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# Effect of Kefir on the Quality of Life of Patients Being Treated for Colorectal Cancer

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Colorectal cancer is the third most prevalent cancer and the second leading cause of death in Turkey (Eser, 2007). The primary method of treatment for colorectal cancer is surgical resection. To improve the general survival rate, adjuvant chemotherapy is used in high-risk stage II and is the standard of care in stage III colorectal cancer. Palliative chemotherapy is used in stage IV. The choice of chemotherapy is based on the patient's individual characteristics and the stage of disease. Generally, 5-fluorouracil (5-FU) or oral fluoropyrimidine-based treatment protocols are used (Aydiner & Topuz, 2004).

More than a third of patients with cancer use complementary and alternative medicine (CAM) (Jordan & Delunas, 2001). The use of kefir by patients undergoing chemotherapy in Turkey to prevent gastrointestinal complaints has increased; however, no randomized studies have examined the effectiveness of kefir in that population.

## Background

People diagnosed with cancer often begin to use CAM without informing their healthcare providers. CAM therapies frequently are used at the recommendation of family and friends but without accurate information (Jordan & Delunas, 2001). One reported reason for the use of CAM is to increase hope and quality of life (QOL) (Kozachik, Wyatt, Given, & Given, 2006). Although the use of CAM continues to be studied (Lis, Cambron, Grutsch, Granick, & Gupta, 2006; Paltiel et al., 2001), more information is needed about its effects (Hessig, Arcand, & Frost, 2004) because some treatments can decrease the effectiveness of standard cancer treatment or increase the severity of treatment-related side effects. Studies have reported that 56.9% of patients with colorectal cancer use CAM (Patterson et al., 2002). Tas et al. (2005) reported that Turkish patients with cancer

**Purpose/Objectives:** To determine kefir's effect on the prevention of gastrointestinal complaints and quality of life (QOL) in patients being treated for colorectal cancer.

**Design:** Randomized, controlled, prospective, interventional study.

**Setting:** Istanbul University Oncology Institute in Turkey.

**Sample:** 40 patients, 20 of whom were randomized to the experimental (kefir) arm and 20 who were randomized to the control arm.

**Methods:** Informed consent to participate in the study was obtained. Before treatment began, demographics, illness-related characteristics, complaints, and QOL of participants were evaluated. During treatment, side effects were evaluated one week after every cycle of therapy. QOL was evaluated after the third and sixth cycles of treatment.

**Main Research Variables:** The effect of kefir on the prevention of gastrointestinal complaints and QOL in patients being treated for colorectal cancer.

**Findings:** Following chemotherapy, the experimental (kefir) group had more treatment-related gastrointestinal complaints but a decrease in sleep disturbance. No difference was found between the two groups for QOL.

**Conclusions:** Kefir does not prevent or decrease gastrointestinal complaints in patients undergoing chemotherapy for colorectal cancer. Kefir did decrease sleep disturbances in the experimental group.

**Implications for Nursing:** Many patients use complementary and alternative medicine during cancer therapy. This study may provide information about the effectiveness of kefir in patients with cancer.

frequently choose CAM therapies; in particular, the number of patients using kefir has increased.

Kefir, which has been used for centuries, is a natural probiotic. It is the product of fermentation of milk with kefir grains and mother cultures prepared from grains. Kefir grains look like pieces of coral or small clumps of cauliflower and contain a complex mixture of bacteria