

Backgrounds Frailty is a common geriatric condition leading to poor surgical outcomes. Having a valid frailty measure has the potential to improve surgical care quality. Objectives To test the ability of the Reported Edmonton Frailty Scale-Thai version (REFS-Thai) in predicting hospital outcomes compared with the American Society of Anesthesiologists physical status classification (ASA) and the Elixhauser Comorbidity Measure (EMC) in older Thai orthopedic patients. Methods A prospective study was conducted on hospitalized older adults scheduled for elective orthopedic surgery. Multiple Firth logistic regression modeled the effect of frailty on postoperative complications, postoperative delirium (POD), and discharge disposition, while the length of stay (LOS) was examined by Poisson regression. The area under the receiver operating characteristic curve (AUC) and mean squared errors (MSE) were used to compare the predictive ability of the instruments. Results Two hundred participants with mean age of 72 (range 60-94 years) were mostly female, 23% were frail. Adjusting for other variables, frailty was significantly associated with postoperative complications (OR = 2.38,  $p = 0.049$ ), POD (OR = 3.52,  $p = 0.034$ ), and prolonged LOS (relative risk [RR] = 1.42,  $p = 0.043$ ). The REFS-Thai alone shows good performance in predicting postoperative complications (AUC = 0.81, 95% CI = 0.74-0.88) and POD (AUC = 0.81, 95% CI = 0.72-0.90). The combination of REFS-Thai with ASA and EMC demonstrates an improved predictability. Conclusion The REFS-Thai was useful in predicting adverse outcomes in surgical orthopaedic older adults. Integrating the REFS-Thai for preoperative assessment may be useful for enhancing care quality.

#### PREDICTORS FOR CONFIDENCE IN SELF-MANAGEMENT OF FALLS AND THE ROLE OF FEAR OF FALLS

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Falls have been a crucial threat for older adults to stay independent. Once they have fallen, older adults are more likely to receive injuries and become people with disabilities. Conventionally, the measurement of fall efficacy focused on the capacity of performing certain activities such as walking or bathing without a fall. However, given the fact that one out of five older adults fall every year, self-efficacy in self-protection when falls do happen calls for a better understanding of confidence in self-management of a fall. Among predictors for fall prevention outcomes, "fear of falls" has received attention. However, "fear of falls" was largely missing in studies exploring self-management of falls in scenarios where falls do happen. This study explores the predictors for CSMoF including "fear of falls". A series of simultaneous and hierarchical regression analyses with related interaction analyses and a path model were applied to determine the contribution of each predictor variable and the mediating role of "fear of falls". The findings of the study reported that demographic characteristics, chronic conditions, and perceptions of falls were associated with CSMoF. The path analysis confirmed the mediating role of "fear of falls" as the indirect effects were occupying substantial percentages in the total

identified effects. "Fear of falls" should continue to be a core of fall prevention programs and is particularly important for programs that aim to teach older adults what to do when they fall, whom to call for help, and how to avoid injuries upon falling.

#### THE INTERRELATIONSHIP BETWEEN SUBJECTIVE HEALTH, COGNITIVE DECLINE, AND LATE LIFE DISABILITY: A PATH ANALYSIS

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Relationships between mental, physical and cognitive health can differentially impact individuals' ability to function in everyday life. As people age, this can further influence independence and quality of life. To better understand these relationships, the current study implemented path analysis to investigate the impact of subjective mental, physical, and cognitive health on disability. Analyses explored relationships between demographic variables, subjective mental and physical health, cognitive decline, and self-reported disability (difficulty Walking/Climbing stairs [WC], Dressing/Bathing [DB], and Doing Errands [EA]). Data from the Behavioral Risk Factor Surveillance System were examined. The most recent four waves (2015-2018) of available data from states utilizing the Cognitive Decline Module were included (50 states, two territories). Path analyses were conducted and modeled in AMOS. Measures of CFI (0.986), TLI (0.938), and RMSEA (0.046) indicate good model fit. Listwise deletion was utilized ( $n=212117$ ). Respondents were aged 45+ and were generally white (82.8%), female (58.7%), and of "good/very good" subjective general health (64.0%). Results revealed being non-white ( $WC\beta=0.028$ ,  $DB\beta=0.021$ ,  $EA\beta=0.025$ , all  $p's<.001$ ), of older age ( $WC\beta=0.124$ ,  $DB\beta=0.004$ ,  $EA\beta=0.001$ , all  $p's<.001$ ), female ( $WC\beta=0.016$ ,  $DB\beta=0.013$ ,  $EA\beta=0.016$ , all  $p's<.001$ ), poorer mental health ( $WC\beta=0.080$ ,  $DB\beta=0.082$ ,  $EA\beta=0.116$ , all  $p's<.001$ ), poorer physical health ( $WC\beta=0.410$ ,  $DB\beta=0.294$ ,  $EA\beta=0.314$ , all  $p's<.001$ ), and presence of subjective cognitive decline ( $WC\beta=0.107$ ,  $DB\beta=0.107$ ,  $EA\beta=0.138$ , all  $p's<.001$ ) all had a positive total effect on disability. Ultimately, these results indicate the interrelationship between subjective health and self-reported ability/disability. These findings may help to improve care considerations for an aging population by serving as indicators for needs for assistance and support.

#### THE LINK OF THREE-DIMENSIONAL FRAILTY INDEX WITH QUALITY OF LIFE AND FEAR OF FALLING AMONG TAIWANESE OLDER ADULTS

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Objective. Frailty has received increasing attention as a way of understanding gradual losses in one or more domains of human functioning (physical, psychological, and social) in older adults. Studies suggested that frailty is related to

lower quality of life (QoL) and the fear of falling (FoF). The most commonly used frailty criteria is the Fried Phenotype, which solely focuses on physical dimension of frailty. This study aims to evaluate the three-dimensional frailty index (namely, physical, psychological and social), and its association with QoL and FoF in a sample of community-dwelling Taiwanese older people. **Methods.** A total of 751 older adults aged 65 years and older (mean age 73.69 yrs ; SD=6.6) were included from May 2019 to Jan 2020 in Taipei City. The 8-Item Short-Form Health and the Falls Efficacy Scare International (FES-I) were used. Structural equation models (SEM) were employed to examine the association of the three-dimensional frailty index with QoL and FoF. **Results.** The SEM results confirmed a three-dimensional frailty index (physical, psychological and social frailty), and it is significantly associated with OoL and FoF. Physical frailty had the strongest association with PCS and FES-I, yet social frailty with MCS. **Conclusion.** Public health efforts to prevent elderly frailty should not solely focusing on physical aspect of frailty.

#### THE OKLAHOMA FALLS PREVENTION PROGRAM TARGETING RURAL COMMUNITY-DWELLING OLDER ADULTS

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The Oklahoma Healthy Aging Initiative is a statewide health promotion program for older adults based at the University of Oklahoma. Seven staff educators and 32 volunteers delivered 2 community-based fall prevention programs, Staying Active and Independent for Life (SAIL) and Tai Chi Quan: Moving for Better Balance (TCBB) to 763 older Oklahomans in 71 sites across the state over 9 months. For both programs, twenty-four 60-90 minute classes were delivered over 12 weeks with pre and post assessments completed at the first and last class, respectively. Two hundred ninety eight participants (39%) completed at least 75% of class sessions and to date 140 completed a posttest evaluation and were included in the evaluation. Participants were mostly older (87% ≥60 years), female (86%), college educated (45%), white (87%), and most participated in TCBB (89%). Participants improved in 2 physical performance measures: mean 30-second chair stands increased from 11.5 (SD3.8) to 13.1 (SD3.4) stands ( $p < 0.0001$ ); and mean timed up and go time decreased from 10.0 (SD2.9) to 9.4 (SD2.9) seconds ( $p = 0.004$ ). More participants reported vigorous or moderate activity at least 3 times per week after program completion, 134 (96%) vs. 114 (81%),  $p = 0.0001$ . There was no difference in measures of global health, satisfaction with social roles and activities, or companionship with participant mean scores near the upper range of these scales at baseline. Older Oklahomans participating in community-based exercise report good overall health and report high social connection. Future efforts will focus on more socially isolated older adults and diverse communities.

#### THE ROLE OF FUNCTIONAL RISK AND FEAR OF FALLING IN OLDER ADULTS' EVERYDAY WALKING ACTIVITY

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Some persons have low functional risk (FR) but also high levels of fear of falling (FOF), in some it may be the exact opposite; in others, FOF matches actual functional risk. In order to characterise older persons in this respect, Delbaere et al. (2010) defined four groups: 'vigorous' (low FR/FOF), 'anxious' (low FR/high FOF), 'stoic' (high FR/low FOF), and 'aware' (high FR/FOF). We examined how the proposed group model translates into actual walking behaviour and explored whether group differences in walking occur due to FR level rather than the amount of FOF. Group allocation of N=294 participants was determined based on previously published cut-offs for FR (high vs. low Timed Up-and-Go) and FOF (high vs. low Short Falls-Efficacy Scale International). Walking activity was operationalised as mean number of steps per day over one week, assessed using 'activPAL4™ micro' accelerometers. Number of steps in the four groups were 6,335 ('vigorous'), 5,782 ('anxious'), 4,851 ('stoic'), and 4,627 ('aware'). Linear regression results showed that in the two low FR groups, those with high FOF did not differ significantly from the reference group with low FOF (anxious - vigorous:  $B = -645.3$  steps,  $p = .157$ ); however, the two groups with high FR showed a significantly different number of steps than the 'vigorous' group, irrespective of their FOF (aware-vigorous:  $B = -1536.1$  steps,  $p = .002$ ; stoic-vigorous:  $B = -1314.8$  steps,  $p = .005$ ). This means that FR outperformed FOF in their association with walking behaviour, i.e., participants can be better separated in their daily walking behaviour by FR than by FOF.

#### THE ROLE OF GENDER IN THE TRANSITION TO DRIVING CESSATION IN PERSONS WITH DEMENTIA

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Driving often provides a sense of independence, quality of life and emotional wellbeing. For older adults living with dementia, driving cessation eventually becomes inevitable. Driving cessation has been shown to negatively impact older adults' mobility and, consequently, quality of life. Caregivers of persons with dementia (PWD) who have ceased driving are also impacted as they often become responsible for meeting the mobility needs of PWD and they provide emotional support in respect to this significant life transition.