

Cognitive changes may occur after cancer treatment and interfere with day-to-day activities of breast cancer survivors. Current guidelines recommend validating cognitive concerns, increasing patient education, and suggesting appropriate interventions. Educational programs, including Think Well: Healthy Living to Improve Cognitive Function, can increase the awareness of cognitive changes and provide strategies for self-management to breast cancer survivors and their family and friends.

#### AT A GLANCE

- Oncology nurses can validate cognitive changes that breast cancer survivors experience after cancer treatment and encourage healthy lifestyles.
- The Think Well program adapts evidence-based guidelines into the curriculum and educates patients on cognitive changes and healthy living strategies.
- Oncology nurses can deliver the Think Well program in community settings, such as rural areas where resources may be limited.

#### KEYWORDS

Think Well program; cognitive changes; breast cancer; treatment; education

#### DIGITAL OBJECT IDENTIFIER

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# Cognitive Changes

## Educating breast cancer survivors with the Think Well: Healthy Living to Improve Cognitive Function program

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A 44-year-old woman named K.P. was diagnosed with stage II breast cancer in 2011. She is wife, mother, and full-time employee at a local pharmacy. Her cancer treatment consisted of surgical excision, primary radiation therapy, chemotherapy (with anthracyclines, cyclophosphamide, and paclitaxel), and endocrine therapy (tamoxifen). She recalls experiencing mental fogging and memory loss during cancer treatment, which persisted after she finished therapy.

K.P.'s employer noticed that she occasionally forgot to attend staff meetings and recently ordered the wrong supply of pharmacy pads, despite having worked there for more than 10 years. K.P. also had trouble remembering recipes of her children's favorite meals. K.P.'s husband encouraged her to use her calendar to remember events, but she would misplace it or could not remember details about the events. Although the memory lapses were seemingly rare, it created a sense of loss and made K.P. feel as if she were going "crazy." K.P. felt alone and assumed that her cognitive changes were a result of getting older.

One day, K.P. attended a local cancer support group meeting in her rural town. At this meeting, breast cancer survivors who were undergoing treatment talked about cognitive changes. K.P. wondered why she had not heard of cognitive changes as a potential side effect of breast cancer treatment. She had completed treatment years ago and did not think that treatment side effects could still be affecting her. At her next

primary care visit, K.P. shared her concerns about cognitive changes. Her nurse practitioner told her about a team of oncology nurses who were coming to their rural town to present the program Think Well: Healthy Living to Improve Cognitive Function, which is focused on cognitive changes and strategies to improve cognitive function. She wrote down the details and asked her husband and children to attend with her.

### Etiology

Cognitive changes are commonly associated with breast cancer treatment (Hodgson, Hutchinson, Wilson, & Nettelbeck, 2013). More than 3.5 million breast cancer survivors live in the United States (American Cancer Society, 2017), and this population is growing. As many as 75% of breast cancer survivors report cognitive changes at the initiation of treatment, and 35% report changes after the completion of treatment (Runowicz et al., 2016). Cancer treatment-related factors, such as chemotherapy, endocrine therapy, and radiation therapy (Ahles & Saykin, 2007; Frank, Vance, Triebel, & Meneses, 2015; Hodgson et al., 2013; Phillips et al., 2012), and personal factors, such as age, education, anxiety or stress, and genetic predispositions (Vance et al., 2017), may contribute to cognitive changes. Survivors may be unaware of such related factors and often recognize cognitive changes when returning to daily family and work schedules, citing diminished productivity and emotional distress (Frank, Vance, Jukkala, & Meneses, 2014; Myers, 2012; Player, Mackenzie, Willis, & Loh, 2014). Existing supportive programs