

Slide 1

**Self-efficacy for Symptom Management:
Impact on Outcomes in Stem Cell Transplant Patients**

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Dissertation Research




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Slide 2

Background

- Hematopoietic Stem Cell Transplant (HSCT)
 - Intensive treatment for hematologic cancers and other hematologic conditions
 - Autologous or allogeneic
 - Process
 - Conditioning, reinfusion, nadir, engraftment
- Acute Phase – 30 days post-transplant
 - Greatest risk for complications
 - Symptoms are at highest levels
 - Physical function and quality of life (QOL) are at lowest levels




Slide 3

**Key Concepts:
Symptom Distress**

Physical or mental suffering from experience of symptom occurrence

- Psychological, emotional, social, or spiritual
- Intensity, frequency, and QOL leads to distress
- Effects on outcomes (HSCT)
 - Higher anxiety and depression, sleep concerns
 - Decreased physical functional status
 - Decreased health-related QOL
 - Increased length of inpatient stay, more likely to self-report non-adherence
 - Survival



Slide 4

**Key Concepts:
Self-efficacy**

Belief in ability to implement behavior to achieve an outcome

- Components:
 - Motivation, knowledge and skills, confidence, awareness, cognitive and affective processes, competence




Slide 5

**Key Concepts:
Self-efficacy for Symptom Management (SESM)**

Ability to implement behaviors to prevent, recognize, and relieve symptoms


High SESM may lead to more effective symptom management

- Decrease symptom distress
- Improve outcomes
 - Health outcomes, daily functioning
 - Cognitive outcomes




Slide 6

Conceptual Model



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graph LR; C[Confidence: Motivation, Competence, Cognitive/affective processes, Awareness] --> SEM[Self-efficacy for symptom management]; K[Knowledge: Access, Knowledge, Access, Disruption/Access] --> SEM; SEM --> SD[Symptom Distress]; SEM --> O[Outcomes: Symptom Relief, Health Status, Cost of Health, QOL, Behavior Performance]; SD --> O
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Slide 7

Quantitative Purpose

In adult patients, during the acute phase of HSCT:



- Describe the changes over time in SESM, symptom distress and physical function
- Describe the relationships among SESM, symptom distress, physical function and length of stay.
- Acute phase = <30 days after transplant



Slide 8

Specific Aims



1. Determine the changes over time in SESM, symptom distress, and physical functional status.
2. Examine the relationships among SESM, symptom distress, and physical function.
3. Determine if the relationships among SESM and length of stay, readmission rates, and functional status varies depending on the level of symptom distress.



Slide 9

Procedures

- Institutional approval
- IRB approval
 - UNMC and Avera
- Consent



Slide 10

Methods

Design

- Descriptive, longitudinal pilot study

Sample


- $n=40$
- Autologous and allogeneic transplant patients
- Consecutive recruitment
- Inclusion/Exclusion

Setting

- Single, transplant center, Midwest

Paper/pencil questionnaires

- Baseline, Day 7, Day 15, and Day 30



Slide 11

Measurements

Demographic and clinical data

Symptom distress

- Symptom Distress Scale

Self-efficacy for Symptom Management

PROMIS instruments:


- Self-efficacy for Managing Symptoms
- Self-efficacy for Managing Medications and Treatments

Physical Function

- PROMIS Physical Function-Short Form 10a

Length of stay

Readmissions



Slide 12

Conclusion


There were significant changes over time in symptom distress, physical function and SESM

Higher SESM associated with fewer symptoms and increased physical function

Less symptom distress associated with higher physical function and SESM

Opportunity for plan of care that includes assessment of SESM prior to transplant

Potential for patient-centered self-efficacy enhancing intervention using results from assessment



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