Validating the Brief Pain Inventory for Use With Surgical Patients With Cancer

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Purpose/Objectives: To examine the psychometric characteristics of the Brief Pain Inventory (BPI) for surgical patients with cancer and to compare the validity and reliability results between surgical and medical patients with cancer.

Design: Descriptive and correlational.

Setting: Inpatient units in two veterans hospitals.

Sample: 388 patients with cancer (medical n = 229, surgical n = 159).

Methods: The BPI was administered to patients once, and a pain visual analog scale (VAS) was administered to patients three times. The VAS was correlated with individual items of the BPI and with the Pain Interference Subscale of the BPI; correlations were conducted separately for medical and surgical patients as a study of validity. Reliability was assessed using Cronbach's alpha for each group.

Main Research Variables: Pain at its worst and least, current pain intensity, average pain intensity, and pain relief.

Findings: Patients in both groups were predominantly male, older, and Caucasian. Means from both groups were similar for items on the BPI. Correlations between the Pain Interference Subscale and the other items on the BPI were similar for both groups. Correlations between the VAS and the Pain Interference Subscale of the BPI were equally high for the medical (r = 0.71, p < 0.01) and surgical (r = 0.73, p < 0.01) oncology groups. Reliability evaluated by the coefficient alpha was very high for the medical (r = 0.95) and surgical (r = 0.97) oncology groups.

Conclusions: The BPI is equally valid and reliable for medical and surgical male, Caucasian patients with cancer.

Implications for Nursing: Nurses working with patients with cancer can have confidence that the BPI will assist them in assessing and managing pain in both groups.

Key Points . . .

➤ Limited research has been conducted on the use of the Brief Pain Inventory (BPI) in surgical patients with cancer.

➤ The BPI is valid for use with surgical patients with cancer.

➤ The patterns of pain in surgical patients with cancer must be examined.

Pain is a common symptom faced by hospitalized patients. Several national and international institutions have taken positions on pain management. The American Pain Society developed Quality Assurance Standards for Relief of Acute Pain and Cancer Pain in Oncology Nursing Practice (Miaskowski & Donovan, 1992). The Oncology Nursing Society published a comprehensive position paper on pain management in 1990 (Spross, McGuire, & Schmitt, 1990a, 1990b, 1990c). The Agency for Health Care Policy and Research published guidelines for *Acute Pain Management* (1992) and *Management of Cancer Pain* (1994). Investigators have estimated that pain occurs in 38%–91% of hospitalized patients with cancer (Bonica, 1978; Brescia, Portenoy, Ryan, Krasnoff, & Gray, 1992; Daut & Cleeland, 1982; Donovan & Dillon, 1987; Foley, 1979; Rankin & Snider, 1984; Twycross & Fairchild, 1982). Several studies have confirmed that, in general,

postoperative patients continue to experience significant pain during their recovery period, including incisional pain (Melzack, Abbott, Zackon, Mulder, & Davis, 1987; Sriwantanakul et al., 1983; Tittle, Long, & McMillan, 1992).

Pain plays an important role in patients' responses to illness and overall sense of well-being. Pain control may be problematic for a variety of reasons, including the difficulties of objective assessment of this subjective symptom. Although physicians order analgesics, the drugs often are ordered as needed, leaving nurses to decide on the dose and schedule. This decision is usually dependent on nurses' perceptions of patients' pain. To provide appropriate pain management, accurate pain assessment is necessary. Research indicates that improving nurses' pain assessment will improve patients' pain management (Dobratz, Wade, Herbst, & Ryndes, 1991; Faries, Stephens, Goldsmith, Phillips, & Orr, 1991; McMillan, Williams, Chatfield, & Camp, 1988).

Nurses need reliable and valid instruments to use in pain assessment. These instruments must be easy to administer and easy for patients to understand, such as numeric and graphic rating scales. The Brief Pain Inventory (BPI) is a pain assessment instrument that has been used in a variety of populations; however, evidence of its validity and reliability specifically in