Symptom Clusters in Patients With Pancreatic Cancer Undergoing Surgical Resection: Part I

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About 55,440 new cases of pancreatic cancer (PC) will be diagnosed in the United States in 2018 (Siegel, Miller, & Jemal, 2018). The five-year survival rate for all stages of PC in the United States has improved from 6% in 2013 to 8% in 2018 (Siegel et al., 2018; Siegel, Naishadham, & Jemal, 2013), and improved survival rates have made concerns about managing symptoms increasingly important. Some common concerns among patients with PC undergoing surgical resection include fatigue, pain, weakness, anxiety, depression, weight loss, insomnia, gastrointestinal disturbances, and symptoms of diabetes (Huang et al., 2000; Scheingraber, Scheingraber, Brauckhoff, & Dralle, 2005; Yeo et al., 2012). Evidence suggests that patients with cancer do not experience symptoms in isolation, but rather as multiple, concurrent symptoms or symptom clusters (SCs). Although the presence of SCs has been documented in many cancer types, little is known about SCs in patients with or without surgically resected PC.

SCs are defined as the simultaneous presence of two or more symptoms, which may or may not share etiology and are more strongly related to one another than other symptoms (Dodd, Miaskowski, & Lee, 2004; Kim, McGuire, Tulman, & Barsevick, 2005). SCs have been identified in individuals with lung (Franceschini, Jardim, Fernandes, Jamnik, & Santoro, 2013), ovarian (Huang et al., 2016), prostate (Dirksen, Belyea, Wong, & Epstein, 2016), and breast cancers (Starkweather et al., 2013) and are associated with decreased functional status (Kim, Barsevick, Beck, & Dudley, 2012), poor quality of life (QOL) (Franceschini et al., 2013), and reduced survival (Wikman, Johar, & Lagergren, 2014). Given the negative impact that SCs have on clinical outcomes, identifying and creating a classification of SCs and developing interventions to manage SCs have...