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

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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, Dosser, & 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,