

## Evolution of the Dynamic Symptoms Model

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This article will describe the evolution of the Ideal Symptoms Model, herein called the Dynamic Symptoms Model, and its use to model cancer-related symptoms since its initial publication in 2010. Discussion led to changes within the model to better describe the symptoms experience, its antecedents and consequences, and how interventions affect symptoms. Clinicians and symptom scientists can use the Dynamic Symptoms Model to visualize symptom influences and relationships with other variables over time and to formulate research questions and analytic plans.

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Theories and conceptual models can be thought of as broad nets that attempt to rationalize, explain, and master a phenomenon within clinical nursing and interdisciplinary care. They can be used to guide a review of the literature and to formulate and organize research variables and relationships. Gaps in the literature can be identified and opportunities for additional research revealed (Fawcett, 2005). A variety of symptom models or theories exist, including the Theory of Symptom Management (Dodd et al., 2001), Theory of Unpleasant Symptoms (Lenz, Pugh, Milligan, Gift, & Suppe, 1997), Symptoms Experience Model (Armstrong, 2003), and Symptom Experiences in Time Theory (Henly, Kallas, Klatt, & Swenson, 2003). Most recently, the National Institute of Nursing Research identified a new National Institutes of Health Symptom Science Model to guide symptom science research (Cashion & Grady, 2015).

Brant, Beck, and Miaskowski (2010) compared and contrasted these symptom models and proposed a new Ideal Symptoms Model, herein called the Dynamic Symptoms Model, that could address the complex nature of symptoms, co-occurring symptoms and symptom interactions, and the longitudinal trajectories of symptoms that change over time. Since that initial publication, the authors and other nurse scientists have used the model to conceptualize symp-

toms and to study the relationships between antecedents, the symptoms experience, nursing interventions that influence the symptoms experience, and the consequences of deleterious symptoms. In addition, Brant has met with nursing doctoral students, symptom scientists, and interdisciplinary team members to discuss the model, refine components of the model, and clarify concepts and relationships within the model. Current literature and the evolution of symptom science have led to changes within the model. The purpose of this article is to discuss the most recent use of the model in oncology research and to further explicate various components within the model.

### Use of the Dynamic Symptoms Model

This model has received significant attention during the past six years by oncology nurse scientists and doctoral students who need a conceptual model or theory that incorporates changes in the symptoms experience over time. To the authors' knowledge, the model has been cited 34 times, 14 of which were specific to the cancer symptoms experience. The most common use of the model was to inform conceptualization of symptom trajectories (Brant et al., 2011; Henly, Wyman, & Findorff, 2011; Keller, 2015; Pan et al., 2012) or patterns (Haisfield-Wolfe,