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Measuring patient satisfaction with urinary incontinence treatment

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Abstract

Background: A number of patient satisfaction measures were trialed in a cross-sectional survey of women who had treatment for urinary incontinence (N=187). The psychometric properties of these measures were examined and a short measure for patient satisfaction was developed.

Methods: Participants completed a questionnaire comprising items covering incontinence status, treatment type and three generic patient satisfaction questionnaires: the Client Satisfaction Questionnaire (CSQ-18), the Consultation Satisfaction Questionnaire (Consult SQ), and the Patient Satisfaction Index (PSI).

Donabedian's model postulates that satisfaction is the patient's judgment on the quality of care. The seven dimensions in this model provide the conceptual framework against which the measures were reviewed.

Results: The instruments were examined by their descriptive systems, internal structures and responsiveness. The items from the instruments were examined through iterative Mokken and partial credit IRT analyses against Donabedian's model. Seven items were selected which formed a Short Assessment of Patient Satisfaction (SAPS) scale. Its internal psychometric properties were excellent (α = 0.86) and it provided a patient satisfaction perspective that was most consistent with Donabedian's model.

In summary, the internal structures of the instruments suggested that all SAPS items were responsive, but some items on the other measures were insensitive. Also, all measures were shown to be unidimensional. Tests of response bias suggested that this was present in the CSQ-18 and the PSI. Redundancy was observed in the Consult SQ, CSQ-18 and PSI.

Conclusions: This study has provided evidence that patient satisfaction can be assessed validly, reliably and sensitively using the much shorter SAPS instrument. This new short measure of patient satisfaction with treatment will be a useful tool for clinicians and evaluators as the population ages.

Keywords
treatment, patient, incontinence, measuring, poster, urinary, satisfaction

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Measuring Patient Satisfaction with Urinary Incontinence Treatment

Study aims

Comparison of four patient satisfaction instruments:
- CSQ-18 (Client Satisfaction Questionnaire; 18 items)
- Consult SQ (Consultation Satisfaction Questionnaire; 18 items)
- Genito-Urinary Treatment Satisfaction Scale (GUTSS; 10 items)
- PSI (Patient Satisfaction Inventory; 23 items)

Introduction

1. Incontinence affects ~38% of females and ~10% of males
2. Treatment outcomes are symptom relief, improved quality of life
3. Another outcome is satisfaction with health care:
   - Expectation that clinicians will ‘care’ or alleviate symptoms
   - Patients’ rights sees patients as ‘consumers’ who need to be informed, consulted and involved in medical decision-making
   - Patients views help monitor health care quality

Review of the patient satisfaction literature

1. Most studies used a single-item
2. Only 1 incontinence-specific measure
   - The Genito-Urinary Treatment Satisfaction Scale Scale (GUTSS)
3. Over 60% of papers fail to report any psychometric properties
4. ~ 80% of respondents report being ‘satisfied’: how to interpret this?

Based on pooled items, can a comprehensive model be constructed?

Procedure

1. Preparing the data
   - Collapse sparse data & inconsistent response categories
   - Delete non-responsive & poorly worded items
   - Pool remaining items for analysis (N=49)
2. Data analysis
   - Partial credit item response theory analysis for item examination
   - Then-test analysis for item fit and scale analysis
3. Procedure
   - Iterative analyses until best fitting model achieved, consistent with the 7 theoretical areas of patient satisfaction

Results 2: Construction of the SAPS

Results 3: Psychometric properties of SAPS

Methods

Random sample of physiotherapy and surgery patients:
- Females; Rx in previous 12-months
- Patients sampled from St George Hospital (Sydney) & Royal Women’s Hospital (Melbourne)
- Questionnaire:
  - Incontinence Severity Index & Urogenital Distress Inventory-6 post treatment (now) and retrospective to before treatment (then), then-test = difference between (now) and (then)
- Patient satisfaction (CSQ18, Consult SQ, GUTSS, PSI)

Participants

- Participation rate = 44% (N=184)
- Treatment: Physiotherapy (27%), Surgery (40%), Both (33%)
- Then-test: Improved (62%), No change (12%), Worse (6%)

Results 1: Comparison of instruments

Coverage of theory

Access & facilities

Information

Relationship

Participation

Technical skill

Effectiveness

Satisfaction general

Other

Correlations between scales

<table>
<thead>
<tr>
<th></th>
<th>Consult SQ</th>
<th>CSQ-18</th>
<th>GUTSS</th>
<th>PSI</th>
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<tbody>
<tr>
<td>Spearman (all p &lt; 0.01)</td>
<td>0.67</td>
<td>0.68</td>
<td>0.70</td>
<td></td>
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<tr>
<td>Intraclass Correlation</td>
<td>0.44</td>
<td>0.61</td>
<td>0.69</td>
<td></td>
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<tr>
<td>Scale analysis (Leverage H)</td>
<td>0.51</td>
<td>0.42</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Response bias (% of cases)</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Treatment type (F-value; transformed)</td>
<td>0.35</td>
<td>2.27</td>
<td>4.808</td>
</tr>
<tr>
<td>Treatment outcome (t-value)</td>
<td>0.10</td>
<td>4.08</td>
<td>12.40</td>
<td></td>
</tr>
</tbody>
</table>

Psychometric properties

Ave. item inter-correlations | 0.65 | 0.61 | 0.65 |
| Reliability (Cronbach’s) | 0.83 | 0.83 | 0.83 |
| Scale analysis (Leverage H) | 0.51 | 0.42 | 0.68 |
| Response bias (% of cases) | NO | YES | NO |
| Responsiveness | Treatment type (F-value; transformed) | 0.35 | 2.27 | 4.808 |
| Treatment outcome (t-value) | 0.10 | 4.08 | 12.40 |

Interpretation:
- Poor coverage of patient satisfaction theory (best is CSQ-18; worst is PSI and GUTSS)
- High reliability: a function of redundant items (all 4 instruments)
- Evidence of response bias (CSQ-18 & PSI)
- Poor responsiveness (best is GUTSS)

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