Symptom Clustering Among Patients Visiting a Supportive Oncology Clinic (FR435-D)

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Objectives

- Describe a supportive oncology clinic and its patient population.
- Identify symptoms that compose psychological, treatment-related, and gastrointestinal clusters within a supportive oncology population.

Original Research Background: Multiple symptoms are common and often severe in patients with cancer. Identification of symptoms that cluster may serve to elucidate the pathophysiology of the disease and aid in symptom management.

Research Objectives: Our aim was to define symptom clusters occurring among cancer outpatients receiving chemotherapy.

Methods: New and returning patients referred to a supportive oncology clinic (SOC) from our health system's oncologists from November 2011 through May 2014 completed the Condensed Memorial Symptom Assessment Scale plus a sexual dysfunction structured assessment. Data were collected prospectively from 323 consecutive initial visits. Patients rated from 0-4 how bothersome 15 cancer symptoms were; symptoms were then graded as present (1+) or absent (0). Hierarchical cluster analysis with average linkage was used to identify symptom clusters. The absolute value of the correlation between symptoms was used as the measure of similarity between pairs of symptoms. A correlation of ≥0.6 was used to define the final clusters. A symptom cluster was defined as two or more symptoms that predictably occur together.

Results: Three clusters were identified: (1) psychological (worrying, feeling sad, feeling nervous), (2) treatment related (lack of energy, feeling drowsy, difficulty concentrating, dry mouth, constipation), and (3) gastrointestinal (weight loss, lack of appetite, nausea). Pain, difficulty sleeping, shortness of breath, and loss of interest did not cluster with any symptom. Gastrointestinal symptoms are important within the clusters. The prevalence of worrying, feeling sad, and feeling nervous did not cluster with lack of energy or difficulty in sleeping, nor pain with worrying or feeling sad.

Conclusions: Three symptom clusters were identified as showing high absolute correlation: a psychological cluster, treatment-related cluster, and gastrointestinal cluster.

Implications for Research, Policy, or Practice: Identifying symptom clusters may promote our understanding of the pathophysiology of cancer, help prioritize effective pharmacotherapies, and identify drugs likely to help more than one symptom.