In the pharmacy curriculum, few opportunities exist to connect with students in other years of the program. Peer teaching is a way students could review course content and affirm their developing expertise by teaching it to others. Peer teaching to a first year student requires the second year student to reformulate the teaching material and learning experience for someone unfamiliar with the content, an important skill to develop.

To design and assess an activity in which First and Second Year Pharmacy Students (PD1s and PD2s, respectively) convened and engaged in peer teaching regarding the major components of Pharmaceutical Care and aspects of the broader first year pharmacy curriculum.

**Purpose**

**Methods and Design**

**Introduction**

**Results**

"As much as I hate to say it, the concept map was helpful." – PD2 student

**Table 1: Concept Map Ratings.**

<table>
<thead>
<tr>
<th>Rubric Rating</th>
<th>Good (%)</th>
<th>Better (%)</th>
<th>Best (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness of Concept Map as a teaching tool for novices</td>
<td>145 (90.6)</td>
<td>18 (11.3)</td>
<td>3 (1.9)</td>
</tr>
</tbody>
</table>

**PD1 Prep Session (1 hour):**

- Overview of pharmaceutical care
- Prepare questions for PD2 students

**PD2 Prep Session (2 hours):**

- Make concept map
- Outline main teaching points

**PD1 and PD2 Joint Peer Teaching Session (1.5 hours):**

- In the teaching session (Figure 1), two PD2s matched up with two PD1s to present the Concept Maps, teach about Pharmaceutical Care and its place in the curriculum, and answer questions asked by the PD1s. Following the joint session, PD1 and PD2 students answered reflection questions about the peer teaching experience.

- Photographs of the PD2s’ concept maps were taken and assigned a rubric rating of Good, Better, or Best to determine its effectiveness as a teaching tool for novices. The ratings were assigned based on concepts included, links between concepts and overall hierarchy.

- The students responses to each reflection and survey question were analyzed via content analysis. Two researchers developed a codebook together, independently coded the responses and developed themes, and came together to reconcile themes discovered.

- The three main components of pharmaceutical care (philosophy of practice, patient care process, and practice management systems) and articulated connections exist between them.

- The concepts of pharmaceutical care are foundational to pharmacy and will be reinforced in other courses throughout the curriculum and into practice.

**Table 2: Themes from PD1 Responses to Reflection Questions**

<table>
<thead>
<tr>
<th>Question</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the main points you learned about pharmaceutical care?</td>
<td>The PD1s were able to articulate the main points of Pharmaceutical Care they learned and where the material is applied.</td>
</tr>
<tr>
<td>What was the most helpful question you asked?</td>
<td>For specific details about student organizations, internships, individual courses and the overall curriculum.</td>
</tr>
<tr>
<td>What did your PD2 do that was most effective in helping you?</td>
<td>PD2s were honest in their answers, easy to talk to, and shared their experiences in a way the PD1 could relate to.</td>
</tr>
</tbody>
</table>

**PD1 and PD2 Reflection and Survey (online)**

**PD1 and PD2 Joint Peer Teaching Session (1.5 hours)**

**Discussion**

- The peer teaching session provided 1) an opportunity to connect with two students from another class, 2) structured time to talk about Pharmaceutical Care and how it is applied and 3) unstructured time for conversation.

- The PD1s were able to articulate the main points of Pharmaceutical Care they learned and where it fits in the curriculum. They also were able to ask specific questions about the first year of pharmacy school.

- The PD1s’ first introduction to Pharmaceutical Care, a brand new concept for most students, was taught by their peers, which illustrated for them the value and utility of the concept to pharmacy.

**Implications**

- Peer teaching is a successful mechanism of connecting different groups of learners to provide a transfer of information and introduce a new content area in an informal environment.

- PD2s can effectively teach PD1s the main points of a complex concept and also provide the context to discuss its importance and relevance to the curriculum and practice.

"They spoke candidly and honestly about their experiences. It made me feel comfortable enough to ask important questions." – PD1 student

**Table 3: Themes from PD2 Responses to Reflection Questions**

<table>
<thead>
<tr>
<th>Question</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were you most effective at?</td>
<td>What we covered and how we taught the pharmaceutical care material Building relationships with the PD1s</td>
</tr>
<tr>
<td>Why do you think you were effective?</td>
<td>Able to empathize with the PD1 perspective</td>
</tr>
<tr>
<td>What was the best question you received?</td>
<td>Follow-up questions about specific pharmaceutical care topics and how it applies in the “real world” Advice and what to expect in and out of the classroom (study tips, common challenges, specific courses, etc. and organizations, internships, work-life balance, etc.)</td>
</tr>
</tbody>
</table>

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