

group-based trajectory modeling to assess dual trajectories of subjective memory impairment and objective cognitive decline. Four distinct dual-trajectory typologies were identified, suggesting complex co-occurring changes in subjective memory and objective cognition in older adults. The third paper characterized the trajectories of three neuropsychological symptoms (pain, insomnia, and depression) prior to dementia onset. Using data from the National Health and Aging Trends Study, the study found older adults with dementia exhibit distinct trajectory of depression before dementia onset than those without dementia. Trajectories of pain and insomnia did not differ before dementia onset. The last paper examined the effect of education on cognitive decline among lower educated older adults using data from the Longitudinal Study of Older Adults in Anhui Province, China. Results suggest that older adults with some formal schooling had slower cognitive decline; the gap in cognition between the literate and illiterate widened with age.

#### ASSOCIATION BETWEEN SUBJECTIVE AND OBJECTIVE COGNITIVE FUNCTION IN CHINA

Bada Kang,<sup>1</sup> Hanzhang Xu,<sup>2</sup> Eleanor S. McConnell,<sup>3</sup> and Bei Wu<sup>4</sup>, 1. *Duke University School of Nursing, Durham, North Carolina, United States*, 2. *Duke University Department of Community & Family Medicine, Durham, North Carolina, United States*, 3. *Duke University School of Nursing Geriatric Research; Education and Clinical Center, Durham Department of Veterans Affairs Medical Center, Durham, North Carolina, United States*, 4. *New York University College of Nursing, New York, New York, United States*

Although subjective cognitive decline is considered as a potential symptomatic indicator of cognitive decline, little is known regarding the relationships in older adults in China. Using the World Health Organization Study on global AGEing and adult health (SAGE) Wave 1 data, we examined the association between subjective cognitive function, perceived memory decline, and objective cognitive function among adults aged 50 or older (N=13,367) in China. Objective cognitive function was measured by immediate and delayed recall test, digit span test, and verbal fluency test. Multivariate linear regression models were used to account for sociodemographic, psychosocial, and health-related factors. We found worse subjective cognitive function was associated with poorer working memory and verbal fluency. Greater perceived memory decline was also associated with poorer working memory but not with verbal fluency. Psychosocial factors including social cohesion and social support attenuated the relationships between subjective cognitive function, perceived memory decline, and objective cognitive performance.

#### TRAJECTORIES OF SUBJECTIVE MEMORY IMPAIRMENT AND OBJECTIVE COGNITIVE DECLINE IN U.S. OLDER ADULTS

HANZHANG XU,<sup>1</sup> Matthew E. Dupre,<sup>2</sup> and Bei Wu<sup>3</sup>, 1. *Duke University, Durham, North Carolina, United States*, 2. *Duke University School of Medicine, Durham, North Carolina, United States*, 3. *New York University Rory Meyers College of Nursing, New York, New York, United States*

We examined the dual trajectories of subjective memory impairment (SMI) and objective cognitive decline and their

associated factors in U.S. older adults. We used data from the Health and Retirement Study which includes a nationally representative sample of 19,408 Americans age 65 and older from 1998 to 2016. Trajectories of SMI and objective cognitive decline were simultaneously characterized using a group-based trajectory model and multinomial logistic regressions were used to assess factors associated with the dual-trajectory typologies. Four dual-trajectories were identified: “minimal SMI and stable-low cognitive decline” (33.1% of respondents); “minimal SMI with accelerated cognitive decline” (28.2%); “significant SMI with moderate cognitive decline” (21.0%); and “moderate SMI with steady cognitive decline” (17.6%). Being male, minority, low educated, living alone, and having comorbidities were associated with trajectories featuring greater SMI or more rapid deterioration in cognition. The results suggest complex co-occurring changes in subjective memory and objective cognition in older adults.

#### TRAJECTORIES OF PAIN, INSOMNIA, AND DEPRESSIVE SYMPTOMS BEFORE ONSET OF DEMENTIA

Minhui Liu,<sup>1</sup> Hanzhang Xu,<sup>2</sup> Junxin Liu,<sup>3</sup> Nancy A. Perrin,<sup>3</sup> and Sarah L. Szanton<sup>3</sup>, 1. *Johns Hopkins University School of Nursing, Baltimore, Maryland, United States*, 2. *Duke University School of Medicine, Durham, North Carolina, United States*, 3. *Johns Hopkins School of Nursing, Baltimore, Maryland, United States*

This study examined the trajectories of pain, insomnia, and depression during a four-year period in community-dwelling participants aged 65 or older (N=2,486) from the National Health and Aging Trends Study. Self-reported pain, insomnia, and depressive symptoms were collected at each wave. Dementia status was determined using a modified previously validated algorithm. We analyzed retrospective trajectories of each symptom using mix-effect models and a backward timescale. We also tested for differences in each symptom trajectory between those with and without dementia. Results showed that the trajectory of depression significantly differed by dementia status (Wald  $\chi^2=388.34$ ;  $P<.001$ ). Participants with dementia had persistently higher depression level than those without dementia, particularly during the year before dementia onset. Trajectories of pain and insomnia did not differ before dementia onset. Depression increases risks of dementia and studies with longer length of follow-up are needed to detect significant trajectories of pain and insomnia before dementia onset.

#### COGNITIVE DECLINE AMONG OLDER ADULTS IN RURAL CHINA: THE PROTECTIVE ROLE OF FORMAL SCHOOLING

Yaolin Pei,<sup>1</sup> Bei Wu,<sup>2</sup> Zhen Cong,<sup>3</sup> and Mengyao Hu<sup>2</sup>, 1. *New York University, New York, New York, United States*, 2. *Rory Meyers College of Nursing, New York University, New York, New York, United States*, 3. *School of Social Work, University of Texas at Arlington, Arlington, Texas, United States*

Evidence shows that education is strongly associated with cognitive functioning; however, few studies have examined the effect of education on cognitive decline among older adults with very limited education. Our study analyzed six waves of panel data (2001, 2003, 2006, 2009, 2012 and 2015) from the