A Distress Thermometer Intervention for Patients With Head and Neck Cancer

Ingeborg C. van der Meulen, PhD, RN, Anne M. May, PhD, Ron Koole, Prof.(em)Dr., and Wynand J.G. Ros, PhD

OBJECTIVES: To investigate the feasibility of an intervention using the National Comprehensive Cancer Network Distress Thermometer and Problem List with nurse-guided follow-up and the effect on depressive symptoms, health-related quality of life, and worry of cancer in patients with head and neck cancer.

SAMPLE & SETTING: 110 patients with head and neck cancer in a two-arm randomized, controlled trial in an outpatient clinic of a university hospital.

METHODS & VARIABLES: Patients were randomized to usual care (n = 57) or the intervention group (n = 53), which consisted of screening with the Distress Thermometer and Problem List plus nurse-guided follow-up lasting about 20 minutes three to four times during 12 months. Intention-to-treat analysis was performed using linear mixed models with outcomes at 6 and 12 months and baseline adjustment.

RESULTS: The intervention showed moderate compliance and acceptable session duration. Intervention participants were satisfied with nurses' care. Depressive symptoms, health-related quality of life, and worry of cancer were not significantly different in the two treatment groups. The intervention seemed feasible in clinical practice, but no effects on patient outcomes were seen.

IMPLICATIONS FOR NURSING: Patients with head and neck cancer appreciated the opportunity to discuss their problems and challenges with a nurse. Nurses supported patients with basic psychosocial care, minor interventions, and referral possibilities.

ependent on the location of the tumor and the type of treatment, patients with head and neck cancer (HNC) are prone to physical problems like dry mouth (Jiang, Zhao, Jansson, Chen, & Mårtensson, 2017), impaired speech (Heijnen et al., 2016; Rinkel et al., 2016), difficulty eating (Ottosson, Laurell, & Olsson, 2013), or altered shoulder function (Rogers et al., 2016). In many patients, the physical problems are visible and have a strong negative impact on diverse functions and psychosocial well-being (Semple, Dunwoody, Kernohan, McCaughan, & Sullivan, 2008). Although physical problems can improve in the period directly after end of treatment, many problems are irreversible and persist in the long-term. Partly because of the long-lasting physical problems, patients often suffer from distress.

Patients with HNC are at higher risk and suffer from greater distress than patients diagnosed with any other form of cancer because of the effect of impairments in functioning (Ahn et al., 2015; Singer et al., 2012). From 35%–41% of patients with HNC experience high levels of distress pre- and post-treatment up to one year after treatment (Buchmann, Conlee, Hunt, Agarwal, & White, 2013; Ninu et al., 2016). In Dutch patients, a prevalence rate of 29% was found during follow-up care (Krebber, Jansen, Cuijpers, Leemans, & Verdonck-de Leeuw, 2016). A variable related to distress is depressive symptoms (Dunne et al., 2017), which are present in 28%–39% of patients at diagnosis (de Leeuw, de Graeff, Ros, Hordijk, et al., 2000) and persists in 20% of patients after one year (de Leeuw, de Graeff, Ros, Blijham, et al., 2000). Depressive symptoms at diagnosis are known to be predictive of a poor health-related quality of life (HRQOL) one to three years later (Hammerlid, Silander, Hörnestam, & Sullivan, 2001; Ronis, Duffy, Fowler, Khan, & Terrell, 2008). In addition, poor HRQOL is associated with high levels of distress (Bornbaum et al., 2012; Dunne