Effects of Nurse-Led Telephone-Based Supportive Interventions for Patients With Cancer: A Meta-Analysis

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This research was funded by the Basic Science Research Program through support from the National Research Foundation of Korea (NRF), which is funded by the Ministry of Science, ICT, and Future Planning (NRF-2014R1A1A1006809).

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Submitted September 2016. Accepted for publication November 21, 2016.

Keywords: nurse-led; telephone; cancer; meta-analysis

ONF, 44(4), E168–E184.
doi:10.1188/17.ONF.E168-E184

Problem Identification: To evaluate the effects of nurse-led telephone-based supportive interventions (NTSIs) for patients with cancer.

Literature Search: Electronic databases, including EMBASE®, MEDLINE, Google Scholar, Cochrane Library CENTRAL, ProQuest Medical Library, and CINAHL®, were searched through February 2016.

Data Evaluation: 239 studies were identified; 16 were suitable for meta-analysis. Cochrane’s risk of bias tool and the Comprehensive Meta-Analysis software were used.

Synthesis: The authors performed a meta-analysis of 16 trials that met eligibility criteria. Thirteen randomized, controlled trials (RCTs) and three non-RCTs examined a total of 2,912 patients with cancer. Patients who received NTSIs were compared with those who received attentional control or usual care (no intervention).

Conclusions: Telephone interventions delivered by a nurse in an oncology care setting reduced cancer symptoms with a moderate effect size (ES) (−0.33) and emotional distress with a small ES (−0.12), and improved self-care with a large ES (0.64) and health-related quality of life (HRQOL) with a small ES (0.3). Subgroup analyses indicated that the significant effects of NTSIs on cancer symptoms, emotional distress, and HRQOL were larger for studies that combined an application of a theoretical framework, had a control group given usual care, and used an RTC design.

Implications for Research: The findings suggest that an additional tiered evaluation that has a theoretical underpinning and high-quality methodology is required to confirm the efficacy of NTSI for adoption of specific care models.

Despite improvements in long-term prognosis, cancer survivors often have unmet supportive care needs because of the multimodal nature of cancer treatment (Hodgkinson, Butow, Hobbs, & Wain, 2007). Watchful monitoring of physical, psychological, and social well-being may help patients during the treatment and recovery processes. Therefore, patients may need supportive follow-up and other interventions as they progress through treatment and recovery. There are increasing efforts to design more efficient, cost-effective, and standardized care pathways to improve patients’ health-related quality of life (HRQOL) (Asadi-Lari, Tamburini, & Gray, 2004). Such methods must be effective in improving and sustaining patient outcomes in cancer care settings. One major method is the use of nurses as care coordinators (Cruickshank, Kennedy, Lockhart, Dosses, & Dallas, 2008).

Many countries only have treatment services in a few major cities, and access to professional clinical and supportive services for people in regional and remote areas is a challenge. Telephone counseling can provide access to people in remote areas and has, therefore, become a standard method of providing education and advice to patients with cancer and other diseases (Greenberg,