Improving Adult Oncology Patient Knowledge: Creating an Educational Program Using Multiple Methods of Teaching

Jodie Beszczynski, BSN, RN
Penn State Cancer Institute Infusion Room

Introduction
More than one million people are diagnosed with cancer each year in the United States. Educating patients on how to cope and manage their treatment is of utmost importance. The most common methods of teaching are verbal discussions and providing printed information. Additional methods were examined in order to determine the most successful educational program for oncology patients.

PICO Question
Population: Adult oncology patients
Intervention: Providing live classes and/or video-based education in addition to verbal discussion and printed material
Comparison: Continuing the current practice of providing printed material and verbal discussion
Outcome: Reduce anxiety, increase recall, and improve the patient’s knowledge to initiate self-care strategies to lessen the impact of treatment
Question: For adult oncology patients, does video-based learning improve the patient’s knowledge of treatment?

Methods
A literature search was conducted using CINAHL, EbscoHost, JSTOR, and PubMed databases.

Keywords: oncology, cancer, patient education, video, education methods, teaching material

The initial search yielded 15 articles and 4 were included for this project

Results

<table>
<thead>
<tr>
<th>Article</th>
<th>Methods</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee-Schoeder, K., Howell, L., Kokal, J., Bjornsen, S., Christensen, S., Hathaway, J., &amp; Vickers, K. S. (2013).</td>
<td>Sample size of 81 participants: 66 patients and 15 caregivers. 42 surveys completed.</td>
<td>The combination of a DVD and group discussions led by an oncology nurse demonstrated great success. 98% of patients reported understanding of side effects, 97% reported how to manage side effects, and 98% had increased motivation to use self-management strategies. Caregivers also reported an increased confidence in managing the patient’s side effects.</td>
</tr>
<tr>
<td>Kinnane, N., Stuart, E., Thompson, L., Evans, K., &amp; Schneider-Kolsky, M. (2006).</td>
<td>Sample size of 61 patients. Patients in Arm A were randomized to receive verbal and written education. Patients in Arm B were to receive verbal, written, and video-based education.</td>
<td>Two-thirds of participants were extremely satisfied with the video. 83.3% preferred both styles of education, 6.7% preferred the video alone, and 10% preferred discussion with the nurse and written information. The inclusion of a video improved retention of information regarding side effects and timely reporting of symptoms.</td>
</tr>
<tr>
<td>Long, K., Sobel, D., Stewart, A., Brown, B. J., Bandura, A., Ritter, P., &amp; Holman, H. (1999).</td>
<td>Sample size of 952 patients. Patients in the treatment group received a community-based patient self-management education course immediately. The control group did not have any interventions for 6 months.</td>
<td>Overall, the treatment group demonstrated improvement in healthy behaviors, health status, and there was a decrease in hospital admissions. It is possible to educate patients of different chronic diseases successfully using the same intervention of patient education programs.</td>
</tr>
<tr>
<td>Prouse, J. (2010).</td>
<td>Nine studies were included in the critical review</td>
<td>There was no statistically significant evidence that demonstrated multimedia devices improved a patient’s recall of information. A decrease in anxiety and depression and an improvement in reducing short term symptoms were observed.</td>
</tr>
</tbody>
</table>

Discussion
- No significant statistical evidence that demonstrated improvement in a patient’s recall of information; however, several studies concur there is some retention of information
- Patients demonstrated a reduction in anxiety and depression and improvement to managing side effects
- Patients reported they preferred having video as well as verbal and printed information
- Video-based learning is a new way to present material and holding a live class allowed for group discussion and support

Conclusions
Multiple methods of education will address all variations of learning. Patients will acquire knowledge necessary for managing side effects after treatment. Self-care strategies will be initiated and health care providers will be notified of symptoms early on, which will result in a reduction of hospital admissions.

Recommendations include further studies that examine patient recall of information and the relationship between patient education and hospital admission rates. Production and piloting of an educational video for the Cancer Institute would be extremely beneficial for patients and nurses.

References