A Comparison of Two Instruments to Assess Students in an Interprofessional Health Promotion Course for a Vulnerable Population

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Background

- There are over 120 instruments that have been identified to assess the impact of IPE.
- It is not clear which of these is most appropriate to utilize throughout a university-wide curriculum to assess knowledge, skills, abilities, and attitudes towards IPE.
- This study compared two instruments, the Student Perceptions of Interprofessional Clinical Education-Revised (SPICE-R) and the Team Skills Scale (TSS) in an elective interprofessional health promotion course for vulnerable populations through the context of community engagement.

Methodology

- In its third offering, 27 students were enrolled in the semester-long course (9 exercise science, 2 nurse practitioner, 6 occupational therapy, 7 pharmacy, and 3 social work).
- 44% of students were undergraduate and 56% were professional.
- Students were divided into three teams each and assigned a client with complex health and social issues.
- Students engaged in learning activities, discussed team skills, and developed a collaborative agreement.
- The TSS and the SPICE-R instruments were administered at the beginning and the end of the course.
- Mean pre and post scores were compared using paired student’s t tests.

Results

- Mean total TSS scores significantly improved, pre-60.1±10.5 and post-71.1±9.1, p<0.0001 (Table 1).
- The mean total SPICE-R scores significantly improved, pre-45.0±3.5 and post-47.0±3.3, p=0.004 (Table 1).
- There were statistically significant improvements for all independent TSS questions after the course intervention with the exception of two:
  - “I recognize when the team is not functioning well” (Pre 3.6±0.8, post 4.0±0.7, p=0.06) and
  - “I handle disagreements effectively” (Pre 3.7±0.9, post 4.0±0.8, p=0.11).
- While there were trends towards improvement for all of the SPICE-R questions, only two achieved statistical significance (understanding roles of other providers and rotations are the ideal place for IPE student interactions) (Table 2).

<table>
<thead>
<tr>
<th>Item</th>
<th>Pre-Course</th>
<th>Post-Course</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSS</td>
<td>60.1±10.5</td>
<td>71.1±9.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>SPICE-R</td>
<td>45.0±3.5</td>
<td>47.0±3.3</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Conclusions

- Both the SPICE-R, which measures attitudes, and the TSS, which measures students’ perceptions of knowledge, skills, and abilities, were effective in detecting improvements after the intervention.
- The TSS was more sensitive in detecting changes for individual questions.
- The two TSS questions that did not significantly improve suggest that students are still developing conflict resolution skills.
- The SPICE-R was less sensitive, potentially because students scored themselves higher at baseline (45.0±3.5 out of a maximum of 50).
- An interprofessional course in caring for vulnerable populations improves students’ attitudes and perceptions of their abilities to provide collaborative care.