

## THE COLUMBIA BEHAVIOR SCALE FOR DEMENTIA: VALIDITY AND RELIABILITY IN LONG-TERM CARE SETTINGS

William Mansbach, and Ryan Mace, *Mansbach Health Tools, LLC, Simpsonville, Maryland, United States*

Numerous neuropsychiatric inventories have been created for behavioral and psychological symptoms of dementia (BPSD). These inventories are seldom used in long-term care (LTC) settings due to questionable psychometrics, lengthy administration, and reliance on knowledgeable informants. The Columbia Behavior Scale for Dementia (CBS) is a rapidly administered BPSD rating tool that was developed for LTC residents. The 11-item CBS can be completed in less <5 minutes independently, with nursing staff, or in conjunction with interdisciplinary care teams. LTC residents (N = 350) participated in a validation study in Maryland, USA (M age = 78.38, SD = 10.82). Internal consistency ( $\alpha = 0.75$ ) and inter-rater reliability ( $r = 0.99$ ) for the CBS were strong. CBS scores were not biased by informant type ( $p > 0.05$ ): GNAs/CNSs (40.69%), nurses (36.10%), other facility staff (23.21%). Diagnostic validity was confirmed by significantly higher CBS scores ( $p < 0.001$ ; large effect,  $d = .63$ ) for LTC residents with dementia ( $n = 197$ ,  $M = 4.63$ ,  $SD = 4.58$ ) versus those without dementia ( $n = 145$ ,  $M = 2.17$ ,  $SD = 2.87$ ). Higher CBS scores were significantly associated with greater impairment on cognitive instruments ( $r$  range =  $-0.25$ ,  $-0.36$ ) and increased mood dysfunction ( $r$  range =  $0.20$ ,  $0.26$ ), indicating convergent validity. Principal components analysis produced three CBS factors, psychosis, aggression, and non-aggressive motor disinhibition, which significantly identified LTC residents with greater odds for antipsychotic use. Results will be discussed in terms of right-sizing antipsychotic utilization, improving nonpharmacological behavior management, and enhancing the dementia literacy of nursing staff.

## THE INFLUENCE OF RACE AND GENDER ON STAFF-RESIDENT INTERACTIONS IN NURSING HOMES

Rachel McPherson,<sup>1</sup> Barbara Resnick,<sup>2</sup> and Elizabeth Galik,<sup>3</sup> 1. *University of Maryland, Baltimore, Maryland, United States*, 2. *University of Maryland School of Nursing, Baltimore, Maryland, United States*, 3. *University of Maryland, Baltimore, Maryland, United States*

Communication and interactions are an integral part of care in long-term care settings. Resident variables, such as race and gender, shape communication and interaction between staff and residents. The Quality of Interactions Schedule (QuIS) was developed to measure the quality of verbal and nonverbal interactions among nursing staff and older adults initially for those in acute care and later used as well in a variety of long term care settings. A quantified measurement of the quality of interactions between residents and staff was created to quantify the QuIS. The purpose of this study was to describe the gender and racial differences in scored quality of interactions. Data for the present study was based on baseline data from the Evidence Integration Triangle for Behavioral and Psychological Symptoms of Dementia (EIT-4-BPSD) implementation study. A total of 535 residents from 55 settings were included in the analyses. An analysis of covariance was conducted to determine a difference in QuIS scores between males and females while controlling for age. The second model tested for differences in

QuIS scores between blacks and whites while controlling for age and gender. There was not a statistically significant difference in QuIS scores between male and female residents. There was a significant difference in QuIS scores between those who were black versus white, such that those who were black received more positive interactions from staff than those who were white. Future work should focus on a deeper examination of resident factors and staff factors that may influence these interactions.

## SESSION 2890 (POSTER)

### PHYSICAL ACTIVITY, EXERCISE, AND REHABILITATION CARE

#### ASSOCIATION BETWEEN ACTIVITY DIVERSITY AND FRAILTY IN COMMUNITY-DWELLING OLDER JAPANESE: A CROSS-SECTIONAL STUDY

Junta Takahashi,<sup>1</sup> shuichi Obuchi,<sup>1</sup> Hisashi Kawai,<sup>1</sup> Kaori Ishii,<sup>2</sup> Koichiro Oka,<sup>2</sup> Yoshinori Fujiwara,<sup>3</sup> Hirohiko Hirano,<sup>1</sup> and Kazushige Ihara,<sup>4</sup> 1. *Tokyo Metropolitan Institute of Gerontology, Itabashi-Ku, Tokyo, Japan*, 2. *Waseda University, Tokorozawa, Saitama, Japan*, 3. *Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan*, 4. *Hirosaki University, Itabashi-Ku, Tokyo, Japan*

In addition to intensity and quality, diversity of activity will be an important factor to explain health outcomes among older adults. Few studies, though, examined an association between activity diversity and health outcomes. This study aimed to examine the association between activity diversity and frailty among community-dwelling older Japanese. Participants were community-dwelling older adults who participated in a cohort study, the "Otassya-Kenshin" in 2018. The participants were asked frequency of 20 daily activities, inside/outside chores, leisure activities with/without physically, direct/indirect contact with friends and so on, in a week and activity diversity score were calculated using the formula of Shannon's entropy. Frailty was defined by the Japanese version of the Cardiovascular Health Study criteria. The difference in diversity score between frail and non frail were examined by t-test. Logistic regression analysis with covariates, age, sex, economic status, living alone, BMI, Mini-Mental State Examination, and IADL was adopted to find association between activity diversity score and presence of frailty. Of 652 participants (age:  $72.8 \pm 6.3$ , women: 60.6%) analyzed, 27 (4.1%) were defined as frail. Frailty group revealed significantly lower activity diversity score than non-frailty group ( $0.66 \pm 0.11$  vs  $0.75 \pm 0.08$ ,  $P < 0.01$ ). 0.2 point of decrease in diversity score increase 5 times chance of frailty after controlling covariates. We found significant relationship between activity diversity and health outcome among older subjects. The activity diversity may provide additional information to number or intensity of activity.

#### ASSOCIATION OF PHYSICAL ACTIVITY, MUSCLE MASS, STRENGTH, AND FUNCTION TO QUALITY OF LIFE IN OLDER ADULTS

Murad Taani,<sup>1</sup> Chi Cho,<sup>2</sup> and Julie Ellis,<sup>2</sup> 1. *University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, United States*, 2. *University of Wisconsin Milwaukee, Milwaukee, Wisconsin, United States*