



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)ⁱ
- 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 approachⁱⁱ
- Medications often fail to address debilitating loss of function – cognitive-behavioral approaches do.^{iii, iv}
- Opioids, while beneficial for some, have not been shown to be efficacious for chronic pain >2 months.^v
- 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.^{vi}

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.

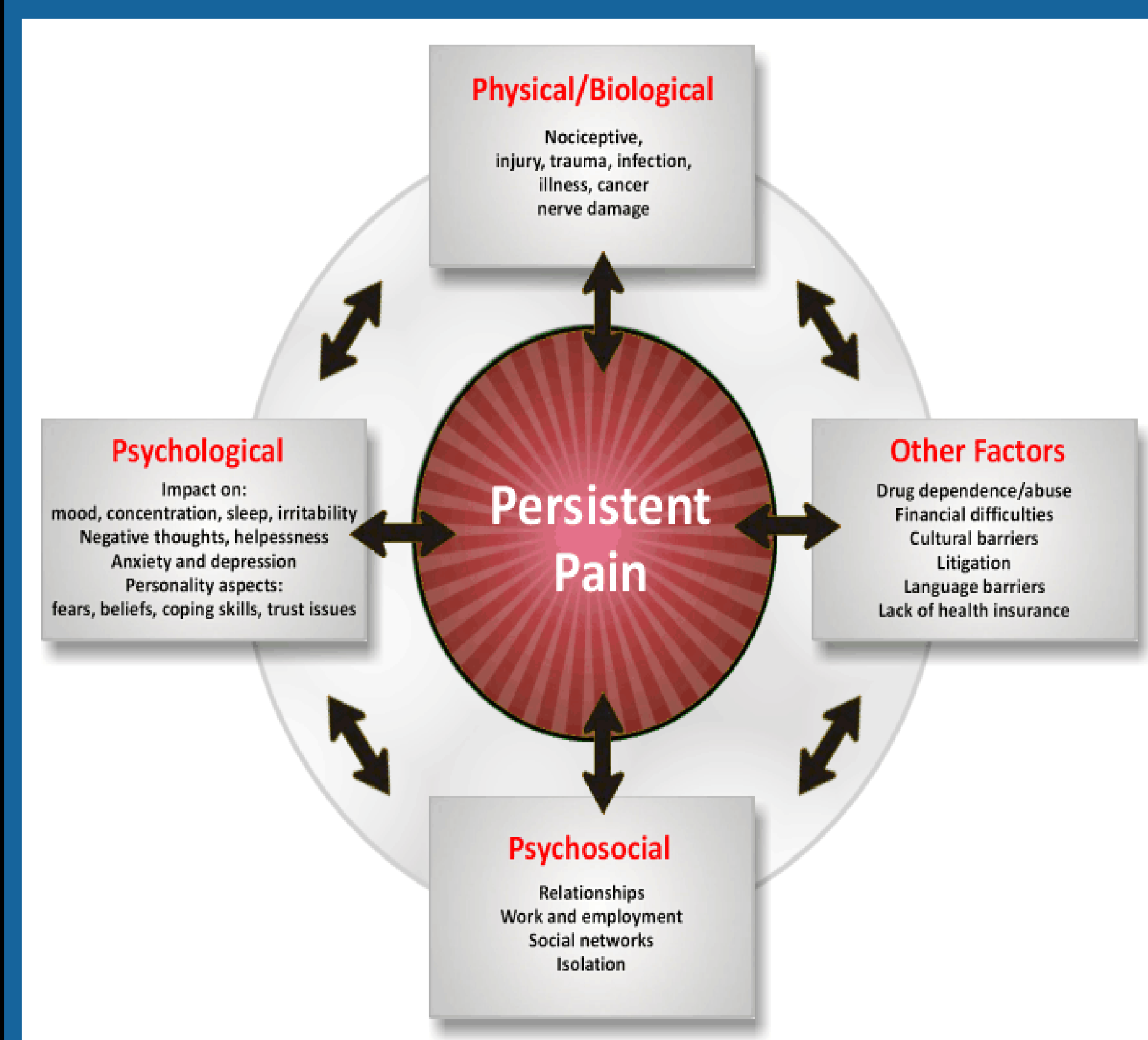
Figure 1. The ACT SMARTER mnemonic, developed by course faculty, was explained in a flipped curriculum course primer, reviewed in class, then provided to participants in a laminated pocket card

ACT SMARTER

Functional Goal Setting for Chronic Pain

- Ask** - Pain related functional loss
- Social and emotional function
- Counsel** - Relevance of psychosocial function
- Realistic expectations & goal setting
- Passive vs Active interventions
- Team** - Patient is key part of the treatment team
- Specific** - Good goals are concrete & specific
- Measurable** - Design goals so that progress can be easily measured
- Action** - Goals should involve concrete change
- Goals need not be physical
- Realistic** - Set goals patient feels are 100% realistic
- Time-bound** - Establish a specific time for goal completion
- Evaluate** - Were the goals achieved?
- Reassure/revise** - Provide support
- Collaborate on new goals

Figure 2. Biopsychosocial Model of Pain



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 wish 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 articles^{iii, iv} 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=.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=.61); $t(23) = -8.62, p = .000$.

Figure 3. Pretest and Posttest Student Ratings, Psychiatry Clerkships Jan-Apr 2015. Questions 1 and 2 were common to Pretest and Posttest

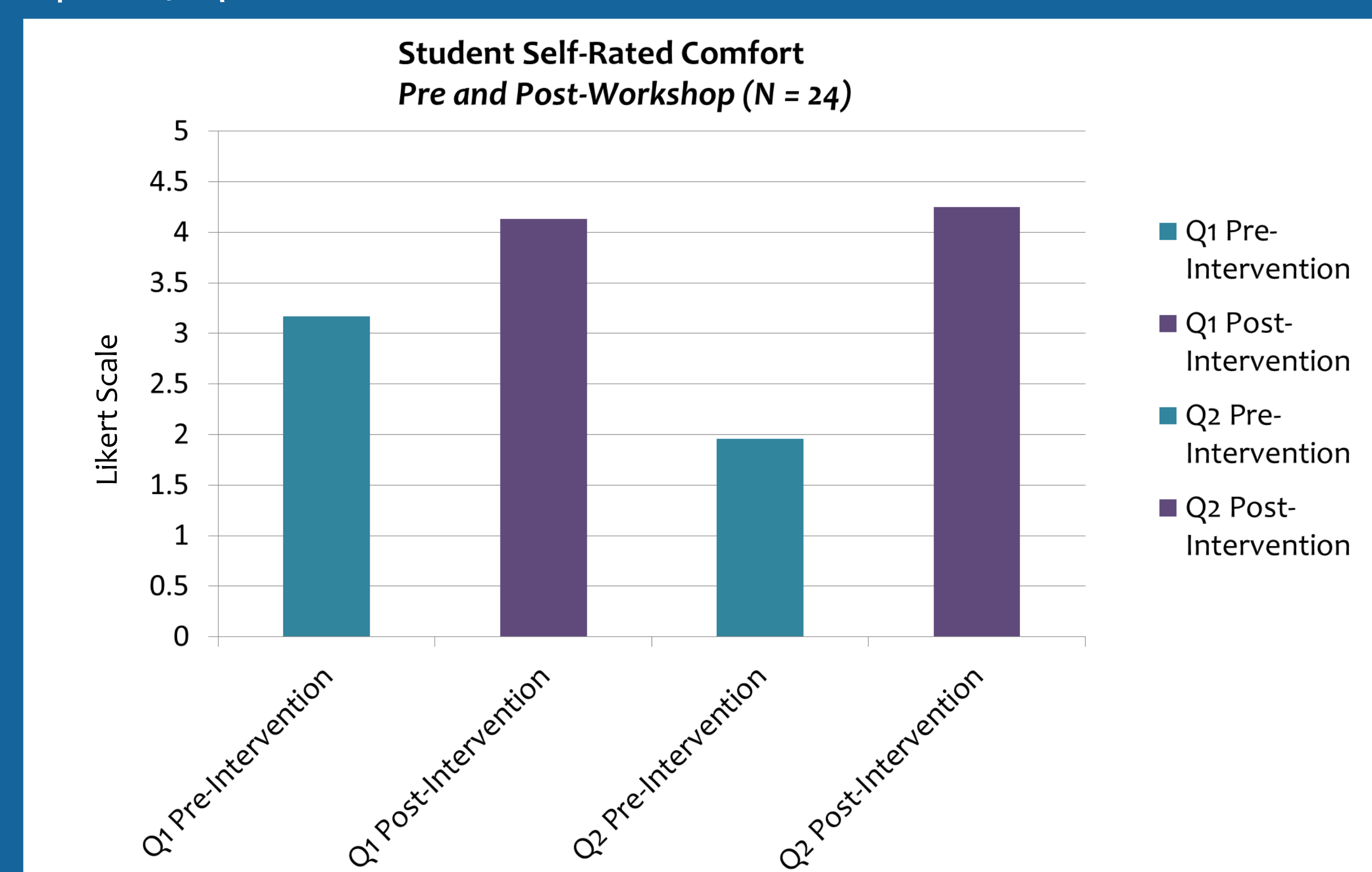


Figure 4. Questions 1 and 2 from Qualtrics Surveys, anchored on a Likert Scale 1-5

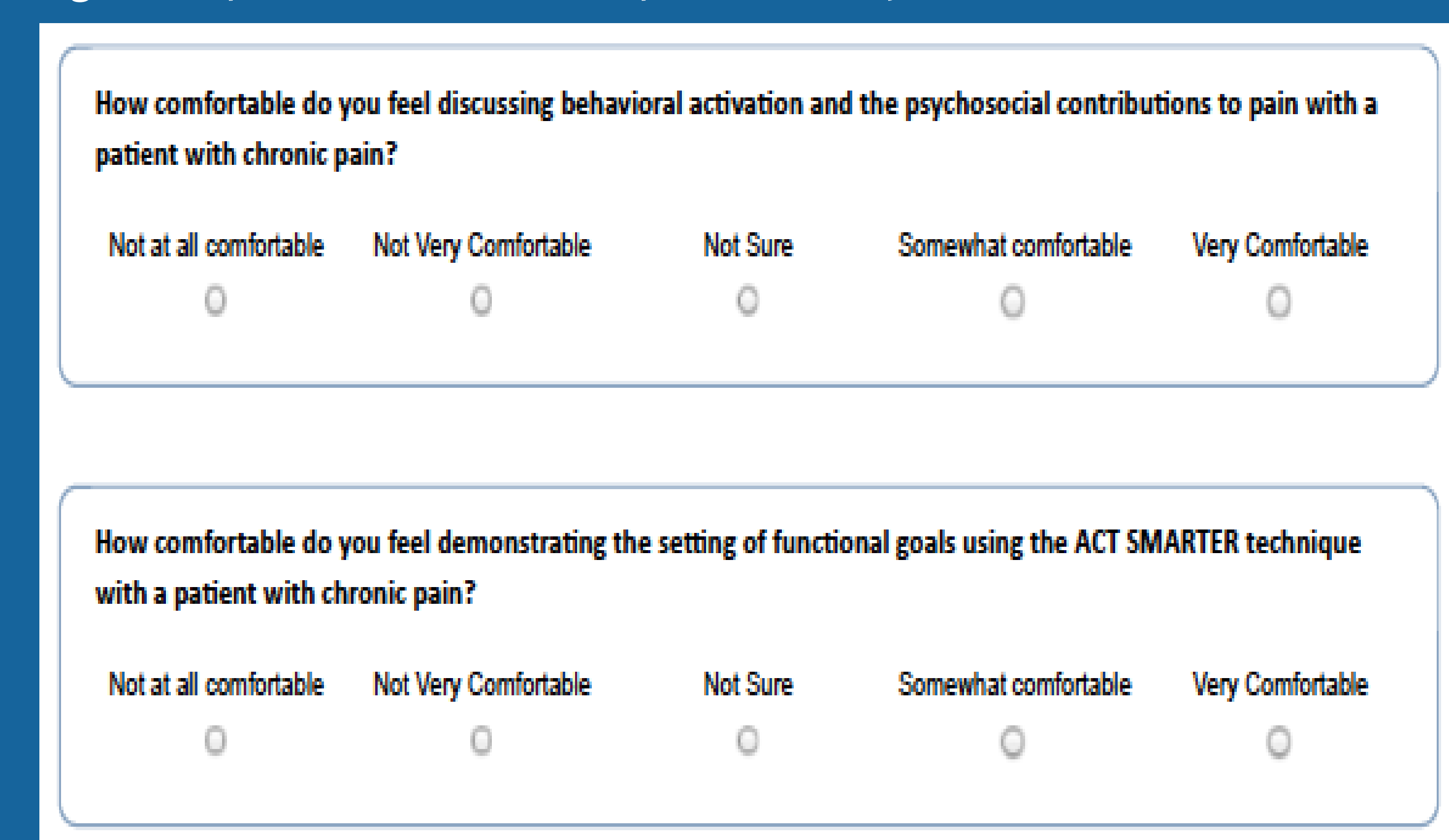


Table 1. Cumulative Student Ratings on Additional Posttest Questions, 3-8, anchored on a Likert scale 1-5

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

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