

depression, however this did not impact depressive symptoms. Further research should examine whether sitting reduction can improve mood or standing time among older adults with obesity and depressed mood.

THE RELATIONSHIP OF DAILY STEPS TO MOOD AND ENERGY: APPLICATION OF STEPMATE (MOBILE APP FOR TRACKING EXERCISE)

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Physical activity is one of the most promising and accessible strategies to promote healthy aging. Yet, the majority of middle-aged and older adults do not engage in the recommended amount of exercise despite awareness of its widespread benefits. Smartphone apps have the potential to be valuable tools in tracking and encouraging physical activity; however, few apps incorporate successful behavior change strategies. Drawing from interviews with older adults, we created a new smartphone app to encourage and track daily walking, StepMATE (Mobile App for Tracking Exercise). StepMATE uses behavior change strategies including action planning and social support to help users determine where, when, and with whom they will walk. The app records steps and also uses experience sampling to assess mood and energy levels twice a day. Adults ages 50 and over (N=58) participated in a one-month study where they used the app to set their own walking goals and track their daily walking. Using multilevel modeling, we found that on days in which adults take more steps than their average, they report higher mood and energy. We also found that on days in which participants achieve their step goal, they report higher mood and energy than on days when they do not achieve their goal. Discussion will center on motivational approaches to behavior change among sedentary older adults.

RELATIONSHIP OF AGING EXPECTATIONS, GOAL CONGRUENCE, AND ACTIVITY TO MUSCLE FUNCTION IN OLDER ADULTS

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Poor muscle function is a major source of disability among older adults and leads to negative health outcomes including falls and fractures, exacerbating healthcare cost. This study was undertaken to understand: a) the characteristics of muscle function; and b) the relationship of self-management process variables (expectations regarding aging, goal congruence, and self-efficacy for physical activity) and physical activity self-management behavior to muscle function in a sample of older adults (N = 65) 75-93 years of age living in Continuing Care Retirement Communities. Using a descriptive correlational design, muscle function was measured with the Short Physical Performance Battery (SPPB) test and physical activity level with ActiGraph GT3X. Questionnaires included Expectations Regarding Aging and goal congruence scales and Physical Activity Assessment Inventory to assess self-efficacy. Pain was assessed by the PROMIS Pain Intensity

3a. Most participants (77%) performed poorly on the SPPB test. Controlling for pain, expectations regarding aging, goal congruence, self-efficacy and physical activity explained 46% of the variance in SPPB score. The model demonstrated that self-efficacy and light-intensity physical activity significantly explained 24.6 % of the variance in SPPB score; suggesting that low self-efficacy and decreased levels of light-intensity physical activity were significant predictors of low SPPB score. The findings demonstrate the need for more research documenting the underlying processes and risk factors for reduced muscle function. The potential benefits of this approach provide a basis for designing interventions to improve muscle function and delay the transfer to more restrictive living environments.

INCIDENT DIFFICULTY IN INSTRUMENTAL ACTIVITIES OF DAILY LIVING: WHICH COMES FIRST?

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Background: Instrumental activities of daily living (IADLs) are necessary for successful independent living. Older adults may develop difficulty completing IADLs as they become physically and/or cognitively frail. The relative ordering in which IADLs deteriorate, and the importance of this ordering, is not well understood. Methods: Participants from the Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) study who reported no difficulty with IADLs at baseline were included. Individuals were followed up to 10 years for incidence of self-reported difficulty in 19 specific IADLs. The outcome of interest was time to any incident difficulty. We used Cox proportional hazards regression to estimate the hazard ratio (HR) of incident IADL difficulty for each IADL. Results: Of N=1,273 participants who contributed 6,144 person-years to the analysis, 887 developed difficulty with at least 1 IADL during the study period. The tasks in which participants reported difficulty earliest included giving self-injections (HR=5.69, [4.77, 6.79]), balancing checkbooks (HR=5.56, [4.32-7.16]), remembering often called numbers without having to look them up (HR=5.47, [4.55-6.59]), and household chores (HR=4.18, [3.43-5.11]). The last tasks to become difficult included keeping household expenses balanced (HR=0.07, [0.04-0.14]) and hanging up at the end of a phone call (HR=0.23, [0.09-0.56]). Conclusion: Independent older adults reported earlier difficulty with balancing checkbooks, remembering often called phone numbers, and doing household cleaning. Recognizing these early difficult tasks may facilitate early planning for family members and adoption of compensatory strategies.

ASSOCIATION OF RESTRICTED LIFE SPACE MOBILITY WITH COGNITIVE FUNCTION WITHIN OLDER BLACKS AND WHITES WITH DIABETES

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The Centers for Disease Control and Prevention have reported that approximately one of every eight older adults self-report experiencing confusion or memory loss that is becoming more frequent or getting worse. Thus, identifying individuals who are at-risk for cognitive problems is essential. The purpose of this investigation was to assess the relationship between life space mobility and cognition within older Blacks and Whites with diabetes. Baseline data from the University of Alabama at Birmingham (UAB) Diabetes and Aging Study of Health (DASH) were utilized. Multiple regression models adjusted for age, education, income, gender, and race were utilized to assess the association between restricted life space (a score of less than 60 on the UAB Life Space Assessment) and cognitive function as assessed by the Telephone Interview for Cognitive Status (TICS-M). The analytic sample consisted of 224 older adults with diabetes (mean age = 73.52) with 54% being female and 53% White. Of the participants, 75 (32%) had a restricted life space and individuals with restricted life space on average had cognition scores that were over 2 points lower than participants categorized as not having restricted life space ($B = -0.18$, $p < .01$). Additionally, Black participants had lower levels of cognition when compared to Whites in the covariate-adjusted models ($B = -0.23$, $p < .01$). Results of this investigation provide additional evidence to support the relationship between mobility and cognition. Longitudinal investigations assessing the association between mobility and cognition within older adults with diabetes are needed.

CHRONIC KIDNEY DISEASE, MUSCLE WEAKNESS, AND MOBILITY LIMITATION

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Objectives: Chronic kidney disease (CKD) is associated with increased mobility limitation. Prior research has documented that peripheral nerve abnormalities occur early in CKD and progressively worsen. Loss of balance, impaired muscle strength, and slow gait predispose older adults to falls and frailty. However, the current literature is limited by a lack of nationally representative data that includes objective measures of kidney disease and physical functioning. Thus, this research examines whether CKD is associated with muscle strength, balance, gait, and self-reported mobility limitations. **Methods:** Data come from the 2016 Health and Retirement Study (HRS). Estimated GFR, a measure of kidney functioning derived from creatinine levels in the blood, was used to classify CKD (i.e., eGFR<45 or Stage 3b CKD). Logistic and linear regression models were generated to examine the association of CKD with physical functioning, net of demographic characteristics (i.e., age, sex, race, and education) and comorbidities (i.e., obesity, pain, and number of diagnosed medical conditions). **Results:** In unadjusted models, CKD was significantly associated ($p < 0.05$) with more mobility limitations, slower walking speeds, stronger grip strengths, and non-participation in balance tests. After adjusting for covariates, CKD ($\beta = -1.43$, $p = 0.01$) was negatively associated with grip strength. In sex-stratified models, CKD was associated with slower walking speeds among men, whereas

CKD was associated with more mobility limitations among women. **Discussion:** In a nationally representative sample of older adults, CKD was associated with poorer physical functioning on multiple measures. After adjusting for demographic characteristics and comorbidities, CKD was associated with increased muscle weakness.

PERCEIVED PHYSICAL LITERACY FOR CHINESE ELDERLY QUESTIONNAIRE DEVELOPMENT: PRELIMINARY VALIDITY AND RELIABILITY

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Physical activity (PA) is an essential health prompting behavior. Unfortunately, in China, only about 12% to 40% of older adults met the PA recommendations. To guide the design of future PA interventions and policy-making, innovative solutions are needed to be introduced. Physical literacy, a relatively novel concept, has been recently introduced in the field of older adults' PA. This concept takes a holistic view of PA behavior, which proposed that a person need to be motivationally, physically, strategically, effectively, socially, and knowledgeably prepared to be and stay physically active. The aim of this study was to develop the Perceived Physical literacy for Chinese Elderly (PPLCE) questionnaire and to establish its reliability and validity. An item pool for the PPLCE was generated from literature and interviews with Chinese older adults. Expert panel reviews and cognitive interviews were applied to establish the face and content validity of the questionnaire. A convenient sample of 388 Chinese older adults was recruited to assess the psychometric properties of the PPLCE. The item-level analysis and exploratory factor analysis resulted in a 46-item self-report measure, consisting with four factors: motivation, physical competence, interaction with environment, sense of self, interaction with others, and knowledge and understanding. The Cronbach's alpha coefficient and test-retest reliability of the PPLCE were 0.88 and 0.79 respectively. A positive correlation between PPLCE and leisure-time PA was found ($r = 0.43$). The PPLCE has the potential to be used as a valid and reliable measure to assess Chinese older adults' perceived physical literacy.

MOBILITY TRAJECTORIES, HEALTHCARE SATISFACTION, AND PERCEIVED DISABILITY DISCRIMINATION AMONG OLDER ADULTS

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Although functional mobility limitations are associated with increased healthcare needs in later life, little research explores how older adults with varying functional mobility trajectories experience healthcare quality. To this end, we explore the effects of functional mobility trajectories on differences in healthcare treatment satisfaction, perceived disability discrimination in healthcare settings, and perceived everyday disability discrimination. We analyzed 9 waves of the Health and Retirement Study ($n = 29,284$, 1998-2014, ages 50-84). First, we estimate age-specific group-based trajectories of functional mobility across age using finite mixture models. Second, we use multinomial logistic regression to identify sociodemographic factors that place individuals at elevated risk of membership in each group. Third, we explore how membership in one disability trajectory group over another affects healthcare