

# Digitally Recorded Education

## Effects on anxiety and knowledge recall in patients receiving first-time chemotherapy

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**BACKGROUND:** Prechemotherapy information is overwhelming, and retention of critical information can be challenging. Patients from a Southern California infusion clinic had varying degrees of retention when nurses used traditional one-on-one teaching with supplemental handouts.

**OBJECTIVES:** The intent of this article is to determine the effectiveness of standardized, digitally recorded education as an alternative teaching method for increasing knowledge recall and decreasing anxiety in English- and Spanish-speaking patients receiving first-time chemotherapy.

**METHODS:** Baseline data were obtained from five patients who received traditional teaching. Using a pre-/post-test design, 92 patients receiving digitally recorded education completed a paper-and-pencil instrument that rated their anxiety and knowledge recall.

**FINDINGS:** The digitally recorded education method produced significant decreases in anxiety and increases in knowledge recall.

### KEYWORDS

anxiety; knowledge recall; first-time chemotherapy; digitally recorded education

### DIGITAL OBJECT IDENTIFIER

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**MANY PATIENTS WITH CANCER WILL RECEIVE CHEMOTHERAPY**, and they may have preconceived thoughts that range from viewing it as a toxic poison to considering it to be a life-saving treatment. Patients may seek information online prior to starting treatment as a method of coping with concerns and questions about their illness. However, seeking health information online may have negative consequences. Oh and Song (2017) reported that patients who engaged in seeking health information online had greater odds of having emotional distress than those who did not.

Stress and anxiety can have a negative impact on patients. Chen, Dubé, Rice, and Baram (2008) found that even short-term stress, lasting as little as a few hours, can impair brain cell communication in areas associated with learning and memory. High levels of anxiety among patients with cancer decreased comprehension and information retention (Mann, 2011). Improper prevention and management of anxiety can lead to poor psychological outcomes, such as depression, dissatisfaction with care, and decreased adherence to treatment (Garcia, 2014).

Regardless of personal beliefs, patients often are anxious and overwhelmed at the first chemotherapy infusion and may have difficulty remembering key information given to them (Malone, 2007). Lack of retention of critical information can have serious, even fatal, consequences in patients receiving first-time chemotherapy because many side effects need to be managed at home, placing a substantial burden on patients and families (Aranda et al., 2012). For example, the effectiveness of chemotherapy is based, in part, on maintaining a preplanned dose and treatment schedule. Misunderstanding or poor retention of information can lead to incorrect dosing or treatment delays that have consequences affecting patient survival (Tortorice, 2005).

Most patients with cancer are eager for information about their disease and treatment. However, studies have shown that patients lack sufficient information regarding their illness (Dumrongpakapakorn, Hopkins, Sherwood, Zorn, & Donovan, 2009). Oncology nurses are responsible for much of the patient's and family's education as it relates to cancer and its treatment (Brant & Wickham, 2013). In the outpatient setting, preparing patients for their first chemotherapy treatment can be complex. Nurses are challenged with teaching large amounts of information in a short time period (Valenti, 2014).