ADAPTING STAKEHOLDER WALKABILITY/WHEELABILITY AUDIT TOOL IN NEIGHBORHOOD FOR SENSORY AND COGNITIVE DISABILITIES
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Neighbourhood accessibility influences health, social inclusion, and overall wellbeing of older adults. It is important to assess neighbourhood accessibility in relation to the diverse needs and challenges brought on by the intersection of aging and disability, particularly sensory and cognitive disabilities. Given the paucity of neighbourhood audit tools tailored for this population, The user-led Stakeholders’ Walkability/Wheelability Audit in Neighbourhoods (SWAN) tool was originally created for people with mobility disabilities and is now being adapted for seniors with sensory and cognitive disabilities to evaluate functionality, safety, appearance, supportive features, and social aspects in their neighbourhoods. In this paper, we present highlights and key takeaways from the process of adapting the SWAN tool for three user groups: people living with 1) Blindness or low vision, 2) Deafness and hearing loss, and 3) Dementia. Key steps in the iterative tool adaptation process included 1) identifying access needs/challenges for the three user groups based on a literature review, 2) online consultation with stakeholders with lived and/or professional experience (N = 4) to prioritize key access needs/challenges that will be captured through the SWAN tool and review draft versions of the tool, and 3) in-person pilot testing of tools with persons with lived experience (N = 2) in two urban/suburban neighbourhoods in British Columbia, Canada. Reflections of team members and input from stakeholders and pilot participants revealed issues that were addressed in tool development, namely 1) length of audit and participant fatigue, 2) legibility of tool, and 3) tailoring audit to participants’ context and needs.

SESSION 6510 (POSTER)

EPIDEMIOLOGY, BIOLOGY, CHRONIC DISEASES, AND FUNCTION I

ANNUALIZED AND CUMULATIVE MEASURES OF ANTICHOLINERGIC EXPOSURE FOR RESEARCH AND CLINICAL APPLICATIONS
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Medications with anticholinergic properties are commonly used by older adults despite being associated with dementia. The anticholinergic total standardized daily dose (TSDD) is a continuous measure of exposure that has been associated with an increased risk of dementia at values >1095 over ten years in epidemiologic studies. We sought to determine a cumulative (cTSDD) and annualized (aTSDD) in a sample of community-dwelling older adults enrolled in the ongoing Reducing Risk of Dementia Through Deprescribing (R2D2) trial (NCT04270474). Participants were 65 years or older without dementia, attended at least one primary care visit within 12 months prior to enrollment, and were current users of strong anticholinergics according to the 2012 Anticholinergic Cognitive Burden Scale. Prescribed and over-the-counter medication details were collected during the baseline visit through self-report and included strength, frequency, units/dose and duration. The aTSDD was calculated for each participant assuming continuous use patterns throughout the year. The cTSDD was calculated by summing the aTSDD across the number of years since initiation. Of 66 participants, the median cTSDD was 2425 (IQR 5131), and 48 (72%) exceeded the threshold of dementia risk (>1095). Additionally, the aTSDD had a median of 730 (IQR 547), with 60 (90%) exceeding the threshold of dementia risk (109.5, one-tenth of the ten-year risk) while 11 (17%) exceeded dementia risk threshold of 1095 considering 1 year of exposure. Both measures identified the majority of anticholinergic users exceeding dementia risk thresholds despite some disagreement between the two approaches. However, both methods have potential for research and clinical applications.

DIURNAL CORTISOL SECRETION AND SELF-REPORTED AND CAREGIVER-REPORTED QUALITY OF LIFE IN PEOPLE LIVING WITH DEMENTIA
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Introduction People living with dementia (PLwD) report lower quality of life (QoL), compared to healthy older adults. The poorer QoL is not fully accounted for by the severity of dementia. Dementia is associated with prominent neuroendocrine changes, however, there is a lack of research examining whether biological factors are related to QoL in PLwD. This study examined relationships between cortisol, symptom severity, and QoL in PLwD.

Methods: A total of 143 participants aged 55-94 years (65.7% women) in the Healthy Patterns Study (NCT03682185) provided three saliva samples at wake-up (AM1), 30 minutes (AM2) after waking, and bedtime (PM) on two consecutive days. We derived cortisol awakening response (CAR), wake to bedtime cortisol slope, and diurnal mean cortisol secretion. Sociodemographic and severity of dementia were assessed by interviews and questionnaires. Self-reported and caregiver-reported QoL was measured using the Quality of Life in Alzheimer’s Disease (QoL-AD).

Results: Poorer QoL was associated with more severe dementia rating. Flattened cortisol slope was significantly correlated with overall poorer self-reported QoL (β = 0.43, p = 0.017), but not caregiver-reported QoL (p = 0.12), after controlling for severity of dementia and demographic variables. We did not find a significant relationship between CAR and diurnal mean cortisol with QoL.

Conclusions: This study provides novel evidence linking neuroendocrine mechanisms to QoL in PLwD. The findings indicate that dysregulation of the hypothalamic-pituitary-adrenal axis is linked to poorer QoL, independently of the severity of dementia. Biopsychosocial approaches to QoL for
PLwD may lead to a greater understanding of the underlying mechanisms.

HEALTH-RELATED QUALITY OF LIFE OF OLDER PEOPLE WITH DIABETES DEPENDING ON WHETHER THEY LIVE IN FAMILIES OR NOT

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Diabetes requires self-management, such as the use of insulin, oral antidiabetic drugs, diet, and exercise, for maintaining blood glucose. To promote self-management of older people with diabetes, family support is considered an important factor. However, older people living alone lack family support and have a lower health-related quality of life (HRQOL) than those living in families. The purpose of this study was to assess HRQOL and the factors that affect it between older people with diabetes living alone and those living in families. We performed secondary data analysis using the data of Korea National Health and Nutrition Examination Survey (KNHANES) 2017–2019. In total, 973 people with diabetes aged 65 years or older answered all questions about HRQOL. Complex sample analysis was performed. Each dimension of HRQOL was significantly lower in people living alone than those living in families. Restricted activity, bedridden, number of comorbidities, and perceived health status significantly predicted HRQOL in patients living alone. Health insurance, age, economic activity, unmet medical service needs, restricted activity, bedridden, number of comorbidities, perceived health status, and suicidal ideation significantly predicted HRQOL in patients living in families. This study indicated how differences in HRQOL exist between older patients with diabetes living alone and those living in families. This data will be useful in developing educational programs in the future, and it will be helpful when dealing with people living alone who have diabetes.

ASSOCIATION BETWEEN DUAL TASK FUNCTION AND NEUROPSYCHOLOGICAL TESTING IN OLDER ADULTS WITH COGNITIVE IMPAIRMENT

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Cognitive impairment is an increasingly relevant health concern, as demonstrated through data estimates that by 2040 the number of older adults with dementia will surpass nine million in the United States. Despite this high prevalence, more than half of patients with dementia never receive an evaluation. This indicates that a quick and objective routine test for screening cognitive decline in older adults is needed. Poor dual-task gait performance has been associated with decreased executive and neuropsychological function. However, gait tests are not always viable for clinics or older patients. The aim of this study was to assess the relationship between a novel upper-extremity function (UEF) dual-task performance and neuropsychological test results in older adults. We recruited older adults at three stages: cognitively normal (n=33), mild cognitively impaired (n=34), and Alzheimer’s disease (n=22). For UEF tasks, participants performed a consistent elbow flexion, while counting backwards in by threes. Wearable motion sensors were attached to forearm and upper-arm to measure accuracy and speed of elbow flexion kinematics and the UEF cognitive score. The results demonstrate a strong correlation between UEF cognitive score and MMSE, Mini-Cog, Category fluency, Benson complex figure copy, Trail making test, and MOCA (r values between -0.2355 and -0.6037 and p< 0.0288). UEF dual-task was associated with executive function, orientation, repetition, abstraction, verbal recall, attention and calculation, language and visual construction. The results from this study convey a promising future for the use of dual task UEF as a safe and convenient cognitive impairment screening.

ASSOCIATION BETWEEN UPPER EXTREMITY FUNCTION AND ADVERSE OUTCOMES IN OLDER ADULTS WITH COPD

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Chronic obstructive pulmonary disease (COPD) is the third leading cause of death in the United States. COPD adverse outcomes are required to identify vulnerable patients and enhance bronchodilator therapies. Although the 6-minute walk distance test is commonly used to assess functional capacity in COPD and predict adverse outcomes, it is not feasible for older adults with mobility impairments. Previously, we demonstrated that a simple upper-extremity function (UEF) test could identify frailty and cognitive impairment. We developed two indexes to predict the physical frailty (20-s rapid arm test) and cognitive impairment (60-s normal speed dual-task arm test and counting) among older adults. UEF tests were performed by 76 eligible older adults (age=67.421±6.363). All participants were followed up for one month to record the adverse outcomes. The measured health outcomes included: in-hospital outcomes (death, complication, and excessive length of stay), and 30-day outcomes (30-day death or readmission). Based on the results, 54% and 30% of patients had in-hospital and longitudinal adverse outcomes, respectively. The frailty index was significantly associated with all measured outcomes (p< 0.018). However, cognitive score showed significant association only with 30-day longitudinal outcomes (p< 0.021), but not for in-hospital outcomes (p>0.05). Among all the associations the highest effect size was observed between frailty score and longitudinal outcomes (p< 0.007; effect size=0.94). The results of this study suggest that a 20-s UEF test is a practical quick measure for predicting adverse in-hospital and 30-day outcomes among COPD patients.

ASSOCIATION BETWEEN VISUOSPATIAL ABILITY, GAIT, AND FUNCTION IN OLDER SURVIVORS OF BREAST CANCER

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Research has highlighted the relationship between impaired cognitive function and physical mobility measures in older adults. This relationship may also exist in older survivors of breast cancer, however, specific cognitive domains like executive function or visuospatial ability may

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