Japan. A logistic regression analysis was conducted. The dependent variables were eight CRF self-management behaviors (“Take short sleeps during the day,” “Rest during the day,” “Do aerobic exercise,” “Do stretching exercises,” “Do strength exercises,” “Delegate tasks to others,” “Pace your activities throughout the day,” and “Do things to improve your sleep at night”), assessed in terms of whether the participants engaged in such behaviors, using a part of the Self-Efficacy in Managing Symptoms Scale–Fatigue Subscale for Patients With Advanced Cancer (SMSFS-A).^[8] The independent variables were the components of the Health Belief Model (perceived susceptibility, perceived severity, perceived benefit, perceived barrier, and cue to action). Cue to action was assessed in terms of whether the participants had received education about CRF self-management from health-care providers.

The analyses revealed that greater perceived benefits were significantly related to all of the eight CRF self-management behaviors. Further, the usage rate of these behaviors ranged from approximately 25% to 70%. Behaviors related to exercises (“Do aerobic exercise,” “Do stretching exercises,” or “Do strength exercises”) had lower usage rates (approximately 25%–40%) as compared to other behaviors. The rate for the cue to action ranged from approximately 10% to 25%.

The present findings suggest that the implementation of appropriate nursing interventions to improve patients’ perceived benefits may, in turn, help improve their CRF self-management behaviors. Specifically, perceived benefits could be enhanced through the patient education programs administered by health-care providers. Further, such programs should focus on exercise because the present study revealed lower usage rates for the same, as compared to the other self-management behaviors.

Further, the present findings pertaining to cue to action suggest that education about CRF self-management from health-care providers alone may not be enough. There are several barriers to CRF management, such as patient-, provider-, and system-related barriers.^[9] To provide appropriate patient education, it is necessary to eliminate these barriers. Specifically, eliminating provider-related barriers, such as low knowledge about CRF management, may be important with reference to developing theory-based nursing interventions and assessment methods because the latter requires health-care providers’ expertise.

We would have liked to address the importance of patient education regarding CRF self-management behaviors and discuss ways to eliminate provider-related barriers to CRF management with the conference participants, who were from several countries. However, this could not be achieved owing to lack of time during the conference.

The theme for ICCN 2018 was “*Global Actions: Working towards Unity and Excellence in Cancer Care.*” Therefore, it would be beneficial to share these findings through the conference proceedings. The authors plan to publish this study as an original article to facilitate further discussions on theory-based assessment methods and interventions for CRF.

Acknowledgments

This article was written on the basis of a presentation given at ICCN 2018, Auckland, New Zealand.

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