An Integrative Review of Symptom Clusters Based on the Dynamic Symptom Model

NaLyn KIM1, Dohyung KIM2, Jungsu SUNG3, Kyungmi HAN1, Yegi HEO1, Eun Kyeueong SONG1

1 Ulsan University Hospital; 2 Ulsan City Hospital; 3 University of Ulsan, College of Medicine, Department of Nursing

Background

Patients experience a variety of symptoms which are inter-related and may increase the severity or intensity of each symptom. Models of theories regarding symptoms have been introduced and developed over time from Theory of Unpleasing Symptoms as middle range theory (1997) to the Dynamic Symptom Model (2010). The Dynamic Symptom Model consists of the symptoms experience, its antecedents and consequences, and how interventions affect symptoms, which could present comprehensive view about symptom clusters. As for the Dynamic Symptom Model, it should address the complex nature of symptoms, co-occurring symptoms and symptom interactions, and the longitudinal trajectories of symptoms that change over time.

However, it has been limited to comprehensive review for the studies regarding symptom clusters, conducted over the elders. Moreover, there is currently no theory-based intervention for symptom clusters or integrative review of symptom clusters especially in Korea.

Methods

Study Design & Subjects

This was an integrative review for symptom clusters. The research was conducted to identify relevant articles published before 31 March 2010.

Data Collection & Analysis

The following electronic databases were used: Korean Medical Database (KMedia), Research Information Sharing Service (RISD) and Korean Studies Information Service System (KISS) database. Key search terms included “symptoms,” “cluster,” “group,” or cluster analysis. We independently screened publications using the following inclusion criteria: 1) reporting symptom clusters in Korea, 2) peer-reviewed, and 3) published in Korea.

Following screening, we extracted data characteristics from each study: study design, sample characteristics, assessment methods of symptom, analytic methods and main findings. Finally, the symptom dimension concept proposed by the Dynamic Symptom Model was used in framing our first aim in this integrative review.

Results

Symptom Clusters Guided by the Dynamic Symptom Model

Among patients in all studies, commonly experienced symptom clusters were in order: pain, emotional distress (anxiety, depression, or mood fluctuation), and gastrointestinal symptoms.

Most studies investigated which antecedents were related to the symptom clusters and which clusters influenced the consequences. In terms of symptom experience, characteristics were varied in each study. The outcomes of symptom clusters varied between 72 and 1442.

Conclusions

Through this integrative review, no studies regarding symptom clusters could explain comprehensively. Therefore, symptom clusters have great potential to become a crucial field of study.

Additional longitudinal studies are required to assess symptom trajectories, rather than each specific symptom, based on the Dynamic Symptom Model. Furthermore, theory-based intervention studies are needed to develop specific strategies to manage symptom clusters and to examine the effects of those interventions on symptom clusters.

In turn, a theory or a model would be applied to guide clinical practice for relieving a variety of symptoms and better quality of life.

Table 1. Chronological view of studies reporting symptom clusters guided by the Dynamic Symptom Model

Table 2. Additional studies of symptom clusters guided by the Dynamic Symptom Model

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