

Self-Efficacy: The Empowerment Tool For Chronic Pain?

Oct 28, 2021
APTA Delaware
6:30-7:30 pm

Mary Beth Geiser PT, DPT
• Board Certified Specialist, Orthopaedic Physical Therapy
• Fellow, American Academy of Orthopaedic Manual Physical Therapists

1

Objectives

Objective 1
- Describe at least 2 factors that can affect the outcomes patients have while in therapy.

Objective 2
- Administer and calculate at least 2 different outcome measures and create a hypothesis why these scores might influence a patient's ability to succeed.

Objective 3
- Learn and or apply concepts learned into daily practice.

Objective 4:
- Formulate thoughts where additional self-learning and or self-efficacy is needed.

2

Self-Efficacy Definitions

- "...people's beliefs about their capabilities to produce designated levels of performance that exercise their influence over events that affect their lives"
Albert Bandura 1977, from Positive Psychology
<https://psycinfo.apa.org/doi/abs/10.1037/0022-006X.106.2.101>
<https://www.scribd.com/document/382828282/Albert-Bandura-1977>
- "...an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments."
American Psychology Association
<http://www.apa.org/press/releases/2010/04/041010>
- "Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment."

3

What Does the Literature Tell Us?

Coronado et al, 2021
• "Conclusions: Postoperative resilience and pain self-efficacy were associated with improved 12-month patient-reported outcomes after spine surgery. Future work should consider how early postoperative screening for positive psychosocial characteristics can enhance risk stratification and targeted rehabilitation management in patients undergoing spine surgery."


Coronado et al, 2020
• "Impact: Fear of movement and pain self-efficacy may be important mechanisms to consider when developing and testing psychologically informed physical therapy programs."

Just 2 examples (of many) to help create discussions today

4

Chronic Pain What Is It? & How Do Individuals React To It?

How Does Your Brain Respond to Pain? Karen Davis TED Talk



1. Listen intently, Listen carefully
2. Use open ended questions
3. Assess health literacy and pain literacy
4. Create a frame of reference for chronic pain
5. How well are they coping?
6. What do they need help with?
7. Are they ready to learn?
8. Are they open to change?
9. What is their perceived self-efficacy?
10. Use simple and easy terms as you move forward with treatment

5


More Concepts to Think About with Self-Efficacy

- **Affective Processes**
 - Processes regulating emotional states and elicitation of emotional reactions.
- **Cognitive Processes**
 - Thinking processes involved in the acquisition, organization and use of information.
- **Motivation**
 - Activation to action. Level of motivation is reflected in choice of courses of action, and in the intensity and persistence of effort.
- **Perceived Self-Efficacy**
 - People's beliefs about their capabilities to produce effects.
- **Self-Regulation**
 - Exercise of influence over one's own motivation, thought processes, emotional states and patterns of behavior.

• How is your patient today? Is that different than how they felt yesterday?

• What type of "picture" was painted during the subjective exam?

• How many "clues" did you hear?



6

More Factors That Effect or Influence Self-Efficacy

- Past Experiences, Successes & Failure
- Familial Influences
- Peer Influences
- Depression
- Anxiety
- Fear, Fear Beliefs
- Resilience

Just to name a few!

7

Screening Tools (Start Simple, Not All Inclusive)

Pain Catastrophizing Scale (PCS)

- "Assesses the extent of catastrophic thinking due to low back pain according to 3 components: **rumination, magnification, and helplessness**".
- Supported by APTA CPG for LBP
- Supported by Women's Health Task force (APTA) for use in functional limitation reporting
- Mentioned in numerous research studies

Self-Efficacy for Exercise (SEE)

- Developed initially for sedentary adults in the community who participated in an outpatient exercise program.

8

Outcomes

PCS

KEY DESCRIPTIONS

- 13 items rated on 5-point Likert scales from not at all to all of the time
- Higher score indicates higher level of catastrophizing
- Item scores are summed into a total score (PCS-T) and three subscale scores:
 - Rumination (PCS-R): Items 8, 9, 10, and 11
 - Magnification (PCS-M): Items 6, 7, 12
 - Helplessness (PCS-H): Items 1, 2, 3, 4, 5, and 13
- Minimum total score = 0, maximum total score = 65
- Subscale score ranges: PCS-R = 0-16; PCS-M = 0-12; PCS-H = 0-14
- A total score above 30 indicates clinically relevant level of catastrophizing
- Individuals are instructed to reflect on past painful experiences and to indicate the degree to which they experienced each of the 13 thoughts or feelings when experiencing pain
- Requires a reading level of approximately Grade 6

SEE

KEY DESCRIPTIONS

- The Self-Efficacy for Exercise scale consists of nine situations (exercise, function, pain, exercising alone, no pleasurable, too busy, feel tired, none, depressed) that might affect participation in exercise.
- For each situation, the subject rates the scale from 0 (Not Confident) to 10 (Very Confident) to describe his current confidence that he could exercise 3 times a week for an average each time.

9

Outcomes

PCS

KEY DESCRIPTIONS

- 13 items rated on 5-point Likert scales from not at all to all of the time
- Higher score indicates higher level of catastrophizing
- Item scores are summed into a total score (PCS-T) and three subscale scores:
 - Rumination (PCS-R): Items 8, 9, 10, and 11
 - Magnification (PCS-M): Items 6, 7, 12
 - Helplessness (PCS-H): Items 1, 2, 3, 4, 5, and 13
- Minimum total score = 0, maximum total score = 65
- Subscale score ranges: PCS-R = 0-16; PCS-M = 0-12; PCS-H = 0-14
- A total score above 30 indicates clinically relevant level of catastrophizing
- Individuals are instructed to reflect on past painful experiences and to indicate the degree to which they experienced each of the 13 thoughts or feelings when experiencing pain
- Requires a reading level of approximately Grade 6

SEE

KEY DESCRIPTIONS

- The Self-Efficacy for Exercise scale consists of nine situations (exercise, function, pain, exercising alone, no pleasurable, too busy, feel tired, none, depressed) that might affect participation in exercise.
- For each situation, the subject rates the scale from 0 (Not Confident) to 10 (Very Confident) to describe his current confidence that he could exercise 3 times a week for an average each time.

10

Clinical Applications - Discussion

Amiri

Think About

- PCS
 - Rumination score high vs magnification
 - Helpless score high vs rumination
 - All three scores are high
- SEE
 - Which items might cause more concern?
 - Create an open-ended question
- Influences from past
 - Home life, Employer, Role models
- Influences from past/present relationships
 - Gym buddies, past boyfriend, present fiancé

PCS 3 Subscales

1. **Rumination:** focus on pain-related thoughts (tendency to inhibit pain-related thoughts). I can't seem to keep it out of my mind
2. **Magnification:** exaggerate the threat value of pain (tendency to think pain-related thoughts). I can't seem to keep it out of my mind
3. **Helplessness:** helpless orientation to coping with painful situations (tendency to think pain-related thoughts). It's awful and I feel that it overwhelems me

11

Clinical Applications - Discussion

Ben

Think About

- PCS
 - Magnification score high vs Rumination
 - Helpless score high vs Magnification
 - All three scores are high
- SEE
 - Which items might cause more concern?
 - Create an open-ended question
- Influences from past
 - Abusive father, Teachers as role models
- Influences from past/present relationships
 - Work buddies, mother-in-law, wife

PCS 3 Subscales

1. **Rumination:** focus on pain-related thoughts (tendency to inhibit pain-related thoughts). I can't seem to keep it out of my mind
2. **Magnification:** exaggerate the threat value of pain (tendency to think pain-related thoughts). I can't seem to keep it out of my mind
3. **Helplessness:** helpless orientation to coping with painful situations (tendency to think pain-related thoughts). It's awful and I feel that it overwhelems me

12

Self-Learning & Self-Efficacy


Let's Revisit These Talking Points

- Who has an idea that might work?
- Personal success stories from the clinic?
- Barriers that you have encountered?
- Words matter – What should we say?

- **Affective Processes**
 - Processes regulating emotional states and elicitation of emotional reactions.
- **Cognitive Processes**
 - Thinking processes involved in the acquisition, organization and use of information.
- **Motivation**
 - Activation to action, Level of motivation is reflected in choice of courses of action, and in the intensity and persistence of effort.
- **Perceived Self-Efficacy**
 - People's beliefs about their capabilities to produce effects.
- **Self-Regulation**
 - Exercise of influence over one's own motivation, thought processes, emotional states and patterns of behavior.

13

Empathy vs. Sympathy




Discussion

- How could empathy change a person's sense of efficacy?
- Why is it important to show empathy?
- What else have you learned?

14

Questions

Thank You for the opportunity to be here
& share the evening with you!



15

References

1. Bouncing back after lumbar spine surgery: early postoperative resilience is associated with 12-month physical function, pain interference, social participation, and disability [Spine J. 2021 Jan; 31(1):55-63.]
2. Psychosocial Mechanisms of Cognitive-Behavioral-Based Physical Therapy Outcomes After Spine Surgery: Preliminary Findings From Mediation Analysis. [Phys Ther. 2020 Sep 28;100(9):1793-1804.]
3. <https://www.apta.org/physicians/evidence-based-practice-resources/test-measures/gain-control/physical-scale-pcs> [Accessed Sept 27, 2021.]
4. <https://www.cribb.org/rehabilitation-measures/pain-control/physical-scale> [Accessed Sept 27, 2021.]
5. <https://www.mink.org/rehabilitation-measures/self-efficacy-exercise-scale> [Accessed Sept 27, 2021.]
6. Testing the Reliability and Validity of the Self-Efficacy for Exercise Scale [Nursing Research; 2000 May/June; 49(3):154-159]

16