FUNCTIONAL TRAJECTORIES AND QUALITY OF LIFE IN POST-ACUTE SKILLED NURSING FACILITY CARE AFTER HOSPITALIZATION

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Frailty predicts readmissions and mortality after acute hospitalizations. Understanding whether frailty predicts functional recovery after acute hospitalizations may help guide post-acute care and rehabilitation. This feasibility study enrolled 24 adults aged ≥65 years from a skilled nursing facility (SNF) after acute hospitalization. We calculated a deficit-accumulation frailty index (FI range: 0-1; non-frail ≤0.25, mild frailty [0.26-0.35], moderate [0.36-0.45], and severe >0.45) via in-person assessment on SNF admission. We measured weekly functional improvement with modified Barthel Index, as well as quality of life. Modified Barthel Index and quality of life were measured weekly by Patient-Reported Outcome Measurement Information System (PROMIS) (standardized score with mean 50 and SD 10, higher is better). The mean age was 83.3 years [SD 8.0], and 17 (71.8%) were female. Length of stay for those with severe frailty (FI>0.45) was 26.8 days [10.7] compared to those who were not frail, mildly frail, or moderately frail (13.3 [7.3], 9.4 [4.4], and 15.2 [4.9] respectively). Those with severe frailty also had delayed functional improvement (mean Barthel Index 48.6, 53.4, and 56.6 on admission, week 1, and week 2 of SNF admission respectively), compared to those with moderate frailty (mean Barthel Index 47.5, 69, 73) or mild frailty (68.3, 86, 90.5). Self-reported mental and physical health-related quality of life was relatively unchanged across SNF episode for all frailty categories. These findings suggest that older adults with moderate or severe frailty may experience a typical course of delayed functional recovery and that further monitoring may be necessary for prognostication.

MALNUTRITION-SARCOPENIA SYNDROME AND ITS ASSOCIATED FACTORS AMONG OLDER ADULTS

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Malnutrition and sarcopenia are present in parallel in older adults and characterized by a combination of inadequate nutrient intake and decreased muscle mass, strength, and/or function. The presence of both conditions has been termed Malnutrition-Sarcopenia Syndrome (MSS) and is associated with negative health outcomes. The objective of this correlational study was to identify the prevalence and factors associated with the malnutrition-sarcopenia syndrome among older adults living in continuing care retirement communities. A convenience sample of 104 older adults living in CCRCs participated in this study. Muscle mass, strength, and function were measured using bioimpedance analysis, Jamar digital hand dynamometer, and the Short Physical Performance Battery test, respectively. Physical activity, sedentary time, and nutritional status were measured using ActiGraph GT3X and Mini Nutritional Assessment, respectively. Questionnaires were used to measure self-efficacy for exercise and goal congruence for physical activity and protein intake. Of the 104 participants, 37 (35.2%) had sarcopenia, 19 (18.1%) had malnutrition, and 14 (13.5 %) had MSS. Compared with those without MSS, older adults with MSS were more than two times more likely to have a sedentary lifestyle (Odd ratio, 2.028; 95% confidence interval, 2.012–2.044). Findings showed that sarcopenia, malnutrition, and MSS are prevalent in older adults living in continuing care retirement communities. Older adults should be screened and assessed for both malnutrition and sarcopenia. The results also suggest that decreasing the sedentary time could help in preventing MSS among older adults living in continuing care retirement communities.

OUTCOMES OF A TELEPHONE-BASED FRAILTY AND FUNCTIONAL ASSESSMENT

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With the goal of increasing the clinical use of frailty, we piloted a quality improvement project to determine the feasibility and utility of a telephone-based frailty and functional assessment. We identified 122 established patients with serious medical illness from an academic geriatrics clinic. A geriatric fellow assessed the functional status and conducted the Mini Nutritional Assessment, telephone-MoCA, and Geriatric Depression Scale to generate a deficit-accumulation frailty index (FI) score which was automatically calculated through the electronic medical record. A note was then generated to inform the providers of the details of the assessment and to provide recommendations based on the findings. From November 2020 to March 2021, 104 out of 122 (85.2%) established patients (mean [SD]: 83.4 [7.1], 66% female, 81% White, and mean [SD] FI: 0.32 [0.17]) agreed and proceeded with the assessment. One month after the call, we found that the assessment was included in the clinical decision-making of 55 out of 100 patients seen by their primary care provider. The top 3 incorporated recommendations were chronic disease management based on frailty status (n=56), lifestyle change and counseling to prevent frailty progression (n=44), and management of cognition and mood (n=18). Management of physical status including referral to PT and OT were incorporated in 15 encounters. Our results suggest that a telephone-based frailty and functional assessment is feasible and has value-added contributions in improving the care of older adults through providing a holistic view of their health status.

PHYSICAL FRAILTY AND COGNITIVE IMPAIRMENT IN OLDER NURSING HOME RESIDENTS: A LATENT CLASS ANALYSIS

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Physical frailty (PF) has various clinical presentations and often co-occurs with cognitive impairment in older adults. In older adults in nursing homes (NHs), no research has examined the heterogeneous profile of PF and its association with cognitive impairment. Minimum Data Set 3.0 was used to identify older, long-stay, newly-admitted NH residents (2014-16; n=871,801). Latent class analysis was used to identify PF subgroups with FRAIL-NH items as indicators. Logistic regression was used to estimate the association between PF subgroups and cognitive impairment. The final model indicated three PF subgroups (prevalence): “mild PF” (7.6%), “moderate PF” (44.3%), and “severe PF” (47.9%). In all subgroups, residents had high probability of needing help with dressing. Older adults likely to belong to the “moderate PF” or the “severe PF” subgroups had high probabilities of requiring physical assistance to transfer between locations and inability to walk in a room. Additionally, residents likely to be in the “severe PF” subgroup had greater probability of bowel incontinence. Greater impairment was associated with increasingly higher odds to be in the “moderate PF” and “severe PF” subgroups: older residents with severe cognitive impairment were 20% more likely [adjusted odds ratio (aOR): 1.20, 95% confidence interval (CI): 1.17-1.23] and almost 7 times as likely (aOR: 6.86, 95%CI: 6.66-7.06) to belong to the “moderate PF” and “severe PF” subgroups, respectively. Findings provide new evidence for the interrelationship between PF and cognitive impairment in older NH residents and have implications for the development of interventions tailored to older residents’ specific PF experience.

PHYSICAL FRAILTY IS CORRELATED WITH WORSE QUALITY OF LIFE IN OLDER ADULTS WITH HYPERTENSION

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Background: Hypertension is one of the commonest chronic cardiovascular diseases in older adults. Frailty and hypertension often coexist in older people, but few studies have explored frailty in older hypertensive adults. We aimed to explore the correlation of frailty with quality of life in older hypertensive adults.

Method: We enrolled 291 patients with hypertension aged ≥60 years. Ambulatory blood pressure monitor was performed. Physical frailty was assessed by Fried phenotype. Quality of life was assessed by SF-36.

Results: Forty-eight (16.5%) patients were frail. Compared with non-frail older hypertensive patients, frail patients were older, had lower education levels, a higher rate of living alone, and a longer duration of hypertension. Moreover, they had lower diastolic blood pressure (DBP) and mean arterial pressure (MAP), and higher pulse pressure, more chronic diseases, a higher proportion of calcium channel blockers (CCBs) usage, and worse quality of life. Frailty scores were positively correlated with pulse pressure, and negatively correlated with DBP and MAP. The SF-36 score was negatively correlated with frailty scores and positively correlated with grip strength and walking speed. After adjusting for age, the SF-36 score was negatively correlated with frailty and positively correlated with walking speed. Frailty, when adjusted for age, duration of hypertension, DBP and comorbidity, had a significant effect on the SF-36 score.

Conclusion: Frailty was associated with worse quality of life of older adults with hypertension. Frailty prevention and intervention may help improve the quality of life of older hypertensive adults. Keywords: frailty, older adults, hypertension, quality of life

PROMOTING EARLY ASSESSMENT OF FRAILTY IN THE NEW NORMAL: AN UPDATED EFI-CGA SOFTWARE TOOL

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Frailty is a state of diminished physiological reserves. Being able to detect and manage frailty early is crucial for effective controlling of frailty-related adverse outcomes. Frailty can be assessed using the frailty index that counts the number of health deficits accumulated over time. Our previous research has enabled an electronic Comprehensive Geriatric Assessment (eCGA) and the calculation of the frailty index based on the eCGA (eFG-CGA). While the standalone eFG-CGA has been used by primary care providers in assessing home-living patients, its initial release was prior to the covid-19 pandemic; the associated new challenges were not targeted by the early version. In facilitating effective virtual assessment and care planning during the current “lockdown” and in the upcoming “new normal”, most recently the eFG-CGA version 3.0 was released. In this paper, we 1) introduce the updated electronic frailty assessment tool and its usage, 2) describe the major updates of the software in dealing with challenges due to social isolation and remote assessment, and 3) evaluate the end-user experience with the upgraded methods in frailty assessment. These new developments and implementations allowed a search function to resume disrupted assessment sessions and quickly retrieve previously saved assessment records. The improved user interface promoted the clinicians to conveniently record detailed care plans and management details. The study provided a successful example of moving from disruption to transformation, benefiting the highly demanded healthcare of older adults in this challenging time.

RISK FACTORS ASSOCIATED WITH COGNITIVE FRAILTY AMONG COMMUNITY-DWELLING OLDER ADULTS: A SCOPING REVIEW

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Objectives: This study aimed to explore the risk factors associated with cognitive frailty(CF) among community-dwelling older adults, and to provide the impact of CF on health-related outcomes.

Methods: PubMed, EMBASE, Cochrane, PsychINFO, CINAHL, RISS, DBpia, NDSL, and KoreaMed databases were searched to retrieve studies. Two reviewers independently screened titles, abstracts, and articles. The inclusion criteria are peer-reviewed articles written in English or Korean. 

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