## Symptom Clusters Related to Treatment for Prostate Cancer

Sally L. Maliski, PhD, RN, Lorna Kwan, MPH, David Elashoff, PhD, and Mark S. Litwin, MD, MPH



This article has been chosen for a podcast conversation with Sally L. Maliski, PhD, RN. Maliski has studied the experiences of patients with prostate cancer and their spouses for more than 15 years. This important contribution to the scientific literature represents the only published exploration of symptom clusters among men treated for early-stage prostate cancer. To access the podcast, visit www.onsforum.org.

Purpose/Objectives: To identify symptom clusters that include urinary and erectile dysfunction among men treated for prostate cancer. Design: Secondary data analysis.

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**Sample:** Data collected on 402 men for a longitudinal prostate cancer quality-of-life study.

**Methods:** Data were collected from an eight-month time point. Four analytic approaches were applied to determine whether consistent clusters of symptoms were identifiable.

Main Research Variables: Pain, fatigue, emotional distress, and urinary, sexual, and bowel dysfunction.

**Findings:** Thirty-three percent of patients reported scores on three or more quality-of-life measures falling in the lowest quartile for that measure. Although composition of the clusters was not consistent, poor mental health or poor energy was a component of any cluster made up of three or more symptoms.

**Conclusions:** Using a four-way analytic approach enabled the authors to explore how symptom clusters measuring general and disease-specific quality of life occurred in patients who have been treated for prostate cancer. When clusters occur, fatigue and emotional distress often are included.

**Implications for Nursing:** Fatigue and emotional distress may be seen together or in combination with prostate cancer-specific symptoms. Nurses should be more alert to the possibility of additional treatment-related symptoms when fatigue or emotional distress is present.

**P**rostate cancer is the most common noncutaneous cancer afflicting men in the United States. The American Cancer Society (2008) estimated that 186,320 new cases will be diagnosed in 2008. Although individual symptoms related to prostate cancer treatment have been investigated, symptoms clusters have not been explored thoroughly. Urinary and erectile dysfunction are well-documented side effects of the major treatments for early-stage prostate cancer, but whether these symptoms cluster with others, such as increased emotional distress, fatigue, pain, or bowel dysfunction, is unclear. In addition, identifying clusters and variations

## Key Points . . .

- Fatigue and emotional distress figure prominently in prostate cancer treatment-related symptom clusters.
- Combining patient- and symptom-focused statistical techniques can yield more complete information about symptom clusters.
- Composition of symptom clusters varies by treatment type.

in clusters by treatment or other conditions may have major implications for interventions related to quality of life or management of symptom clusters.

Symptom cluster research has been done through several approaches (Barsevick, 2007a; Chen & Lin, 2007; Chow, Fan, Hadi, & Filipczak, 2007; Fox & Lyon, 2007; Fox, Lyon, & Farace, 2007; Ryan et al., 2007), but which one yields the most useful results or which would be more suitable for exploring symptom clusters remains unclear (Barsevick, 2007b; Fox & Lyon). Some approaches group together symptoms that occur most frequently (symptom-based) and others group patients together based on their likelihood of having certain symptoms (patient-based). The purpose of this article

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