‘Patient Reported Outcome Measures’

ENHANCE THE NURSING PROCESS & PATIENT-CENTERED CARE IN HEART FAILURE

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GOALS

1. Explain the nurse’s role in patient-centered care.

2. Align the principles of Patient Reported Outcomes to the Nursing Process.

3. Examine the relevance of sample Patient Reported Outcome Measure (PROM) results for symptom management.

4. Formulate opportunities to improve your nursing practice using PROMs.
Heart failure

Incidence & prevalence

Mortality

Comorbidity

Costs
Heart failure trajectory

Figure illustration by Rob Flewell. Permission for use granted. (Goodlin, 2009)
Pathophysiology

Disease & symptom burdens

Figure illustration by Rob Flewell. Permission for use granted. (Goodlin, 2009)
# Duality

## PATIENT CENTERED OUTCOMES

1. “Given my personal characteristics, conditions, & preferences, what can I expect will happen to me?”

2. “What are my options, what are potential benefits & harms of options?”

3. “What can I do to improve the outcomes that are most important to me?”

4. “How can clinicians & care delivery systems help me make the best decisions about my health & healthcare?”

   - PCORI, 2012

## NURSING PROCESS

1. Assess
2. Diagnose
3. Plan
4. Implement
5. Evaluate
Patient
Reported
Outcome
Measures

Guiding Principles

- Psychometric soundness
- Person-centered
- Meaningful
- Amenable to change
- Implementable

NQF, 2013
Patient Reported Outcome Measures

- Problem identification
- Meaningful outcomes
- Selection & suitability
- Reporting methods
- Testing

Real world measurement & translation
‘Significance’

**CLINICAL**
- Symptoms = suffering
- Symptoms ≠ engagement
- Process + outcome

‘Intersubjectivity’

**STATISTICAL**
- Validity
- Reliability
- Fidelity

‘Objectivity’
Research Methods

DATA COLLECTION
- Cross-sectional (2014-15)
- Acute care; HF exacerbation
- Urban academic medical center
- Bedside survey interview
- Ethics

DATA ANALYSIS
- SPSS
- Descriptive statistics
- Pearson product moment correlations
- Nonparametric statistics
- Logistic regression
# Heart Failure Patients

## Study participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Mean 68 (SD 6.9)</td>
<td>88</td>
<td>100</td>
</tr>
<tr>
<td>Gender</td>
<td>Women</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>Race</td>
<td>Non white</td>
<td>44</td>
<td>50</td>
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<tr>
<td>Marital</td>
<td>Married</td>
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<td>51</td>
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<tr>
<td>Insurance</td>
<td>Medicare/Commercial</td>
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<tr>
<td>Employment</td>
<td>Employed/retired</td>
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<td>56</td>
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<tr>
<td>Education*</td>
<td>Any college</td>
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<td>13</td>
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<tr>
<td>Functional status</td>
<td>Mean 40 (SD 6.9)</td>
<td>88</td>
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*not reported 61%
# Symptom prevalence

<table>
<thead>
<tr>
<th>Memorial Symptom Assessment Scale</th>
<th>Sample proportion (%) by symptom dimension</th>
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<tbody>
<tr>
<td>Highest proportion reported</td>
<td>Mean</td>
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<tr>
<td>Dry mouth</td>
<td>94</td>
</tr>
<tr>
<td>Shortness of breath</td>
<td>92</td>
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<tr>
<td>Lack of energy</td>
<td>92</td>
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<tr>
<td>Pain</td>
<td>82</td>
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<tr>
<td>Worry</td>
<td>76</td>
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<tr>
<td>Difficulty sleeping</td>
<td>75</td>
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Symptom variation

<table>
<thead>
<tr>
<th>Most highly rated symptoms reported</th>
<th>Memorial Symptom Assessment Scale</th>
<th>Sample proportion (%) by symptom dimension</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Frequency</td>
</tr>
<tr>
<td>Shortness of breath</td>
<td>77</td>
<td>79</td>
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<tr>
<td>Lack of energy</td>
<td>76</td>
<td>80</td>
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<tr>
<td>Dry mouth</td>
<td>72</td>
<td>85</td>
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<tr>
<td>Difficulty sleeping</td>
<td>63</td>
<td>66</td>
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<tr>
<td>Pain</td>
<td>62</td>
<td>54</td>
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<tr>
<td>Worry</td>
<td>43</td>
<td>45</td>
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</table>
### Symptom burden* differences by gender & functional status

<table>
<thead>
<tr>
<th>Mann Whitney U test</th>
<th>n</th>
<th>z</th>
<th>mean</th>
<th>median</th>
<th>p</th>
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<tbody>
<tr>
<td>Women</td>
<td>44</td>
<td>-2.0</td>
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<td>43</td>
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<tr>
<td>Men</td>
<td>44</td>
<td>39</td>
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<td>34</td>
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<tr>
<td>Functional status 40%</td>
<td>48</td>
<td>-3.8</td>
<td>40</td>
<td>42</td>
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<tr>
<td>Functional status 50%</td>
<td>20</td>
<td>21</td>
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<td>28</td>
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</table>

*MSAS: Memorial Symptom Assessment Scale

PROM analyses shows ‘tipping point’
# SYMPTOMS & WELL-BEING

Pearson product moment correlation coefficient  
Memorial Symptom Assessment & Satisfaction With Life Scales  \(-.44^*\)

Memorial Symptom Assessment & Subjective Happiness Scales  \(-.41^*\)

# SYMPTOMS & QUALITY OF LIFE

Pearson product moment correlation coefficient  
Memorial Symptom Assessment & Health Related Quality of Life Scales  \(-.56^*\)

\*\(p = \leq .01\) (two-tailed)  \**\(p = \leq .05\) (two-tailed)

PROM analyses link to wider outcomes
Sample study limitations

Design
Sample
Methods
Data
Analyses
Take home messages

Clarify performance issues or problem outcomes
Use ‘guiding principles’ to select PROMs targeting a process or outcome
Test PROMs re: feasibility, fidelity, validity, reliability
Leverage existing technology & workflows to implement PROMs
Include interdisciplinary stakeholders & integrated translation
Align PROMs with accountability measures & quality improvement
Assure patient-centered / population health foci
Seek to reduce data collection burdens

NQF, 2013; Wagle, 2016
THANK YOU

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ACKNOWLEDGEMENT

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