Pediatric Oncology: The Use of Cluster Analysis to Examine Maternal Concerns

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In Taiwan, the five-year survival rate for children who have cancer is greater than 60%; however, cancer still is the second-leading cause of death among children (Executive Yuan, Taiwan, 2007). In the process of confronting the life-threatening diagnosis of cancer, the entire family, especially the mother, experiences many types of stress, such as persistent uncertainty, long-lasting distress about the future health of the child, the possibility that the cancer could return, and the potential for the child to die (Boman, Lindahl, & Bjork, 2003; Norberg & Boman, 2008; Patino-Fernandez et al., 2008). Mothers have expressed guilt for not taking proper care of their other children (Rajajee, Ezhlarasi, & Indumathi, 2007). Mothers of children with cancer have been reported to perceive more distress than fathers (Sloper, 2000; Stewart & Mishel, 2000).

Other studies have reported similar findings, suggesting that uncertainty and distress pervade parents’ experiences, not only when a child is diagnosed with cancer, but during treatment, after the completion of treatment, and at relapse (Clarke, 2006; Dolgin et al., 2007; Norberg & Boman, 2008). Additionally, De Graves and Aranda (2008) conducted an ethnographic study of 12 families of children whose cancer had relapsed; parents experienced more distress and greater uncertainty than at the time of diagnosis. The study also reported that families fluctuated between two states of reality: hoping for a cure and contemplating death.

Parental uncertainty has been identified as a particularly important construct in parents’ experience of childhood cancers (Santacroce, 2003). Mishel (1983, 1988), a pioneer in this area of study, and Santacroce (2003) further characterized parental uncertainty as ambiguity about the illness state, lack of information about the illness, complexity of the information, and unpredictability. Long-term uncertainty has been associated with parents’ reduced ability to perform their parental roles and deterioration in their quality of life (QOL) (Wong & Chan, 2006; Rabineau, Mabe, & Vega, 2008; Yamazaki, Sokejima, Mizoue, Eboshida, & Fukuhara, 2005; Young, Dixon-Woods, Findlay, & Heney, 2002).

Several studies have compared the distress of parents whose children have cancer to that of parents whose...