

outcomes. Sleep latency (SL), wake after sleep onset (WASO), and sleep efficiency (SE) parameters were recorded. Participants were classified as poor sleepers if their actigraphy-measured SL was  $\geq 31$  min or SE was  $< 85\%$ , or WASO was  $\geq 31$  min. All measurements were taken prior to and following a 3-month intervention program. Statistical analysis was conducted using SPSS Version 26. This study received approval from the Institutional Review Board of Osaka University.

**Results:** A total of 105 participants completed the study, with 65 females (62%). Among them, 8 were complaining good sleepers, 12 were complaining poor sleepers, 42 were non-complaining good sleepers, and 43 were non-complaining poor sleepers. Improvements in subjective sleep quality were observed across all sleeper classifications ( $P < 0.05$ ). Specifically, subjective SL ( $P = 0.009$ ) and WASO ( $P = 0.023$ ) improved in complaining poor sleepers without uncoupled sleep. Objective and self-reported changes in sleep parameters were demonstrated in non-complaining poor sleepers with uncoupled sleep, specifically manifested as improvements in objective WASO ( $P < 0.001$ ), SE ( $P < 0.001$ ), and subjective sleep quality ( $P = 0.038$ ). However, there were no significant changes in objective sleep outcomes among complaining good sleepers, non-complaining good sleepers, and complaining poor sleepers ( $P > 0.05$ ).

**Conclusion:** The implementation of sleep report feedback and health guidance intervention for community-dwelling older people has demonstrated improvement in subjective sleep quality across all sleeper classifications. Furthermore, it shows promising effects on non-complaining poor sleepers with uncoupled sleep, as evidenced by both objective and subjective sleep measures.

**Keywords:** Sleep disturbance, Sleep monitoring, Health guidance, Older people

#### **P47: Expressed emotion mediate the association between relationship closeness and psychological symptoms dementia people**

**Authors:** Xiaoji Liu<sup>1</sup>, Ayako Hibi<sup>1</sup>, Reiko Kanaya<sup>1</sup>, Keiko Takiue<sup>2</sup>, Yang Liu<sup>1</sup>, Kazue Shigenobu<sup>3,4</sup>, Yasushi Takeya<sup>1</sup>, Miyae Yamakawa<sup>1,5</sup>

1. Division of Health Sciences, Graduate School of Medicine, Osaka University
2. Department of Nursing, Graduate School of Medicine, Gifu University, Gifu, Japan
3. Department of Behavioral Neurology and Neuropsychiatry, Osaka University United Graduate School of Child Development, Osaka, Japan
4. Asakayama General Hospital, Osaka, Japan
5. The Japan Centre for Evidence Based Practice: A JBI Centre of Excellence, Osaka, Japan

**Objective:** Higher intimacy is associated with less behavioral and psychological symptoms of dementia (BPSD) in people with dementia, however, the processes underlying this association remain unclear. This study investigates the role of expressed emotion (EE) and relationship closeness between caregivers and patients with dementia in the manifestation of BPSD.

**Methods:** We recruited 56 families with dementia and collected 3-month longitudinal data including demographic details of current family caregivers providing care, caregiving relationship closeness (RCS), and BPSD measured using the Neuropsychiatric Questionnaire (NPI-Q). We assessed EE using the validated Family Attitudes Scale (FAS), where higher scores indicate greater intensity of expressed emotion. Correlational and mediation analyses were conducted using baseline and three-month follow-up data to explore the relationships between RCS, EE, and BPSD. Mediation analysis was performed using the SPSS PROCESS Version 4.1 macro. The study received approval from the Institutional Review Board of Osaka University.

**Results:** Correlation analysis showed that there was significance between RCS and BPSD at baseline and third month ( $r = -0.301$ ,  $p < 0.05$ ), and between EE and BPSD ( $r = 0.378$ ,  $p < 0.001$ ). Furthermore, mediation analysis demonstrated that caregivers' EE significantly mediated the association between RCS and BPSD in dementia patients. The indirect effect of RCS on BPSD through caregivers' EE was found to be significant, with a 95% confidence interval (CI) of  $(-0.6097, -0.1790)$ , where the CI excludes zero. This indicates that the mediation effect of caregivers' EE on the relationship between RCS and BPSD is statistically significant.

**Conclusions:** It suggests that interventions aimed at improving caregiver-patient relationships and managing caregivers' EE could be crucial in mitigating BPSD, providing a direction for future research and intervention development to support both patients and their families in the dementia care.

**Keywords:** dementia, mediation, expressed emotion, family care

### **P50: Fraud Victimization and Scam Vulnerability in the Arakawa Cohort Study Conducted in an Urban Area of Japan**

**Authors:** Yoko Eguchi<sup>1</sup>, Shogyoku Bun<sup>1</sup>, Hidehito Niimura<sup>1,2</sup>, Ryo Shikimoto<sup>1,3</sup>, Hisashi Kida<sup>1,4</sup>, Hana Nishida, Kouta Suzuki<sup>1</sup>, Midori Takayama<sup>5</sup>, Masaru Mimura<sup>6</sup>

- 1 Department of Neuropsychiatry, Keio University School of Medicine, Japan,
- 2 Faculty of Clinical Psychology, Taisho University, Toshima, Tokyo, Japan
- 3 Center for Supercentenarian Medical Research, Keio University School of Medicine, Shinjuku, Tokyo, Japan
- 4 Department of Neuropsychiatry, Asaka Hospital, Koriyama, Fukushima, Japan
- 5 Faculty of Science and Technology, Keio University, Japan
- 6 Center for Preventive Medicine, Keio University, Minato, Tokyo, Japan

**Objective:** In 2023, the damage caused by "special fraud" will amount to approximately US\$285 million in Japan, with a marked increase in the number of victims among the older population aged 65 and over, who account for about 86.6% of the total. "Special fraud" is a crime in which suspects phone victims and pretend to be police officers, victims' family members, etc. to have victims transfer cash to the suspects' bank account. In other cases, a suspect visits a victim's house after such a phone call and directly receives the victim's cash and/or cash cards. The purpose of this study is to clarify the factors that contribute to fraud victimization among the elderly and to strengthen measures to prevent victimization.

**Methods:** The subjects of the analysis were 840 residents of Arakawa Ward, Tokyo, aged 65 years or older, who participated in the Arakawa 65 Years and Older Survey or the Arakawa 85 Years and Older Survey. Data on participants' fraud experiences, level of caregiving, living environment, and various psychological measures, including the Fraud Vulnerability Score (SVS), the Satisfaction with Life Scale (SWLS), the Resilience Scale (RS), the Mini-Mental State Examination (MMSE), and the Geriatric Depression Scale (GDS) were collected. Multiple logistic regression was used to explore the relationship between these factors and fraud victimization, adjusting for age, gender, level of caregiving, and living situation.

**Results:** Fraud victims ( $n = 37$ ) and non-victims ( $n = 803$ ) differed significantly in terms of SVS and SWLS. Fraud victims had higher fraud vulnerability scores and higher life satisfaction. Logistic regression analysis confirmed that higher SVS and SWLS were significantly associated with a higher likelihood of experiencing fraud (SVS OR = 0.799, CI: 0.720 – 0.887,  $p < 0.001$ ; SWLS OR = 0.928, CI: 0.870 – 0.989,  $p = 0.022$ ).