

life course as a mechanism generating growing intracohort inequality with age. However, adult health reflects the accumulation of exposures to advantages and disadvantages across the individual life course as well as the transmission of resources and practices across generations within one's family of origin, which forms the foundation from which children are launched and inequality is reproduced. In analyses using two panel studies (PSID and Add Health), we integrate literature on the early-life origins of health with the concept of linked lives and the intergenerational transmission of resources to examine the relationship between parents' health and the health of their children in adulthood. Results indicate an intergenerational persistence in health and demonstrate the importance of looking beyond the individual life course to better understand cumulative disadvantage in health as a process operating across generations within families.

## SESSION 2210 (SYMPOSIUM)

### CURRENT EFFORTS TO UNDERSTAND AND IMPROVE OLDER ADULTS' FUNCTIONAL RECOVERY AFTER HIP FRACTURE

Chair: Richard H. Fortinsky, *University of Connecticut School of Medicine, Farmington, Connecticut, United States*  
 Discussant: Nancy Latham, *Brigham and Women's Hospital, Boston, Massachusetts, United States*

The annual number of hip fractures in the US is projected to increase from 258,000 in 2010 to 458,000 by 2050. Globally, annual hip fractures are projected to reach 4.5 million by 2050. Yet the majority of older adults experience long-term mobility disability following hip fracture and do not return to pre-fracture functional capacity. Published reviews have concluded there is insufficient evidence regarding effectiveness of interventions designed to reduce residual disability and enhance mobility post-hip fracture. This Symposium features current efforts to understand and improve functional recovery post-hip fracture. Dr. Magaziner will present results from the recently-completed Community Ambulation Project (CAP), a multi-site randomized trial in which two in-home physical therapy interventions were compared: PUSH, which included aerobic conditioning, strengthening, balance and functional training; and PULSE, which included transcutaneous electrical nerve stimulation, flexibility and active range of motion exercises. Dr. Fortinsky will present CAP data examining the role of psychological resilience, optimism, depression, and balance confidence on mobility measures. Dr. Gruber-Baldini will present CAP data examining differences between PUSH and PULSE on study participants' cognition and the impact of cognition on community ambulation. Dr. Binder will present the study design and early results from the STEP-HI study, a multi-site randomized trial evaluating whether structured exercise and topical testosterone therapy can improve function post-hip fracture among older women. Discussant Dr. Latham will comment on design, results, and implications of these two studies for research, policy, and practice intended to improve older adults' recovery after hip fracture.

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### A MULTI-COMPONENT HOME-BASED PHYSICAL THERAPY INTERVENTION FOR IMPROVING COMMUNITY AMBULATION AFTER HIP FRACTURE

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Presented is a two-group RCT evaluating a multi-component exercise program for hip fracture patients to determine if it is effective in improving the ability to walk independently in the community. Hip fracture patients age  $\geq 60$  years (N=210) were assessed and randomized within 26 weeks of hospitalization, and reassessed 16 and 40 weeks later. The primary outcome was ability to walk 300m in six minutes. PUSH (active treatment) included aerobic conditioning, strengthening, balance and functional training. PULSE (attention control) included transcutaneous electrical nerve stimulation, flexibility and active range of motion exercises. Both groups received 2-3 visits per week for 16 weeks in their residences from a physical therapist. 22/96 in PUSH (22.9%) and 18/101 in PULSE (17.8%) (difference 5.1%; 95% CI: -6.1%, 16.3%;  $P=.37$ ) became community ambulators. We conclude that advancing substantial proportions of hip fracture patients to community ambulation will require more than the intervention evaluated in this study.

### PSYCHOLOGICAL FACTORS ASSOCIATED WITH AMBULATION PERFORMANCE AFTER HIP FRACTURE AMONG HOME-DWELLING OLDER ADULTS

Richard H. Fortinsky<sup>1</sup>, *1. University of Connecticut School of Medicine, Farmington, Connecticut, United States*

Many older adults fail to resume optimal community living after hip fracture due to sustained limitations in ambulation capacity, yet reasons remain poorly understood. Roles of psychological factors in affecting ambulation performance post-hip fracture remain particularly understudied; depression has been associated with poorer self-reported functional status, and little is known about self-perceived balance confidence, resilience, and optimism. This presentation reports associations between each psychological factor, measured at CAP baseline, and gait speed and walking endurance, measured at baseline and 16 weeks later. In the CAP cohort (N=210), baseline mean/sd 4-meter gait speed (gs), 50-foot walk gs, and 6-minute walk distance were: 0.60/0.19 meters per second (mps); 0.67/0.20 mps; and 186.9/55.4 meters, respectively. In multivariate models, balance confidence was positively associated with all baseline ambulation measures ( $p < 0.001$  in all models), and resilience was positively associated with all 16-week follow-up ambulation measures ( $p > 0.05$  in all models). Implications of results will be discussed.

### IMPACT OF THE MULTI-COMPONENT HOME-BASED PHYSICAL THERAPY INTERVENTION ON COGNITIVE OUTCOMES IN THE CAP TRIAL

Ann Gruber-Baldini<sup>1</sup>, *1. University of Maryland Baltimore School of Medicine, Baltimore, Maryland, United States*

Cognitive impairment after hip fracture influences recovery and some RCTs suggest aerobic and resistance exercise may improve cognition. This presentation examines differences in PUSH versus PULSE on cognition and the impact of cognition on community ambulation. In CAP, the