

Curie funded International Training Networks that aimed to develop a multi-disciplinary, inter-sectorial educational research framework for Europe to improve technology and care for people with dementia, and to provide the evidence to show how technology can improve the lives of people with dementia.

**Methods:** In INDUCT (2016-2020) 15 Early Stage Researchers worked on projects in the areas of Technology to support everyday life; technology to promote meaningful activities; and healthcare technology. In DISTINCT (2019-2023) 15 Early Stage Researchers worked on technology to promote Social health in three domains: fulfilling ones potential and obligations in society, managing one's own life, and participation in social and other meaningful activities.

Both networks adopted three transversal objectives: 1) To determine practical, cognitive and social factors needed to make technology more useable for people with dementia; 2) To evaluate the effectiveness of specific contemporary technology; 3) To trace facilitators and barriers for implementation of technology in dementia care.

**Results:** The main recommendations resulting from all research projects are integrated in a web-based digital Best Practice Guidance on Human Interaction with Technology in Dementia which was recently updated (Dec 2022 and June 2023) and will be presented at the congress. The recommendations are meant for different target groups, i.e. people in different stages of dementia, their (in)formal carers, policy makers, designers and researchers, who can easily find the recommendations relevant to them in the Best Practice Guidance by means of a digital selection tool.

**Conclusions:** The INDUCT/DISTINCT Best Practice Guidance informs on how to improve the development, usage, impact and implementation of technology for people with dementia in various technology areas. This Best Practice Guidance is the result of intensive collaborative partnership of INDUCT and DISTINCT with academic and non-academic partners as well as the involvement of representatives of the different target groups throughout the projects.

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## **P65: Characteristics of refractory late-life depression in the prodromal phase of neurodegenerative diseases.**

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**Objective:** Depression is common in neurodegenerative diseases, and a psychiatric diagnosis of late-life depression (LLD) may be changed to neurodegenerative disease during the follow-up period. The aim of this study was to identify clinical characteristics of LLD that might be prodromal state of neurodegenerative diseases.

**Methods:** We conducted a retrospective chart review to collect data (registered between April 2012 and September 2022) from individuals who received electroconvulsive therapy (ECT) for their severe depressive episodes due to major depressive disorder (MDD) or bipolar disorder, were aged 60 years and older, and were

followed up more than one year. We compared clinical characteristics between individuals whose diagnosis changed from LLD to neurodegenerative disease (ND) and those whose diagnoses didn't change (non-ND). Between-group differences were examined using Mann-Whitney U test for continuous variables as well as  $\chi^2$  tests and Fisher's exact tests for categorical variables.

**Results:** In total, 99 patients (14 patients in ND and 85 patients in non-ND.) were included. All individuals in ND group were diagnosed with MDD. Individuals in ND group showed significantly older onset age, less family history of psychiatric disorders, and tended to show less melancholic features, less ineffective to antidepressants for the current episode. They required ECT because of the need for rapid recovery than non-ND.

**Conclusion:** Among individuals with late-life mood disorders requiring ECT for their severe depressive episodes which require rapid recovery, higher age of onset and no family history of psychiatric disorder may suggest the presence of neurodegenerative diseases.

## **P67: Digital Technologies to Prevent Social Isolation and Loneliness in Dementia: A Systematic Review**

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**Background:** Dementia poses significant and sustained challenges to global society. Diagnosis can lead to increased feelings of loneliness and social isolation. People with dementia living alone are particularly at risk. Considering the growing number of technologies proposed to aid people with dementia address social isolation and loneliness, we reviewed the existing literature.

**Objective:** To collate and summarize current evidence for digital technologies to prevent social isolation and loneliness for people with dementia.

**Methods:** Following the PRISMA guidelines, we systematically searched five databases to identify studies of digital technologies designed to support or prevent social isolation or loneliness for people with dementia. Pre-specified outcomes included social isolation, loneliness, and quality of life. We used deductive thematic analysis to synthesize the major themes emerging from the studies.

**Results:** Ten studies met our inclusion criteria where all studies reported improvements in quality of life and seven reported benefits regarding social inclusion or a reduction in loneliness. Technologies were varied across purpose, delivery format, theoretical models, and levels of personalization. Two studies clearly described the involvement of people with dementia in the study design and five technologies were available outside the research context.

**Conclusion:** There is limited—but increasing—evidence that technologies hold potential to improve quality of life and reduce isolation/loneliness for people with dementia. Results presented are largely based in small-scale research studies. Involvement of people with dementia was limited and few research concepts are reaching implementation. Closer collaboration with people with dementia to provide affordable, inclusive, and person-centered solutions is urgently required.