

■ CNE Article

# Evaluation of a Cancer Survivorship Protocol: Transitioning Patients to Survivors

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This article describes the implementation and evaluation of a survivorship protocol for cancer survivors to improve knowledge about their disease and decrease anxiety. The study included a convenience sample of 30 cancer survivors at an outpatient community cancer center in the southeastern United States following completion of acute oncology treatment. One month after the survivorship protocol was delivered, knowledge about diagnosis, treatments, recommended follow-up, signs of recurrence, and late side effects increased. Anxiety scores were lower one month after the intervention, and satisfaction with the protocol was high. The results demonstrated that the survivorship protocol is a feasible method of educating cancer survivors, supporting the Institute of Medicine's recommendation that strategies for delivering education to cancer survivors are important. Survivors have additional needs that must be addressed following treatment, and a survivorship protocol can provide the knowledge survivors need to participate in their own health care.

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Advances in cancer research, including early detection, better supportive care, and more effective treatments, have led to people living longer with or after a cancer diagnosis (American Cancer Society, 2012; Centers for Disease Control and Prevention [CDC], 2011; Rowland & Yancik, 2006). To date, more than 11 million cancer survivors are living in the United States, and that number is expected to double by 2030 (CDC, 2011). Most therapeutic modalities for cancer are beneficial and lifesaving, but are associated with adverse long-term and late sequelae, including physical and psychological side effects that may impact survivors' quality of life (Aziz, 2007; Campbell, Mayer, Abernathy, & Carroll, 2008; Deimling, Bowman, Sterns, Wagner, & Kahana, 2005; Hudson et al., 2003; Leak, Mayer, & Smith, 2011; Oeffinger et al., 2006).

Cancer treatments are associated with specific long-term and late side effects that vary greatly depending on type of cancer and the treatment modalities involved (Earle, 2006). Reported physical effects include cognitive dysfunction (thinking and memory problems), fatigue, lymphedema, cardiotoxicity, pulmonary toxicity, and peripheral neuropathy (Aziz, 2007; Carver et al., 2007). Another concerning late side effect of cancer treatment is the development of secondary

malignancies. Research has shown that adults and children who have received chemotherapy or radiation therapy are at risk for developing a secondary malignancy (Chaudhary & Haldas, 2003; Maule et al., 2007).

Studies also have demonstrated that survivors have more comorbid conditions and chronic health problems (e.g., congestive heart failure, coronary artery disease, renal failure) than their healthy counterparts (Keating, Nørredam, Landrum, Huskamp, & Meara, 2005; Oeffinger et al., 2006; Yancik, Ganz, Varricchio, & Conley, 2001). Adult survivors of childhood cancers have reported having at least one domain of health status (e.g., general or mental health and cancer-related fear or anxiety) that was moderately or severely affected by their treatment (Hudson et al., 2003).

Survivors have an increased likelihood of not receiving recommended care across a broad range of chronic medical conditions or recommended preventive services, particularly when followed only by an oncologist (Earle & Neville, 2004). When survivors receive care from a primary care provider (PCP) and an oncologist, they are more likely to engage in preventive health services and receive cancer screening services (Earle, 2006; Earle & Neville, 2004; Ganz, 2006). That underscores the need for improved communication between specialists and PCPs for optimal survivor care.