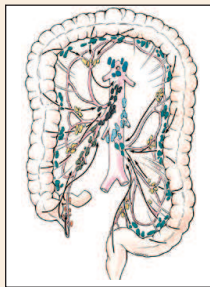


■ CNE Article

# The Impact of Chemotherapy-Induced Cognitive Impairment on the Psychosocial Adjustment of Patients With Nonmetastatic Colorectal Cancer

Jacqueline Galica, RN, BScN, MSc, CON(C), Dale Rajacich, RN, PhD, Debbie Kane, RN, PhD, and Gregory R. Pond, PhD, PStat



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Colorectal cancer is the third most commonly diagnosed cancer in Canada. Chemotherapy often is used as treatment for colorectal cancer, and studies have documented cognitive changes in patients after chemotherapy treatment. What remains unclear is the impact of such changes on a person's roles and relationships, herein referred to as psychosocial adjustment. The purpose of this research was to explore group differences in psychosocial adjustment and chemotherapy-induced cognitive impairment in patients with colorectal cancer. Participants were assessed cross-sectionally, at various time points along their treatment trajectory, using the Psychosocial Adjustment to Illness Scale–Self-Report (PAIS-SR) and the Cambridge Neuropsychological Test Automated Battery (CANTAB). A statistically nonsignificant negative association was indicated between PAIS-SR and CANTAB results, indicating that they would have no meaning in a clinical context. No differences between groups were observed in terms of cognitive ability; however, patients who completed chemotherapy appeared to be at a higher risk for psychosocial maladjustment. This study suggests that cognitive changes do not influence patients' relationships and functional roles, as indicated from the PAIS-SR.

Jacqueline Galica, RN, BScN, MSc, CON(C), is a lecturer in the School of Nursing at Trent University in Peterborough; Dale Rajacich, RN, PhD, is an associate professor and Debbie Kane, RN, PhD, is an associate professor and graduate program coordinator, both in the Faculty of Nursing at the University of Windsor; and Gregory R. Pond, PhD, PStat, is an assistant professor in the Ontario Clinical Oncology Group at McMaster University in Hamilton, all in Ontario, Canada. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Galica can be reached at [jacquelinegalica@trentu.ca](mailto:jacquelinegalica@trentu.ca), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org). (First submission March 2011. Revision submitted July 2011. Accepted for publication July 25, 2011.)

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**A** cancer diagnosis singly contributes to a significant poorer psychosocial adjustment (Derogatis & Derogatis, 1990; Wolberg, Romsaas, Tanner, & Malec, 1989). Derogatis and Derogatis (1990) viewed psychosocial adjustment as intrapsychic processes, or interactions between the person and other people and between the person and their sociocultural environment. Those interactions are achieved by the roles they perform, and the efficiency of those roles is associated with their interpretation of their own psychosocial adjustment (Derogatis & Derogatis, 1990). Seven principal domains of psychosocial adjustment have been identified, although individuals determine which domains are most important in their life (Derogatis & Derogatis, 1990) (see Table 1). Studies have found that 20%–38% of patients with cancer experience moderate to high levels of psychosocial maladjustment (Greer, 1994; Harrison & Maguire, 1994; Lima, 2005).

Although colorectal cancer is the third most commonly diagnosed cancer in Canada, mortality rates have been declin-

ing since 1996 (Canadian Cancer Society Steering Committee, 2010). Chemotherapy is used regularly, either alone or in combination with radiation, for the postoperative adjuvant treatment of colorectal cancer (Midgley & Kerr, 2000). Studies in various cancer populations indicate that people who are treated with systemic chemotherapy experience greater cognitive disturbances than those treated with more localized modalities, such as radiation therapy (Ahles et al., 2005; Schagen et al., 1999; van Dam et al., 1998). Therefore, as people live longer with colorectal cancer, healthcare professionals need to understand the long-term effects of chemotherapy, such as cognitive impairment.

An increasing volume of evidence exists showing the effects of chemotherapy on cognitive function, primarily in women with breast cancer who are receiving adjuvant chemotherapy treatment. As many as 75% of patients with breast cancer receiving chemotherapy have experienced moderate to severe cognitive impairment (Ahles et al., 2003; Brezden,