



Commentary

Nurse-guided, non-pharmacological, multi-component symptom cluster management intervention: A good attempt at exploring effective symptom cluster relief strategies for lung cancer



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We read with great interest the article written by Khamboon et al., which compared the effectiveness of the symptom cluster management intervention based on the Symptom Management Theory (SMT) with that of usual care for relieving clustered symptoms involving fatigue, loss of appetite, and anxiety in lung cancer patients undergoing chemotherapy.¹

Oncology patients continue to experience a high burden of symptoms due to the rise in the prevalence of new cancer cases and mortality rates globally.² Between 10 and 14.5 symptoms are reported concurrently by chemotherapy patients.³ Additionally significant are the adverse effects that co-occurring symptoms and/or symptom clusters have on distress levels, functional status, quality of life (QoL), and mortality, which are experienced by 50% of oncology patients.² The idea of a symptom cluster was initially introduced to the field of oncology symptom science by Dodd and colleagues in 2001. Since then, research on symptom clusters has grown significantly. Although the definition of a symptom cluster has evolved over time, most recently, it is defined as the co-occurrence of two or more symptoms that are persistent, independent of other clusters, and may share mechanisms and/or outcomes.⁴

In the article “Intervention for Symptom Cluster Management of Fatigue, Loss of Appetite, and Anxiety among Patients with Lung Cancer undergoing Chemotherapy”, a four-session intervention based on the SMT⁵ was developed, including (1) symptom experience, (2) symptom cluster management strategies, (3) patient check-in, and (4) outcome evaluation. The specially trained nurse researcher at the outpatient chemotherapy unit assessed each participant's symptom experience, corrected any misunderstandings they had about the symptom cluster, discussed the misconceptions, and helped them to adjust the perception of their symptom experience. The nurse then gave the participant the information booklet with evidence-based guidance on physiological, behavioral, and psychological strategies for symptom cluster management.¹

The article has a number of strengths and serves as preliminary evidence that the symptom cluster management intervention might be a promising approach for the simultaneous treatment of multiple symptoms within a cluster in lung cancer patients.

1. Intervention protocol provided in detail

The authors gave a detailed account of the components and procedure of the symptom cluster management intervention and how it was implemented in the hospital setting, informing future trials of this kind.

2. Advanced-stage patients included

Different from most trials that excluded advanced lung cancer patients, 95.00% of the participants in this study had advanced-stage cancer (IV).¹ It is worthwhile for the authors to have worked on improving the QoL of patients with advanced cancer.

3. Intervention program customized for each participant

Few previous intervention studies obtained the feedback of patients during the intervention, the researchers in this study solicited feedback from the participants through a qualitative study and adjusted the format or content of the intervention in accordance with participants' needs, goals, beliefs, and preferences, resulting in a program tailored to each participant. This helped increase the feasibility and acceptability of program and decrease retention.⁶

4. Emotional support made available

Using follow-up telephone calls, the nurse implementing the intervention program in this study identified the patient's concerns and

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provided emotional support, which contributed to high retention and patient adherence.

5. Nurse-guided, non-pharmacological, multi-component approach used

To manage the symptom clusters, this study employed a nurse-guided, non-pharmacological, multi-component approach in which the specially trained nurse provided evidence-based instructions on physiological, behavioral, and psychological strategies for symptom cluster management, including appropriate exercises, dietary behavioral change, and relaxation and distraction techniques.¹ Previous research suggested that patients and their caregivers expressed a preference for non-pharmacological interventions that were tailored to their beliefs and preferences, pertinent to their particular needs, integrated into their daily routines, delivered at a time when symptoms were problematic, and potentially immediately beneficial.⁷ This study provides further evidence that lung cancer patients can benefit from such a non-pharmacological program for relief of symptom clusters.

However, there still remain some issues that warrant further consideration in subsequent research.

1. Measurement of symptom clusters matters

In this study, the study outcome was assessed using the Edmonton Symptom Assessment System (ESAS)⁸ which measured the severity of the symptom clusters. However, in other studies, the Memorial Symptom Assessment Scale (MSAS)⁹ was used to assess the occurrence, severity, and distress of symptoms associated with cancer and its treatment. Would the choice of measurement scales result in the difference in symptom clusters? Of concern is whether the number and types of symptom clusters that are identified are affected by the symptom dimension (ie., occurrence, severity, and distress).² Determining which clusters are common and distinctive in a specific type of cancer is also something warrants further investigation.¹⁰ The answers to these questions will direct symptom cluster assessment in clinical settings and guide mechanism-based research.

2. Relationships among clustered symptoms unclear

Williams revealed three different ways in which clustered symptoms may relate as follows: (1) through a shared underlying etiology, (2) through a single “trigger” symptom that prompts the development or exacerbation of other symptoms, and (3) through side effects of symptom treatments that cause other symptoms.¹¹ Coordinating treatment strategies to best manage the symptom cluster might be impacted by the nature of the relationships among clustered symptoms. Thus, the clarification of the relationships among clustered symptoms may be necessary for mechanism-based research and improved intervention outcomes.

3. Long-term effect of intervention unknown

The researchers of this study were interested in the short-term effect of the symptom cluster management intervention, so they only followed

up to Day 28 post-intervention. Further studies with larger sample sizes, randomization of participants, and multiple study sites are needed to determine its long-term effect.

4. More objective data of the participant's condition needed

In this study, the participants' demographic data (age, gender, stages of cancer, and chemotherapy regimens) were matched. However, the researchers did not collect such objective data as Data on Karnofsky, Eastern Cooperative Oncology Group scores, change in body weight, and chemical blood tests, the differences in which could have influenced the study results. This limitation can also be addressed in future research.

5. A qualitative study of the participant's diary helps

In this study, the participants were asked to record their activities and symptom experience in the diary. Apart from assessing the participants' symptom cluster using the ESAS, a content analysis of their symptom experience based on the diary they kept may well supplement the findings of this study.

All in all, the study by Khamboon et al. is a good attempt at exploring effective symptom cluster management strategies for advanced symptomatic cancer patients and can inform future studies of this kind.

Declaration of competing interest

None declared.

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