FEAR OF FALLING AND WALKING QUALITY: WHAT YOUR WALKING REVEALS

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Fear of Falling (FOF) is common among community-dwelling older adults and is associated with increased fall-risk. In this cross-sectional study we examined the relationships between FOF and factors associated with fall-risk such as gait quality, cognition, and walking-confidence. Using baseline data from older adult participants in a randomized exercise trial (N=232; age 77±6; 65% females; 40% reported FOF), we quantified the following outcome measure for (1) gait quality: harmonic ratio (smoothness) and time-frequency spatiotemporal variables from triaxial accelerometry during 6 minute walk; gait speed, step-time CoV (variability) and walk-ratio (step-length/cadence) on an instrumented walkway; (2) cognition: Trails A and B (3) walking-confidence: Gait efficacy Scale. Mann Whitney U-tests indicated individuals without FOF had better gait quality (p<0.05): greater smoothness (2.38±.58 vs 1.14±.73), speed (1.10±.15 vs 1.04±.17 m/s) and walk-ratio (.56±.07 vs .53±.08 cm/steps/min), lower step-time CoV (3.72±1.24 vs 4.17±1.66), and greater walking-confidence (89±11 vs 79±13). A random forest classifier predicted FOF with 64% (gait only) and 70% (additional variables: cognition, walking-confidence) accuracy; Gini-index based ranking indicated gait quality (smoothness vertical (V) direction, walking speed) were consistently important variables. Linear Support Vector Machine learning yielded accuracies of 60% (only gait) and 68% (with additional measures): smoothness V, mediolateral frequency bandwidth, gait speed among top 4 ranked variables in both models, and walking-confidence in the additional measures model; smoothness-V the highest weighted coefficient (-0.52). Based on these findings, interventions targeted for gait quality and walking-confidence may be important to overcome FOF and reduce fall risks.

PERSONAL ACTIVITIES, SOCIAL PARTICIPATION AND FUNCTIONAL DISABILITY IN AGED LIVING ALONE WITH FALL EXPERIENCE

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Functional disability leads to limitations in the older adults' personal activities and social participation. The purpose of this study was to examine the International Classification of Functioning Disability and Health(so called ICF) model in which personal activities and social participation influence functional disability in older adults who live alone and have experienced falls. The study used a secondary data analysis of the 2017 National Survey of Older Koreans. A total of 501 study participants met the inclusion criteria. The results of multiple linear regression indicated that gender and the number of acquaintances were significantly related to the functional disability of social participation while overnutrition, depressed symptom and cognitive dysfunction were related to the functional disability of personal activities. Lastly, poor muscle strength, old age and economic status were predictors of the functional disabilities of both personal activities and social participation. The findings of the study revealed that it is important to comprehensively evaluate not only personal activities but also social participation of older adults who live alone and have experienced falls. In addition, the ICF model may be useful in the development of intervention programs for preventing functional disability in the population.

SESSION 10340 (LATE BREAKING POSTER)

NUTRITION | OBESITY & EATING DISORDERS

ASSOCIATIONS BETWEEN DEPRESSIVE SYMPTOMS, APPETITE AND FOOD INTAKE AMONG HOSPITALIZED OLDER ADULTS

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Inadequate food intake is common among hospitalized older adults and is linked to negative hospitalization outcomes, including functional decline and mortality. Depression is a well-established risk factor in inadequate food intake in the community but its role in food consumption during hospitalization is poorly studied. To examine the associations between depressive symptoms, appetite and the quantity of food consumed by older inpatients, we conducted a secondary data analysis of 724 hospitalized adults aged 69 to 95 using a prospective cohort dataset: Hospitalization Process Effects on Functional Outcomes and Recovery. Depression was evaluated with Tucker's Short Zung Instrument at time of admission. Food intake and appetite were examined daily for three consecutive days, using self-reports of food consumed at breakfast, lunch and supper, based on the nDay Express Questionnaire. Approximately 40% of respondents reported eating half or less than half of each meal. The risk of depression was prevalent among a third of respondents, 54% of whom were identified at high risk of depression. The association between depression and inadequate food intake was found to be negative [$F(2,716)=9.00$,$p=0.000$,$\eta2=0.025$]. Low appetite was significantly linked to reduced food consumption [$\beta=-0.39$, $t=-12.06$, $p=0.000$] and made a considerable contribution to the explained variance of food consumed [F-change $(1,717)=145.41$, $p=0.000$]. Finally, decreased appetite partially mediated the association between depressive symptoms and food intake during hospitalization (B=-0.001, UCI=-0.001; LCI=-0.002). These findings contribute to the understanding of inadequate food intake during hospitalization and indicate the importance of screening for depression among hospitalized older adults.

BODY MASS INDEX AND 12-YEAR MORTALITY AMONG OLDER MEXICAN AMERICANS AGED 75 YEARS AND OLDER

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