SD = 6.53) wore accelerometers (Actigraph GT3X+) during 7 consecutive days. Activity intensity was categorized as light, moderate, or vigorous based on Freedson Adult Vector Magnitude cutpoints. Participants completed a battery of executive function tests: Digit Symbol Substitution Test, Verbal Fluency, Trail Making Test, and Stroop Color-Word Test. A cognitive composite score was created using confirmatory factor analysis. Women had a higher mean MVPA (4.57%) than men (2.64%, t (19.04) = -2.49, p = .022). However, executive function performance did not differ by sex (t (26.20) = 1.67, p =.107). The interaction between sex and time in MVPA did not predict performance on executive function, adjusting for age and education. Older age was the only significant predictor of poorer executive function (β = -0.038, p = .003). The current sample had limited engagement in MVPA (range 0.18-10.87%). These findings suggest that the amount of engagement in MVPA in a free-living environment may not be sufficient to demonstrate sex-associated differences in executive function performance. Future studies should explore executive function performance with other intensity levels and examine other areas of cognition.

## ACTIVITIES OF DAILY LIVING DIFFICULTIES AND TOILETING AMONG OLDER GHANAIANS: AN APPLICATION OF WHO-ICF FRAMEWORK

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The aim of the study was to analyze the prevalence of activities of daily living (ADL) difficulties among older Ghanaians and specifically how one ADL, toileting difficulty, predicts care and supports needs using the World Health Organization International Classification of Disability and Health framework (WHO-ICF). Toileting difficulty requiring upper extremity strength is among ADLs that can lead to functional loss of independence among older people globally. A sample of n=5,096 adults aged 50 years and older from the WHO Study on global AGEing and adult health (SAGE) Ghana Wave 1 was used to analyze difficulties with ADLs and toileting. Level of difficulty was assessed against 22 other functioning items from the interview. Out of the 22 functioning items, climbing one flight of stairs without resting was the most difficult activity to be completed by older Ghanaians, and difficulty eating being the least endorsed item. Toileting was ranked the 16th in terms of reported difficulty and was related to other ADLs. Logistics multivariate regression was used to analyze data. Including significant variables from the univariate analysis in parsimonious model based on WHO-ICF framework, age, self-report health, memory, bodily pain, short distance vision, stroke, neighborhood trust, toilet facility type, and religious meeting attendance, were significantly independently associated with toileting difficulty. Gender was significant at the univariate level but became insignificant after adjusting for body function and structural variables. Toileting difficulty was associated with factors across different components in the WHO-ICF making the WHO-ICF an appropriate tool for understanding health and disability.

## FACTORS ASSOCIATED WITH LIFE-SPACE CONSTRICTION IN LATER LIFE: EVIDENCE FROM THE HEALTH AND RETIREMENT STUDY

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This study aimed to examine factors associated with life-space constriction, using the data from the Health and Retirement Study, a nationally representative sample. We limited our analysis to those who were 65 years and older and answered to the 2012 experimental module on life-space (N=895; mean age=75.3; 59.4% women). Life-space was assessed with the modified version of the UAB Study of Aging Life-Space Assessment, ranging nine zones: room, home, own property, immediate neighborhood, town, community, county, state, and region. A series of logistic regression models were used to estimate odds ratios for life-space constriction by sociodemographic and health characteristics. The results showed that 3.0% and 6.7% of older adults reported that they had never been to places beyond their home and own property/apartment building for the past four weeks, i.e. the critical boundaries in terms of social isolation. The significant factor associated with the life-space constriction within home, immediate neighborhood, and town was physical mobility limitation (OR: 1.18, 1.09, 1.11, respectively), while the constriction within county was associated with education level (OR: 0.91). Driving a car was negatively associated with the life-space constriction within own property/apartment building and home (OR: 0.48 and 0.22, respectively). Policy makers need to pay more attention to social and environmental factors influencing social isolation among older adults such as transportation options and social class disparity.

## ACTIGRAPH'S LOW-FREQUENCY EXTENSION FILTER FOR ESTIMATING WRIST-WORN PHYSICAL ACTIVITY IN OLDER ADULTS

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Advancements in body-worn activity devices make them valuable for objective physical activity measurement. Research-grade monitors utilize software algorithms developed with younger populations using waist-worn devices. ActiGraph offers the low frequency extension (LFE) filter which reduces the movement threshold to capture low acceleration activity that is more common in older adults. It is unclear how this filter changes activity variable calculations in older adults. We investigated the effects of the LFE filter on wrist-worn activity estimates in this population. Participants were 21 older adults who wore the GT9X on

their non-dominant wrist for 7 days in a free-living environment. Activity counts were estimated both with and without the LFE filter. Paired samples t-tests revealed that the LFE estimated significantly higher number of counts than non-LFE calculated counts per minute on all three axes ($p < .001$). Step count estimates were higher with ($M = 20{,}780.09$, $SD = 5300.85$) vs. without ($M = 10{,}896.54$, $SD = 3489.45$) the LFE filter, ($t(20) = -22.21$, $p < .001$). These differences have implications for calculations based on axis counts (e.g., Axis-1 calculated steps, intensity level classifications) that rely on waist-worn standards. For example, even without the filter, the GT9X calculated an average of 10,897 steps, which is likely an overestimate in this population. This suggests that axes-based variables should be interpreted with caution when generated with wrist-worn data, and future studies should aim to develop separate wrist and waist-worn standard estimates of these variables in older adult populations.

## INCREASING PHYSICAL ACTIVITY POST-KIDNEY TRANSPLANT: A PILOT RANDOMIZED CONTROLLED TRIAL

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Older kidney transplant recipients are at risk for graft failure and death due to lack of physical activity. Physical activity after transplant is the most modifiable non-pharmacological factor for improving physical function. One personal system intervention called, SystemCHANGE™ in combination with activity trackers, holds promise for increasing physical activity among this population. The purpose of this pilot randomized controlled trial was to evaluate the efficacy of SystemCHANGE™ on increasing average daily steps in older (age 60 and over) kidney transplant recipients from baseline to 6 months. The intervention group met monthly to implement a successful personal system solution based on their daily routines and step-data collected from the activity tracker. The control group received monthly educational information on healthy living with a transplant. Participants were randomized 1:1 to the intervention or control group. The sample consisted of 31 participants ($n = 15$ intervention, and $n = 16$ control). No significant differences were found at baseline among the groups for demographics, self-efficacy and health outcomes (blood pressure, weight, waist circumference, 6 minute Walk Test). However, the intervention group had greater increase in the average daily steps from baseline to 6 months (mean ± SD: 1511 ± 2320) as compared to the control group (181 ± 2419). The between-group difference was of medium effect size ($d = .56$).The data suggests SystemCHANGE™ in combination with activity trackers may be feasible for older kidney transplant recipients to enhance daily steps.

## INDEX OF RELATIVE RURALITY AS A PREDICTOR OF PHYSICAL ACTIVITY CORRELATES FOR OLDER ADULTS

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According to the ecological model, physical activity (PA) results from interactions between personal (e.g., intentions), social (e.g., autonomy support), and environmental factors (e.g., walkability, rurality). However, past research has commonly used dichotomous measures of rurality (i.e., rural versus urban), which has limited our understanding of the relationship between rurality and other PA correlates. Therefore, the purpose of this study was to investigate the associations between rurality and known correlates of PA among older adults. Ninety-one older adults aged ≥ 60 years, without severe cognitive impairment, completed a questionnaire assessing PA intentions ($\alpha = 0.89$), autonomy support for PA ($\alpha = 0.91$), and walkability ($\alpha = 0.76$). The Index of Relative Rurality, a continuous, multidimensional measure of rurality, was used to evaluate the degree of rurality based on residential zip-code. Regression analyses revealed that the rurality-autonomy support association followed an inverted-U shape function ($p = 0.01$), whereas rurality was negatively associated with walkability ($p = 0.02$). Rurality was not associated with PA intentions; however, autonomy support was positively associated with PA intentions ($p = 0.01$). The use of non-dichotomous measures of rurality appears essential in our understanding of its association with other PA correlates. Failure to use such measures may result in incomplete portrayals of relationships.

## EFFECTS OF A SITTING REDUCTION INTERVENTION FOR OBESE OLDER ADULTS WITH DEPRESSION

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Background: Little is known about the impact of sedentary behavior (SB) reduction interventions on older adults with obesity and depressed mood. An exploratory analysis examined behavioral and mental health effects of a SB reduction among participants with depressed moods. Methods: Participants were obese older adults (n=30, mean age=66, 77% female, 23% male, mean PHQ-8-Score=13.67) that were randomized to receive a sitting reduction intervention ( I-STAND); N=16) or a control condition (N=14) as part of a larger trial. Participants wore activPAL devices to assess sitting time at baseline and 12-weeks; they also completed the Patient-Health Questionnaire-8 (PHQ-8) to assess depressive symptoms. Linear regression models compared baseline and 12-week measures between groups adjusting for baseline values. A post-hoc qualitative analysis assessed ISTAND participant interview data. Results: I-STAND participants had greater reductions in sitting time than control participants by 57-minutes (p=0.04), as well as greater reductions in percent sitting time by 5.89-percent (p=0.03). Mean PHQ-8 scores were decreased by 0.14-points among the I-STAND group compared to the control (P=0.90). Qualitative themes included physical and social barriers to standing; varying perceptions of the presence of depression; physical health improvements (i.e. mood improvement) and perceptions of physical activity (i.e. feasibility to exercise). Conclusion: We found significant associations between sitting reduction and a SB intervention among older adults with obesity and