

Exercise Education for Adults with Rheumatoid Arthritis as Part of the PREVAIL Study
Stephanie Marvin, SPT

Primary Advisor: Louise Thoma, PT, DPT, PhD

Committee Members: Joel Thompson, PT, DPT, MA, CLT, CPhT
Katie Huffman, MA

Background

In my first and second years of physical therapy school, I had little to no exposure to rheumatoid arthritis. Instead, it seemed that the majority of the time, it was simply mentioned as a yellow flag for an intervention. My first experience with a patient with rheumatoid arthritis was during my outpatient orthopedic rotation. She was visiting physical therapy for post-surgery rehabilitation that was unrelated to her rheumatoid arthritis diagnosis. During her treatment sessions, I realized just how little I knew about the challenges and considerations needed while treating a patient with rheumatoid arthritis.

Consequently, I decided to join Louise Thoma's lab as part of the Medical and Graduate Student preceptorship program through the Rheumatology Research Foundation. I joined the PREVAIL lab, which is currently researching the perspective of patients with rheumatoid arthritis and their treating clinicians, current practices for the treatment of rheumatoid arthritis, and the reality of utilization of physical therapy services. My roles in the lab included assisting with the ongoing qualitative research study. I did this by organizing, preparing, and analyzing interviews of both patients and rheumatologists about perspectives of exercise and rehabilitation on disease management.

Statement of Need

My research with Louise Thoma explored the perspectives on exercise and physical therapy for patients with rheumatoid arthritis. Through assisting with the qualitative analysis of patient interviews surrounding perspectives and utilization of rehabilitation, I realized the major gap in disease-specific health education regarding the benefits of exercise and physical therapy. While some rheumatologists and patients recognize the role of exercise and physical therapy for rheumatoid arthritis, there still appear to be many who are not familiar with their benefits. Instead, there appears to be a large focus on medication management alone. Despite this knowledge gap about exercise, these patients experience a wide range of physical impairments that limit their ability to participate in daily activities and hobbies due to their diagnosis.

Purpose

The goal of the larger PREVAIL research is to develop a survey for an upcoming clinical trial that will assist rheumatologists in referring their patients to physical therapy and exercise. My capstone project represents a portion of this larger study. I designed a mock-up of a website that will be provided to all patients in the clinical trial to provide disease-specific education about current recommendations for exercise, benefits of exercise, and other evidence-based exercise resources. The goal of my project is to shift the thinking towards the incorporation of movement and exercises as an additional tool for the management of the rheumatoid arthritis disease process.

Description of Products

PowerPoint: My PowerPoint presentation represents a “mock website” that will be used to provide exercise education to patients in an upcoming clinical trial. The exercise education resource was guided by many factors including patient input, literature reviews, and additional evidence-based resources. The patient input was drawn from qualitative interviews of adults living with rheumatoid arthritis. These interviews explored patients' current perspectives on exercise and rehabilitation in disease management, facilitators and barriers to exercise, and suggestions for tools to promote exercise. The data was extracted and analyzed using the Rapid Analysis method to determine common themes among this patient population that guided the creation of the educational material.

The literature review focused on clinical practice guidelines and systematic reviews. Evidence relevant to exercise prescription and patient education was extracted to guide the exercise prescription and video library portions of the education material. The inclusion of evidence-based resources was guided by themes in patient interviews and clinical practice guideline recommendations. These resulted in the inclusion of informative websites, community resources, and exercise videos.

Health literacy resources, including the Inclusive Language Guide and Readability Calculator from the UNC Health Science Library website, were used to further edit the resource to ensure that all adults with rheumatoid arthritis can access the information. Finally, future feedback from participants in the study will be used to further develop this website to ensure it is relevant, easy to understand, and helpful for the management of rheumatoid arthritis.

Feedback: The feedback questions will be part of a larger survey provided to patients after completion of the PREVAIL clinical trial. Therefore, the completion of the feedback is not yet completed. Some questions will be included in the qualitative feedback, while others as the quantitative feedback.

I presented the initial draft of my deliverable to the PREVAIL lab where I received feedback from other lab members about content, organization, and presentation that guided the format of the website. After completion of the website mockup, I received feedback from an expert on

inflammatory arthritis content to ensure I included relevant, accurate, and comprehensive information. I also received feedback from a patient education expert about health literacy, presentation, and providing meaningful information to patients.

Self-reflection

I am grateful for this capstone experience, that afforded me insight into the experiences of adults living with rheumatoid arthritis, the process of research, and the creation of patient education materials. Throughout my project, I enhanced my skills related to literature review and synthesis, qualitative research analysis, scientific writing, time management, project management, and communication with other professionals and patients.

I am proud that I met all of my set learning objectives for the project which are as follows:

- (1) Review systematic reviews and current clinical recommendations to synthesize the best evidence for exercise guidance that is easy to comprehend for all patients regardless, of education level or exercise experience.
- (2) Maintain proper time management to ensure sufficient time is allowed for communication with advisers and committee members prior to all deadlines.
- (3) Develop and curate educational material based on analyzing patient preferences in ongoing interviewing with patients, health literacy, and current best practices for patients with rheumatoid arthritis.

As I transition to a licensed physical therapist, I will use the knowledge I gained about this patient population to apply evidence-based practice, utilize my improved toolbox of community resources, educate on disease-specific benefits of exercise, participate in research in some capacity, and hopefully create more educational resources in the future.

Acknowledgments

To **Louise Thoma, PT, DPT, PhD**, thank you for going above and beyond to share your research expertise and guide me through Capstone and the Rheumatology Research Foundation preceptorship. I am endlessly grateful for the opportunities this lab provided me including attendance at American College of Rheumatology Convergence, attending poster presentations at Combined Sections Meeting, and the potential to submit an abstract to the upcoming ACR and CSM conferences. I appreciated the community of lab meetings and they quickly became the highlight of each week during 3rd year.

To **Joel Thompson, PT, DPT, MA, CLT, CPhT**, thank you for taking the time to be one of my committee members. I am grateful you shared your expertise on inflammatory arthritis conditions and helped with interview transcriptions and analyses. I appreciate your excitement for the creation of my final capstone product!

To **Katie Huffman, MA**, thank you for taking the time to be one of my committee members. Your expertise in patient education provided me valuable feedback that helped shape my final capstone product.

To **Chris Lane, PT, DPT**, while you were not one of my committee members, I appreciate all your help and support with organizing and completing interview recruitment, as well as navigating my first professional conferences.

To **PREVAIL Lab Members and Research Assistants**, thank you for providing valuable feedback on drafts of my capstone and assisting with the process of interview transcript analysis, including transcription cleaning, extraction, and summaries.