

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.