

# ABSTRACT SUBMISSION EXAMPLES



## APTA'S Combined Sections Meeting

Below are examples of abstract submissions for either a poster or a platform.

### Research Report

**TITLE:** Physical Therapy for People Living with HIV/AIDS: A Needs Assessment

**Purpose/Hypothesis :** The past three decades have shown significant medical advancements in the treatment of the Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS), with normal life expectancies seen for people living with HIV/AIDS (PLWHA) who have access to proper medical management. This increased chronicity has increased the symptom burden of musculoskeletal, neurologic and chronic pain conditions for PLWHA during their lifespan - many of which can be treated with physical therapy (PT). The purpose of this study is to determine the knowledge and beliefs of PTs regarding occupational exposure, pathophysiology and physical therapy treatment for PLWHA.

**Number of Subjects :** 129

**Materials/Methods :** One hundred twenty-nine licensed physical therapists were surveyed in the Atlanta area to identify overall knowledge of HIV/AIDS, the perception of PT needs in PLWHA, views on the effectiveness of PT interventions for HIV-related impairments and training needs of PTs to best care for PLWHA. One hundred and twenty nine original surveys were administered to licensed physical therapists working at the five major hospital systems in metropolitan Atlanta, Georgia, USA.

**Results :** The results of this study showed that the majority of respondents do encounter PLWHA in their physical therapy practices. Most PTs viewed physical therapy as an effective adjunct therapy for HIV/AIDS related impairments and felt comfortable treating common HIV-related impairments of muscle wasting/deconditioning, peripheral neuropathy, and chronic pain. While most PTs self-identified their basic knowledge of HIV/AIDS related impairments as "competent," less than half of the respondents were able to correctly identify the four transmission routes for HIV. Finally, most PTs indicated that they would like to have additional training in some form to make them more comfortable providing physical therapy treatment for HIV-related impairments in PLWHA.

**Conclusions :** This study further confirms the need for PTs to better understand occupational HIV exposure risk and pathophysiology of HIV/AIDS. It also confirms the need for training of PTs in PT interventions for PLWHA. The sample was limited to PTs in Atlanta, Georgia USA and therefore can only be generalized to this demographic.

**Clinical Relevance :** As HIV becomes a chronic instead of immediately terminal condition, HIV-related musculoskeletal, neurological and chronic pain issues contribute to the symptom burden experienced by PLWHA. As PT becomes more necessary in the overall medical management of this population, it is essential that PTs hold accurate information about HIV pathophysiology and proper interventions to manage these impairments.

## References (At Least 5 Within The Last 10 Years)

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## Special Interest Report

**TITLE:** Weekly Mobility Rounds--a Patient-Focused Approach to Identifying and Decreasing Mobility Barriers in the Cardiovascular ICU

**Purpose:** Early mobility in the intensive care unit (ICU) is currently recognized as optimal practice. However, it can be challenging to implement. This abstract describes the process of implementing weekly rounds to discuss facilitators and barriers to progressive mobilization by focusing on selected, specific patients each week.

**Description:** A team of professionals interested in early mobilization was formed, including intensive care physicians, nurses, staff and senior physical therapists, a specialist physical therapy consultant and rehabilitation service managers in the cardiovascular ICU. Following brief education about early mobility and the roles of various team members, a walking rounds was established. Once weekly, the team gathers to discuss 2-3 patients selected by team members as representing challenges to mobilization. The team discusses each patient's current status and goals for mobility. During this discussion, many opportunities for interprofessional education have arisen, been discussed and resolved. Examples include line placement vs. movement of joints of body parts, skilled vs. unskilled transfers, optimizing scheduling of mobility, optimizing nutritional status of critically ill patients, decreasing use of corticosteroids and paralytic medications, prioritizing mobility in patients' daily care plans, and developing behavioral approaches to patients limiting participation due to fear or pain.

**Summary of Use:** After 15 months of 1-hour, weekly rounds, there is now an expectation of all ICU staff that mobility is a goal for all patients. Staff feel free to raise issues and questions freely in the discussions without a feeling of hierarchy or fear of having suggestions rejected. Patients are frequently observed walking in the hallways or even being taken outdoors despite requiring life-saving equipment such as extracorporeal membrane oxygenation (ECMO), mechanical ventilation or continuous renal replacement therapy (CRRT). The focus on specific patients and their issues helps all staff persons feel their input is valued and translate

theoretical knowledge to specific interventions. Patients and families are more optimistic about recovery due to greater levels of mobility. We aim to implement similar rounds in other ICU units in the near future, sharing our model and outcomes.

**Importance to Members:** Early mobility in the critical care setting requires more than just knowledge of physiology and medical treatments. A culture of seamless interprofessional communication and teamwork must be developed for any plan to be successful. We have found that a minimal time commitment (1 hour per week) can be extremely valuable to instituting and maintaining an early mobility program that is truly embraced by all disciplines. Physical therapists are the logical champions of mobility in the critical care environment, but must be effective interprofessional team members in leading the necessary culture change

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## Case Study Report

**Title:** Successful Non-Operative Management of a Collegiate Wrestler with an Acute ACL Injury

**Background and Purpose:** Following an ACL injury, conventional treatment for athletes is often reconstruction; yet, current outcomes demonstrate that rates of return to prior level of play are lower than believed.<sup>1,2,3,4</sup> In a study comparing immediate surgical treatment, delayed surgical treatment, or non-operative treatment of ACL tears; no significant difference in patient reported outcomes were found.<sup>5</sup> Non-operative management has been shown to be a viable option following a treatment algorithm. In a 10-year prospective study of this algorithm<sup>6</sup>, athletes who met non-operative screening criteria (potential copers or PC) demonstrated a 72% successful return to pre-injury level of sports participation.<sup>7,8</sup> The algorithm provides criteria for a temporary return to sport (RTS) protocol, initially focusing on impairment resolution including full range of motion (ROM) of the knee, >70% quad strength index (QI), trace or less effusion, pain-free hopping, and no repairable meniscus tear. Screening includes: ≤1 episode of giving way, >80% on timed hop test, >80% Knee Outcome Survey-Activities of Daily Living Scale (KOS-ADLS), and >60% Global Rating Scale (GRS). If met, progressive physical therapy is initiated, including 10 visits of perturbation training and sports specific skills. The purpose of this case report is to describe the successful non-operative treatment of a collegiate wrestler using an ACL injury treatment algorithm for temporary RTS.

**Case Description:** A 21 y/o male collegiate wrestler sustained a complete ACL tear in pre-season. The patient was seen for evaluation 2 weeks after his injury displaying full knee ROM, trace effusion, and QI of 92.3% (without stimulation) and 85.6% (with stimulation) via Burst Superimposition testing. Using the ACL

injury treatment algorithm, the patient was screened for potential temporary RTS. Results included:  $\leq 1$  episode of giving away, hop testing LSI all  $> 90\%$ , KOS-ADLs  $87\%$  and GRS  $95\%$  indicating patient was a PC. The patient began a plan of care consisting of 10 treatments of progressive perturbation training, strength training, and sport-specific activities.

**Outcomes:** Throughout treatment, the patient's knee effusion remained at trace or less without any episodes of instability. Discharge findings included Burst testing QI of  $95.5\%$  (without stimulation) and  $107.6\%$  (with stimulation), all hop testing LSI of  $> 90\%$ , KOS-ADL  $100\%$  and GRS  $90\%$ . The patient returned to wrestling practice 2 months after his injury, competing a few weeks later, and finishing fourth in the division III NCAA tournament.

**Discussion:** After meeting screening criteria and following a progressive rehabilitation program the patient was able to meet all functional testing criteria for return to sport and had a successful collegiate season without any instability. The outcomes of this case report support the use of an ACL injury treatment algorithm to guide clinical decision making for athletes with an ACL tear who want to delay surgery and return to play in the short term.

### References (At Least 5 Within The Last 10 Years)

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## Theory Report

**Title:** A Train-the-Trainer Approach to Increasing Physical Activity for Persons with Dementia across Care Settings

### Theory/Body:

Persons with dementia (PWD) are at high risk for mobility disability and poor health due to limited physical activity (PA). Interventions that combine exercise and behavioral management techniques are effective in improving PA and functional mobility in PWD. In addition to cognitive impairment, barriers to increasing and sustaining PA in PWD include comorbidities, limited access to therapy services, and reduced social support. To address these barriers, across care settings, care staff involvement is needed. Physical therapists (PTs) can play a vital role in promoting PA for PWD by implementing strategies that support task shifting to other care team members. Direct care staff can be effectively trained to provide exercise and behavioral interventions that increase PA and improve function in PWD.

This project, funded by the NIH National Institute of Aging (5P30AG034592-07), developed and implemented a train-the-trainer program to deliver EM-STAR (Exercise for Mobility & Staff Training in Assisted Living Residences) within adult day health and residential programs. EM is a dementia-specific moderate intensity program of familiar procedural movements designed to be led by non-rehab direct care staff. STAR is a curriculum designed to help staff improve care of PWD via behavioral management strategies.

A two-tiered program was developed. Phase 1 prepares rehab professionals as EM-STAR trainers and site coordinators. Phase 1 rehab professional objectives: (1) demonstrate knowledge about importance of exercise to reduce mobility disability in PWD, (2) demonstrate self-efficacy around training care staff in exercise and behavioral strategies, (3) demonstrate proficiency in the role of site coordinator, including staff training, participant enrollment, monitoring safety, and ensuring program fidelity. Phase 2 prepares care staff to become exercise leaders. Phase 2 care staff objectives: (1) demonstrate knowledge about importance of exercise to reduce mobility disability in PWD, (2) demonstrate self-efficacy around leading exercise classes and managing challenging behaviors, (3) demonstrate competency in day-to-day management of the program and leading group exercises.

To facilitate program development, focus groups were conducted with rehab professionals and care staff. Resulting program materials include an EM-STAR handbook for trainers and exercise leaders, protocol cards for EM exercises, timed music to coincide with the exercises, and a video of the EM routine to ensure training fidelity. Rehab professionals are certified as site coordinators after they demonstrate proficiency in training and certifying care staff as exercise leaders. Observational performance audits with a program checklist are implemented to certify the care staff as exercise leaders. The EM-STAR program demonstrates an evidence informed program that aims to increase PA in PWD. PTs can play a vital role in the scaling up of PA, across care settings, through programs that involve train-the-trainer strategies designed to prepare direct care staff to lead and sustain moderate intensity exercise programs with a high degree of safety and fidelity.

#### **References (At Least 5 Within The Last 10 Years)**

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**Last Updated:** 06/23/2020

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