

## KTI 9. PSYCHOEDUCATIONAL INTERVENTIONS

### WHAT ARE PSYCHOEDUCATIONAL INTERVENTIONS?

#### PSYCHOEDUCATIONAL INTERVENTION DESCRIPTION

- A therapeutic approach for patients that involves:
  - Information giving and receiving
  - Discussion of concerns
  - Problem solving
  - Coping skills training
  - Expression of emotion
  - Social support.
- 5 categories of the intervention:
  1. Counseling/psychotherapy
  2. Behavior therapy
  3. Education/information
  4. Social support
  5. Other (any usual therapies of a psychosocial nature not mentioned in previous categories such as music therapy).
- Delivery of the intervention was done in individual and group format.

#### PSYCHOEDUCATIONAL INTERVENTION GOAL(S)

- Prepare patients with adequate knowledge and skills to perform self-care practices and to have the confidence and motivation to initiate and sustain self-care efforts.

#### CURRENT FINDINGS FROM THE EVIDENCE

- Encouraging but inconclusive results to indicate that there is a positive effect in alleviating cancer symptom clusters.

#### POINTS TO KEEP IN MIND

- This review focused on the effectiveness of psychoeducational interventions on treating cluster symptoms.
  - Cluster symptoms are defined as 3 or more concurrent symptoms related to each other and for a stable group of symptoms to manage.

### SYSTEMATIC REVIEW OF THE EVIDENCE FOR PSYCHOEDUCATIONAL INTERVENTIONS

Source: Xiao W, Chow KM, So WK, Leung DY, Chan CW. The effectiveness of psychoeducational intervention on managing symptom clusters in patients with cancer: A systematic review of randomized controlled trials. *Cancer nursing*. 2016 Jul 1;39(4):279-91.

#### EVIDENCE FROM THE SYSTEMATIC REVIEW

##### Description of Psychoeducational Interventions

This review evaluated the use of psychoeducational interventions on cancer symptom clusters and therefore, interventions were selected based on the cluster symptoms that they were trying to address.

	<p>All 4 studies had behavior therapy as one of their psychoeducational interventions components.</p> <p>Interventions included in each study:</p> <ul style="list-style-type: none"> <li>• Study 1: Behaviour therapy (relaxation, imagery, and distraction exercises).</li> <li>• Study 2: combined behavior therapy, (progressive muscle relaxation), and education/information.</li> <li>• Study 3: combined behavior therapy and social support (mindfulness-based stress reduction program).</li> <li>• Study 4: exercise-based multimodal intervention combined with behavior therapy (progressive muscle relaxation) and psychoeducation.</li> </ul>
Setting	<p><u>Healthcare settings:</u> Hospital (outpatient)</p> <p><u>Healthcare topic:</u> cancer (lung, breast, various cancers), allogeneic hematopoietic stem cell transplantation patients (78% had cancer)</p> <p><u>Study location:</u> USA (n=2), Denmark (n=1), Hong Kong (n=1)</p>
Intervention Deliverer	Adult cancer patients
Intervention Recipient	Nurses, clinical psychologists
Quality of the systematic review	AMSTAR 8/10 by McMaster Health Forum
Quality of studies included in systematic review	Moderate quality studies (n=4)
<b>OUTCOMES FROM SYSTEMATIC REVIEW</b>	
Comparisons:	<ol style="list-style-type: none"> <li>1. Psychoeducational interventions vs usual care</li> <li>2. Psychoeducational interventions vs usual care plus physiotherapy</li> </ol>
Patient clinical outcomes:	<p>3 studies had statistically significant improvement in symptom clusters for the intervention groups (nurse led interventions, two with usual care and 1 with usual care plus physiotherapy).</p> <ul style="list-style-type: none"> <li>• Improved symptom clusters were: <ul style="list-style-type: none"> <li>○ Breathlessness, fatigue, and anxiety (P = .003)</li> <li>○ Pain, fatigue, and sleep disturbance (P = .032)</li> <li>○ Gastrointestinal cluster (nausea, vomiting, stomach pain, loss of appetite, and diarrhea) (P = .017)</li> <li>○ Cognitive cluster (diminished concentration, memory problems, and fatigue) (P = .002)</li> <li>○ Functional cluster (muscle aches and joint aches) (P = .009)</li> <li>○ Mucositis cluster (mouth pain, throat pain, and difficulty swallowing) (P = .019).</li> </ul> </li> <li>• 1 study had a significant reduction in symptom severity for 4 of 5 symptom clusters,</li> </ul>

	<ul style="list-style-type: none"> <li>○ Exception was the affective symptom clusters including nervousness, anxiety, and stress.</li> </ul> <p>Meta-analysis – the pooled results of 2 studies revealed a statistically significant improvement in the symptom interference with daily living for the intervention group with a mean difference of +0.65%.</p> <p>Evidence is not conclusive:</p> <ol style="list-style-type: none"> <li>1. Because of the paucity of relevant studies, the sample size of the review was small, which prevented any definitive conclusions.</li> <li>2. The heterogeneity of symptom clusters examined in the included studies precluded a meta-analysis.</li> </ol>
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## OPERATIONALIZATION OF PSYCHOEDUCATIONAL INTERVENTIONS

No information was provided in the review.

## STUDY EXAMPLE OF PSYCHOEDUCATIONAL INTERVENTIONS FROM THE SYSTEMATIC REVIEW

Source: Kwekkeboom KL, Abbott-Anderson K, Cherwin C, Roiland R, Serlin RC, Ward SE. Pilot randomized controlled trial of a patient-controlled cognitive-behavioral intervention for the pain, fatigue, and sleep disturbance symptom cluster in cancer. *Journal of pain and symptom management*. 2012 Dec 1;44(6):810-22.

STUDY INFORMATION	
Goals of Intervention	To reduce pain, fatigue, and sleep disturbance symptom cluster by using a patient-controlled cognitive-behavioral (CB) intervention.
Description of Intervention	<p>The patient-controlled CB intervention involved the following elements.</p> <p>A one-on-one training session for patients</p> <ul style="list-style-type: none"> <li>• Sessions were audio recorded</li> <li>• Intervention fidelity was assessed with a checklist.</li> <li>• Learning components included:               <ol style="list-style-type: none"> <li>1) Information about the causes of pain, fatigue, and sleep disturbance during treatment for advanced cancer,</li> <li>2) Rationale for how the CB strategies were expected to have an effect on symptoms,</li> <li>3) Overview of the 12 CB strategies offered for the study, and</li> <li>4) Individualized recommendations for practice based on the patient’s usual symptom patterns and preferences for CB strategies.</li> </ol> </li> <li>• Patients were encouraged to use the CB strategies as often as desired but at least once per day.</li> <li>• An educational booklet was given to the participant and used to</li> </ul>

	<p>guide the training.</p> <p>12 CB strategies were presented in four categories with three strategies for each category:</p> <ol style="list-style-type: none"> <li>1) Symptom-focused imagery <ol style="list-style-type: none"> <li>a) Pain-focused imagery, in which patients imagined draining pain from the body and using a special glove to change any remaining pain to a more pleasant sensation</li> <li>b) Fatigue-focused imagery, in which patients imagined circulating a ball of healing energy throughout their bodies</li> <li>c) Sleep-focused imagery, in which patients imagined floating through the night sky into a peaceful sleep</li> </ol> </li> <li>2) Nature focused imagery <ol style="list-style-type: none"> <li>a) Beach imagery</li> <li>b) Mountain imagery</li> <li>c) Meadow imagery.</li> </ol> </li> <li>3) Relaxation exercises <ol style="list-style-type: none"> <li>a) Progressive muscle relaxation</li> <li>b) Jaw relaxation</li> <li>c) Focused breathing relaxation</li> </ol> </li> <li>4) Nature sounds <ol style="list-style-type: none"> <li>a) Rainstorm sounds</li> <li>b) Sounds of surf and waves</li> <li>c) Forest sounds</li> </ol> </li> </ol> <p>Scripts for all the imagery and relaxation exercises were developed for this line of research and recorded in the same female voice. Some of the exercises were brief (e.g., jaw relaxation was four minutes), but most were approximately 20 minutes long. The recordings did not include any musical background. Recordings were loaded on an MP3 player (Sony Walkman) provided to participants for the length of the study. All participants were provided with their choice of earbud or over-the-ear-style headphones. The research nurse demonstrated how to use the MP3 player. Written instructions were provided in the patient education booklet and duplicated on a small laminated card carried in a case with the MP3 player. Study participants were given an opportunity to practice and then were asked to provide a return demonstration by locating, playing, and adjusting the volume of a selected recording.</p>
Setting	Hospital
Intervention Deliverer	Research nurse
Intervention Recipient	Patients (advanced cancer)
Quality of the Study	High quality
<b>STUDY OUTCOMES</b>	
Comparison	1. Teaching of cognitive behaviour therapy vs. no intervention

<p>Health Care Provider Process Outcomes</p>	<p>Findings suggest that the CB intervention may be an efficacious approach to treating the pain, fatigue, and sleep disturbance symptom cluster.</p> <p>It was found that the symptom cluster scores at the end of the treatment period were lower in persons that had been in the patient controlled-CB intervention group:</p> <ul style="list-style-type: none"><li>• Symptom cluster for the intervention group had an adjusted mean of 2.99 compared to the control of 3.87.</li><li>• Persons in the intervention group reported less pain severity with an adjusted mean of 1.99 compared to the control group that had 3.23</li><li>• The intervention group reported less fatigue with an adjusted mean of 3.43 compared to the control group of 4.31</li><li>• Sleep disturbance results did not have a statistically significant difference between groups.</li></ul>
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