

Improving the Patient Experience: Symptom Management

*Barbara Fitzgerald, RN, MScN
Director of Nursing
Princess Margaret Hospital*



Objectives

- Describe a Symptom Management Conceptual Model (Dodd et al., 2001)
- Present definitions of “symptom clusters”
- Provide a review (early exploration) of the prevalence and impact of multiple symptoms
- Describe considerations in symptom clusters research
- Provide information about algorithms/decision trees to guide cancer symptom assessment and management

Case Presentation



Status: 38 year old woman diagnosed 2 years ago with Locally Advanced Breast Cancer (Stage IIIB), ER/PR +, Her2Neu negative. Newly diagnosed with new bone metastases 6 months ago.

Treatment: received chemotherapy x 6months, bilateral mastectomy, radiation, Tamoxifen daily. Now receiving Anastrozole.

Psychosocial:

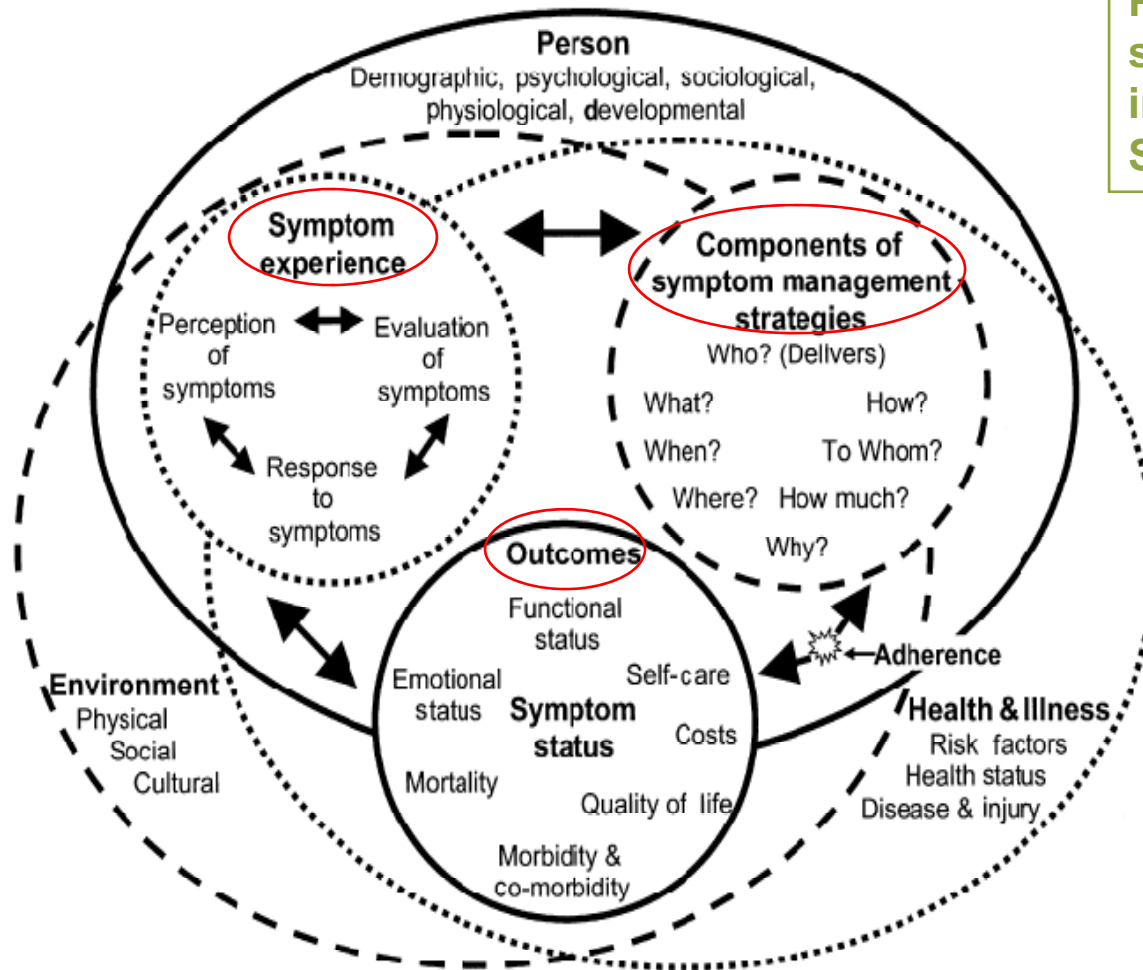
Married with 2 children (10 and 12), extended family includes 1 sister and 4 brothers. Parents deceased. Some education, And works as a nurse's aide, she is the main money earner. History of anxiety/depression. Current coping strategies:information seeking, emotion focused strategies including sadness and anxiety, increased smoking. Journaling, relaxation imagery.

Other: struggles with transportation to treatment, limited funds to access medications for cancer and for pain, family is "suffering" as mother suffers.

On review: Jan looks well, performance status is quite good 80%. Most distressing is bone pain. Jan rates her pain at most severe it's 6 (on a scale of 1-10) and 2 at its best. It is present most of the day, increases with activity. Scans show progression in her bones and new lesions in the liver.

Symptom Management Conceptual Model

Provides direction for selecting clinical interventions or management Strategies.



(Dodd, et al., 2001)

Symptom Management Model



All three dimensions are interrelated and must be considered:

The **symptom experience** (ie. pain) includes the person's perception of the symptom, evaluation of meaning, and response to the symptom.

Management strategies may be targeted at the individual, a group, a family or work environment. Strategies are dynamic and modified by individual outcomes and the influences of the person, health/illness or environmental spheres.

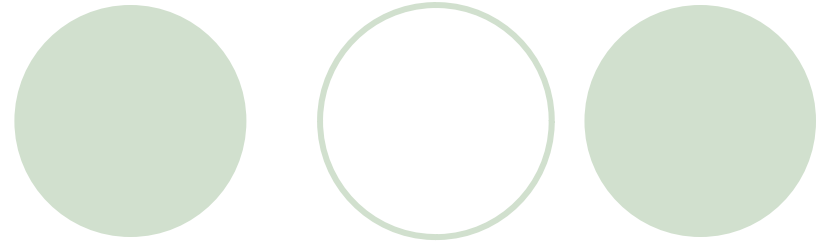
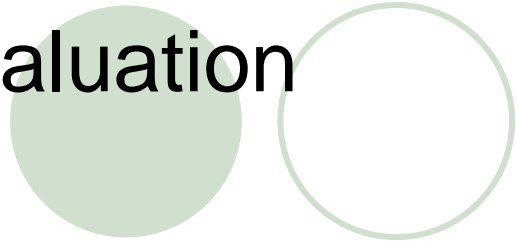
Outcomes are multidimensional (ie. functional status, quality of life) and may be related to each other as well as to symptom status. The duration of symptom evaluation ultimately depends upon the response to treatment.

Symptom Management Model: Assumptions



- That the gold standard for the study of symptoms is based on the patient's self-report.
- The individual may be at risk for the development of the symptom and intervention strategies may be initiated before an individual experiences the symptom.
- That nonverbal patients may experience symptoms and the interpretation by the parent or caregiver is assumed to be accurate for purposes of intervening.
- That management strategy may be targeted at the individual, a group, a family, or the work environment.
- That symptom management is a dynamic process.

Evaluation



- Evaluation of symptoms entails a complex set of factors that characterize the symptom experience, including its intensity, location, temporal nature, frequency and affective impact.

Symptom Experience



- Self-report of symptoms is considered the gold standard for measuring symptoms.
- A second issue related to the symptom experience is the difficulty in separating the patients' perceptions of a symptom from the patients' evaluations of it. A person can perceive pain simply by recognizing the sensations, whereas evaluation involves a higher cognitive process of attaching meaning to the symptom.

Symptom Management



- Symptom management is a dynamic process, often requiring changes in strategies over time or in response to acceptance or lack of acceptance of the strategies devised.
- Adherence and intervention integrity present a potentially more challenging issue. Intervention strategies that are too demanding are associated with increased risk for nonadherence.

Outcomes



Outcomes emerge from symptom management strategies as well as from the symptom experience.

Model – Other Issues



- Clinical experience suggests that cancer and its treatment are marked by the occurrence of multiple symptoms.
- Patients with cancer can undergo a variety of cancer treatments either singly or in combination.
- Although these treatments improve survival, they can produce a variety of symptoms simultaneously.
- When these symptoms are not managed effectively, they can cause interruptions or cessation of cancer treatments, can have a negative impact on patients' functional status, mood, and quality of life (QOL).

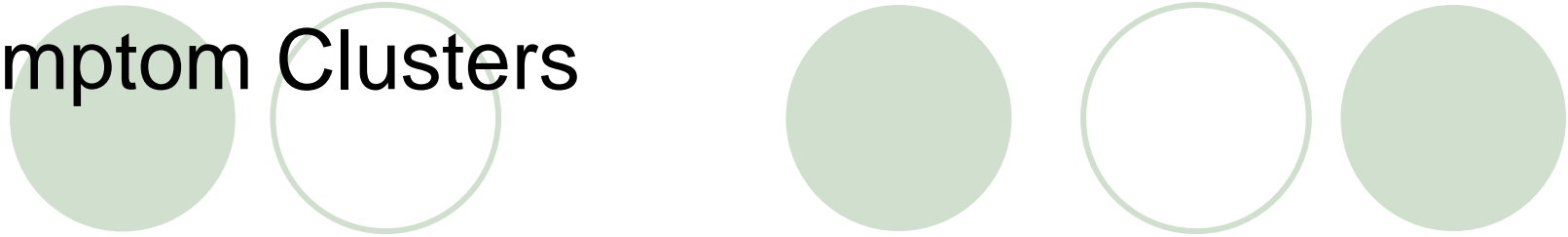
Case Presentation



An oncology outpatient with metastatic bone pain may report that his **pain** causes **sleep disruption**, which results in daytime **fatigue**. This daytime fatigue leads to increased **sleep disruption** because of frequent late afternoon naps.

Both the sleep disruption and the fatigue result in increased pain and **depression**. The co-occurrence of these multiple symptoms creates a vicious cycle of ongoing and unrelieved symptoms.

Symptom Clusters



- Dodd et al. defined a symptom cluster as three or more concurrent symptoms that are related to each other but are not required to share the same etiology.

(Dodd, et al. 2001).

Symptom Clusters - Directions



- The synergistic effect of symptoms that constitute a symptom cluster remains to be determined in future research.
- In a cluster of symptoms, the temporal pattern or which of the symptoms usually occurs first, followed by other symptoms will need to be determined.
- Are the relationships between the three symptoms changed markedly when severity of one of the symptoms is greater?
- Is the overall health-related outcome changed as well?

(Dodd et al., 2004; Dodd et al., 2005; Miaskowski et al., 2007; Jung-Eun Esther Kim et al., 2009)

A Review of the Prevalence and Impact of Multiple Symptoms in Oncology Patients

Purpose:

- 1) compare and contrast the characteristics of the three most commonly used instruments to measure multiple symptoms;
- 2) summarize the prevalence rates for multiple symptoms in studies of oncology patients receiving active treatment;
- 3) describe the relationships among selected demographic, disease, and treatment characteristics and multiple symptoms;
- 4) describe the relationships between the occurrence of multiple symptoms and patient outcomes (i.e., functional status, QOL)

(Jung-Eun Esther Kim et al., 2009)

Findings

A decorative graphic consisting of two groups of three circles. The first group on the left has a solid light green circle on the left, a white circle with a light green outline in the middle, and a white circle with a light green outline on the right. The second group on the right has a solid light green circle on the left, a white circle with a light green outline in the middle, and a solid light green circle on the right.

- The 10 most prevalent symptoms:

fatigue	(62%)
worrying	(54%)
feeling nervous	(45%)
dry mouth	(42%)
insomnia	(41%)
feeling sad/mood	(39%)
feeling irritable	(37%)
pain	(36%)
drowsiness	(36%)
distress	(34%)

40% to 61% of patients experienced more than one symptom

22% to 30% of patients experienced more than five concurrent symptoms

Findings



- The relationships between site and stage of cancer: Suggest that patients with recurrent, metastatic, or advanced stage of disease reported the most severe and distressing symptoms.
- The type of cancer treatment appeared to influence the prevalence and severity of multiple symptoms. At entry into the study, the three most distressing symptoms for patients with surgery were **pain, fatigue, and insomnia**.
- Inpatients reported a higher number of symptoms than outpatients.

The mean number of symptoms for inpatients with ovarian cancer was **11.2 (range of 1-25)** compared with **7.4 for outpatients (range of 0-16)**.

Findings



- The relationships between symptoms and functional status and QOL:

Patients with KPS scores of less than 80 reported 14.8 symptoms, whereas patients with KPS scores of more than 80 reported only 9.2 symptoms ($P < 0.0001$).

Four studies found that patients who reported a larger number of symptoms or symptom distress had poorer QOL scores.

Conclusions:

More than 50% of oncology patients reported experiencing fatigue and worry.

Of note, fatigue was the most prevalent symptom.

Findings suggest that multiple symptoms are associated with decreases in functional status and QOL.



Critical considerations in symptom cluster research with oncology patients

(Dodd et al., 2004; Miaskowski et al., 2007; Jung-Eun Esther Kim et al., 2009)

Conceptual considerations

- Refinement of the definition of a symptom cluster
- Development of criteria to be used to evaluate the relationship between symptoms
- Determination of the best approaches to evaluate the underlying molecular mechanisms for symptom clusters

Considerations associated with the empiric or de novo identification of symptom clusters

- Comparison of the various statistical approaches to identify symptom clusters
- Comparison of the various methodological approaches to identify symptom clusters
- Use of symptom severity scores or symptom distress scores to create symptom clusters
- Number and types of symptoms on the symptom inventory

Epidemiologic studies to identify symptom clusters de novo

- Studies within and across cancer diagnoses, cancer treatments, stages of disease

Resources



- **National Comprehensive Cancer Network:**
NCCN develops resources that present valuable information to the numerous stakeholders in the health care delivery system.
<http://www.nccn.org>
- **ONS PEP® - Putting Evidence Into Practice**
The purpose of the *ONS Putting Evidence Into Practice (PEP®) Project* is to improve oncology nursing-sensitive patient outcomes through resources which provide evidence-based interventions. <http://www.ons.org/>
- **National Cancer Institute (NCI)**
<http://www.cancer.gov>
- **Canadian Association of Nurses in Oncology**
CANO/ACIO is the national organization that supports Canadian nurses to promote and develop excellence in oncology nursing.
<http://www.cano-acio.ca>

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