

# Internet Design Preferences of Patients With Cancer

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**Purpose/Objectives:** To describe computer experience and preferences for multimedia design.

**Design:** Prospective, descriptive.

**Setting:** Physician office and outpatient cancer centers in an urban area in the southeastern United States.

**Sample:** Convenience sample of 22 volunteer patients with cancer from four racial groups.

**Methods:** A questionnaire on computer experiences was followed by a hands-on computer session with questions regarding preferences for seven interface items. Data termination occurred when sample size was obtained.

**Main Research Variables:** Design of Internet education site for patients. Variables include preferences, computer, cancer, multimedia, and education.

**Findings:** Eighty-two percent had personal computers, 41% used a computer daily, and 95% believed that computers would be a good avenue for learning about cancer care. Preferences included display colors in blue and green hues; colored buttons; easy-to-read text; graphics with a simple design and large, clear pictures; serif font in dark type; light-colored background; and larger photo size in a rectangle shape. Most popular graphic icons as metaphors were 911 for emergency, picture of skull and crossbones for danger, and a picture of a string on an index finger representing reminder. The simple layout most preferred for appearances was one that included text and pictures, read from left to right, and was symmetrical in its placement of pictures and text on the page.

**Conclusions:** Preferences are necessary to maintain interest and support navigation through computer designs to enhance the translation of knowledge to patients.

**Implications for Nursing:** Development of multimedia based on patient preferences will enhance education, learning, and, ultimately, quality patient care.

A gap exists in what is known about patient preferences or choices associated with the effective multimedia design in healthcare education. Only a few studies have included multimedia design as a concept in all types of patient education (Boyington, Wildemuth, Dougherty, & Hall, 2004; Cousineau et al., 2004; Enzenhofer et al., 2004; Ruland, 2004; Sweeney & Chiriboga, 2003), and even fewer are specific to patients with cancer (Berry et al., 2004; Davison & Degner, 2002; Degner, Davison, Sloan, & Mueller, 1998; Hahn et al., 2003). Multimedia design encompasses many areas of concern, including content, text, layout, navigation, user friendliness, and font. However, no known studies have specifically assessed multimedia design preferences of patients with cancer that include several racial groups. The purpose of this study is to describe computer experiences and design

## Key Points . . .

- A gap exists in the literature about patient preferences for multimedia design.
- Many patients believe that computers could be a good avenue for learning about their venous access devices.
- Patients prefer displays with dark blue or green bold letters in serif type with a light background.

preferences for interface development that would translate into a product of educational media for patients with cancer. The premise is that known preferences (Ruland) will enhance educational knowledge and increase user satisfaction. Ruland further elaborated that the result, because of preference, will be the achievement of desired patient outcomes.

## Literature Review

The few studies that address the effectiveness and satisfaction related to the use of multimedia in patient education have focused on noncancer populations (Boyington et al., 2004; Cousineau et al., 2004; Sweeney & Chiriboga, 2003) or general cancer populations (Berry et al., 2004; Green et al., 2004). Studies in noncancer populations have found that visualization increases satisfaction in patient education about coronary catheter and endoscopy procedures (Enzenhofer et al., 2004); audio, video, and interactive tasks increase satisfaction for couples receiving infertility treatment (Cousineau et al.); multimedia improves senior citizen knowledge (Sweeney & Chiriboga); graphics enhance written messages (Boyington et al.); and computer-assisted instruction can increase knowledge in patients undergoing joint replacement surgery (Tibbles, Lewis, Reisine, Rippey, & Donald, 1992).

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