

# Energy Through Motion<sup>®</sup>

## An activity intervention for cancer-related fatigue in an ambulatory infusion center

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**BACKGROUND:** Cancer-related fatigue (CRF) occurs in most people with cancer undergoing chemotherapy. Physical activity (PA) is safe and effective in reducing CRF in people with cancer.

**OBJECTIVES:** This project involved the implementation and evaluation of a three-month PA program to maintain or improve CRF and quality of life.

**METHODS:** Activity trackers and resistance bands were provided to participants. Verbal instruction, printed material, activity videos, and text messages were used in this program. Participants completed a fatigue assessment; self-reported PA measure; and measure of attitudes, beliefs, and knowledge about sustaining regular PA pre- and postimplementation.

**FINDINGS:** 51 patients enrolled in the study, and 39 completed the program. Participants' fatigue did not worsen significantly during the three months, and self-reported activity levels increased, but not significantly. The activity tracker, text messages, and personal connection with nursing staff were reported to be helpful.

### KEYWORDS

cancer fatigue; exercise; physical activity; behavior; adherence

### DIGITAL OBJECT IDENTIFIER

10.1188/17.CJON.618-626

**THE NATIONAL COMPREHENSIVE CANCER NETWORK** ([NCCN], 2017) defined cancer-related fatigue (CRF) as “a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning” (p. FT-1). CRF is a prevalent, troublesome symptom of cancer and its treatment and is underreported, underdiagnosed, and undertreated. Patients report fatigue as more distressing than pain, nausea, and vomiting (NCCN, 2017). Persistent CRF affects quality of life (QOL) by interfering with an individual's ability to fully participate in meaningful life activities (Coleman et al., 2012; Ergun, Eyigor, Karaca, Kisim, & Uslu, 2013; NCCN, 2017).

### Background

#### Exercise and Physical Activity

Much evidence supports the effectiveness of a moderate level of exercise or physical activity (PA) for improving CRF (Mitchell et al., 2014; NCCN, 2017). PA is safe for patients with diverse cancer diagnoses during and after treatment (Cramp & Byron-Daniel, 2012; NCCN, 2017; Puetz & Herring, 2012). Aerobic exercise and resistance training, individually and in combination, are beneficial (Cramp & Byron-Daniel, 2012; McMillan & Newhouse, 2011; Mustian, Sprod, Janelins, Peppone, & Mohile, 2012). Short or low-intensity activity programs may also be beneficial (Wenzel et al., 2013) and may be advisable for patients with comorbidities in which moderate PA may be contraindicated (Mustian et al., 2012). In addition to managing CRF, exercise may improve self-esteem, vitality, strength, endurance, and physical and social functioning, leading to improvements in QOL (Banzer et al., 2014; Carayol et al., 2013; Hanson et al., 2013).

A variety of activity regimens have been evaluated, but no single regimen was found to be superior (Cho, Dodd, Cooper, & Miaskowski, 2012; Cramp & Byron-Daniel, 2012). Despite lack of evidence, experts believe that some level of activity is appropriate for all people with cancer (Bourke et al., 2013; Cramp & Byron-Daniel, 2012; Schmitz et al., 2010). Type and frequency of activity need to be individualized with consideration of a patient's risks, goals, and comorbidities (NCCN, 2017; Schmitz et al., 2010).