

Project Title: Critical assessment of management of low back pain in individuals with lower extremity amputation

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Project Summary

Background: Low back pain (LBP) is very common, costly, and disabling in individuals with lower extremity amputation, such as veterans. The risk factors for LBP and the effectiveness of exercise programs for LBP are well-established in the general population. However, major gaps in knowledge exist related to managing LBP in individuals with lower extremity amputation. For example: Physical and psychosocial risk factors for LBP in individuals with lower extremity amputation have not been systematically appraised. Modifications to exercise programs that may be needed for managing LBP in those with lower extremity amputation have not been characterized. Randomized clinical trials have not been published to provide evidence to inform clinicians about managing LBP in individuals with lower extremity amputation.

Specific aims: The aims of this project are to:

1. Conduct a systematic review of the literature to summarize what limited information is available within this area including physical and psychosocial risk factors for LBP in individuals with lower extremity amputation.
2. Develop an instructional resource (current perspectives article) with text and images describing and demonstrating modifications to exercise programs for the back, core, and posterior chain muscles for managing LBP in those with lower extremity amputation.
3. Develop strategic objectives for future research, knowledge translation, and clinical implementation efforts through meetings with healthcare providers and individuals with lower extremity amputation.

Impact

This project is critically assessing LBP in individuals with lower extremity amputation in a systematic manner that has not been previously conducted. Given the large need for advances in management approaches for lower extremity amputees that are at high risk for LBP, this project is necessary to inform clinical implementation efforts and to plan for future large-scale research grants.

This project is developing useful resources for healthcare providers for exercise programs for the back, core, and posterior chain muscles in individuals with lower extremity amputation. It will produce full text articles (systematic review and current perspectives) that will be made publicly available through open access media (e.g. journals, websites). Since no similar resources are currently available, these new resources will provide practical recommendations for managing LBP in individuals with lower extremity amputation. The project also serves to objectively identify knowledge gaps for future research efforts.

This project highlights a strong collaboration between the USF Health School of Physical Therapy & Rehabilitation Sciences, Morsani College of Medicine and the US Department of Veterans Affairs. The project's interprofessional team that includes a prosthetist, physical therapist, chiropractors, exercise scientists, clinicians, and researchers is working together to find solutions to a healthcare concern in a population that is underserved and has not been well-studied.