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Education for Homecare Patients With Leukemia Following a Cycle of Chemotherapy: An Exploratory Pilot Study

Yu-Chu Chung, MSN, RN, and Huei-Lih Hwang, RN

Purpose/Objectives: To explore the differences in the outcome between routine health education and health education delivered through telephone-based surveys on self-care, symptom distress, and quality of life among homecare patients with leukemia after a cycle of hospitalized chemotherapy.

Design: A quasi-experimental research design.

Setting: A medical teaching center in Taipei, Taiwan.

Sample: 70 patients with leukemia.

Methods: A nonrandomized trial of a clinical-based intervention. Patients were selected into either an experimental ($n = 35$) or control (usual care) group ($n = 35$) according to the timing of their discharge. In addition to routine education before discharge, patients in the experimental group received educational and emotional support through two telephone sessions after discharge. Self-administered questionnaires were completed four weeks after discharge.

Main Research Variables: Self-care, symptom distress, and quality of life.

Findings: Significantly different scores were found between the two groups in self-care, symptom distress, and quality of life. The experimental group had higher scores in the self-care and quality of life categories, but lower scores for symptom distress.

Conclusions: The follow-up telephone calls, placed at the proper time, met patients' specific needs. The experimental group perceived a difference in self-care, symptom distress, and quality of life from the control group.

Implications for Nursing: Individualized telephone intervention can deliver continuing care. The use of telephone-based education should be included in nursing students' training.

Cancer has been Taiwan's most common cause of death for over two decades (Department of Health, 2007). Although hematologic malignancies constitute a minor number of the newly diagnosed cancers per year, they do pose a substantial burden to patients. Patients with leukemia currently receive systematic chemotherapy where the treatment dose is set to increase proportionately to the cytotoxic agents. Changes in the advent of dose-intensive chemotherapeutic regimens have resulted in increased myelosuppression and cytotoxicity, resulting in greater symptom distress after treatment. In addition, the use of part-time or rotating nurses who do not have the training needed to treat patients with cancer is common in many Taiwanese hospitals.

Alternative therapies for chemotherapy-related distress and quality-of-life assessments following aggressive therapy regimens for patients with hematologic cancer have not been explored. Patients should receive the knowledge and skills needed for promoting home-based self-care, particularly when oncology nurse involvement is minimal. For nurses, the responsibility to assess patients, treat side effects, and develop a care plan that ensures continuity of care is critical. Although the aim of chemotherapy has been to extend patients' lives, healthcare providers should not lose focus on the importance of quality of life.

Literature Review

Chemotherapy for patients with active leukemia typically is divided into two phases and may involve repeated cycles of chemotherapy to kill any remaining leukemia cells. Antileukemic drugs also kill bone marrow and cells with high replicative rates, such as hair follicles and gastrointestinal and skin cells; therefore, side effects are common and last for several weeks after chemotherapy. Side effects include nausea, vomiting, fatigue, anorexia, alopecia, diarrhea, and a temporary reduction of white blood cells, red blood cells, and platelets (DeVita, Hellman, & Rosenberg, 2001). A study by Beeharry and Broccoli (2005) indicated that chemotherapy affects the long-term replicative potential of regenerative tissues. Others have found that symptom distress alters the cancer experience and influences quality of life (Boehmke & Brown, 2005; Chen et al., 2004; Freihat, 2005). A study by Wang, Lin, Kuo, and Fan (2005) indicated that delivering information to patients on how to manage adverse effects during or after chemotherapy is crucial for attaining patient

Yu-Chu Chung, MSN, RN, is an instructor in the School of Nursing at Yuanpei University in Hsinchu, Taiwan, and a doctoral student at National Taipei College of Nursing in Taiwan; and Huei-Lih Hwang, RN, is an assistant professor in the nursing department at National Tainan Institute of Nursing in Taiwan and a doctoral student at Kaohsiung Medical University in Kaohsiung, Taiwan. No financial relationships to disclose. (Submitted December 2007. Accepted for publication January 7, 2008.)

Digital Object Identifier: 10.1188/08.ONF.E83-E89