Merging Clerkships – Successful Interprofessional Medical Education on a Non-Pharmacological Intervention for Chronic Pain
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BACKGROUND

• 116 million Americans with chronic pain (>heart disease, diabetes, and cancer combined)
• In 2009, of the >100 US Medical Schools:
  • 20% had no mandatory curricular time focused on pain
  • Only 4% had a dedicated pain course
  • 37 covered non-pharmacological approach
  • 27 covered a psychological approach
• Medications often fail to address debilitating loss of function – cognitive-behavioral approaches do.10,11
• Opioids, while beneficial for some, have not been shown to be efficacious for chronic pain >2 months.11
• We are unaware of research evaluating medical student education on non-pharmacological approaches for treating chronic pain.
• Interactive sessions that incorporate skills practice have the potential to impact clinical behaviors.10

OBJECTIVES

• Utilize the platform of the Yale School of Medicine (YSM) to educate the next generation of medical providers how to evaluate/treat patients with chronic pain with a true multimodal/interdisciplinary approach.
• Teach a brief cognitive-behavioral intervention for chronic pain in YSM psychiatry clerkship using the biopsychosocial model of pain (See Figure 2).
• Assess efficacy of this workshop in improving attitudes and aptitudes regarding care of patients with chronic pain.
• Utilize data to refine the curriculum.

ACT SMARTER

Functional Goal Setting for Chronic Pain

1. Pain related functional loss
2. Social and emotional function
3. Relevance of psychosocial function
4. Realistic expectations & goal setting
5. Passive vs Active interventions

Specific

1. Good goals are concrete & specific
2. Measurable
3. Action
4. Realistic
5. Time-bound
6. Evaluation
Reassure/review

CONCLUSIONS/FUTURE DIRECTIONS

• The novel ACT SMARTER mnemonic was well-received by students who found it helpful in discussing a psychosocial non-pharmacological approach to pain management with patients.
• Role-playing with real-time faculty feedback in small groups was exceptionally well-received with many students replying in qualitative comments that this was their favorite part of the workshop, something they wished they had more opportunities for in their medical training.
• This workshop is exemplary of a successful model of an interdisciplinary educational approach to treatment of chronic pain.
• Students overwhelmingly reported enhanced knowledge, intentions to change clinical practice, and that they would recommend this training to a colleague.
• The merging of the primary care and psychiatry clerkships will provide further opportunity for interdisciplinary collaboration and a comprehensive multimodal approach to treating chronic pain.
• The combined clerkship will create opportunity for clinical practice of acquired skills. They will also write a reflection piece at the end of the clerkship on their experience.
• This class is portable and can serve as a basis for a curricular model of a multidisciplinary approach to treatment of chronic pain in other medical schools.

METHODS

• We teach a brief cognitive-behavioral intervention for chronic pain in the YSM psychiatry clerkship every 6 weeks.
• True Interprofessional education.
  • YSM and Yale PA students.
  • Faculty from addiction medicine, addiction psychiatry, family medicine, internal medicine, palliative care, and psychology.
• Flipped curriculum materials include relevant articles10,11 and a course primer.
• Our novel ACT SMARTER mnemonic expands on standard cognitive-behavioral SMART goals and is distributed as a durable memory aid (see Figure 1)
• Workshops include a brief review of pain pathophysiology and a multimodal biopsychosocial approach to chronic pain.
• Students role-play patient/provider interactions in small groups; faculty provide real-time feedback.
• Anonymous Qualtrics online surveys were collected in two phases, a pretest before each workshop and a posttest after each workshop.
• Results represent data from the three most recent clerkship rotations.

STATISTICAL ANALYSES/RESULTS

• Paired Sample T-tests were calculated to examine whether participants ratings on Q1 and Q2 changed pre and post-workshop (See Figures 3 and 4).
• There was a significant difference in the participants scores on Q1 pre (Mean= 3.17, SD = 1.27) and post-workshop (Mean= 4.13, SD=0.68); t(23)= -2.98, p =.007.
• There was a significant difference in the participants scores on Q2 pre (Mean=1.96, SD=1.08) and post-workshop (Mean=4.25, SD=1.61); t(23)= -8.62, p=.000.

Table 1. Cumulative Student Ratings on Additional Posttest Questions, 3-8, anchored on a Likert scale 1-5

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree Nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The pre-workshop material was helpful in my preparation</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>3.9</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>The role-playing activity was helpful in achieving the workshop objectives</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>4.2</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>The ACT-SMARTER mnemonic is helpful for discussing psychosocial contributions to pain and setting functional goals with chronic pain patients</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>5</td>
<td>4.1</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>I will make specific changes in the assessment and management of chronic pain patients based on this session</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>8</td>
<td>4.3</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>This workshop was worthwhile, and I would participate in it again</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>5</td>
<td>4.1</td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>I would recommend this workshop to a colleague</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>5</td>
<td>4.1</td>
<td>19</td>
</tr>
</tbody>
</table>

REFERENCES

1. Institute of Medicine (US) Committee on Advancing Pain Research, Care, and Education. Relieving Pain in America: A Blue Print for Translating Prevention, Care, Education, and Research. Washington (DC): National Academies Press (US); 2011.