

# Cognitive Dysfunction

## Feasibility of a brief intervention to help breast cancer survivors

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**BACKGROUND:** Many cancer survivors experience cancer-related cognitive dysfunction (CRCDD), which is believed to be the result of multiple contributing biologic, situational, and personal factors. Efficacious, clinically implementable interventions addressing the multifactorial nature of CRCDD are needed.

**OBJECTIVES:** This study evaluated the feasibility of an intervention to help breast cancer survivors mitigate the effects of modifiable factors that contribute to CRCDD and improve cognitive functioning.

**METHODS:** A single-group pre-/post-test design was used. Treatment fidelity was tracked to evaluate implementability; attendance rates, experience surveys, and homework engagement were used to characterize acceptability. Pre- and post-test cognitive functioning, stress, fatigue, and mood were measured to evaluate preliminary efficacy.

**FINDINGS:** The intervention was implementable and acceptable to participants. Participants made statistically significant improvements.

### KEYWORDS

cognitive dysfunction; breast cancer; occupational therapy; survivor

### DIGITAL OBJECT IDENTIFIER

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**MANY CANCER SURVIVORS EXPERIENCE COGNITIVE DYSFUNCTION** (CD) before, during, and after their treatment for cancer (Janelins et al., 2017). People with cancer-related CD (CRCDD) typically experience problems with memory, attention, speed of processing, word finding, and executive functioning (Lange et al., 2019). These symptoms make it difficult for some cancer survivors to fulfill the demands of everyday life (Sleight, 2016). As many as 70% of breast cancer survivors report CRCDD during or after their cancer treatment, which, for some, persists for decades (Vardy & Dhillon, 2017). Despite significant advances in CRCDD interventions during the past two decades (Ahles & Hurria, 2018; Lange et al., 2019), people with cancer continue to describe unmet needs (Van Dyk & Ganz, 2017). Many cancer survivors do not understand what causes CRCDD or what to do about it (Selamat et al., 2014). Medical providers do not consistently discuss CRCDD with cancer survivors (Van Dyk & Ganz, 2017), possibly because clinicians themselves have varying degrees of understanding about CRCDD (Bolton & Isaacs, 2018).

Biologic, sociodemographic, psychological, and lifestyle factors are believed to contribute to CRCDD (Ahles & Hurria, 2018; Hennessey et al., 2018). In addition, the interactions between these actors also interfere with cancer-related cognitive functioning (Janelins et al., 2017). For example, cancer-related fatigue is a distressing symptom for many breast cancer survivors (Fabi et al., 2017) that is associated with decreased cognitive performance (Feng et al., 2019). Fatigue further influences CRCDD by interacting with sociodemographic factors, such as age, educational level, and premorbid intelligence (Lange et al., 2019). Even situational and environmental factors, such as heat, cold, and acoustic and visual distractors, can alter people's temporal cognitive performance (Liebl et al., 2012; Taylor et al., 2015). Each person likely has a unique set of interacting and dynamic factors that explain their experience of CRCDD.

Effective, clinically implementable interventions that address the multifactorial contributors to CRCDD are needed (Fernandes et al., 2019). Approaches in which participants learn strategies to manage their unique constellation of contributing factors are promising, as evidenced by findings from two feasibility studies. Wolf et al. (2016) provided 12 one-on-one