Built and Natural Environment Barriers and Facilitators to Physical Activity in Rural, Suburban, and Small Urban Neighborhoods

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PURPOSE: To explore built and natural environment barriers and facilitators to walking for exercise in cancer survivors.

PARTICIPANTS & SETTING: Cancer survivors (N = 7) living in rural, suburban, and small urban neighborhoods in central Virginia.

METHODOLOGIC APPROACH: The authors used a qualitative descriptive design with photovoice to explore the cancer survivors' experience with residential walkability.

FINDINGS: The following three themes were identified from the data: visual cues during walks provide recovery motivation and goal achievement; consistent activity is supported through access to a range of buildings and walking paths; and concerns about safety are compounded by cancer-related physical limitations.

IMPLICATIONS FOR NURSING: Clinicians should consider an evaluation of the built and natural environment to support walking in cancer survivors. These findings may be used in conjunction with known individual-level barriers to physical activity to develop guidance for oncology nurses to help survivors safely achieve physical activity goals.

KEYWORDS physical activity; cancer survivors; walking; exercise

***ONF, 46*(5), 545–555.**

DOI 10.1188/19.ONF.545-555

The U.S. cancer survivor population has grown substantially and is expected to reach 26.1 million by 2040 (Bluethmann, Mariotto, & Rowland, 2016). Researchers have found that ongoing physical activity (PA) is critical for cancer survivors during and after cancer treatment to regain and maintain health. PA has been demonstrated to prevent recurrent and second cancers, improve response to treatment, reduce fatigue, improve mood and quality of life, and lower risk of treatment side effects (Blanchard, Courneya, & Stein, 2008; Buffart, Galvão, Brug, Chinapaw, & Newton, 2014; Speck, Courneya, Mâsse, Duval, & Schmitz, 2010). The American Cancer Society (ACS) recommends that survivors avoid inactivity; this recommendation includes a minimum of 150 minutes of moderate aerobic activity each week and strength training at least two days per week (Rock et al., 2012). Despite this recommendation, fewer than one-fourth of cancer survivors meet the ACS guidelines (Weaver, Palmer, Lu, Case, & Geiger, 2013).

Reasons why cancer survivors struggle to get sufficient PA include the following: fatigue, impaired mobility, depressed mood, limited time to devote to exercise, and unclear provider recommendations (Arthur et al., 2016; Fisher et al., 2016; Lynch, Owen, Hawkes, & Aitken, 2010; Mizrahi et al., 2015; Sabatino et al., 2007). These barriers are not unique to those recovering from cancer, but they are exacerbated by it. Cancer treatment can leave survivors with years of lingering fatigue (Goedendorp et al., 2012), trigger depression and anxiety (Zainal, Nik-Jaafar, Baharudin, Sabki, & Ng, 2013), and lead to development of neuropathy, which can initiate or worsen existing mobility issues (Bonhof et al., 2018; Mols et al., 2015).