

how the experiences of older volunteers and challenges of older voluntarism affect rural community development. The results reveal how participation, well-being, conflict and territoriality associated with older voluntarism contributes to 'contested spaces of older voluntarism' whereby older volunteers negotiate their rights and responsibilities associated with ageing and volunteering in rural communities.

RURAL WOMEN AND AGING: IMPLICATIONS FOR WORK AND RETIREMENT OF OLDER WOMEN

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At least half of the world's female population live in rural areas, and many are ageing. For these rural women, agriculture and informal rural livelihoods are the primary sources of employment, posing critical challenges for them with regard to work and retirement. This paper focuses on the interaction between the twin phenomena of the feminisation of agriculture and the feminisation of ageing and the consequent implications for rural women's work and retirement. Drawing on qualitative interviews and focus groups with 48 older rural Irish women, the paper establishes the 'invisibility' of women's economic contribution in agriculture, limiting their pension accumulation and constraining their retirement planning. The study found that even women property owners, and designated 'farmers', had uncertainty about their pension or retirement income. A key conclusion is that rural women's pension rights are still not guaranteed posing increased risk of economic insecurity and wellbeing for older rural women.

SESSION 565 (PAPER)

RISKS OF FALLS AND INJURY

CHRONIC PAIN, FEAR OF FALLING, AND RESTRICTED ACTIVITY DAYS IN AN OLDER POPULATION

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Both chronic pain and fear of falling can lead to activity restriction and increased fall risk among vulnerable elders. Little is known about pain characteristics that may be associated with fear of falling, contributing to restricted activity. We studied 765 adults aged ≥ 65 y (mean=78.9y) in the MOBILIZE Boston Study, to evaluate the cross-sectional relationship between pain characteristics and fear of falling measured using the Falls Efficacy Scale (FES). In addition, we examined the impact of pain and fear of falling on restricted activity. We measured 3 domains of global pain: pain distribution (none, single site or multisite pain), and Brief Pain Inventory subscales of pain severity and pain interference. Restricted activity days (RADs) refer to the count of self-reported days of reduced activity due to illness or injury in the previous 12 months. We performed multivariable logistic regressions predicting fear of falling (FES<90/100) adjusted for sociodemographics, fall history and fall risk factors. Participants with multisite pain or moderate-to-high pain interference ratings were more likely to have fear of falling (adj. OR 1.97, 95%CI 1.05-3.67; adj.OR 4.02, 95%CI 2.0-8.06, respectively). Pain severity was not associated with FES. Older

adults with multisite pain and fear of falling reported significantly more RADs than those with multisite pain without fear of falling (79 \pm 135 and 26 \pm 74 RADs, respectively; test for pain x FES interaction, p=0.01). Older adults with chronic pain have greater fear of falling which may contribute to restricted activity. Efforts are needed to increase activity and falls efficacy among older adults with chronic pain.

CROSS-SECTIONAL ASSOCIATION OF FALLS AND POST-TRAUMATIC STRESS IN CANADIANS ACROSS LEVELS OF FRAILITY

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Frail older adults are vulnerable to stressors and are more likely to experience adverse outcomes. Post-traumatic stress is common in older adults, and can be related to common adverse outcomes, such as falls. We examined whether falls are associated with post-traumatic stress in middle-aged and older Canadians, by levels of frailty. We conducted cross-sectional analysis of the baseline assessment of the Canadian Longitudinal Study on Aging's tracking cohort, comprising 21,241 individuals, aged 45 to 85 years. We constructed a 60-item frailty index (FI) and defined post-traumatic stress using the primary care post-traumatic stress disorder four-item tool (score 3 as the cut-point). Logistic regressions with post-traumatic stress as the dependent variable and at least one fall in the past year as the independent variable, were adjusted for socio-demographic variables and stratified according to FI 0.1 groups. Prevalence of post-traumatic stress and falls was of 6.5% and 5.0%, respectively for the whole sample. Among those who did not fall prevalence of post-traumatic stress ranged across frailty levels from 3.2% (FI<0.1) to 24.5% (FI \geq 0.3). Among those who fell, post-traumatic stress ranged from 3.4% (FI<0.1) to 36.9% (FI \geq 0.3). Falls were not significantly associated with post-traumatic stress among people who had an FI<0.3, but among those with an FI \geq 0.3 the odds ratio for having post-traumatic stress for those who fell was 2.25 (95% CI 1.2-4.23, p=0.011) compared to non-fallers. In conclusion, high levels of frailty can impact how a stressor, such as a fall, can be associated with an adverse psychological outcome.

EFFECT OF A HOME-BASED EXERCISE PROGRAM ON SUBSEQUENT FALLS IN SENIORS AFTER A FALL: A RANDOMIZED CLINICAL TRIAL

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We assessed the efficacy of the home-based Otago Exercise Program (OEP) as a secondary falls prevention strategy in seniors referred to a falls prevention clinic after an index fall. We conducted a 12-month randomized controlled trial of 344 adults, aged 70 years and older, with = or > 1 fall resulting in medical attention in the prior 12 months. Participants were randomized to OEP or standard of care (CON). The OEP is a home-based strength and balance training program delivered by a physical therapist. All participants received AGS Guideline Care for falls prevention from a geriatrician. Differences in falls rate was tested with a negative binomial regression model. The rate of falls was lower in the OEP group vs the CON group (incident rate ratio [IRR] = 0.64, 95% CI 0.46 to 0.90). The estimated incidence rate of falls per person-year was 1.4 (95% CI 0.1 to 2.0) in the OEP group and 2.1 (95% CI 0.1 to 3.2) in the CON group, with an absolute incidence rate difference of 0.74 (95% CI 0.04 to 1.78) falls per person-year. DSST performance also increased in the OEP group by a mean change of 1.1 points (95% CI 0.02 to 2.1) vs the CON group. Improved DSST was associated with fewer falls (IRR = 0.80, 95% CI 0.68 to 0.95). These findings support the use of the OEP for secondary falls prevention.

MULTIPLE MEDICATION USE AND RISK OF TREATED FALL INJURY: THE HEALTH ABC STUDY

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Multiple medication use within one year is associated with increased fall injury risk in older adults. However, chronically using multiple medications and treated fall injury have rarely been explored, particularly in cohort studies linked with claims data. We examined using >5 medications in 2 or more consecutive years (chronic medication use) as a risk factor for treated fall injury in 1,898 community-dwelling adults (age 73.6±2.9 years; 53% women; 37% black) with linked Medicare Fee-For-Service (FFS) claims from the Health, Aging and Body Composition Study since 1997/98 clinic visit. Incident fall injury (N=546) was the first claim from 1998/99 clinic visit to 12/31/08 with an ICD-9 fall code and non-fracture injury code, or fracture code with/without a fall code. Stepwise Cox models with a time-varying predictor of chronic medication use before fall injury or censoring (N=414) vs. not using >5 medications at the same time (N=1008) were adjusted for baseline demographics, lifestyle factors, fall history, quadriceps strength, cardiovascular disease (CVD), diabetes, sensory nerve impairment, and kidney function. Fall injury risk increased for chronic medication users (37%) vs. non-users (29%) (HR=1.25[1.00-1.57]), though was attenuated after adjustment for CVD and diabetes (HR=1.18[0.93-1.51]). Sensitivity analyses

excluding fall-risk-increasing drugs (FRIDs) from medication counts (HR=1.32[0.54-3.20]), or including those using >5 medications non-chronically (N=365) in referent groups (HR=1.22[0.96-1.55]) had consistent findings. Unmeasured comorbidity differences may confound associations of chronic medication use and treated fall injury risk in older adults with Medicare FFS. Considering both chronic diseases and medication use in fall risk assessments is needed.

PROGRAM CHARACTERISTICS ASSOCIATED WITH REDUCED FEAR OF FALLING: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RCTS

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Fear of falling (FOF) is common among older people and can result in activity avoidance and decreased physical functioning. Different types of interventions have demonstrated significant small reductions in FOF. To optimize effect sizes, we sought to identify characteristics of interventions that were associated with a change in FOF. Five scientific databases were searched for articles using randomized controlled trial designs in community-dwelling older people without medical conditions. Data extraction included intervention type, setting, group format, type of supervision, provider, delivery format, duration, number of sessions, contact time, and risk of bias (assessed with the Cochrane Collaboration's Risk of Bias Tool). After screening of titles, abstracts, and full texts, 55 unique studies – reporting on 68 interventions – were systematically reviewed. The majority of interventions focused on exercise (n=50). Interventions were performed at home (n=21) or in a community setting (n=23), were delivered in a group (n=26) or individual (n=30) format, and were often supervised (n=60) and delivered face-to-face (n=56). Duration ranged from 1 to 52 weeks and total contact time with the provider from 2 to 56 hours. Results of 42 interventions were suitable for meta-analysis. Univariate meta-regressions to evaluate associations between intervention characteristics and intervention effects directly after the intervention yielded no significant results. Due to self-reported outcomes and difficulties with blinding, risk of bias was high in all studies. To conclude, intervention characteristics were not associated with changes in FOF in this study. Possible reasons for an absence of associations and future research directions will be discussed.

SESSION 570 (SYMPOSIUM)

SEDENTARY BEHAVIOR AND PHYSICAL ACTIVITY IN THE ADULT CHANGES IN THOUGHT (ACT) STUDY

Chair: Dori E. Rosenberg, *Kaiser Permanente Washington Health Research Institute, Seattle, Washington, United States*

Co-Chair: Andrea Z. LaCroix, *University of California San Diego, La Jolla, California, United States*

Discussant: Jack Guralnik, *University of Maryland School of Medicine, Baltimore, Maryland, United States*