

# Practice Environments of Nurses Employed in Ambulatory Oncology Settings: Measure Refinement

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**T**he urgent need to improve the quality of cancer care coincides with a looming shortage of providers to deliver that health care. In 1999, the National Cancer Policy Board of the Institute of Medicine identified a “wide gulf” between the gold standard of cancer care and the quality of care delivered to many patients (Hewitt & Simone, 1999, p. 211), and gaps in quality of care persist today. An estimated 1.6 million new cases of invasive cancer will be diagnosed in 2012 (American Cancer Society, 2012). The National Cancer Institute estimated that the number of patients living with cancer will increase by 50% from 2005 to 2020 (Yabroff, Lawrence, Clauser, Davis, & Brown, 2004). The explosive growth in cancer care demand is coupled with only a meager increase in the number of oncology healthcare providers. The American Society of Clinical Oncology predicted a shortage of 2,550–4,080 medical oncologists by 2020 (Association of American Medical Colleges, 2007). Although not specific to oncology nursing, nurse workforce researchers predicted a shortage of 500,000 RNs by 2025 (Buerhaus, Auerbach, & Staiger, 2009).

The gaps in cancer care quality and the cancer workforce necessitate a remedy, and the Institute of Medicine (2009) convened a workshop to address those issues. Workshop attendees endorsed two related strategies to mitigate the shortage of providers and the potential impact on quality of care. The first was to encourage oncology providers, including nurses, to postpone retirement. Strongly related to that recommendation was to create favorable environments to practice clinical care. A favorable environment for clinical practice, defined as the characteristics of a healthcare organization that support the highest functioning of nurses, is likely to reduce turnover and premature retirement (Lake, 2007).

Nursing practice environments have received increased attention as a mechanism to improve care quality. From a conceptual perspective, nursing practice environments are features of settings where nurses are

**Purpose/Objectives:** To examine the reliability and validity of modified items from the Practice Environment Scale of the Nursing Work Index (PES-NWI) for use in the understudied ambulatory oncology setting.

**Design:** Cross-sectional mailed survey using a modified Dillman method.

**Setting:** Southeastern United States.

**Sample:** Population-based statewide sample of 1,339 oncology nurses who reported employment outside of hospital inpatient units.

**Methods:** After examining for nonresponse bias, confirmatory factor analysis using structural equation modeling and Cronbach coefficient alphas were employed to examine construct validity and internal consistency, respectively. After calculating revised subscale means for each nurse, the researchers used t tests to compare subscale means between nurses who reported their practice environment as favorable versus those who reported it as mixed or unfavorable.

**Main Research Variables:** Reliability and validity of items on the adapted version of the PES-NWI.

**Findings:** Despite a response rate of 31%, no differences in demographic characteristics were observed between the analytic sample and nonresponders. After reducing the number of items to 23, acceptable model fit was achieved with a comparative fit index of 0.95 and a root mean square error of approximation of 0.057. All five existing PES-NWI subscales, plus the new medical assistant support subscale, were significantly higher for nurses who reported favorable practice environments versus those who reported mixed or unfavorable environments.

**Conclusions:** A revised set of items derived from the PES-NWI has acceptable reliability and validity to measure the quality of nursing practice environments in ambulatory oncology settings. Medical assistant support is a new contribution to the item pool.

**Implications for Nursing:** Additional testing of this revised measure in diverse samples of nurses, including studies that correlate with patient outcomes, is a necessary next step.

employed that promote job satisfaction, quality of care, or patient safety (Lake, 2007). Organizational sociologists postulate that practice environments with professional,