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# The Influence of Easy-to-Read Pamphlets About Self-Care Management of Radiation Side Effects on Patients' Knowledge

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**A**lthough beneficial in the control and treatment of cancer, radiation therapy often causes side effects that can range from mild psychological and physical disturbances to severe life-threatening conditions (Hogle, 2007). Management of radiation side effects, including patient self-management, continues to be a priority in the care of patients with cancer and is essential to rehabilitation. One component of care management is health literacy. Although definitions of the term vary, health literacy in the current study indicates "the evolving of skills and competencies needed to find, comprehend, evaluate, and use health information and concepts to make choices and improve quality of life" (Zarcadoolas, Pleasant, & Greer, 2003, p. 119). Poor health literacy hampers patients' ability to understand complex or even basic information or to accurately assess health risks, thereby impairing their ability to engage in self-care (Amalraj, Starkweather, Nguyen, & Naeim, 2009).

Studies have found that the general public is uninformed about radiation therapy, and many new patients are anxious about undergoing the regimen (Halkett, Arbon, Scutter, & Borg, 2007). Once radiation treatment begins, patients are confronted with new and unknown aspects of therapy such as unfamiliar technology, new health-related terms not part of their vocabulary, and a rigorous and demanding treatment schedule that seldom permits delayed or missed appointments (Fitch et al., 2005). As a result, patients often are confused and anxious and harbor misunderstandings about the procedure (Halkett & Kristjanson, 2007). Concurrently, patients in hospital and outpatient settings are expected to comprehend new information and enact behaviors necessary to combat their illness.

Poor health literacy may exacerbate feelings of uncertainty and impede care management of radiation therapy. According to Orem (2001), individuals who perform self-care must possess the abilities to do so. Foundational to self-care are competencies in reading,

**Purpose/Objectives:** To test patients' knowledge of side effects after they review six easy-to-read pamphlets on radiation side effects.

**Design:** Nonexperimental.

**Setting:** Urban radiation oncology clinic.

**Sample:** 47 patients receiving radiation treatment.

**Methods:** The Knowledge of Radiation Side Effects Test was administered.

**Main Research Variables:** Patient literacy and knowledge level.

**Findings:** The self-report of highest grade completed in school was 10th grade; however, the actual reading level was 4th–6th grade. Scores for each knowledge test increased with literacy level, with statistically significant correlations for pamphlets on fatigue, skin problems for women, and skin problems for men. Participants who read at the 4th–6th-grade level scored higher than expected.

**Conclusions:** Although the pamphlets were deemed easy to read, patients who had the lowest reading levels still had difficulty understanding them.

**Implications for Nursing:** In addition to written patient information, oncology nurses should use innovative teaching strategies to improve patient understanding and self-care behaviors. A need exists for continued nursing inquiry that will focus on self-care behaviors to manage radiation side effects, particularly for patients with low literacy.

writing, communication skills, reasoning, perceptual skills, and counting. In theory, the limitation of one's ability to read and comprehend written information interferes with the ability to make informed decisions. A self-care deficit may occur when patients with low literacy are unable to make informed decisions about treatment or engage in self-care behavior, including those related to side effects. When a deficit occurs, nurses may compensate by either guiding patients to the selection of health information of an appropriate literacy level or by using another communication strategy.