Psychological and Physical Interventions for the Management of Cancer-Related Pain in Pediatric and Young Adult Patients: An Integrative Review

Lindsay A. Jibb, RN, MSc, Paul C. Nathan, MD, MSc, Bonnie J. Stevens, RN, PhD, Emily Seto, PEng, PhD, Joseph A. Cafazzo, PEng, PhD, Nisha Stephens, RN, BScN, Liza Yohannes, and Jennifer N. Stinson, RN, PhD

Pain is one of the most distressing symptoms for children and young adults with cancer (Hedén, Pöder, von Essen, & Ljungman, 2013; Olson & Amari, 2015). Studies show that 49%–62% of children and young adults with cancer experience pain, often prolonged, during the course of their treatment (Baggott et al., 2010; Varni, Burwinkle, & Katz, 2004). Pain negatively affects a young person’s quality of life (Bhat et al., 2005; Sung et al., 2009; Varni et al., 2004), impedes cancer recovery (Shepherd, Woodgate, & Sawatzky, 2010), results in patient and family distress (Hedén et al., 2013; Miller, Jacob, & Hockenberry, 2011; Walker, Gedaly-Duff, Maurer, Askowski, & Nail, 2010), and is associated with long-term morbidity (Chordas et al., 2013; Lu et al., 2011). Pain related to cancer also represents a significant cost burden to the healthcare system and families (Abernethy, Samsa, & Matchar, 2003), with pain being the most common reason adult patients with cancer use emergency health services (Barbera, Taylor, & Dudgeon, 2010; Kuo, Saokaew, & Stenehjem, 2013; Tsai, Liu, Tang, Chen, & Chen, 2009; Walker et al., 2010). Despite this knowledge, the management of pain in pediatric and young adult patients with cancer has not kept pace with advancements in treatment protocols (Woodgate, 2008). Several reasons have been proposed to explain why this pain is undermanaged, including (a) misconceptions about analgesic use and pain expression, (b) concern about undesirable diagnostic tests in the case of pain, (c) concern about opioid addiction, and (d) patient temperament and reported quality of life (Ameringer, 2010; Fortier et al., 2012; Fortier, Wahi, Bruce, Maurer, & Stevenson, 2014).

The causes of pain in pediatric and young adult patients with cancer are diverse, likely also contributing to difficulties in its management. Cancer pain may result from the disease itself or from the many associated in-