Clinical Teaching Effectiveness: Promoting Self-Efficacy and Metacognition

February 2016

Arvind Srinath Melissa Tavarez Noel Zuckerbraun





Workshop Objectives

- Understand self-efficacy and its importance to trainees' learning
- Recognize importance of helping trainees become more metacognitive
- Apply at least 1 strategy to help promote:
 - Self-efficacy
 - Metacognition



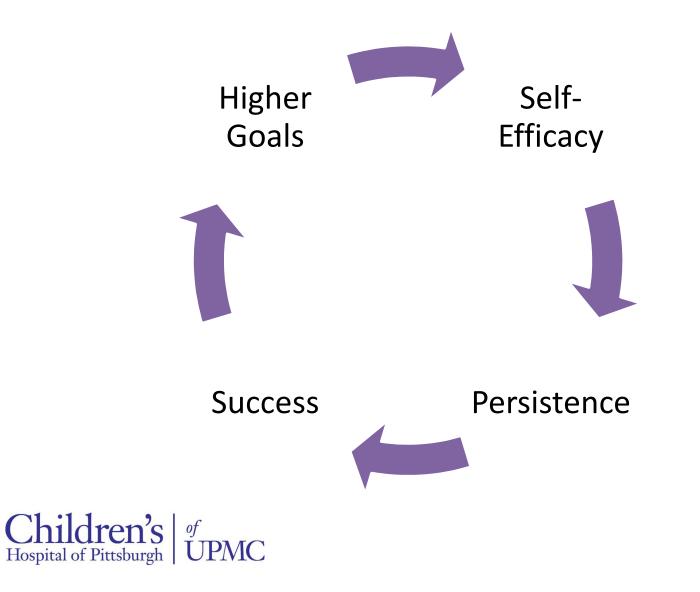
Self-Efficacy



Self-Efficacy Belief in one's capacity to organize and execute a course of action (Bandura, 1986)



Importance of Self-Efficacy for Success



Self-Efficacy is often Task-Specific

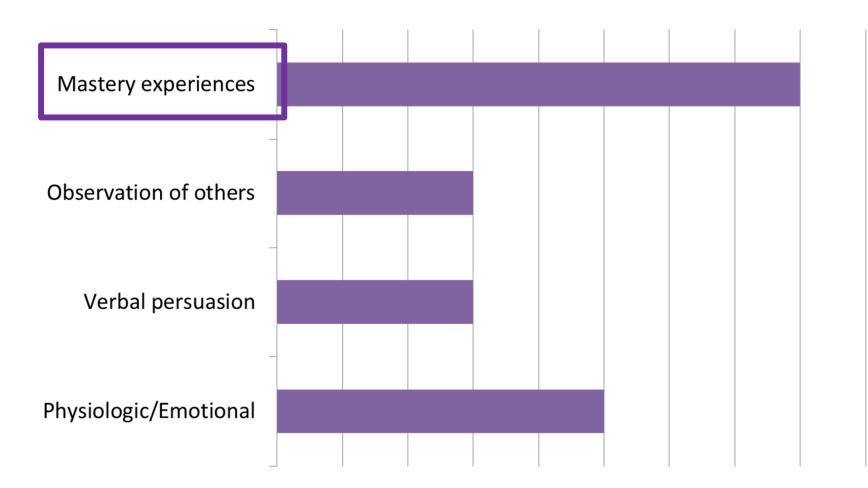
High

Low





Sources of Self-Efficacy





How to Promote Self-Efficacy?





How can we set up "Small Wins"?

Group brainstorm:



Self-Efficacy built on Small Wins

Most useful/important

Provide feedback



Back to Our Scenario...

- You are in your clinic and have a patient with a common complaint in your scope of practice
- When you ask the student/resident to go see the patient, they look like a "deer in the headlights"



Another Scenario...

- On the floor, you have a patient with a straightforward diagnosis.
- When you ask the student/resident/fellow for a differential and plan, they say, "I'm not sure."



One More Scenario...

- You are about to perform a common procedure in your specialty
- Your student/resident/fellow states, "I've never done that before."



Self-Efficacy built on Small Wins

Most useful/important

Provide feedback



What is Your Reaction?

- You are in your clinic and have a patient with a common complaint in your scope of practice
- When you ask the student/resident to go see the patient, they say, "this is probably nothing serious."



Calibration of Self-Efficacy through Metacognition



"Thinking about one's own thinking process"

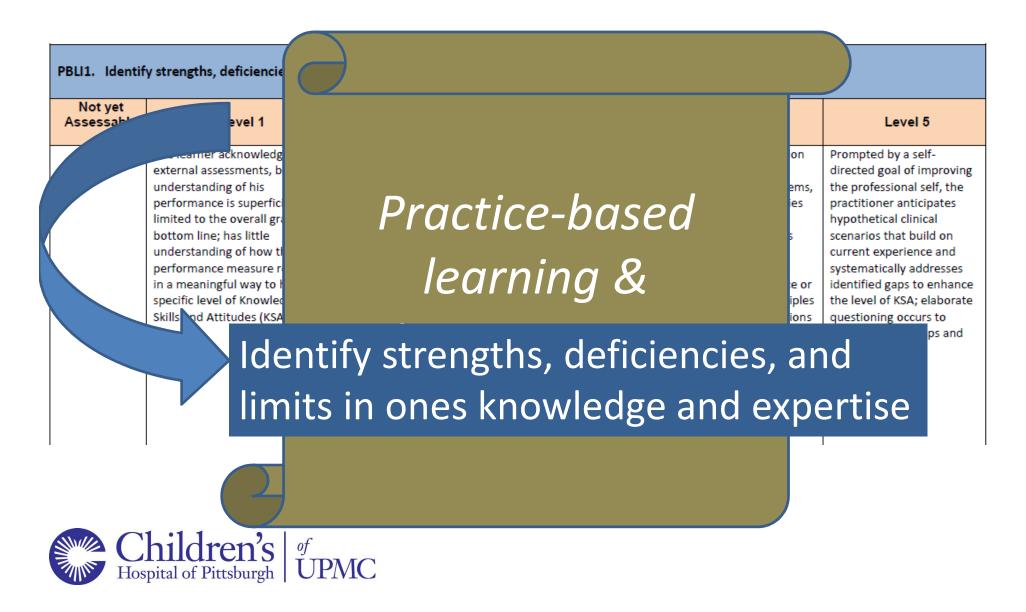
Common Metacognitive Processes

- Self-assessment
- Cognitive control
- Monitoring





Implications for Medical Education



How to Promote Metacognition?

"What else do you need to know or do?"

• "What if?" – provide alternative/refute

• 5 "Why's"



Metacognition

Self-Reflection

Alternatives/Refute

Self-monitoring



Back to Our Scenario...

- You are in your clinic and have a patient with a common complaint in your scope of practice
- When you ask the student/resident to go see the patient, they say, "this is probably nothing serious."



Another Scenario...

- You are about to perform a common procedure in your specialty
- Your student/resident/fellow states, "I've done a lot of these before."



One More Scenario...

- You are on the floor and have a patient with a straightforward diagnosis
- When you ask the student/resident/fellow for a differential and plan, they provide a single diagnosis confidently without elaboration



Self-Efficacy Small Wins

Most useful/important

Provide feedback

Metacognition

Self-Reflection

Alternatives/Refute

Self-monitoring



Summary

- Self-Efficacy linked to success and resilience
- Metacognitive strategies allow deeper insight and practice-based learning and improvement
- Commit to apply at least 1 strategy to:
 - Cultivate self-efficacy
 - Promote metacognitive processes



"Knowledge and skill [are] not enough... need will (self-efficacy) and ability to self-monitor (metacognition)"



Perspect Med Educ 2012; 1: 76-85 Am J of Medicine 2015; 318-324