

neutral (n=9; 25%) assessments. Videos created opportunities for patients to pursue their topics of interest during in-person visits. Also, nurses often oriented toward the videos pre-emptively to achieve their teaching goals either by acknowledging the patients' exposure to upcoming information or by positively or negatively assessing the videos in ways that enable them to re-orient talk to educational scripts.

GERIATRIC ONCOLOGY IN THE INSTAGRAM ERA: PHOTOVOICE TO ENABLE PATIENT-CENTERED CARE AND SHARED DECISION MAKING

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Evidence shows that multidimensional assessment of older adults with cancer yields more holistic care and results in better communication about age-related concerns; as well as enables personalised, patient-centered supportive care. Geriatric assessment (GA) captures clinical, physical and psychological factors, with limited opportunity to gather information about the patient's environment, personal contexts and priorities. We trialed the feasibility and acceptability of geriatric assessment (GA)-guided enhanced supportive care (ESC) among 20 adults aged over 70 years in a regional cancer center. We then studied the impact of the integration of four patient-derived photographs (with PhotoVoice analysis) to this ESC on patient satisfaction with communication with the oncologist regarding age-related concerns and on facilitating empowerment, patient-centered care and shared decision making. The use of PhotoVoice analysis of patient-derived photographs is a novel strategy that can facilitate gathering patient-centered information during the assessment process.

Session 1095 (Paper)

Mobility I

FACTORS ASSOCIATED WITH OLDER ADULTS' IN-HOSPITAL MOBILITY: A COMPARISON BETWEEN ISRAEL AND DENMARK

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Low levels of in-hospital mobility and excessive bed rest are widely described across the globe as a major risk factor for hospital associated disabilities. Different predictors of in-hospital and post-discharge mobility limitations have been proposed across studies, including age, admission diagnosis, physical performance, cognitive impairment, performance of activities of daily living, and length of stay. However, it is unknown whether similar risk factors across countries are associated with in-hospital mobility given different mobility measurement methods, variations in measurement of predictors and differences in populations studied. In the current study, we investigated the relationship between in-hospital mobility and a set of similar risk factors in functionally independent older adults (65+) hospitalized in acute care settings in Israel (N=206) and Denmark (N=113). In Israel, mobility was measured via ActiGraph and in Denmark by ActivPal for up to seven hospital days. Parallel analysis of covariance (ANCOVA) in each sample showed that community-mobility before hospitalization, mobility performance at admission and length of stay were associated with in-hospital mobility in both countries, whereas age and self-reported health status were associated with mobility only in Denmark. This comparison indicates that despite slightly different measurement approaches, similar risks are attributed to older adults' low in-hospital mobility and emphasizes the contribution of commonly used pre-hospitalization mobility measures as strong and consistent risk factors. This knowledge can support a better understanding of the need of both standard risk assessments and country-based tailored approaches.

MACHINE LEARNING PREDICTION MODELS FOR MOBILITY LIMITATION OVER TIME IN OLDER ADULTS: THE HEALTH ABC STUDY

Jaime Speiser,¹ Kathryn Callahan,¹ Edward Ip,¹ Michael Miller,² Janet Tooze,¹ Stephen Krtichevsky,³ and Denise Houston,¹ 1. *Wake Forest School of Medicine, Winston-Salem, North Carolina, United States*, 2. *Wake Forest School of Medicine, Winston Salem, North Carolina, United States*, 3. *Wake Forest School of Medicine, Wake Forest School of Medicine, North Carolina, United States*

Mobility limitation in older adults is common and associated with poor health outcomes and loss of independence. Identification of at-risk individuals remains challenging because of time-consuming clinical assessments and limitations of statistical models for dynamic outcomes over time. Therefore, we aimed to develop machine learning models for predicting mobility limitation in older adults using repeated measures and variable selection. We used nine years of follow-up data from the Health, Aging, and Body Composition study to model mobility limitation, defined as self-report of any difficulty walking ¼ mile or up a flight of stairs, assessed annually. We considered 46 predictors for modeling, including demographic, lifestyle, chronic condition and physical function variables. We developed three models with Binary Mixed Model Forest, using: 1) all 46 predictors, 2) an automated variable selection algorithm, and 3) the top five most important predictors. Area under the receiver operating curve ranged from 0.78 to 0.84 for the models for two validation datasets (with and without previous annual visit data for participants). Across the three models, the most important predictors of mobility limitation

were ease of getting up from chair, gait speed, self-reported health status, body mass index and depression. Longitudinal, machine learning models predicting mobility limitation had good performance for identifying at-risk older adults based on current and previous annual visit data. Future studies should evaluate the utility and efficiency of the prediction models as a tool in a clinical setting for identifying at-risk older adults who may benefit from interventions aimed to prevent mobility limitation.

PHYSICAL AND COGNITIVE CORRELATES OF GPS-DERIVED LIFE-SPACE CHARACTERISTICS IN OLDER ADULTS

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Life-space mobility, movement within one's living environment, is important for functional independence in later life. It is unclear which life-space characteristics (i.e., space, duration, shape) are most affected by physical and cognitive limitations. GPS-derived measures mitigate recall bias and offer novel ways to characterize life-space. We examined associations between physical and cognitive performance and GPS-derived life-space characteristics. Participants were 164 community-dwelling adults (Age: $M=77.3\pm 6.5$) from baseline data of a clinical trial to improve walking in older adults. Participants carried a portable GPS for 7 days, which passively collected real-time location. Standard deviational ellipses (SDEs) and minimum convex polygons (MCPs) were derived for each day. Area and compactness of these measures quantified activity space and shape, respectively. For each measure, 7-day medians and median absolute deviations (MAD) were computed to capture both central tendency and variability of weekly activity. Activity duration was quantified as percentage of time outside home. Adjusting for age and sex, percent time outside home was associated with lower mobility performance (i.e., 6-minute walk (6MWT), figure 8 walk, $\rho's=-.17-.18$, $p's<.05$) and executive functioning (i.e., Trail Making Test, Part A: $\rho=.16$, $p=.04$, Part B: $\rho=.19$, $p=.01$). Median MCP and SDE areas, but not compactness, were associated with 6MWT performance ($\rho's=.18-.20$, $p's<.05$). MCP area MAD was associated with greater global cognition (3MSE, $\rho=.15$, $p=.05$). Life-space characteristics were differentially associated with performance measures, suggesting physical and cognitive limitations may constrain life-space mobility via different mechanisms. Variation in these associations by neighborhood walkability and active versus passive travel will also be examined.

Session 1100 (Symposium)

MOBILITY, PHYSICAL ACTIVITY, AND SOCIAL ENGAGEMENT OF COMMUNITY-LIVING OLDER ADULTS

Chair: Wenjun Li

Discussant: Lien Quach

Mobility, physical activity and social engagement are important to healthy aging and independent living among older adults. This symposium includes four related studies

on these issues. Dr. Lien Quach and her team examined racial and ethnic disparities in social engagement among community-living older adults using data from the national Health and Retirement Study. The analysis found that Asians and Hispanics had significantly lower social engagement score compared with non-Hispanic Whites, advocating for further investigations of the causes of racial disparities in social engagement. Dr. Su-I Hou's study examined the impact of physical activity and social relationship on social engagement. The study found positive impacts of more physical activity, better social relationships and volunteers on social engagement. The results have important implications to promotion of social engagement among older adults participating in aging-in-community programs. Dr. Ladda Thiamwong's study demonstrated the benefits of using assistive health technology (AHT) to assess the relationships between fall risks, body compositions and objectively measured physical activity in older adults. Dr. Thiamwong will discuss the research protocol and preliminary results. Dr. Li's Health Aging and Neighborhood Study examined variations of older adults' driving behaviors by sex, age, race, income, health status and housing density of the neighborhoods. The study found substantial differences in mobility and driving patterns by both personal characteristics and neighborhood living environment. The findings have important implications to community programs that support older adults aging in place.

DRIVING HABITS OF OLDER ADULTS IN MASSACHUSETTS: VARIATIONS BY SEX, AGE, RACE, INCOME, HOUSING DENSITY, AND HEALTH

Wenjun Li, Elizabeth Procter Gray, Kevin Kane, Jie Cheng, and Anthony Clarke, *University of Massachusetts Lowell, Lowell, Massachusetts, United States*

Maintaining ability to drive is critical to independent living among older adults residing in suburban and rural communities. We administered structured questionnaire about driving behaviors to 370 persons age 65 and older living in Central Massachusetts between 2018 and 2020. Of them, 307 were active drivers. Driving in the past year was strongly associated with being male, White race, higher income, non-urban resident, and good-to-excellent health. Advancing age was associated with lower frequency of driving, less miles driven, lower percentage of the day spent in transportation. Men and women drove with nearly equal frequency (~26 days/month), but men drove significantly more miles. Non-White drivers were significantly more likely to avoid driving out of town or in difficult conditions, even after controlling for age, sex, income, and density of residential area. In conclusion, driving behaviors differed significantly by age, sex, income, race, and housing density. Further investigation is warranted.

RACE, ETHNICITY, AND SOCIAL ENGAGEMENT AMONG COMMUNITY-DWELLING OLDER ADULTS: THE HEALTH AND RETIREMENT STUDY

Lien Quach, *University of Massachusetts Boston, Newton, Massachusetts, United States*

Social engagement is crucial for older adults. This study examines the relationship between race, ethnicity, and social engagement among community-dwelling older adults using data came from the Health and Retirement Study