of providers tailor their communication to older patients regarding sex/HIV, however they were divided in who initiates such conversations (themselves or the patient). Providers stated that standardized/routine health assessments help facilitate those conversations. Results indicate several barriers to conversations, such as age/gender differentials and time. Additional results will be discussed. Study findings can help guide provider education and screening of older adults regarding sexual health/HIV.

# LONG-TERM EFFECTS OF CHILDHOOD SEXUAL ASSAULT AMONG OLDER PEOPLE WITH HIV

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Research finds high rates of childhood sexual assault (CSA) among people with HIV (PWH). CSA is related to depression, post-traumatic stress disorder, substance abuse, and poor health. PWH age 50 and older account for the majority of this population in the U.S., but we have little information on the impact of CSA on these older adults. Data were obtained from the San Francisco arm of the Research on Older Adults with HIV 2.0 study (n=197). Fifty percent reported CSA. Cisgender women and transgender people were more likely to report CSA compared to other groups. PWH reporting CSA were more likely to meet the diagnostic criteria for PTSD (42% vs. 27%), and had higher mean PHQ-9 depression scores (9.3 vs. 6.8). Those reporting CSA had significantly more comorbid health conditions compared to their peers. Implications for using a trauma-informed care model with older adults living with HIV will be discussed.

## ENERGY EXPENDITURE AND PHYSICAL ACTIVITY AMONG OLDER PARTICIPANTS FROM THE MULTICENTER AIDS COHORT STUDY (MACS)

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Energy utilization becomes more inefficient with age and is linked to low physical activity and functional decline. Persons aging with HIV exhibit accelerated functional decline, but the effect of chronic HIV infection on energy utilization and free-living physical activity remains unclear. We investigated cross-sectional associations between age and: resting metabolic rate, peak walking energy (VO2), and 7-day physical activity by accelerometry in 100 men in the MACS (age: 60.8+/-6.8 years, 35% black, 46.1% HIV+, 94% virally suppressed). In multivariable regression models adjusted for age, BMI, race, chronic conditions, and HIV viral load, HIV+ men had a higher resting metabolic rate (\u03b2=103.2 kcals/day, p=0.03) and lower peak walking VO2 ( $\beta$ =-1.8 ml/kg/min, p<0.02) than HIV- men. Moreover, HIV+ men demonstrated lower physical activity, overall and by time of day (p<0.05). These results suggest that energy utilization differs by HIV serostatus, which may contribute to lower physical activity and function with aging.

# FUNCTIONAL WELLNESS AND OLDER MEN WITH HIV

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Aging-related stressors, such as changing physical function, poorly managed multimorbidity, increasing pill burden and social losses can diminish for some older adults with HIV the capacity for self-care. These challenges, however, can be improved by maintaining physical, cognitive and social function, or functional wellness. Using cross-sectional data from a men's health study with younger and older men with and without HIV, we conducted general linear models to identify individual and clinical predictors for physical, cognitive, social and role function, as measured by the Medical Outcomes Study HIV Health Survey. We found that older HIV+ men had lower burdens of functional deficits compared to older HIV- men and younger HIV+ men and that across all models, depression, followed by diabetes, housing, and employment were predictive of functional wellness. Functional wellness for older HIV+ men is a multidimensional construct that includes optimizing internal and external resources to maintain healthy living and wellness.

## CORRECTING GLUTATHIONE DEFICIENCY REVERSES MITOCHONDRIAL DYSFUNCTION AND ACCELERATED AGING IN PATIENTS WITH HIV

Rajagopal V. Sekhar,<sup>1</sup> Premranjan Kumar,<sup>1</sup> James Suliburk,<sup>1</sup> Charles G. Minard,<sup>1</sup> and Chun Liu<sup>1</sup>, *1. Baylor College of Medicine*, *Houston*, *Texas*, *United States* 

Patients with HIV (PWH) have 'accelerated' aging based on early manifestation of geriatric comorbidities of declining physical-function, elevated inflammation, insulin-resistance, cognitive-impairment and abdominal-obesity, but contributing mechanisms are not well understood and interventions are lacking. We hypothesized that deficiency of the intracellular-antioxidant Glutathione results in impaired mitochondrial fuel-oxidation (MFO) and contributes to these defects, and that supplementing Glutathione precursors glycine and N-acetylcysteine (GlyNAC) could improve these defects. In an open-label trial, 8 PWH were studied before and after 12-weeks of GlyNAC supplementation (and 8-weeks after stopping GlyNAC), and compared to 8 matched, unsupplemented, uninfected controls. PWH had significantly impaired MFO, abnormal molecular regulation of MFO, muscle Glutathione deficiency, physical decline, cognitiveimpairment, and higher oxidative-stress, inflammation, insulin-resistance and total body fat. GlyNAC supplementation significantly improved these defects, but benefits receded on stopping GlyNAC. These data suggest that GlyNAC supplementation could reverse 'accelerated aging' in PWH by improving defects linked to impaired MFO.

## SESSION 2490 (SYMPOSIUM)

## HOME IS WHERE THE HEART IS: OPTIMIZING AND TAILORING HOME AND COMMUNITY-BASED SUPPORT FOR DEMENTIA CAREGIVERS

Chair: Quincy M. Samus, The Johns Hopkins University, Baltimore, Maryland, United States

Co-Chair: Nancy Hodgson, University of Pennsylvania, Philadelphia, Pennsylvania, United States Discussant: Joseph E. Gaugler, University of Minnesota - School of Public Health, Division of Health Policy and Management, Minneapolis, Minnesota, United States

Family caregivers, often "de facto" members of the care team for persons with dementia, play a central role in ensuring safety, support, quality of life, and continuity of care. Most often, they provide this care for loved ones at home and over a long period of time, as the illness progresses and care need intensifies. This session will provide a unique understanding of potential ways to optimize support for family caregivers in provision of day-to-day care in the home by examining often-overlooked factors influential in the health and wellbeing for both caregiver and persons with dementia. Presentations will draw from three large community-based trials testing interventions to support dementia caregivers. Drs. Samus and Sloan will present on common unmet needs identified by family caregivers and explore how needs differ by disease stage and race. Dr. Fortinsky will present baseline caregiver care-related challenges in a diverse cohort of caregivers and the effects of a caregiver intervention designed to mitigate these challenges. Dr. Hodgson will present the common symptoms clusters among home-dwelling persons with dementia patients and how these are associated with caregiver distress. Dr. Jutkowitz will discuss factors influencing dementia caregiver's willingness to pay for help at home. Findings from this session will help elucidate care needs that matter most to family caregivers in diverse community-living cohorts and how we might optimize and tailor supportive home-based interventions to target these needs and challenges.

### COMMON UNMET NEEDS OF DEMENTIA CAREGIVERS AND HOW THESE DIFFER BY DISEASE STAGE AND RACE

Quincy M. Samus,<sup>1</sup> Danetta Sloan,<sup>1</sup> Jeannie-Marie Leoutsakos,<sup>1</sup> Betty Black,<sup>1</sup> and Deirdre Johnston<sup>1</sup>, 1. The Johns Hopkins University, Baltimore, Maryland, United States

This presentation (co-presentation Samus and Sloan) will use combined cross-sectional, baseline data from two intervention studies (n=-642) conducted in Maryland evaluating the impact of dementia care coordination model (MIND at home) to provide a detailed description of common modifiable unmet care needs of family caregivers of community-living persons with dementia (PWD), explore how care needs may differ by the disease stage of the PWD, and presence of racial disparities in care needs. Unmet caregiver needs were identified based on comprehensive in-home assessments using a standardized tool (JHDCNA 2.0) with 6 care domains and 18 items covering caregiver needs. Family caregivers were 77% women; 63 years old (mean); 60% White; and 52% adult children. The most prevalent needs were for education/resources (98%), legal (74%), mental health (44%), and informal support (43%). Needs varied based on dementia severity. African American caregivers (vs. white) had significantly more unmet caregiver needs at baseline (p < .001).

### FACTOR STRUCTURE OF NEUROPSYCHIATRIC SYMPTOM FREQUENCY IN HOME-RESIDING PERSONS WITH DEMENTIA

Nancy Hodgson,<sup>1</sup> Natalie Regier,<sup>2</sup> and Laura Gitlin<sup>3</sup>, 1. University of Pennsylvania, Philadelphia, Pennsylvania, United States, 2. The Johns Hopkins University, Baltimore, Maryland, United States, 3. Drexel, philadelphia, Pennsylvania, United States

This study evaluated neuropsychiatric symptom clusters in a sample of home residing persons with dementia, and the impact of distinct clusters on family caregiver outcomes. The expanded Neuropsychiatric Inventory (NPI-C), including measures of frequency, was collected at baseline from 250 caregivers enrolled in Reducing Agitation in People With Dementia: the Customized Activity Trial [NCT01892579]. Principle component analyses were conducted resulting in an eight behavioral clusters, accounting for 44% of total variance: 1=agitation/aggression; 2=anxiety; 3=apathy/withdrawl; 4=impulsivity; 5=psychosis; 6=restlessness; 7=circadian disturbance; 8=depression. In multiple linear regressions caregiver burden was significantly influenced by the anxiety cluster. Caregiver depression was significantly influenced by apathy/withdrawal cluster, and quality of life was significantly associated with anxiety and circadian disturbance clusters. Dimensional representation of neuropsychiatric symptom clusters can be useful in assessing the effect of multiple co-occurring symptoms (versus discrete individual symptoms) on caregiver outcomes and for planning personalized intervention strategies for persons with dementia.

### INTERVENTION EFFECTS ON TARGET PROBLEMS EXPRESSED BY CAREGIVERS OF HOME-DWELLING PERSONS WITH DEMENTIA

Richard H. Fortinsky,<sup>1</sup> Laura N. Gitlin,<sup>2</sup> and catherine V. Piersol<sup>3</sup>, 1. University of Connecticut School of Medicine, Farmington, Connecticut, United States, 2. Drexel University, Philadelphia, Pennsylvania, United States, 3. Thomas Jefferson university, Philadelphia, Pennsylvania, United States

Care of Persons with Dementia in their Environments (COPE) is an evidence-based in-home intervention designed to optimize function and activity engagement in persons with dementia (PWD), and teach family caregivers (CG) how to manage dementia care-related problems. In this presentation, we report problems expressed by CGs, and intervention effects on these problems and CG outcomes, in the COPE CT translational study. CGs randomized to COPE who completed the assessment phase (N=134) expressed a total of 409 target problems, grouped as managing PWD behavioral problems (32%), caring for themselves (30%), managing PWD daily activities (24%) and engaging PWD in meaningful activities (14%). Most problems were reduced (75%) or eliminated (21%) among CG completing the intervention. In preliminary outcome analyses, compared to CG not receiving COPE, CG receiving COPE were more likely to report improved ability to manage dementia-related cognitive and behavioral symptoms (p<0.001). Implications for scaling COPE will be discussed.