

# Importance of Meaning-Making for Patients Undergoing Hematopoietic Stem Cell Transplantation

Katharine E. Adelstein, MSN, RN, Joel G. Anderson, PhD, and Ann Gill Taylor, EdD, RN, FAAN

**H**ematologic malignancies, although comprising a small percentage of all cancers, lead to unique and sometimes magnified treatment challenges. The five-year survival rate for patients with acute myeloid leukemia and acute lymphoblastic leukemia, the most common hematologic malignancies that require stem cell transplantation, ranges from 22%–29% (Pulte, Gonds, & Brenner, 2009); these conditions are treated with aggressive regimens of chemotherapy, radiation, and sometimes hematopoietic stem cell transplantation (HSCT). In addition to the physical side effects of chemotherapy (e.g., pain, nausea, fatigue), treatment of hematologic malignancies often involves other challenges, including extended hospitalization and a high risk of treatment failure or disease recurrence that places these patients at risk for particularly high levels of cancer-related distress (Albrecht & Rosenzweig, 2012).

HSCT is a commonly used treatment for hematologic malignancies. HSCT is a procedure in which stem cells are collected from peripheral blood, bone marrow, or umbilical cord blood and infused into a patient who has undergone an intensive conditioning regimen that typically includes multiagent chemotherapy. Although HSCT is considered a curative treatment for many hematologic malignancies, outcomes after transplantation vary by disease type, remission status at transplantation, donor type, and other factors (Barrett & Battiwalla, 2010). Elimination of cancer often is associated with complications that can be fatal, including traditional chemotherapy-related adverse effects (e.g., nausea and vomiting, fatigue, alopecia, mucositis, major organ toxicity, infertility, hormone-related morbidity, secondary malignancy); infection related to extreme immune suppression, particularly in the immediate post-transplantation period; graft failure; and acute and chronic graft-versus-host disease (GVHD), which can range from mild skin rashes to fatal respiratory and digestive conditions (Potter & Kerridge, 2004). Most deaths occur within the first two

**Purpose/Objectives:** The purpose of this integrative literature review of hematopoietic stem cell transplantation (HSCT) for hematologic malignancies was to determine whether meaning-making might be helpful to improve coping and psychological adaptation as patients navigate HSCT.

**Data Sources:** CINAHL®, MEDLINE®, and PsychINFO databases, and ancestry searches. Search terms included *bone marrow transplant, hematopoietic stem cell transplant, hematologic malignancy, quality of life, lived experience, psychosocial, psychological, isolation, and social support*.

**Data Synthesis:** Twenty-four research articles published from 1989–2012 were included. Five major themes emerged: (a) lived experience, (b) coping style, (c) quality of life, (d) psychological morbidity, and (e) potential for post-traumatic growth. Meaning-making was a thread that ran through each of the key areas of the HSCT experience.

**Conclusions:** Physical, psychosocial, and spiritual issues arise during HSCT that are unique among patients diagnosed with cancer. Meaning-making is key to adaptive coping and helps to reduce physical, psychosocial, and spiritual challenges, as well as assists patients in experiencing positive personal growth. Interventions focused on meaning-making should be tested in this population.

**Implications for Nursing:** Nurses are positioned to develop and deliver meaning-making interventions for patients undergoing HSCT and to assess patient-oriented outcomes.

**Key Words:** coping; post-traumatic stress; quality of life; spirituality/religiousness; stem cell/marrow transplantation

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years after transplantation and are related to disease relapse or complications related to HSCT, including GVHD and HSCT-related toxicities (Wingard et al., 2011). Risk factors for nonrelapse-related death include older age and the presence of chronic GVHD (Wingard et al., 2011). Although the 10-year survival rate of those who survive the first two years post-transplantation is high (80%–92%), the overall life expectancy of those undergoing HSCT for hematologic malignancy remains low (Wingard et al., 2011). Mortality rates are four- to nine-fold higher than those expected in the general