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Background. Functional decline in conjunction with low levels of physical activity has implications for health risks in older adults. Previous studies have examined the associations between accelerometry-derived activity and physical function, but most of these studies reduced these data into average means of total daily physical activity (e.g., daily step counts). A new method of analysis “functional data analysis” provides more in-depth capability using minute-level accelerometer data. **Methods.** A secondary analysis of community-dwelling adults ages 30 to 90+ residing in southwest region of North Carolina from the Physical Performance across the Lifespan (PALS) study. PALS assessments were completed in-person at baseline and one-week of accelerometry. Final analysis includes 669 observations at baseline with minute-level accelerometer data from 7:00 to 23:00, after removing non-wear time. A novel scalar-on-function regression analysis was used to explore the associations between baseline physical activity features (minute-by-minute vector magnitude generated from accelerometer) and baseline physical function (gait speed, single leg stance, chair stands, and 6-minute walk test) with control for baseline age, sex, race and body mass index. **Results.** The functional regressions were significant for specific times of day indicating increased physical activity associated with increased physical function around 8:00, 9:30 and 15:30-17:00 for rapid gait speed; 9:00-10:30 and 15:00-16:30 for normal gait speed; 9:00-10:30 for single leg stance; 9:30-11:30 and 15:00-18:00 for chair stands; 9:00-11:30 and 15:00-18:30 for 6-minute walk. **Conclusion.** This method of functional data analysis provides new insights into the relationship between minute-by-minute daily activity and health.

PERCEIVED VALUE OF USING A DIGITAL TOOL TO SCREEN FOR ELDER MISTREATMENT IN THE EMERGENCY DEPARTMENT

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A major barrier to reducing Elder Mistreatment (EM) is an inability to accurately identify victims. We conducted a qualitative study to evaluate stakeholders’ perceived value and likelihood of adopting a tablet-based digital health tool to facilitate screening and prompt self-disclosure of EM in emergency departments (ED). The interactive tool utilizes virtual coaching, interactive multimedia libraries (graphics, animations, etc.), electronic screening, and brief motivational interviewing designed to enhance identifying EM among older adults. We conducted 3 focus groups with stakeholders, including 24 adults 60+ years, 2 social workers, 2 caregivers, and 2 ED clinicians. Two focus groups included only older adults, while one included representatives of all stakeholders. The main findings include: using a female voice for the tool narrator, larger font size, more multimedia, and headphones for privacy; and making a person available during screening if assistance is needed. Stakeholders indicated that it is difficult for victims to ask for help and any type of mistreatment screening would be helpful. On a 7-point Likert scale ranging

from “1=Very Comfortable” to “7=Very Uncomfortable”, older adults scored 2.8 on average for whether they would feel comfortable using a tablet to screen for EM. Some said digital screening would maintain privacy and anonymity. Stakeholders highlighted the need to explain community resources available to older adults once EM is disclosed, especially resources offering help to the caregiver. In summary, this qualitative study supported using tablet-based screening for EM and highlighted the need to target stigma related to EM disclosure and fear of retaliation.

PREVALENCE AND PERCEIVED USEFULNESS OF ASSISTIVE TECHNOLOGY IN MIND AT HOME DEMENTIA COHORT

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Dementia is generally characterized by both an increasing dependence in activities of daily living over the course of the illness, and a decreasing ability to self-manage everyday tasks. This places persons at risk for a number of undesirable outcomes including increased risk for injury in the home, increased risk for medical and behavioral complications, risk of premature institutionalization, and excessive burden on family caregivers (CG).^{3,4} Assistive Technology Devices (AT-Devices) could represent an efficient resource for supporting daily tasks while reducing both CG care burden and adverse risk to the person with dementia (PWD).^{3,4} In the context of a larger dementia care intervention clinical trial (The MIND at Home program) that involved persons living with dementia at home and their family caregivers, we conducted a supplemental baseline survey on 59 participants and their CGs to better understand the current prevalence of AT-Device use and which devices would be perceived as “most helpful”. Our analysis showed that 51% of our study population used at least 1 of our listed AT-Devices. The most common AT-Device used at baseline were door guards (29%), tablets/smartphones (20%), and constant temperature shower nozzles (13%). Our survey demonstrated devices perceived as most useful included: shower nozzles, GPS locating devices, door guards, and Bluetooth tracking stickers. Individuals who endorsed African-American/Other race were significantly more likely to use at least one AT-Device than those who identified as Caucasian (OR: 4.80; 95% CI: 1.50-17.58). This significance was lost during adjustment for other demographic variables (sex, age, cohabitation status, and dementia severity).

TELEHEALTH USE IN A HOME-BASED DEMENTIA CARE-COORDINATION PROGRAM

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