

APTA Geriatrics: Research Agenda

| Definitions: BodyS =Body Systems; Act = Activity; Part =Participation; Int = Intermediate | | |
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| WHO class | Basic Science Research | Priority |
| BodyS | <p>For genetic, anatomical, biomechanical, physiological, or environmental factors, determine the contribution to or modification of excessive stress, injury, abnormal or accelerated aging of body tissues and systems.</p> <p>EX: A longitudinal study of knee joint pain and structural changes in the non-operated limb of aging adults with osteoarthritis who do or do not receive total knee replacement.</p> | Int |
| BodyS, Act | <p>In aging adults under conditions of health, injury, or disease, examine mechanisms and modifiers of the effects, and optimal dose of physical therapy aging body structural, physiological and functional responses.</p> <p>EX: Effects of sensory-challenge balance exercises on multi-sensory reweighting in aging adult fallers and non-fallers.</p> <p>EX: Effects of balance perturbation training on automatic postural responses in aging adult fallers and non-fallers.</p> | High |
| Clinical Research | | |
| Act, Part | <p>Among aging adults in order to guide examination, prevention and treatment of health conditions relevant to physical therapy, define and evaluate relationships among function and disability, health conditions, and personal and environmental factors (e.g., <i>International Classification of Functioning, Disability and Health</i>, and applications of such models).</p> <p>EX: Loss of community ambulation capacity in community dwelling aging adults: principal component and path analysis of contributory risk factors</p> <p>EX: Does physical therapy supervised exercise to improve mobility and balance, also improve physical function in daily life?</p> | High |
| Act, Part | <p>Examine, define or develop, and evaluate physical therapy interventions and engagement in primary and secondary health promotion, prevention of health decline, and participation for aging adults with movement-related health conditions (includes both acute and chronic conditions).</p> <p>EX: A comparative effectiveness study of “A Matter of Balance” and “Stepping On” programs to decrease fear of falling and increase physical activity level in aging adults with a history of falls.</p> <p>EX: Among aging adults with mobility-assisted ambulation and mobility disability, does a task-oriented walking exercise program improve walking more than a walking endurance exercise program?</p> <p>EX: Among aging adults with mobility-assisted ambulation and mobility disability, after physical therapy supervised walking exercise program compared to home-based walking exercise program, are there differences in sustainability of exercise intervention-induced improvements in walking speed and confidence 6 and 12 months later?</p> | High |
| Act, Part | <p>Toward optimization of clinical decision-making in physical therapy for aging adults, define and evaluate the efficacy and effectiveness of physical therapist management of clients who are older, based on classification methods,</p> | Int |

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| | <p>guidelines for criteria or or thresholds for progression, decline or indication of function, activity or participation level of ability or independence.</p> <p>EX: Lower extremity strength and balance abilities thresholds necessary for safe independent participation in a community group Tai Chi class</p> <p>EX: Among aging adults in post-acute care, does responsiveness to physical therapy interventions to improve walking differ across initial walking speed-based categories of mobility ability?</p> <p>EX: Does physical therapy plus caregiver-assisted exercise intervention improve basic physical function and social well-being in daily life more than a physical therapy only exercise intervention?</p> | |
| BodyS, Act, Part | <p>For aging adults for whom the margin or tolerance for interventions from a physical, mental, social/emotional or socioeconomic perspective may be limited, determine the effectiveness and efficacy of interventions provided by physical therapists delivered in combination of physical therapy approaches or in combination with other interventions (e.g., pharmacological, medical, surgical, or biobehavioral interventions).</p> <p>EX: Does the provision of no-cost transportation and complimentary YMCA membership affect the adoption of and adherence to a regular exercise program in low-income aging adults?</p> | High |
| Part | <p>Determine or define, modify, and test the effectiveness of varied methods to enhance the ability of aging adults to participate and adhere to physical therapy care plans and self-care recommendations, including post-care activity and participation.</p> <p>EX: Does a community re-entry model of rehabilitation reduce depression and fear of falling, and increase self-efficacy, in community-dwelling aging adults who have sustained a hip fracture?</p> | Int |
| Part | <p>Define and determine the effectiveness of various models (i.e. didactic and clinical education, and technology-driven or web-driven) of professional-level physical therapist education and continuing professional education on clinical management and outcomes, and physical therapy health services delivery for aging adults.</p> <p>EX: Does direct, repeated exposure to successfully aging adults alter unconscious age bias in entry-level physical therapy students?</p> | Low |
| Epidemiology | | |
| BodyS, Act, Part | <p>Examine the incidence, prevalence, and natural course of impairments of body functions and structure, activity limitations, and participation restrictions associated with high-burden health conditions for aging adults and vulnerable aging adult populations commonly managed by physical therapists.</p> <p>EX: A longitudinal study of diet and exercise habits, and the onset and progression of diabetic neuropathy, in aging adults with Type-2 diabetes.</p> | Int |
| BodyS, Act, Part | <p>Investigate the effects of contextual factors (e.g., personal and environmental) unique to and common in aging adults on the effectiveness of interventions provided by physical therapists.</p> <p>EX: The relationship between community walkability and the ability to complete the walking component of the OTAGO home exercise program in community-dwelling older women.</p> | Int |

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| | EX: Barriers to adequate physical activity in aging adult caregivers with cognitively impaired spouses. | |
| Health Services Research/Policy | | |
| Part | Investigate and improve the performance of the health system for aging adults across all settings and addressing delivery models, cost-effectiveness, payment systems, patient access, policy, and research. (Health system and cost effectiveness) EX: A comparison of physical therapy services delivered to aging adult fallers with mild brain injury in the United States, Canada, and the United Kingdom. | Int |
| Part | Investigate and address the impact of aging adults' characteristics, values, risk factors, decision-making processes, health literacy, engagement levels on access to, provision of, and outcomes from physical therapy care. (Client centered care) EX: Does peer-led health education with tele-health follow-up calls improve adoption of and adherence to a physical therapy home exercise program in sedentary aging adults? | High |
| Part | Investigate equity in population health and health care for aging adults and vulnerable aging adult populations, addressing poverty, social determinants of health and well-being, disparities in access to and provision of care, provider bias, and provider cultural competence. (Cultural competence and disparities) EX: Physical therapy pain management in African American and Caucasian patients: a retrospective chart review study. | High |
| Part | Investigate the relationship between care processes, mechanisms of care delivery, and physical therapy utilization of aging adults and vulnerable aging adult populations and physical therapy outcomes. (Utilization & Outcomes) EX: Do aging adults with fall-related wrist and shoulder injuries seen in outpatient orthopedic clinics receive sufficient preventive care to avoid future falls? | High |
| Part | Support health services research that targets prevention, diagnosis, treatment, and outcomes for high-burden health conditions of aging adults and that is compelling and relevant to policy makers, research funders, and leaders in health care and public health systems. (Policy) EX: Differences in individualized preventive plans developed following a Welcome to Medicare visit when a physical therapy consult is provided in addition to the physician visit. | Int |
| Workforce | | |
| Part | Examine the effects of staffing patterns on the outcomes of physical therapy for aging adults and vulnerable aging adult populations; include the identification of factors (e.g., use of extenders, mandates) that contribute to variations in productivity. | Low |
| Part | Investigate factors associated with unmet physical therapy needs of aging adults across patient populations, practice settings, and geographic locations, including desirability of practice area, recruitment and retention strategies, and associated health outcomes. | High |

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| Part | Examine the effects of workforce issues on career pathways for individuals interested in caring for aging adults and vulnerable aging adult populations (e.g., participation in residency, fellowship, research training). | Int |
| Part | Examine the effects of participation in extended clinical training experiences on the development and growth of the workforce prepared to care for aging adults and vulnerable aging adult populations. | Int |
| Measurement Development and Validation | | |
| Act, Part | Develop or refine existing tools and the evidence for use to measure the impact of physical therapy on activity, participation, and quality of life among aging adults in acute, long-term residential and community settings. (Particularly combinations of tools / brief batteries to enhance validity, responsiveness, and predictive ability.) <i>EX: Validity and reliability of a telephone video app to measure gait variability in aging adults.</i> | Int |
| Act, Part | Develop and provide evidence to guide selection and interpretation of measurement tools for assisted mobility and physical function among aging adults (i.e. includes mobility with assistive devices, or with the assist of another person). <i>EX: A modified and expanded Functional Ambulation Classification Scale offers improved responsiveness to measure physical performance changes following gait training.</i> | High |
| BodyS, Act, Part | Determine and refine standard measurement methods to enhance clinical decision making for aging adults; adapt for characteristics of aging body structure and function, age-related health conditions, and specific limitations of activity and participation. To include contemporary technology (e.g. ultrasound, magnetic and forms of imaging, wearables and the useability of these measurement tools given person and environmental factors common among aged). <i>EX: Accuracy and reliability of shoe-mounted sensors to detect step reaction time and magnitude during the Push-and-Release test in aging adult fallers.</i> | Int |

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