

The Effects of Foot Reflexology on Anxiety and Pain in Patients With Breast and Lung Cancer

Nancy L.N. Stephenson, PhD, RN, CS, Sally P. Weinrich, RN, PhD, FAAN,
and Abbas S. Tavakoli, DrPH

Purpose/Objectives: To test the effects of foot reflexology on anxiety and pain in patients with breast and lung cancer.

Design: Quasi-experimental, pre/post, crossover.

Setting: A medical/oncology unit in a 314-bed hospital in the southeastern United States.

Sample: Twenty-three inpatients with breast or lung cancer. The majority of the sample were female, Caucasian, and 65 years or older; had 12 or fewer years of education and an annual income of \$20,000 or more; and were receiving regularly scheduled opioids and adjuvant medications on the control and intervention day.

Methods: Procedures included an intervention condition (foot reflexology to both feet for 30 minutes total by a certified reflexologist) and a control condition for each patient (with at least a two-day break). No changes were made in patients' regular schedule or medications.

Main Research Variables: Anxiety and pain.

Findings: Following the foot reflexology intervention, patients with breast and lung cancer experienced a significant decrease in anxiety. One of three pain measures showed that patients with breast cancer experienced a significant decrease in pain.

Conclusions: The significant decrease in anxiety observed in this sample of patients with breast and lung cancer following foot reflexology suggests that this may be a self-care approach to decrease anxiety in this patient population.

Implications for Nursing Practice: Professionals and lay people can be taught reflexology. Foot reflexology is an avenue for human touch, can be performed anywhere, requires no special equipment, is noninvasive, and does not interfere with patients' privacy.

Many patients living with cancer experience anxiety, and 75% of patients with advanced cancer experience pain (U.S. Department of Health and Human Services, 1994). Patients must manage their anxiety and pain as chronic problems.

Patients with cancer often try alternative therapies (e.g., massage, reflexology, therapeutic touch, herbs, special diets) (Dossey, Keegan, Guzzetta, & Kolkmeier, 1995; Montbriand, 1994). However, patients often make these

Key Points . . .

- ▶ Foot reflexology is a form of foot massage that targets points on the foot believed to correspond to parts of the body.
- ▶ With an increased interest in complementary therapies, foot reflexology may appeal to oncology nurses because of the potential relaxation effects.
- ▶ Study findings indicate that foot reflexology has a possible positive effect on anxiety reduction. Effects on pain reduction are less clear.
- ▶ Nurses interested in using foot reflexology should undergo training and certification.

choices based on limited information about the efficacy of the therapies (Montbriand, 1995). Healthcare providers must conduct more research about these therapies if they are to help patients make wise choices about them (Montbriand, 1993).

Reflexology

Reflexology is a form of foot massage designed to harmonize bodily functions and thus have a healing and relaxing effect (Tappan, 1978). Reflexology is based on the premise that "there are reflex areas in the feet and hands that correspond to all of the glands, organs, and parts of the body" (Byers, 1983, p. 11). Reflexology has been used since ancient times to promote relaxation (Booth, 1994; Byers; Dobbs, 1985). In recent years, it has been used as

Nancy L.N. Stephenson, PhD, RN, CS, is an assistant professor in the School of Nursing at East Carolina University in Greenville, NC. Sally P. Weinrich, RN, PhD, FAAN, is a professor in the College of Nursing at the University of Louisville in Kentucky. Abbas S. Tavakoli, DrPH, is a statistician in the College of Nursing's Office of Research at the University of South Carolina in Columbia. (Submitted April 1999. Accepted for publication August 2, 1999.)