

4-2016

Assessing Student Self-Perception of Confidence in the Evaluation and Treatment of the Neurologically Involved Across the Lifespan

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Recommended Citation

Barta, Kristen and Flores, Megan, "Assessing Student Self-Perception of Confidence in the Evaluation and Treatment of the Neurologically Involved Across the Lifespan" (2016). *Physical Therapy Collection*. 4.
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Assessing student self-perception of confidence in the evaluation and treatment of the neurologically involved across the lifespan



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Introduction

- Physical therapy students report that they do not feel confident in the treatment of neurologically involved people after finishing didactic course work. The purpose of this pilot study was to investigate changes in student confidence with evaluation and treatment of this population through the use of real life interactions.
- We hypothesized that this interaction would significantly improve students' self-perceived confidence in the evaluation and treatment of this population across the lifespan.

Subjects

- 48 physical therapy students
 - 26 Female
 - 22 Male
- All students were in the same cohort
 - Participation while in the 5th out of 7 trimesters
- All students completed first internship (initial clinical exposure)
- Participation in the survey was voluntary
 - Students gave consent to participate

Methods

- As part of the curriculum physical therapy students at the University of St. Augustine are required to participate in Patient Oriented Integrated Neurological Treatment (POINT) labs.
 - Occurs during their Neuromuscular III and Pediatric classes.
- POINT labs are divided into an adult and pediatric section, in which the students evaluate a participant from both sections once a week for four weeks:
 - Week 1: Evaluation of the adult and pediatric participant
 - Week 2: Treatment session
 - Week 3: Treatment Session
 - Week 4: Discharge and re-evaluation with home exercise program
- The participants are volunteers from the community who have been medically diagnosed with a neurological condition.
- A pilot study used a survey to assess one student cohort's perception of confidence in the evaluation and treatment of this population.
- Pretest survey completed prior to first POINT lab and same posttest completed after last POINT lab

Survey

I am confident in my ability to...	Well Prepared	Moderately Prepared	Minimally Prepared	Poorly Prepared	Not At All Prepared
1. Complete a full age-appropriate evaluation of a neurologically involved patient	5	4	3	2	1
2. Perform appropriate screen to determine need for PT for a neurologically involved patient	5	4	3	2	1
3. Choose an appropriate outcome measure for the neurologically involved patient	5	4	3	2	1
4. Develop a plan of care for a neurologically involved patient	5	4	3	2	1
5. Write realistic, age-appropriate measurable goals for a neurologically involved patient	5	4	3	2	1
6. Implement the developed treatment plan for a neurologically involved patient	5	4	3	2	1
7. Develop an appropriate home exercise program for a neurologically involved patient	5	4	3	2	1
8. Complete reassessment and discharge summary for a neurologically involved patient	5	4	3	2	1
9. Interact with the neurologically involved patients and families in a supportive manner	5	4	3	2	1
10. Practice in a safe and effective manner for the neurologically involved patient	5	4	3	2	1

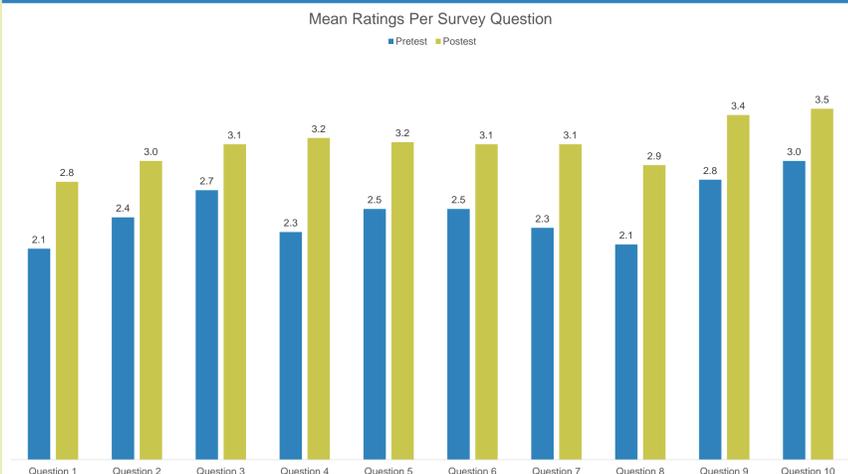
Data Analysis

- A paired sample t-test was used to analyze the difference between the pretest and posttest groups for each question on the survey.

References

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Results



- The means for each question increased from pretest to posttest
- There was a statistically significant difference between the pretest and posttest for each of the 10 questions ($p < .001$).
- Overall, the biggest change occurred in questions #4 and #7
 - Q4: Plan of care development
 - Q7: Home exercise program development
- The least amount of change occurred in question #3
 - Q3: Outcome measure selection

Conclusions

- These findings are consistent with our hypothesis that the use of the POINT labs would significantly improve students' self-perceived confidence in the evaluation and treatment of a person with a neurological condition.
- Exposing students to neurologically involved community participants over the course of a 4 week POINT lab is an effective teaching strategy to prepare students for their clinical internships.
- One potential reason for greater increase in questions 4 and 7 could be that students had more time to reflect and gain confidence in their abilities with these skills.
 - The plan of care was developed and modified during weeks 2 – 4 of the POINT lab
 - The home exercise program was not implemented until the last day of the POINT lab, giving students 4 weeks to complete this task.
- Alternatively, question 3 may have changed the least because outcome measure selection occurred prior to the first day of POINT lab.
 - Students may have had less change in self-confidence because of the single occurrence and limited time for reflection or modification of this task.
- This study supports the use of short integrated clinical experiences in physical therapy curriculum.