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# Patient Education

## A comparison of teaching strategies for patients with brain neoplasms

Tobi A. Stuart, RN, BSN, Sonja E. Stutzman, PhD, Amber D. Hicks, BS, MBA, and DaiWai M. Olson, PhD



**BACKGROUND:** A diagnosis of cancer, specifically a brain neoplasm, can be daunting and confusing to patients and their family members. It is important to find ways to provide education about diagnosis, symptoms, medications, treatment, and side effects in a usable and retrievable format.

**OBJECTIVES:** The aim of this study was to examine the impact of the following three teaching strategies on patients' knowledge and understanding of their diagnosis: standard of care (SOC), which includes a generic folder of information (strategy 1); tailored paper binder (strategy 2); or SOC plus Technology Enhanced Active Learning (TEAL) (strategy 3).

**METHODS:** This was a prospective pre-/post-test pilot study including patients who had been diagnosed with brain neoplasms.

**FINDINGS:** Among 30 patients enrolled during a seven-month period, those who received strategy 3 had higher mean post-test knowledge scores compared to those who received strategy 1 or 2, but the difference was not statistically significant. The results suggest that TEAL-reinforced education is helpful for keeping appointments and may be associated with better knowledge retention regarding disease process and medications. In addition, fewer calls were made to the healthcare team in the strategy 3 group compared to the strategy 1 and 2 groups.

### KEYWORDS

patient education; brain neoplasms; nursing; teaching strategies

### DIGITAL OBJECT IDENTIFIER

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**A CANCER DIAGNOSIS CAN WREAK HAVOC** on a patient's psychological state, and it can be difficult for patients to grasp information about diagnosis, prognosis, and therapeutic strategies in such a state. Because cancer can progress rapidly, the time from diagnosis to initiation of treatment is usually short. This leaves patients with little time to absorb and comprehend the information they are provided. Often, this leads patients to use the Internet to search for knowledge, but the information they find may be false or misleading. Patients with brain neoplasms may have an even harder time with this, because brain tumors tend to interfere with cognitive processes. The lack of knowledge about treatment options, long-term care strategies, and prognoses can make patients and families nervous and may cause them to appear unreceptive toward healthcare workers. In addition, there is little research that focuses on the knowledge needs of the neuro-oncology community (Roussel & Frenay, 2019). As a result, there is a need to better manage the delivery of information to these patients, so that patients and their family members are better educated about their choices and more receptive to healthcare providers' concerns. Generally, during an initial session, a patient's oncologist reviews the plan of care with the patient; this can include review of the diagnosis, treatments, and side effects. However, after that session, the patient has ongoing issues that need to be addressed. The purpose of this pilot study is to evaluate ways to deliver patient education about diagnosis and treatment so that fewer unnecessary patient calls are made to the healthcare team.

### Background

When cancer is diagnosed, a large amount of information is disseminated to patients and their family members within a short period of time, resulting in increased anxiety and distress, as well as the inability to retain information. Therefore, patients have trouble recalling the information by the time they sit in the infusion chair for their first cancer therapy (Martinez-Alonso et al., 2017). No standardized protocol exists for patient education across individual clinics, clinic locations, or institutions. Patients may perceive information one way and relay that information incorrectly to others (e.g., healthcare providers, family members). This leads to a great deal of follow-up questions among patients, family members, and healthcare providers (Zhou et al., 2015). Patients with cancer have increased rates of clinical distress compared to healthy individuals; therefore, providing adequate education will help to alleviate unnecessary distress (Hamilton, Kruse, Holcolmb, & Freche, 2018). To better serve this population, a need exists for developing teaching strategies in multiple modes to increase retention of information.