Functionality and End-user Acceptability of the Internet-based Computerized Patient Assessment System (iComPAsS): A mobile symptom monitoring system

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Track 3 - Improving patient and family experiences
Abstract presented before Yes

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Mobilising Action Inspiring Change
Background

Symptom under-reporting in cancer

- Pain, anorexia, etc. are largely under-reported.
- Several tools have been developed to catch these problems early.
- **Telehealth applications** enhance patient engagement in self-care, improve health behavior and outcomes.
- **Self-determination theory**: fostering autonomy, competence, and relatedness in health care practices.
Methods

Instrument selection, Application Development and Usability Testing

- **Comprehensive Literature Review**
- **Valid tool selection process**
- **Software development**
- **Usability testing**

Survey for validated cancer-symptom tools available in both English and Filipino

**Focused group discussion**: 2 oncologists, 2 pain specialists and an international symptom researcher
- Face validity & elect an instrument.

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Functionality</th>
<th>Aesthetics</th>
<th>Information</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target audience</td>
<td>Navigation Ease of use</td>
<td>Layout Graphics</td>
<td>Evidence base Credibility</td>
<td>Would you pay?</td>
</tr>
</tbody>
</table>

*N=20, Mobile Application Rating Scale (MARS)*

*Stoyanov JMIR 2015*
Results: IComPAsS

Internet-based Computerized Patient Assessment System

Instrument elected: Edmonton Symptom Assessment System

Valid, easy to use, widely used in the local setting

Application Developed: IComPAsS

Satisfactory on beta testing
Patient self-reporting of symptoms
Indicate severity
Locate pain on body diagram

Table 2: Summary of mean scores of participants in “App Quality Ratings Section”

<table>
<thead>
<tr>
<th></th>
<th>Doctors (n=10)</th>
<th>Patients/ Caregivers (n=10)</th>
<th>Total (n=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>3.70 ± .56 (2.75-4.75)</td>
<td>3.52 ± .59 (2.60-4.60)</td>
<td>3.61 ± .27 (2.60-4.75)</td>
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<tr>
<td>Functionality</td>
<td>4.20 ± .45 (3.50-4.75)</td>
<td>3.98 ± .66 (2.75-4.75)</td>
<td>4.09 ± .56 (2.75-4.75)</td>
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<tr>
<td>Aesthetics</td>
<td>4.17 ± .57 (3.00-5.00)</td>
<td>3.90 ± .52 (3.00-4.67)</td>
<td>4.03 ± .55 (3.00-5.00)</td>
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<tr>
<td>Information</td>
<td>4.45 ± .39 (3.75-5.00)</td>
<td>4.07 ± .63 (3.00-5.00)</td>
<td>4.26 ± .54 (3.00-5.00)</td>
</tr>
<tr>
<td>Over-all score</td>
<td>4.13 ± .47 (3.63-4.75)</td>
<td>3.87 ± .46 (3.26-4.55)</td>
<td>3.99 ± .43 (3.26-4.75)</td>
</tr>
</tbody>
</table>

*1 as lowest score, 5 as highest score
Conclusion

The iComPAsS is functional and practicable among physician and patient users.

A clinical trial will be conducted to determine its impact and define maintenance and scale-up issues.

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