

Can We Teach Acute Care Physical Therapy at Home? Teaching Adjustments in the Time of COVID

Suzanne Trojanowski PT, DPT, NCS; Erica Sherman PT, DPT, MBA, GCS; Min Hui Huang PT, PhD, NCS

Department of Physical Therapy, University of Michigan - Flint

Background

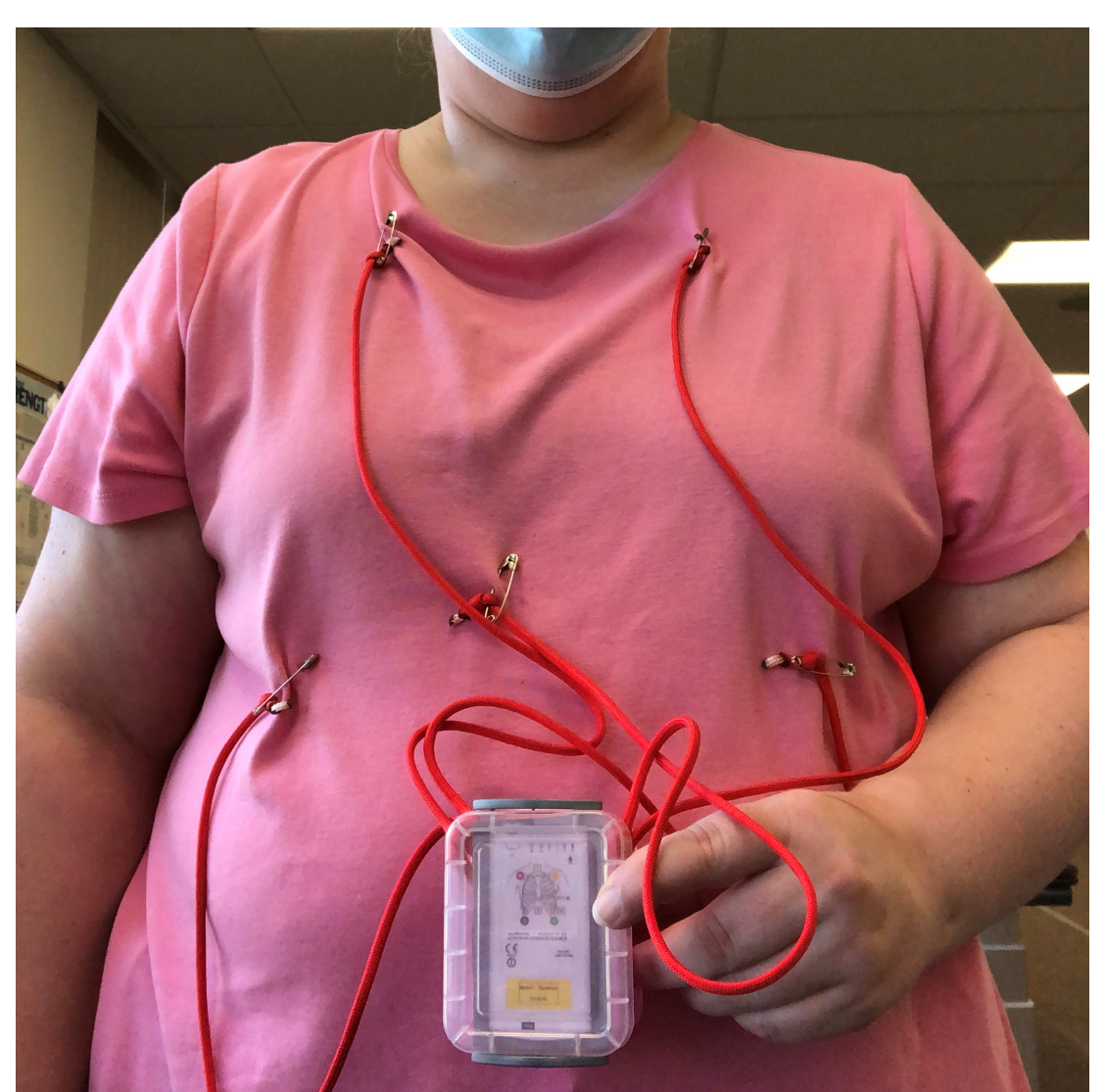
- Students in the physical therapy program have undergone many adjustments to their curriculum as a result of the COVID-19 pandemic. Amongst those is limited face-to-face teaching on campus.
- This presents challenges for laboratory based courses that use simulation as a pedagogical method of instruction.
- The *Core Competencies for Entry-Level Practice in Acute Care Physical Therapy* was used to guide curriculum development in this medical-surgical course.¹

Purpose

- The purpose of this study is to examine if an altered delivery of a lab-based acute care physical therapy course impacts a student's confidence and preparedness for a transition into a full-time acute care clinic education experience (CEE).

Course Adjustments

- Students enrolled in a physical therapy medical-surgical course were given kits to take home in order to practice and execute skills commonly encountered in acute care physical therapy practice.
- Kits included an IV pole, empty oxygen tank carrier, foley bag, IV bag, non-skid socks, tape, a simulated chest tube, and a simulated telemetry box.
- Students were given cases weekly and were required to execute a physical therapy initial evaluation that was video recorded and submitted for a course grade with individualized feedback.
- Each week, one student was assigned to present the case to a small group of 10 students and one instructor. In addition to the case presentation, each student who presented completed additional coursework including documentation, using an instructor developed template, and reflection on examination performance.
- In week one of the course all students completed documentation and reflection assignments as preparation for the week they were presenting. Weeks two through week 12 students rotated through as the presenter. Week 13 all students completed a documentation and reflection assignment.



Research Methods

- Students were invited to complete a survey at the end of the course that examined their pre-clinical confidence and perceived preparedness.
- The survey used the Acute Care Confidence Survey (15 items)², as well as additionally developed questions assessing Preparedness from Class Activities (7 items), Preparedness to achieve the *Core Competencies for Entry-Level Practice in Acute Care* (12 items)
- Each item was rated on a Likert scale from 10 (very unprepared or very uncertain) to 100 (very prepared or very certain). The 10-100 scoring scale was used because it is consistent with the original measurement scale of the Acute Care Confidence Survey.

Results

- Fourteen physical therapy students consented to participate in the study.

Category	Mean score (SD)	Most prepared item Mean score (SD)	Least prepared item Mean score (SD)
Preparedness from class activities	78.9 (8.1)	Documenting an initial acute care evaluation 85.9 (8.3)	Writing a reflection about his/her performance on an initial acute care evaluation 62.9 (24.3)
Preparedness to achieve Core Competencies for Entry-Level Practice in Acute Care Physical Therapy	79.7 (2.8)	Maintaining a safe environment for self 86.5 (9.7)	Executing sound decision making for complex acute care patients 68.9 (15.9)
Acute Care Confidence Survey	83.8 (6.3)	Putting on a blood pressure cuff 94.6 (10.3)	Deciding if a person needs subacute rehab 76.4 (11.2) Safely performing a maximum assistance transfer from bed to wheelchair 76.4 (11.2)

Lessons Learned

- Despite logistical challenges of performing acute care skills at home, students can gain appropriate experience and confidence from this style of coursework design.
- Repeated practice of skills may contribute to feelings of confidence and preparedness prior to clinical experiences.
- Results of this survey can be used to intentionally design coursework to address areas in which students feel least confident. For example, increased opportunity to practice maximum assistance transfers should be considered.

Future Application and Next Steps:

- After students complete their acute care clinical rotations, students will complete a post-rotation survey as well as participate in focus group interviews. Survey results will be compared to the Clinical Performance Instrument, which is a tool used to assist in assessing student performance on clinical rotations.
- Results from students' post-rotation survey and Clinical Performance Instrument results with relation to their perceived confidence and preparedness will be explored.

References

1. Greenwood, Kristin; Stewart, Eric; Hake, Melissa; Milton, Erin; Mitchell, Lauren; Sanders, Babette Defining Entry-Level Practice in Acute Care Physical Therapist Practice, *Journal of Acute Care Physical Therapy*: January 2017 - Volume 8 - Issue 1 - p 3-10. doi: 10.1097/JAT.0000000000000048
2. Greenwood, Kristin Curry; Nicoloro, David; Iversen, Maura Daly Reliability and Validity of the Acute Care Confidence Survey, *Journal of Acute Care Physical Therapy*: April 2014 - Volume 5 - Issue 1 - p 1-10. doi: 10.1097/01.JAT.0000446087.82782.f5