

on experiences. Using their own experiences spoke directly to the imagination, through which they felt recognized and acknowledged.

**Conclusion:** Working with experiences in the daily care routine contributes to moral-relational learning and providing person-centred care to residents. This requires a different view of learning, in which primarily the experiential and tacit knowledge of care staff, and a communitive space for moral-relational learning.

## **P23: Suicide Prediction in late-life depression by Machine learning and Complexity analysis in resting-state functional MRI data**

**Author:** Chemin Lin

**Objective:** Late-life suicide is the most serious consequences of late-life depression (LLD). Nevertheless, suicidal behavior is complex and hard to predict. With the help of MRI scans and machine learning algorithm, we aim to examine the neural signatures of suicidality in patients of LLD.

**Methods:** We recruited 83 patients of LLD with a mean age of 68.8 years, where 48 were suicidal (26 with suicidal ideation and 22 with past suicide attempts). Cross-sample entropy (CSE) analysis was employed to analyze the resting-state function MRI data. Three-dimensional CSE volume in 90 region-of-interest of the brain in each participant was input into convolutional neural networks (CNN) to test the classification accuracy of suicidality.

**Results:** After six-fold cross-validation, we found several regions in the default mode, fronto-parietal, and cingulo-opercular resting-state networks to have a mean accuracy above 75% to predict suicidality. Moreover, the models with right amygdala and left caudate provided the most reliable accuracy in all cross-validation folds, signifying their unique roles in late-life suicide.

**Conclusion:** Our results provide potential targets for intervention or biomarkers in late-life suicide. More research must be conducted to consolidate our results with scalable implementation in clinical setting.

**Key words:** Suicide; Suicide attempt; Machine learning; Convolutional neural network; Cross-sample entropy; resting-state fMRI; older adult;

## **P27: Pilot study of telephone peer support for inclusion of people living with cognitive decline in urban areas**

**Authors:** Chiaki Ura, Ai Iizuka, Mari Yamashita, Koki Ito, Tsuyoshi Okamura

**Objective:** During the spread of infectious diseases, social isolation increases among the elderly with cognitive impairment. The telephone may be a traditional but realistic and reliable tool to prevent social isolation. We report here a pilot study to examine the effects of regular telephone communication on elderly people with cognitive decline living in urban areas.

**Methods:** Seventeen elderly people (including four males) who attended a session for recruiting participants for a class using the board game "Go" in Tokyo were paired and talked on the phone once a week about Go issues and other interests during the 3-month class period, starting January 2022. At the end of the class in April 2022, a self-administered questionnaire (5 items, 4-point scale) and semi-structured interview were conducted. The Ethics Committee of the Tokyo Metropolitan Institute of Gerontology approved the study, and the participants' written consent was obtained.

**Results:** The participants' mean age was  $80.1 \pm 5.5$  years, and the mean score of the Montreal Cognitive Assessment, which screens for mild cognitive impairment, was  $21.3 \pm 3.1$ , with 16 subjects (94.1%) scoring below the cut-off value of 25. The percentages of "agree" or "somewhat agree" responses indicated that the telephone interaction was "enjoyable" (94.1%), "had a positive effect" (88.2%), and they "would like to talk on the phone sometimes in the future" (76.5%). In the interviews, the positive responses were "(Because I was looking forward to the phone call so eagerly) I couldn't wait for the phone call," "I enjoyed playing Go," "It was easy to talk about Go because it was a common topic," "We talked about things other than Go," and "I want to go out with my pair partner," while others were "I was careful about what talk about" and "It was difficult to maintain psychological distance from my pair partner."

**Conclusion:** The results suggest that telephone communication may be effective for preventing social isolation among the elderly with cognitive impairment. We believe that promoting telephone interaction during normal times between residents in the community with common interests will build supportive relationships and lead to a Dementia-friendly society.

## **P28: Early adverse events and loneliness among older people with depression**

**Author:** Chih-Chiang Chiu, M.D., Ph.D, Department of Psychiatry, Taipei City Hospital, Songde Branch, Taipei, Taiwan

**Object:** Loneliness is experienced by many older people and associated with depressive symptoms. Childhood adverse events have been found to be a predictor of loneliness in young adults. We would like to investigate whether childhood traumatic events are associated with loneliness in older people with depression. We also explored what kinds of traumatic events are more related to loneliness and whether family support will modify the association of interest.

**Methods:** Older adults ( $\geq 60$  years) with history of major depressive disorder were enrolled from outpatient clinics. Participants cannot be diagnosed as dementia. They received a series of questionnaires, including cumulative illness rating scales, Hamilton depressive and anxiety rating scales (HDRS and HARS), Geriatric depression scale(GDS), Childhood Trauma Questionnaire(CTQ), Chinese version of the family adaptation, partnership, growth, affection and resolve(APGAR), and Mini-mental status examination.

**Results:** Fifty-four participants were enrolled. The average age was 68.8 years and female predominance (83.7%) with mean educational year of 10.4. Univariate analysis was performed first using LS score as dependent variable, and only those variables with p value less than 0.2 were put into multiple linear regression. In the multiple regression model, age, gender, education, GDS, HDAS were entered as covariates and CTQ was treated as independent variable. The results showed that CTQ score was positively associated with LS ( $\beta=0.565$ ,  $p<0.001$ ). The family support, presented as APGAR score, was not modified the results. In the explore analysis, physical neglect, emotional abuse, emotional neglect also showed positively associated with loneliness in the participants; however, physical abuse and sexual abuse did not have the same findings.