

**Introduction:** Maintaining remission after electroconvulsive therapy (ECT) is of clinical relevance in patients with depression, and maintenance ECT is introduced in patients who fail to maintain remission after ECT. However, the clinical characteristics and the biological background of patients who receive maintenance ECT are barely understood.

**Methods:** At Keio University Hospital, Patients with major depressive disorder according to DSM-IV who received ECT between January 2012 and March 2019 followed by maintenance ECT (mECT group) and those who did not (aECT group) were included. Clinical characteristics including the results of neuroimaging marker for Parkinson's disease and dementia with Lewy bodies were compared between groups.

**Results:** Thirteen and one hundred forty-six patients were included in mECT and aECT groups, respectively. Compared with aECT group, the age of onset and the age of the first ECT was older in mECT group. Besides, mECT group showed significantly higher prevalence of melancholic feature (92.3% vs. 27.4%,  $p < 0.001$ ) and catatonic feature (46.2% vs. 9.6%,  $p = 0.002$ ). The results of neuroimaging marker obtained in 123I-metaiodobenzylguanidine scintigraphy and dopamine transporter scan revealed that 5 of 13 patients and 16 of 146 patients showed Parkinson's disease and dementia with Lewy bodies in mECT and aECT groups, respectively.

**Conclusion:** Patients who underwent acute and maintenance ECT have impaired dopamine function. Investigating the neurobiology of patients who receiving maintenance ECT is an important area for development of appropriate treatment for depression.

## **P183: Online support and training for informal caregivers of people with dementia: usability and feasibility of iSupport for Dementia**

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**Introduction:** Internet-based interventions have been explored for their potential to minimize the negative outcomes of caring, accounting for their convenient delivery, ubiquity, potential scalability and presumed (cost) effectiveness. A new online training and support programme for dementia caregivers was recently created by the World Health Organization and culturally adapted to European-Portuguese. The programme (iSupport) was developed to prevent or minimize the negative psychological effects of providing informal care to a person with dementia and relies on problem-solving and cognitive behavioural therapy techniques.

**Objective:** To study the usability and feasibility of the European-Portuguese version of iSupport (iSupport-Portugal).

**Methods:** The usability study was aimed at collecting data on user satisfaction and requirements on the programme's contents and interface. A mixed-methods design consisted of focus groups discussion and usability test sessions with informal caregivers (N=17) and health/social support professionals (N=13). The pilot study followed a mixed-methods experimental parallel between-group design with two arms (iSupport, N=21 and e-book, N=21).

**Results:** The usability tests show a success rate superior to 80% in completing tasks within the platform and an excellent perception of the program's usability (M= 89.5 on the System Usability Scale). The feasibility study allowed to explore usage data for iSupport-Portugal (e.g., lessons visited, time on sessions) and explore how the intervention and control arms compare over time (baseline, 3 and 6 months after) on well-being outcomes. For a per-protocol analysis, significant group-by-time interaction effects favouring the intervention were found for anxiety (Wald  $\chi^2=6.17$ ,  $p=.046$ ) and for environmental QoL (Wald  $\chi^2=7.06$ ,  $p=.029$ ). Interviewees with the intervention arm (N=12) revealed positive impacts of iSupport on knowledge and on experiencing positive feelings.

**Conclusion:** The usability and feasibility studies of iSupport-Portugal suggest that this is a promising resource to support informal dementia caregivers. Lessons were learned on the ethical, technological, and research-related challenges for online interventions.

## **P190: Personality traits and the loneliness rate of decline in an eight-year period: comparison between ELSA and HRS.**

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**Objective:** to compare the relationship between personality traits and the loneliness rate of change between the UK and the US.

**Methods:** We used data from 7932 older adults 52 years and older from the English Longitudinal Study of Ageing (ELSA) and 7,979 older adults 50 years and older from the Health and Retirement Study (HRS). In ELSA, we considered wave 5 (2010/2011) as our baseline and wave 6 (2012/2013) to wave 9 (2018/2019) for loneliness follow-up. In HRS, we used wave 10 (2010) as baseline and wave 11 (2012) to wave 14 (2018) as follow-up. Loneliness was measured using the three-item R-UCLA, and personality traits were measured using the 25 items from MIDUS 1 and 2 Studies. We used the rate of change to analyse the changes in loneliness over time and multilevel mixed-effects linear regression to analyse the relationship between personality traits and loneliness rate of change. We adjusted the models by social isolation, sociodemographic, economic and health outcomes.