

# A Qualitative Study of the Everyday Impacts of Cognitive Difficulties After Stem Cell Transplantation

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**PURPOSE:** To explore how cognitive difficulties affect the everyday lives of survivors of allogeneic hematopoietic stem cell transplantation (allo-HSCT).

**PARTICIPANTS & SETTING:** 20 survivors of allo-HSCT attending follow-up care at a tertiary cancer center in Toronto, Canada.

**METHODOLOGIC APPROACH:** This qualitative, descriptive study used semistructured interviews.

**FINDINGS:** Cognitive symptoms affected the everyday lives of allo-HSCT survivors by changing the experience of everyday tasks, provoking emotional responses, and prompting adoption of mitigation strategies. Subthemes within each of these themes highlight the ways in which cognitive impairment shapes how allo-HSCT survivors feel about themselves, interact with others, and navigate coping challenges.

**IMPLICATIONS FOR NURSING:** These findings demonstrate the multidimensional experience of cognitive difficulties following allo-HSCT and may inform the development of patient-centered approaches to assessing and managing cognitive difficulties.

**KEYWORDS** stem cell transplantation; qualitative research; cancer-related cognitive impairment

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**A**llogeneic hematopoietic stem cell transplantation (allo-HSCT) is a treatment modality indicated for many hematologic cancers and diseases that involves high-dose chemotherapy and/or radiation therapy to destroy malignant or dysfunctional cells, followed by the infusion of healthy donor stem cells to restore immune function. Improvements in allo-HSCT techniques and supportive care have led to positive survival outcomes and greater recognition of the long-term sequelae experienced by survivors. Even after the risk of malignancy relapse has abated, individuals treated with allo-HSCT are at risk for physical, psychological, and functional impairments that may interfere with readjustment after treatment (Syrjala et al., 2012). With the number of recipients of allo-HSCT increasing and evolving, greater understanding of patient-oriented outcomes and the development of appropriate health services to support them are needed (Battiwalla et al., 2017; Bevans et al., 2017).

There is growing evidence that cognitive functioning, particularly in the domains of memory, concentration, information speed, and executive functioning, may be negatively affected among adult recipients of allo-HSCT (Harder et al., 2002; Harrison et al., 2021; Mayo, Wozniczka, et al., 2020; Syrjala et al., 2011). Although as many as one-third of recipients demonstrated deficits on objective neuropsychological tests of cognitive functioning prior to transplantation, there is evidence of further persistent declines in the months to years after allo-HSCT (Sharafeldin et al., 2018; Syrjala et al., 2004, 2011). After the first year following allo-HSCT, as many as 60% of survivors self-reported cognitive symptoms, with up to 40% demonstrating impairment on objective cognitive testing (Bevans et al.,