Helping Students Embrace “Growth Mindset” and Its Impact on Learning

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Background

- Clinical reasoning is an essential skill for physical therapists. Clinical reasoning requires high-level thinking skills in-the-moment with a patient. Therefore, the development of clinical reasoning is supported by instructional methods that include simulation, critical appraisal, debates, case studies, and collaborative learning, among others.¹
- In the GW Doctor of Physical Therapy (DPT) program’s “Clinical Conference V” course, students participate in weekly patient simulations and an instructor-led tutorial small group discussion intended to develop and refine clinical reasoning skills.
  - Student pairs or trios become the physical therapists treating the patient in front of other students and the instructor who role plays the complex patient.
  - The “Socratic method” of questioning is used in small-group tutorial sessions to unpack the students’ clinical decisions made during the patient simulations.
- Oral and written feedback is provided to students, along with weekly performance grades, regarding clinical skills, clinical reasoning, and critical thinking.²
- Prior course feedback and anecdotal comments have suggested that some students feel uncomfortable with being put “on the spot” in front of peers and instructors, and feel overwhelmed by the amount of feedback provided by instructors and peers.

Purpose

We integrated Carol Dweck’s “Growth Mindset”² framework into the course at multiple touchpoints with the intent of changing students’ perception of the challenges of the course and intent of feedback.

- Growth Mindset is “the belief that your basic qualities [such as intelligence] are things you can cultivate through your own efforts”²

Methodology

We used a mixed-methods survey design to investigate the following research questions:
- Did the introduction of “growth mindset” impact Doctor of Physical Therapy students’ learning in a simulated case-based course?
- Did adoption of a “growth mindset” impact how Doctor of Physical Therapy students received feedback?
- Is there potential for Doctor of Physical Therapy students to carry over “growth mindset” into their clinical internships?

Results

- The “growth mindset” perspective had a positive impact on the students’ perception of group work.
  - The introduction of “growth mindset” helped the students revise their perspective on learning challenges and not internalize their challenges as personal faults.
  - 73% of students identified that “growth mindset” impacted how they received feedback (oral and written). 77% of students identified that “growth mindset” impacted how they acted on feedback.
  - 96% of students noted that instructors should continue to use “growth mindset” as a framework for the course.
  - 98% of students anticipate using “growth mindset” during their clinical internship experiences.

Exempler Quotes

- “The one aspect of Growth Mindset that is most relevant to my learning was challenges create valuable learning… effort is necessary to succeed and that faking it is not acceptable in this profession because people’s lives are in our hands.”

Lessons Learned

1. Introducing growth mindset to students during the course introduction and revisiting the concept at other time points during the semester was extremely helpful for student learning.
2. Students were able to reframe the feeling of vulnerability and accept that learning occurs when they are challenged. It helped the students understand the pedagogical basis for the course structure.
3. The growth mindset has the potential to be very helpful for students during their clinical experiences that begin shortly after the end of this course.
4. The GW DPT program’s repeated use of reflection as a teaching tool throughout the graduate curriculum helps to foster the culture needed for growth mindset in this fifth semester course.

References

3. Ramani S, Könings KD, Girod G, van der Vleuten CPM. Twelve tips to promote a feedback culture with a growth mind-set: Swinging the feedback pendulum from recipes to relationships. Medical Teacher, 2018. DOI: 10.1080/0142159x.2018.1430950