

efficacy of behavioral lifestyle intervention on weight loss and glycemic control in overweight older adults with T2D. It is unknown whether this intervention can prevent/delay frailty in older adults. We designed a feasibility study examining the effect of a behavioral lifestyle intervention enhanced with mobile technology (Fitbit) for self-monitoring of diet and physical activity on frailty and T2D outcomes over 6 months in overweight older adults diagnosed with T2D. Forty older adults were randomized to receive either 10 group sessions vs. one condensed session plus monthly phone calls for 6 months. In this analysis, we are reporting on Fitbit wear adherence and weight changes on the 20 participants in the group session for the first 6 group sessions. The study sample was aged 72.3 ± 6.4 years; 62% female; 52% Hispanic; BMI 33.7 ± 5.9 kg/m²; hemoglobin A1c 7.2%; frailty score 1.1 ± 1.0 kg/m². Thirteen (65%) are pre-frail, 6 (30%) are non-frail, and 1 (5%) is frail (using Fried criteria). Their weight (lbs.) changed from session 1 (210.2 ± 42.5) to session 6 (196.8 ± 44.2). Ten participants wore Fitbit every day between sessions, averaged at $92 \pm 12\%$. The preliminary evaluation showed the feasibility of using Fitbit to promote self-monitoring adherence in a behavioral lifestyle intervention and a positive trend for weight loss. Evaluating intervention effect on frailty at 6 months will provide us further insights.

EXPLORING THE MOTIVATORS AND BARRIERS OF OLDER ADULTS PARTICIPATING IN AN INTERACTIVE EXERGAME INTERVENTION

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Cognitive and physical activity are important to maintaining daily functioning in older adults. While bidirectional associations between cognitive and physical activity magnify with increasing age, elucidating shared benefits has been difficult as few interventions explicitly train on cognition and mobility simultaneously. We conducted focus groups among 14 older adults residing in an independent-living center who participated in an interactive video game study called Bandit the Dolphin, where participants simultaneously incorporated cognitive exercise and physical activity while navigating within a complex spatial environment to help Bandit jump, eat fish, and stun sharks. Using 'sneaky exercise' tactics, participants utilized upper extremities in conjunction with slight lower extremity movement to move Bandit within a 3-D oceanic environment. We conducted 3 semi-structured focus groups and analyzed the data using the "Sort and Sift, Think and Shift" method to assess general likes and dislikes as well as the primary motivators, barriers, and reasons for remaining in the study. Participants enjoyed the immersive nature, challenge, and "fun factor" of the game. Primary motivators for joining were generativity/helping others, self-improvement, from peer referrals, and because the study looked interesting. Key barriers reported in the study were exhaustion from standing, learning how to play in 3-D space, and frustration from lack of level advancement. Reasons for retention were due to the game being fun, a sense of duty, and fulfilling commitments. This

information will guide ongoing research efforts to design interactive video game interventions that are enjoyable for older adults and maintain high retention rates.

GENDER AND AGE MODERATE THE EFFECTS OF PARTNER SUBSTANCE USE ON PROBLEM DRINKING IN ADULTHOOD

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The current study examined whether partner substance use problems predict problem drinking and how gender and age moderate this relationship. Problem drinking refers to alcohol use resulting in alcohol dependence or health and social consequences. Participants were adults ($n=2142$, 53% female, mean age=54, range= 33-83) from Wave 2 of the Midlife Development in the United States (MIDUS) Study. Participants reported on both past 12-month problem drinking (e.g., emotional problems from drinking, urges to drink, month or "much time" drinking, drinking more to get effects, drinking more than intended, and alcohol-related role interference) and partner substance use problems. Results indicated that 22.2% of the sample reported at least one problem drinking behavior in the past year. Multiple linear regression analysis revealed a significant interaction between gender and partner substance use problems ($b=0.05$, $p=0.01$) such that for males having a partner with substance use problems was a risk factor for their own problem drinking. However, a three-way interaction with gender, age, and partner substance use problems ($b=-0.41$, $p<0.01$) indicated that partner substance use problems might have both gender and age-specific effects on problem drinking. Exploratory analyses of this interaction indicated that with age partner substance use problems might no longer promote risk for male problem drinking. Older adults are especially sensitive to the effects of alcohol for reasons such as lower tolerance, medication interaction, and health conditions. There is thus a need for identifying age-relevant factors associated with these drinking behaviors for intervention and prevention efforts.

GROWTH CURVE OF DISABILITY OF OLDER ADULTS OVER A 12-YEAR PERIOD: CAN IT BE MODIFIED BY AGE OR ENGAGING IN ACTIVITIES?

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Adopting a growth curve model, this study aims to fit a growth trajectory of disability of older adults over a 12-year period, and to investigate whether such a trajectory is modified by initial age and level of engagement in activities. The data are from the Chinese Longitudinal Healthy Longevity Survey, which includes 16,064 individuals aged 60 or above in the first wave in 2002 who were followed-up in four more waves until 2014. Disability in this study is measured by having any difficulty in performing six activities of daily living. Activities include physical exercise and eight leisure activities. To rigorously test the causal effect of engaging in activities on disability, we adopted a time-lagged growth curve model. In addition, disability status in the initial wave was controlled at baseline and an array of health status measures, such as physical functioning and cognitive

performance, were included as time-varying covariates. We introduced a random effect to control for unobserved heterogeneity between individuals. The results show a quadratic curve of disability over time with an accelerating pace in later waves. While initial age shows a moderate modifying effect, engaging in leisure activities substantially modified the trajectory: The probability of being disabled increased from 6.7% to 45.8% between the first and fourth follow-up for those inactive individuals. For those active older adults, it only increased from 3.1% to 18.0%. This study demonstrates that engaging in leisure activities can significantly reshape the trajectory of developing disability among older adults.

HOME-BASED EXERCISE PROGRAM WITH TELEPHONE COACHING: A FEASIBILITY STUDY

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Exercise is crucial to maintain mobility, reduce falls and delay functional decline in older adults, but effective implementation strategies are lacking. Self-directed home-based exercise therapy is recommended by clinicians to overcome barriers such as cost, travel and availability. However, non-adherence is a major challenge due to lack of motivation, real time feedback or social support. To overcome these barriers, we conducted a feasibility study to evaluate a home-based exercise program with telephone coaching to improve mobility in frail older adults. Four non-demented, frail community-dwelling older adults were taught one of two exercise routines at our research center. The first involved complex exercises with internal and external cueing techniques that have been associated with neuroplasticity in previous studies (N=3). The second was a lesser cognitively demanding control program that included aerobic, balance and strengthening exercises (N=1). One week later, the participants were asked to repeat the exercises in their own home. The research assistant coached the patient over the telephone. A board-certified psychiatrist was present during the home session to monitor adherence and fidelity to the protocol as well as address safety. The study produced qualitative findings regarding recruitment strategies, exercise feasibility, and other logistical issues relating to participant understanding, safety, and monitoring. Based on direct observation of participants at home, safety assessment protocols, instructions, and exercises were all refined. Building on this data, we plan to design a clinical trial to evaluate the impact of complex exercises designed to promote neuroplasticity and reduce cognitive and motoric decline in older adults.

IMPROVING HEALTHY BEHAVIOR AND ADOPTING HEALTHY HABITS BY BODYWISE PROGRAM FOR OLDER ADULT DC RESIDENTS

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An increase in physical activity (PA) level is associated with reduction in chronic diseases. However, the number of

older adults who meet the PA guideline is low and decreases with age. Bodywise is a free program that aims to promote healthy behavior and to encourage older adults who live in Washington, DC to adopt a healthy habit by increasing their PA. The Bodywise program offers water aerobics, yoga, low-impact aerobics, and chair exercise classes, conducted by trained instructors at the University of the District of Columbia. This study reports an evaluation of the implementation of this program based on the surveys completed by participants after finishing the classes. Participants were DC residents aged 60 or older. According to the surveys, 68% of participants have adopted one or more healthy habits since joining the Bodywise program. In addition, more than 62% of participants have an increase in awareness of healthy behavior through this program. Overall satisfaction with the Bodywise program is 93%, satisfaction with the variety of classes offered is 72% and satisfaction with offered skill levels is 75%. Furthermore, 81% of participants reported overall satisfaction with their instructor, specifically 100% satisfaction related to their knowledge and skill level, and appropriateness of selected music, moves, and exercises. In conclusion, the Bodywise program leads to an overall change in both awareness of healthy behavior and development of healthy habits in participants. Further research can investigate the correlation of health awareness and healthy habits with overall satisfaction with the program and the instructor.

PHYSICAL ACTIVITY, DIABETES, AND HEART CONDITIONS AMONG NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER OLDER ADULTS

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The Native Hawaiian and Other Pacific Islander (NHOPI) older adult population remains understudied and are disproportionately affected by diabetes and heart conditions. Research has shown that participating in physical activity is a protective factor for many of the health conditions experienced by older adults. Yet, the link between physical activity, diabetes, and heart conditions among the NHOPI older adult population is limited. The purpose of this study is to identify the characteristics of NHOPI older adults and to explore the association between physical activity levels and diabetes/heart conditions. Methods and findings Using data from the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS), which is considered to have a representative sample of NHOPI, the study explores the associations between physical activity and diabetes/heart conditions. A total of 1,045 older adults ages 50 years and older were included for analyses. Weighted multivariate analyses with multiple imputation techniques were used. The NHPI NHIS is the first federal survey focusing on the NHOPI population of the United States with rich information on health. Results and Implications Those with who were engaged in a sufficient physical activity had lower odds of having diabetes or heart conditions than their counterparts without physical activity while controlling for other sociodemographic characteristics. Findings highlight the importance of physical activity promotion intervention in preventing cardiovascular disease. Research and practice addressing health disparities and cardiovascular conditions