calendar months. The adjusted incidence rate ratio comparing women in the highest vs. lowest step quartiles was 0.71 (95% confidence interval, 0.54 - 0.95; P-trend across quartiles of steps/d = 0.01). After further adjustment for physical function using the Short Physical Performance Battery, the rate ratio was 0.86 (0.64-1.16; P-trend = 0.27). Mediation analysis estimated that 66.7% to 70.2% of the association of steps/d and fall risk may be mediated by physical function. In conclusion, higher steps/d were related to lower incident falls primarily through their beneficial association with physical functioning. Interventions that improve physical function, including those that involve stepping, could reduce falls in older adults.

FINDING STATIC STABILITY LIMITS: COMPARISON OF REACTIVE BALANCE IN OLDER PEOPLE WITH AND WITHOUT A HISTORY OF FALLS

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Reactive balance is a highly relevant fall risk factor, but is rarely considered in clinical practice. Especially mediolateral perturbations lead to a pronounced instability of the gait pattern. However, there is no consensus on a method for the assessment of individually challenging perturbation intensities to apply during walking. The aim of this study is to determine and compare the static stability-limits in older adults with and without a history of falls. Twelve older adults with (OAF; 75.6 ±3.66,9♀) and 19 older adults without a history of falls (OA; 77.5 ±4.99,12♀) were subjected to progressive-intensifying perturbations while standing on a perturbation treadmill. In addition, functional performance (Mini-BESTest), fear of falling (FES-I), and physical activity (kcal) were assessed Deflection of the treadmill-platform was randomized by timing and direction and was increased until the subject had to compensate with a step (stability-limit). The maximum deflection distance for each direction, as well as the FES-I score, mini-BESTest score, and activity level were evaluated for group differences using the t-test and Mann-Whitney-U test ($\alpha \leq 5\%$). There were no significant group differences in the mini-BESTest and between the maximum tolerated deflection distances. The OAF-subjects showed an increased FES-I score (median for OA=18.0 and OAF=22.0, p=0.032) and higher activity levels (median for OA=1974 kcal and OAF=3365 kcal, p=0.011). Despite an increased fear of falling, the older adults with a fall history showed a similar stability-limit, but higher activity levels. In future experiments these static stability limits should be tested during walking and evaluated via motion analysis.

MEAN ARTERIAL PRESSURE AND RISK OF FALLS RESULTING IN HOSPITAL PRESENTATION IN OLDER ADULTS

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Utilising data from the ASPirin in Reducing Events in the Elderly trial participants aged 70-years, we estimated MAP and variation in MAP defined as within-individual SD of MAP from baseline and first 2 annual visits. Falls were confined to those involving presentation to a hospital. Cox proportional hazards regression was used to calculate hazard ratio (HR) and 95% confidence interval (CI) for associations with falls. Amongst 16,703 participants (1,540 falls), MAP was not associated with falls irrespective of antihypertensive medication status (all: HR 1.00, 95% CI 0.99-1.01, not on antihypertensive: HR 1.01, 95% CI 0.99, 1.02, on antihypertensive: HR 1.01, 95% CI 0.99-1.02). Amongst 14,818 participants who remained in the study up to year 2 without falls, 1 unit escalation in MAP variability increased the risk (HR 1.01, 95% CI 1.00-1.03). Compared with those in the lowest tercile of variability, those in the middle or highest tercile of variability experienced an increased risk of falling (middle: HR 1.32, 95% CI 1.06-1.65; highest: HR 1.25, 95% CI 1.01-1.55). When stratified for antihypertensive medication status, those receiving diuretics (HR 1.18, 95% CI 1.00-1.39) or beta-blockers (HR 1.37, 95% CI 1.08-1.73) were at increased risk compared to those receiving renin-angiotensin-system acting agents. All results persisted after adjustment for multiple covariates. The association of diuretics and beta-blockers with falls remained significant even after excluding those with history of heart failure. Older community-dwelling adults with high variability in MAP are at increases risk of falls, particularly amongst those receiving beta-blockers or diuretics.

MEASUREMENT DISPARITIES IN FRAILTY AMONG KIDNEY TRANSPLANT PATIENTS: IMPACT OF DIFFERENTIAL ITEM FUNCTIONING

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Frailty is commonly measured for clinical risk stratification during transplant evaluation and is more prevalent among older, non-White kidney transplant (KT) patients. However, group differences may be partially attributable to misclassification resulting from measurement bias (differential item functioning/DIF). We examined the extent that DIF affects estimates of age, sex, and race differences in frailty (physical frailty phenotype/PFP) prevalence among 4,300 candidates and 1,396 recipients. We used Multiple Indicators Multiple Causes with dichotomous indicators to assess uniform DIF in PFP criteria attributable to age (≥65vs.18-64 years), sex, and race (Black vs.White). Among candidates (mean age=55 years), 41% were female, 46% were Black, and 19% were frail. After controlling for mean frailty level, females were more likely to endorse exhaustion (OR=1.20,p=0.003), but less likely to endorse low activity (OR=0.83,p=0.01). Younger candidates were more likely to endorse weight loss (OR=1.30,p=0.005), exhaustion (OR=1.60,p<0.001), and low activity (OR=1.80,p<0.001). Black candidates were more likely to endorse exhaustion (OR=1.25,p<0.001), but less likely to endorse weakness (OR=0.79,p<0.001). Among recipients (mean age=54 years), 40% were female, 39% were Black, and 15% were frail. Younger recipients were more likely to endorse weight loss