

**Academy of Orthopaedic Physical Therapy (AOPT) of the APTA
Grant Program
Annual Progress Report Form**

Date: 1 March 2021

Name of the investigators: Co-PI: Lori Michener, PhD, PT, ATC, FAPTA; Division of Biokinesiology and Physical Therapy; University of Southern California; Co-PI: Chuck Thigpen, PhD, PT, ATC; ATI Physical Therapy, Greenville, SC.

Name of Grant: Shoulder Pain: Effects of Adherence to Practice Guidelines and Dose of Physical Therapy on Outcomes of Care. SPEADO Project

Award Period: 1 May 2017 – 30 April 2019; no cost extension until April 2021.

Current year of award: Year 4 – no cost extension

1) Summary of accomplishments in the past year:

Established goals as per our timeline in the grant proposal for Year 1, and the status of each goal:

| Goal | Status |
|---|---|
| 1- IRB approval at all sites involved in the SPEADO project – USC and ATI clinics | Completed |
| 2- Routine data collection via EMR at USC and ATI clinics | Completed |
| 3- Recruitment of clinics other than USC and ATI clinic sites for participation | Completed |
| 4- REDCap data collection template | Completed |
| 5- Data collection training and collection at all sites | Completed |
| 6- Data abstraction and refinement to create working data set from EMR | Completed |
| 7- Data refinement to create working data set from all sites | Continuing as per timeline. See below for more details |
| 8- Analysis for all AIMS | Continuing as per timeline. See below for more details |

Since inception, we have achieved goals 1- 5, and continued data collection (goal 5) thru March 2020 until COVID. We have made very little progress on goals 6 – 8 on our timeline in 2020 secondary to a pivot of our staff to cover other clinic operational changes secondary to COVID.

As described in last year's progress report: The Shoulder National Database Module developed by the Academy of Orthopaedic Physical Therapy (AOPT) is the framework for defining the treatment delivered and outcomes of care data elements. This module allows for the systematic definition of the diagnosis, treatment delivered to determine adherence to CPGs, and outcomes of care. For the ATI clinics, we have extracted data from their EMR records for all necessary data elements. For EMR data extraction at USC and other non-ATI clinics, our original plan was to contract with the APTA PT Outcomes Registry (Registry) for data extraction. However, the Registry is no longer a feasible option to get this completed on time. We pivoted, and collected data via paper and pencil for all sites except ATI clinics that we have recruited to participate. We have completed data collection all sites for this project.

Projection for April 2021 – March 2022: Continue the process of converting and refining the data elements to create a working data set. Complete all data analysis for all aims, and submit paper for publication.

2) Provide a one paragraph summary of results or abstract suitable for posting on the AOPT website:

Shoulder pain is a common musculoskeletal condition. There is a tremendous amount of evidence critically summarized in the form of Clinical Practice Guidelines (CPGs). The CPGs are intended to guide clinicians in the treatment of patients with musculoskeletal shoulder pain. There are CPGs for adhesive capsulitis and rotator cuff

disease, one of which is has been developed by a team appointed by the Orthopaedic Section of the APTA. There is a lack of research on the effects of adherence to these CPGs, and their relationship to outcomes and dose of care in patients with shoulder pain. The project goals are to convert clinical data into meaningful data elements that used to characterize the outcomes of care and dose of physical therapy, and adherence to CPGs. Specifically we will 1- characterize the effects of adherence to CPGs on patient-rated outcomes of care for patients undergoing physical therapy for shoulder pain, and 2- determine if dose of care (visits) is effected by adherence to CPGs, and related to outcomes of care for patients receiving physical therapy for shoulder pain. In our first year we have extracted data from the EMR records for all necessary data elements at 1 of our sites (ATI), and have recruited n=41 patients via paper and pencil data collection at other sites (USC and outside clinics). The Shoulder National Database Module developed by the Orthopaedic Section of the APTA is the framework for defining the treatment delivered and outcomes of care data elements. This module allows for the systematic definition of the diagnosis, treatment delivered to determine adherence to CPGs and outcomes. We are continuing work on the last 2 goals: data refinement to create a working data set, and analysis for all aims.

3) Publications published or accepted during the past year.

No publications or abstracts were submitted during Year 4.

4) Budget: No funds were spent over the last yearly budget cycle.

| Expense Category | Total Budget | Budgeted Year 1 | Actual Amount Spent Year 1 | Amount Remaining in Year 1 Budget | Budgeted Year 2 | Adjusted Budgeted Amount Year 2 | Actual Amount Spent Year 2 | Amount Remaining after Year 2 Budget | Budgeted Year 3 | Actual Amount Spent Year 3 | Amount Remaining in Year 3 Budget | Budget Year 4 | Actual Amount Spent Year 4 | Budget Year 5 |
|--|------------------------------|-----------------|----------------------------|-----------------------------------|-----------------|---------------------------------|----------------------------|--------------------------------------|-----------------|----------------------------|-----------------------------------|----------------|----------------------------|----------------|
| Personnel: PIs (LM & CT) | \$8,987 | \$4,438 | \$4,256 | \$182 | \$4,549 | \$4,731 | \$4,823 | -\$92 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Personnel: Consultants USC: Stats/ RA ATI: RA | \$10,300 \$5800 \$4500 | \$4,400 | \$2,000 | \$2,400 | \$5,900 | \$8,300 | \$6,472 | \$1,828 | \$1,736 | \$2,613 | -\$877 | \$8,123 | \$0 | -\$877 |
| Programming for EMR data extraction & organization | \$8000 | \$4,500 | \$0 | \$4,500 | \$3,500 | \$8,000 | \$0 | \$8,000 | \$8,000 | \$0 | \$8,000 | \$0 | \$0 | \$8,000 |
| Travel | \$2500 | \$1,500 | \$0 | \$1,500 | \$1,000 | \$2,500 | \$0 | \$2,500 | \$2,500 | \$0 | \$2500 | \$1500 | \$0 | \$2,500 |
| Total | \$29,787 | \$14,838 | \$6,256 | \$8,582 | \$14,949 | \$23,531 | \$11,295 | \$12,236 | \$12,236 | \$2,613 | \$9,623 | \$9,623 | \$9,623 | \$9,623 |

5) Objectives for the next year: Our objectives during Y5 are to complete the final 2 goals, and produce results in the form of abstracts and manuscripts, and leverage these finds to apply for funding to continuing to examine the outcomes and process of care for patients with other musculoskeletal conditions treated by physical therapists.