greater sway during WWT is associated with poorer gait performance. Interventions to maintain ML-sway during WWT may assist with reducing the effects of pace on falls risk.

ASSOCIATION BETWEEN CALF MUSCLE FATTY INFILTRATION AND PHYSICAL PERFORMANCE AMONG HEALTHY OLDER ADULTS

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Muscle fatty infiltration is associated with impaired physical performance. However, the association between ectopic fat, such as lower extremity fat distribution, and sex-specific differences among older adults remains to be determined. This study aimed to examine sex-specific differences in calf muscle fat infiltration and their association with physical performance among healthy older adults aged 76 to 80 years. The pilot study comprised 40 subjects (20 men; 20 women) matched by age and body mass index. The participants underwent dual-energy X-ray absorptiometry, magnetic resonance imaging (MRI), and proton magnetic resonance spectroscopy (1H-MRS) to assess body composition and lower extremity fat distribution. The tibialis anterior intramyocellular lipid (IMCL) as assessed by 1H-MRS was negatively associated with the five-times sit-to-stand test scores (rs=0.518, p=0.023) in men, while the soleus IMCL content was negatively associated with the timed up-and-go test scores (rs=0.472, p=0.048) in women. However, the soleus extramyocellular lipid (EMCL) content was positively associated with the five-times sit-to-stand test scores (rs=0.488, p=0.040) in women, but this association was not statistically significant in men. Regarding the calf cross-sectional area (CSA) parameters assessed by MRI, calf subcutaneous fat CSA was positively associated with the usual gait speed (rs=0.447, p=0.048) in women only. To conclude, this study showed an inverse correlation between IMCL content and physical performance in healthy older individuals and calf muscle-specific IMCL based on sex differences. Furthermore, our results suggest that greater EMCL content in the soleus and calf subcutaneous fat might affect physical performance positively in older women but not older men.

EFFECTS OF RESISTANCE EXERCISE ON MOBILITY AND LIFE SATISFACTION AMONG OLDER CHINESE AMERICANS

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Physical activity interventions have shown to be potentially effective for preventing mobility impairment and improving life satisfaction in older adults. However, few studies investigated the effect of resistance exercise training on mobility and life satisfaction in older Chinese Americans. The purpose of this study was to test the effect of a 12-week resistance exercise intervention (two times weekly) on mobility (balance, gait speed, and chair stand performance) and life satisfaction in a sample of community-dwelling older Chinese Americans aged 60-89 years (N = 30; mean age 77.9 ± 5.0 years). The study was a two-group randomized controlled trial (RCT). All participants were randomly assigned into either the resistance exercise group or the wait-list control group (15 participants in each group). Participants' balance, gait speed, chair stand performance, and life satisfaction were assessed at baseline and 12 weeks. Descriptive statistics and t tests were used for data analysis. The results indicated that older adults participated in the resistance exercise program had significant improvements in balance, gait speed, chair stand performance, and life satisfaction at the end of the trial. Compared to the control group, the resistance exercise group had significantly greater improvements in balance, gait speed, chair stand performance, and life satisfaction at 12 weeks follow-up. The findings suggest that resistance exercise has beneficial effects in improving mobility and life satisfaction for older adults. This resistance exercise program provides a basis for developing larger RCTs for further determining the efficacy of resistance exercise among older Chinese Americans.

SEDENTARY BEHAVIORS AND PHYSICAL ACTIVITY EXPERIENCES OF LATINX OLDER ADULTS: A THEMATIC CONTENT ANALYSIS


Sedentary behavior (SB) accounts for ~7.5 % of cardiometabolic mortality globally. The burden of cardiometabolic disease is especially high among Latinx adults and increases with age. Physical activity (PA) is crucial for maintaining health, yet most Latinx older adults do not meet PA guidelines and spend much time in SB. The aim of this study was to use thematic content analysis to describe the meaning of SB; and the experiences, facilitators, and barriers to PA among Latinx adults. Individual interviews were conducted among 30 Latinx older adults aged 55 to 75 years (60.7 ± 5.7 years) and BMI 20.78 to 42.13 kg/m2 (29.8 ± 4.4 kg/m2) who were enrolled in a larger study of PA. Results showed major themes included meaning of SB, consequences of SB, barriers, and facilitators of PA. Meaning subthemes included sitting for leisure as different from sitting work and value statements about laziness. Three participants did not understand the word “sedentary behaviors”. Consequence subthemes included effects on physical (circulation, obesity, fatigue) and mental health (cognitive and psychological). Barriers to PA included COVID-19, environment (weather, safety), culture (language, no relationships with non Latinx communities), time constraints (work), and physical conditions (pain and illness). Facilitators of PA include self-motivation, family, and community support (public parks, gyms, PA program from community organizations). These findings shed deeper meaning about SB and PA among the Latinx culture. These findings will be key in developing culturally appropriate interventions to improve physical and mental health specifically for the Latinx older adult population.

PROTEIN SUPPLEMENTATION NEGATIVELY IMPACTS GLUCOSE HOMEOSTASIS IN A WEIGHT LOSS INTERVENTION IN OLDER ADULTS