

solutions to meet the health care needs of affected older adults. As part of a study aimed at implementing a telehealth intervention for primary care patients with dementia in two rural North Carolina counties, we examined baseline dementia prevalence and compared health care use between patients with and without dementia. Electronic health records from January 2018 to December 2018 were examined for 2,288 patients aged 65 or older. A zero-inflated Poisson regression model was used to compare healthcare use between patients with and without dementia adjusting for patients' demographic and clinical characteristics. Dementia prevalence was 8.7% based on diagnosis codes. Most patients with dementia were women (70%), not married (55%), Medicare-insured (78%), and had more comorbidities (mean: 2±2) than non-dementia patients. Dementia patients had a significantly higher number of primary care visits, emergency department visits, inpatient visits, and preventable hospitalizations than patients without dementia (risk ratio = 1.1, 1.8, 2.18, and 1.3, respectively; all $P < 0.05$). Dementia burden was higher among women and use of acute care services by patients with dementia in this rural setting was higher than patients without the disease, similar to urban settings. These findings suggest opportunities to improve care coordination and access to resources to help reduce the need for acute care services among patients with dementia and can help tailor interventions to address the health care needs of this group.

POST DISCHARGE WALKING ACTIVITY AND 30-DAY READMISSION IN OLDER ADULTS

Noah Kemp,¹ Rachel R. Deer,¹ Elena Volpi,¹ and Steve Fisher¹, 1. *UTMB, Galveston, Texas, United States*

The Centers for Medicare and Medicaid Services has determined high rates of unplanned 30-day readmission to be an indicator of substandard care. More research is needed to identify strong, objective markers of readmission risk. The purpose of this analysis was to investigate the utility of average steps per day as a biomarker in determining the 30-day readmission risk of recently discharged older adults. 133 men and women, aged 65 and older, who were capable of walking on their own, recently hospitalized with an acute illness, and discharged to home were given a StepWatch Activity Monitor and monitored for up to 30 days following discharge. Average steps per day and clinical characteristics were assessed and compared with 30-day readmission. 20 of 133 participants were readmitted within 30 days. Those who were readmitted took significantly fewer steps per day overall: 4412 vs. 5948, $p=0.027$, and had significantly longer stays in the hospital: 4.50 vs. 2.90 days, $p=0.002$. Survival analysis of our sample, grouped by tertile of mean daily steps, while not statistically significant, $p=0.093$, demonstrated a trend toward greater probability of readmission over the 30 days post discharge for those who were in the lowest tertile. Walking activity appears to be a moderate predictor of readmission risk. A more extensive study must be conducted to better understand the relationship of walking activity after discharge and readmission.

THE ASSOCIATION OF A FRAILTY INDEX AND INCIDENT DELIRIUM IN HOSPITALIZED VETERANS

Andrea Y. Sillner,¹ Robert McConeghy,² Caroline Madrigal,³ Deborah J. Culley,⁴

Rakesh C. Arora,⁵ and James Rudolph⁶, 1. *The Pennsylvania State University, University Park, Pennsylvania, United States*, 2. *Veteran's Health Administration, Providence, Rhode Island, United States*, 3. *U.S. Department of Veterans Affairs, Providence, Rhode Island, United States*, 4. *Brigham and Women's Hospital, Boston, Massachusetts, United States*, 5. *University of Manitoba, Winnipeg, Manitoba, Canada*, 6. *Providence RI VA, Providence, Rhode Island, United States*

Frailty is an accumulation of deficits that helps identify patients who are vulnerable to stressors. Acute illness and hospitalization are stressors that may result in delirium. Delirium is significant in older adults, resulting in increased hospital stays, institutionalization, morbidity, and mortality. This study aimed to determine if a frailty index (FI), calculated on hospital admission, was associated with the development of incident delirium. An FI was built on an accumulation of deficits model which included assessments of cognition, physical function, and medical comorbidities for a cohort of 218 patients admitted to a Veteran Affairs medical facility. The FI was calculated as a proportion of possible deficits (range 0-1; higher scores indicate increased frailty). Delirium was assessed daily by expert clinician interview. Participants were, on average, 71 years ($SD=9.53$), white (92.7%), and male (91.7%). Participants were grouped using FI ranges as non-frail ($FI < 0.25$; 26%), pre-frail ($FI = 0.25-0.35$; 39%), and frail ($FI > 0.35$; 35%). Incident delirium was more likely to occur in those who were frail (29.3%, $p=0.001$), compared to those who were pre-frail (20.9%) or non-frail (3.6%). The association of FI and incident delirium remained after adjustment for age, education, and other demographics (pre-frail: adjusted $OR=5.64$, 95% CI : 1.23, 25.99; frail: adjusted $OR=6.80$, 95% CI : 1.38, 33.45). Continued data analysis will include an AUC model to demonstrate robustness of the FI. The results from this study support the use of frailty assessments at hospital admission to identify patients at high risk of delirium and in need of additional clinical support and interdisciplinary resources.

CHALLENGES FOR BLIND AND VISION IMPAIRED USERS OF A VISUAL QUESTION ANSWERING TOOL: IMPLICATIONS FOR AGING ADULTS

Nathan Davis,¹ Bo Xie,¹ and Danna Gurari¹, 1. *The University of Texas at Austin, Austin, Texas, United States*

Recent technological developments provide individuals with vision impairment the transformative ability to upload pictures they take and promptly receive descriptions from remote workers. This study aimed to: identify challenges for visually impaired individuals to use such technology to obtain health-related information and provide recommendations for crowd-workers and the future development of assistive artificial intelligence (AI) design. In spring and summer of 2019, we analyzed 265 images of medication packages submitted by users of a visual question answering (VQA) application called VizWiz -- a smartphone application that provides near realtime assistance to visually impaired users by employing crowd-workers. We developed a 4-category coding scheme to analyze image quality, with two independent coders achieving excellent intercoder reliability (85%-95%). Of the 265 images, we found less than half were legible (46%), contained clear indicators for information sought (40%), or had minimum background

noise (40%); while only a small percentage contained complete information (6%). Through thematic analysis of the data, we also highlight seven challenges with queries submitted by vision impaired users. Based on our findings, we make recommendations for the future design of VQA technologies, such as VizWiz, for visually impaired users. We also suggest that there is both great need and potential for user-centered design research to significantly enhance such assistive technologies. While this study did not focus exclusively on data submitted by aging adults, many VizWiz users are, in fact, aging adults, and such assistive technologies have strong implications for the design of assistive technology for this age group.

COMPARISON OF A FRAILTY RISK SCORE AND COMORBIDITY FOR EARLY REHOSPITALIZATION USING ELECTRONIC HEALTH RECORD DATA

Deborah A. Lekan,¹ Thomas P. McCoy,²

Marjorie Jenkins,³ Somya Mohanty,⁴ and Prashanti Manda⁴,
 1. UNC-Greensboro School of Nursing, Greensboro, North Carolina, United States, 2. University of North Carolina at Greensboro, Greensboro, North Carolina, United States, 3. Cone Health, Greensboro, North Carolina, United States, 4. University of North Carolina-Greensboro, Greensboro, North Carolina, United States

Frailty is a clinical syndrome of impaired homeostasis and decreased physiologic reserve and resilience resulting in diminished ability to recover from stressors. In the hospital setting, barriers to adoption of popular frailty assessments make them impractical for widespread use. Improving quality and costs associated with hospitalization has motivated using data from the electronic health record (EHR) to identify patients at risk for adverse outcomes such as early readmission. Patient-level factors such as frailty and comorbidity may signal high readmission risk. In this retrospective study and secondary analysis of EHR data, we investigated Frailty Risk Scores (FRS) in models that included sociodemographic, comorbidity, and laboratory data for early 3-, 7-, and 30-day unplanned readmission. Study data were collected from a health system in the Southeastern U.S. on adults >50 years with an inpatient stay of >24 hours, 2013-2017. Exclusions included planned readmission and in-hospital mortality. The FRS was constructed using ICD-10-CM codes mapped for symptoms, syndromes, and laboratory values. Cox and logistic regression were conducted to examine associations with readmission. Area under the receiver operating characteristic curve (AUC) quantified accuracy. The sample was 53% female and 73% non-Hispanic White (N=55,778). About one-third took at least 7 prescribed medications (34%) and average length of stay was 4.3 days (max=103.6). FRS was a significant predictor of readmission for almost all models, independently of three comorbidity indices (range AUC=.850-.854 for 3-day, .809-.813 for 7-day, and .757 to .768 for 30-day). Frailty and comorbidity are independently associated with early rehospitalization.

THE EFFECT OF SOCIAL SUPPORT ON QUALITY OF LIFE OF PERSONS WITH COGNITIVE IMPAIRMENT

Wilma E. Afunugo,¹ and Rafael Samper-Ternent²,

1. University of Texas Medical Branch at Galveston, Galveston, Texas, United States, 2. University of Texas Medical Branch, Galveston, Texas, United States

According to the Alzheimer's Association, 5.6 million Americans age 65 and older are living with Alzheimer's Disease. Since pharmacological treatments have yet to be developed, we want to determine whether the amount and quality of social support influence the quality of life (QoL) of persons with dementia so they can lead active and purposeful lives. We analyzed data from 22,030 individuals aged 50+ from the 2010 Health and Retirement Study cohort. The dependent variable, QoL, was measured as self-rated health. The main independent variable, cognitive status, was obtained through direct and proxy interview measurements of cognition. For social support, a composite score including the number of social contacts/close relationships and perceived social support/strain was created. Lastly, several covariates were included. Longitudinally, we examined how QoL changed between 2010 and 2012 using 3 stepwise regression models. Model 1 found those with normal cognition have lower odds of poor QoL vs. those with cognitive impairment (OR = 0.38, $p < .0001$), number of relationships and perceived social support decreases the odds of poor QoL ($p = 0.003$, $p < .0001$), while social strain increases the odds of poor QoL ($p < .0001$). Model 3 revealed similar findings but also, persons with comorbidities have increased odds of poor QoL ($p < .0001$), while persons with better function have decreased odds of poor QoL ($p < .0001$). In conclusion, these results can be used to design interventions to improve social support and reduce social strain, which can also improve QoL for dementia caregivers.

PENSION AND SUBJECTIVE WELL-BEING AMONG OLDER ADULTS IN URBAN CHINA: THE ROLE OF SOCIAL PARTICIPATION

haojun jiang,¹ and Iris Chi², 1. nanjing agricultural university, nanjing, China, 2. University of Southern California, Los Angeles, California, United States

This study highlighted the relationship and interaction mechanism among pension, social participation and subjective well-being of older adults in urban China, which provided cross-cultural evidence for theories, and had significant implications for social security policy. It examined the relationship between pension and subjective well-being (i.e., life satisfaction, depression) among older adults in urban China. It also assessed the mediating and moderating effects of social participation (i.e., three types of activity participations including labor activity participation, political activity participation, voluntary activity participation; and the variation of activity participation) in the linkage between pension and subjective well-being. The data came from the 2014 China Longitudinal Aging Social Survey (CLASS), a national, large-scale survey of a representative community aging sample (60 years and older) in urban China (N=6907). The study used hierarchical regression analysis and structural equation modeling methods. The results showed that pension could improve the subjective well-being of the older adults, specifically, pension enhances life satisfaction and reduces the depression of older adults. Both of three types of activity participation and the variation of activity participation were a significant moderator in the relationship between pension and subjective well-being. Besides, both labor activity participation and variation of activity participation were also a partial mediator in the relationship between pension and subjective well-being.