

# Symptom Experiences Among Individuals With Prostate Cancer and Their Partners: Influence of Sociodemographic and Cancer Characteristics

Shenmeng Xu, PhD, Xianming Tan, PhD, Peiran Guo, MS, Chunxuan Ma, MS, Katrina R. Ellis, PhD, MPH, MSW, Angela B. Smith, MD, MS, FACS, Laurel Northouse, PhD, RN, and Lixin Song, PhD, RN, FAAN

**OBJECTIVES:** To determine if subgroups of individuals with prostate cancer and their partners could be identified based on their distinct symptom profiles and to identify and characterize subgroups based on sociodemographic and cancer characteristics.

**SAMPLE & SETTING:** 263 individuals with prostate cancer and 263 partners recruited from three academic cancer centers in the Midwest.

**METHODS & VARIABLES:** Latent class analysis was applied to divide individuals into subgroups based on symptom prevalence. Multinomial logistic regression models were used to estimate the prevalence of each symptom, predict subgroup membership, and adjust for direct or indirect effects of covariates on the symptoms.

**RESULTS:** Three distinct subgroups (low, moderate, and high symptoms) were identified among individuals with prostate cancer and partners, respectively. Education and household income of individuals with prostate cancer were associated with different symptom burdens. Partners' household income differentiated among the subgroups.

**IMPLICATIONS FOR NURSING:** Understanding the influence of sociodemographic and cancer characteristics can inform risk stratification and tailored symptom management interventions.

**KEYWORDS** prostate cancer; symptom cluster research; cancer caregivers; latent class analysis  
*ONF*, 50(2), 230–240.

**DOI** 10.1188/23.ONF.230-240

Individuals with cancer experience various physical and psychological symptoms, including pain, fatigue, sleep disturbance, depression, and symptoms specific to their cancers and treatments (e.g., urinary and erectile dysfunction) (Miaskowski et al., 2006; Sullivan et al., 2018). Symptoms can occur as a result of the disease, the treatment for it, or interactions among the disease, treatment, and patients' comorbidities (Maliski et al., 2008; Miaskowski et al., 2015). Unrelieved symptoms can have negative effects on the quality of life (QOL) of individuals with cancer (Dodd et al., 2010; Miaskowski et al., 2006, 2007).

Partners of individuals with cancer play an integral role in helping them manage the effects of treatment while also supporting their physical and emotional needs. The symptoms and related experiences of individuals with cancer affect their partners' health, causing partners to experience symptoms such as anxiety, sleep disturbance, fatigue, and pain (Carney et al., 2011; El-Jawahri et al., 2017; Fletcher et al., 2008, 2009; Jadalla et al., 2020). These symptoms of partners—coupled with their existing health problems, comorbidities, competing demands, and life stresses—may lead to deterioration in the partners' QOL (Ellis et al., 2021; Lapid et al., 2016).

Symptom cluster research has provided a scientific basis to understand co-occurring symptoms and the symptom profiles of individuals with cancer. Within this broad area of research, two major approaches have been adopted—that is, a symptom-centered approach to identify symptom clusters of co-occurring symptoms and a person-centered approach, which the authors used in this study, to characterize subgroups of individuals based on their experiences with