

Quality of Life

A nurse-led physical activity coaching program to improve the quality of life of patients with cancer during the COVID-19 pandemic

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BACKGROUND: Physical activity has been shown to mitigate many of the effects of cancer treatment, yet it often is not embraced by the patient or made part of the nursing standard of care.

OBJECTIVES: This pilot study evaluates the impact of the Oncology Nursing Society's Get Up, Get Moving program, a personalized, home-based, nurse-led physical activity coaching program.

METHODS: Patients with cancer in the intervention and control groups completed the SF-36® and the Godin Leisure-Time Exercise Questionnaire at weeks 1 and 12. All patients were initially counseled on exercise. A nurse called each member of the intervention group weekly to encourage physical activity and asked about fatigue, nausea, and step count. The control group was contacted at 6 weeks and 12 weeks only.

FINDINGS: The program, coupled with nurse telephone calls, increased steps, decreased fatigue, and maintained health-related quality of life among patients in the intervention group. The control group had a decrease in steps, a decline in their SF-36 general health score, and an increase in fatigue. Nurse coaching positively affects physical activity, which may help to decrease cancer treatment side effects.

KEYWORDS

physical activity; cancer treatment; nurse coaching; health-related quality of life

DIGITAL OBJECT IDENTIFIER

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ALTHOUGH THE INCIDENCE OF SOLID TUMOR CANCERS has continued to rise since 2003 (Barros-Gomes et al., 2016; Centers for Disease Control and Prevention, 2021), innovative treatment, continued research, and early screening have decreased the case fatality rate for many types of cancers (Mehta et al., 2018). However, treatment can be difficult on patients, and research has shown that patients often experience side effects, such as high levels of nausea (Yu & Jones, 2016), cancer-related fatigue (Haas et al., 2016; Mustian et al., 2017; Vasbinder et al., 2020), and emotional distress (Bryant et al., 2017; Ng et al., 2018). In addition, patients have faced additional barriers to accessing care and elevated levels of stress as a result of the COVID-19 pandemic. The stress of a cancer diagnosis and treatment can exacerbate or lead to unhealthy behaviors, such as poor nutrition, obesity, and decreased physical activity (Pinto & Trunzo, 2005). Without intervention, these behaviors, coupled with the long-term effects of cancer treatment itself, may increase cancer survivors' risk for cardiovascular disease, diabetes, and mental health problems, such as anxiety and depression. In fact, cancer survivors have a higher risk of dying from cardiovascular disease than experiencing tumor recurrence, and they have a 10-fold increased risk of developing ischemia (Reilly, 2018).

Research clearly shows that activity during cancer treatment mitigates some of the negative physical and psychosocial outcomes associated with diagnosis and treatment (Haas et al., 2016). The American Cancer Society and American College of Sports Medicine recommend 150 minutes of physical activity weekly, citing benefits including reduced fatigue, depression, anxiety, and nausea; improved balance; and decreased risk of heart disease and osteoporosis (American Cancer Society, 2021; Campbell et al., 2019; Courneya, 2017). However, even low-impact exercises, such as walking, decrease cardiac and vasculature inflammatory markers (Baruth et al., 2015; Haas et al., 2016; Mills, 2017; Wung et al., 2015). Physical activity also reduces the impact of cancer-related fatigue among patients with breast, colon, and prostate cancers (Mitchell et al., 2013), which is experienced by most patients with these diagnoses and decreases their overall quality of life (QOL). In addition, according to Puetz and Herring's (2012) meta-analysis, "exercise exerts a palliative effect on fatigue during active treatment and provides a rehabilitative effect following treatment" (p. e7).

Oncology nurses are in a unique position to counsel and coach patients with cancer on the positive impact of physical activity during their frequent office visits (Turner et al., 2018). Nevertheless, because of the acuity of the patient, the intensity of treatment, and time constraints, in many cases, the