

# Expanded Assessment of Clinical Reasoning Skills in Physical Therapist Students

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Physical therapists are expected to apply advanced clinical reasoning (CR) skills to manage simple and complex cases even at entrance into the profession<sup>1</sup>. It is the responsibility of the academic program to facilitate and assess these skills to prepare students for this expectation. The physical therapy department is committed to the development of clinical reasoning skills throughout the curriculum which has resulted in curriculum modifications and the development and implementation of a clinical reasoning grading rubric (CRGR)<sup>2</sup>. These changes incited a need to assess their impact on student learning and performance related to clinical reasoning. **The purpose of this poster is to describe the modifications in assessment of student clinical reasoning skills as a result of greater emphasis to incorporate facilitation of clinical reasoning in the curriculum.**

## Methods

As the first cohort of students to experience the increased curricular emphasis on clinical reasoning, all students in the physical therapy class of 2018 (n= 58) participated in the process of clinical reasoning assessment as part of their capstone class after all didactic and clinical requirements for graduation had been completed. Students completed the **PT Self-Efficacy Scale for Clinical Reasoning (SES CR) questionnaire**<sup>3</sup> which included the following questions:

**Q1:** *I am confident that I know when to perform specific tests for physical therapist practice.*

**Q2:** *I will know when it is time to refer a patient/client problem to another practitioner.*

**Q3:** *In general physical therapy context, I am confident that I would not miss primary medical disease.*

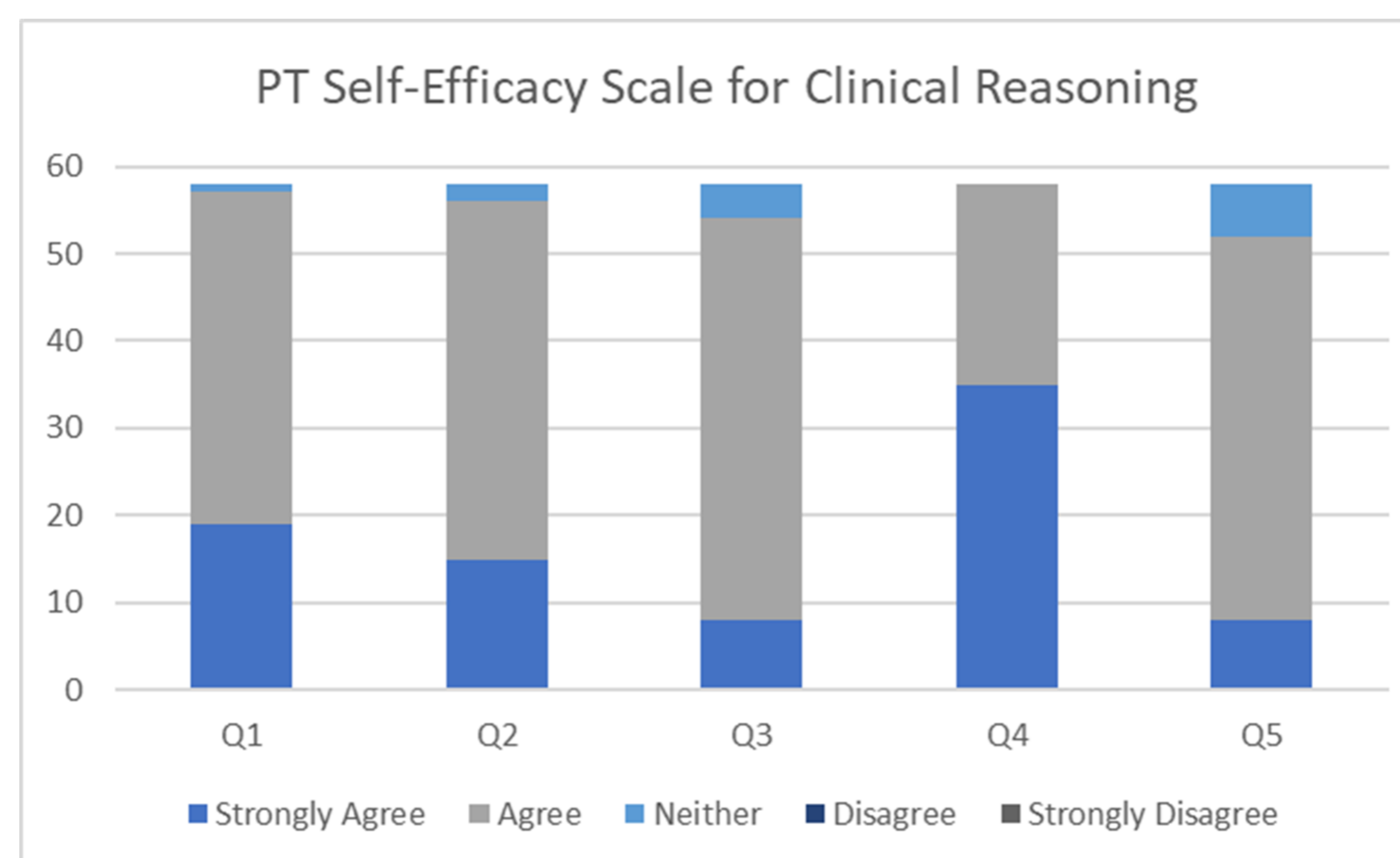
**Q4:** *I believe that I can manage general physical therapy problems.*

**Q5:** *In a general physical therapy context, when facing a difficult case, I am certain I can make the right management decisions.*

Students also participated in a focus group which consisted of both small and large group discussions. Following the student focus group, a faculty focus group was held to discuss strengths and opportunities revealed by the student focus group.

## Results

- **Students felt confident in their clinical reasoning** abilities (89.66% -100% of students reporting “agree” or “strongly agree” on each item in the 5-item SES-CR).
- **No students** answered disagree or strongly disagree for any of the questions.
- **57%** of the students specifically mentioned having strong reflection skills in the narrative comments.



### Student Focus Group:

**Strengths:** Curricular emphasis on clinical reasoning and personal use of reflection including reflection-on-action and reflection-in-action in making patient care decisions.

### Areas to Improve:

- Increased time for faculty feedback following clinical competence performance examinations (CCPE),
- Enhanced ability to review feedback after the CCPE
- More explicit discussions of clinical reasoning applications.

**Faculty Focus Group** reviewed results and proposed next steps to address student needs and close the assessment loop.

- Expanded didactic discussions related to clinical reasoning processes and expectations for progression.
- Introduction of a clinical reasoning assessment tool training video for both faculty and student use
- Increased time for face to face feedback following CCPE

### Faculty Focus Group (Continued )

- Implementation of the CRGR into a digital format to facilitate student’s ability to review written faculty feedback (see example below)

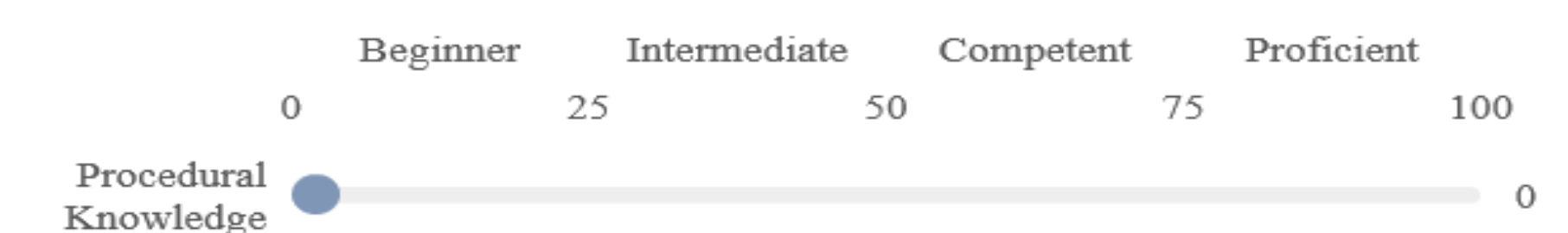
**Procedural Knowledge/Psychomotor Skill**– ability to determine appropriate test/measure/intervention and psychomotor performance of an intervention/test/skill. (When to perform skill, What skills to perform, and How to perform skill)

**Beginner**–Limited accuracy in performing test/measures/interventions but can SAFELY perform these

**Intermediate**–Moderate accuracy in performing test/measures/interventions and can SAFELY perform these

**Competent**–Strong accuracy in performing intervention/test efficiently and effectively utilizing appropriate knowledge base, verbal and manual cues, and use of equipment to allow the patient to complete test or fully participate in intervention

**Proficient**–Efficiently performs tests and interventions with skill and ease and able to build patient rapport during the exam and intervention



*One element of the digital version of the CRGR developed by Furze et al.*

## Conclusions

Early assessment of an intentional integration of teaching and learning strategies to facilitate clinical reasoning skills resulted in **high student confidence in their clinical reasoning skills** and identified strengths and opportunities for continued development to meet student and program needs. **Plans for further assessment and facilitation of clinical reasoning include** repeated measures of the SES CR over the course of the curriculum and development of a clinical reasoning learner “blueprint” through investigation of the evidence in an effort to establish best practices for teaching and learning activities and assessment of clinical reasoning.

1. American Physical Therapy Association. (2013). Vision Statement for the Physical Therapy Profession and Guiding Principles to Achieve the Vision. Retrieved September 2018 from <http://www.apta.org/Vision/>.
2. Furze J, Gale J, Black L, Cochran T, Jensen G. Clinical reasoning: development of a grading rubric for student assessment. *J of Phys Ther Educ.* 2015;29(3):34-45.
3. Venskus DG and Craig JA. Development and validation of a self-efficacy scale for clinical reasoning in physical therapists. *J of Phys Ther Educ.* 2017;31(1):14-20.