

Ears, Eyes and Mind: The SENSE-Cog project

In Europe there are currently about 10 million people living with dementia (PwD), of whom a significant proportion experience concurrent age-acquired sight and/or hearing loss. Apart from this there is a substantial negative impact of sensory ill health on dementia-related outcomes such as mental well-being and quality of life (QoL). **The SENSE-Cog project (<https://www.sense-cog.eu/>)** aims to address this negative impact by providing a well-defined Support Intervention (SI) (see Regan et al., 2019). The steps listed below lead to a final RCT (which started in April 2018) that evaluates the efficacy of a **Sensory Intervention (SI)**. To scope the gaps in understanding, awareness and service provision for the support care needs of PwD and hearing and/or vision impairment, stakeholder input and evidence from the literature, was explored.

- 1) Systematic literature review:** To date, there is a small but convincing literature regarding the application of hearing and visual rehabilitation in older adults with sensory impairment, but this does not extend to people who have concurrent cognitive impairment, particularly dementia. Dementia significantly impacts on the ability of a person to understand and benefit from rehabilitation or psychosocial approaches, particularly those therapies with a learning element, unless the approaches are significantly adapted. Likewise, the challenges of living with dementia are magnified by sensory impairment, if not corrected or supported. Further results of the systematic literature review are fully outlined in Dawes et al. (2018).
- 2) The SENSE-Cog Needs' Analysis Survey:** The results of the survey revealed a detailed list of care needs for hearing, vision and cognitive impairment (Leroi et al., 2019). It was also revealed that severity of hearing loss, reading ability and depression significantly predicts self-reported QoL in individuals living with dementia and sensory impairment. People with higher levels of hearing loss, poorer vision and higher levels of depression rated their QoL as poorer than those with less severe difficulties in these areas (Leroi et al., 2019). For companions, findings revealed that physical health, loneliness and severity of cognitive decline were all predictive of the degree of burden experienced by individuals providing care for PwD and sensory impairment. These findings provided strong support for the new intervention and that outcomes related to QoL in both the affected person and the companion are crucial.
- 3) The SENSE-Cog Expert Reference Group (ERG):** An Expert Reference Group (ERG) to elicit the viewpoints of expert professionals was conducted. The two main outcomes from the ERG included a profile of *gaps and solutions* for the support care needs for PwD and sensory impairment to inform the components of the intervention, and a consensus of the most appropriate method of implementing the components (Leroi et al., 2019).
- 4) The SENSE-Cog PwD, care partner and health care professionals' Focus Group and Semi-structured Interviews:** The objective here was to use focus groups and semi-structured interviews to ascertain the support need of PwD and concurrent sensory impairment from the perspective of different stakeholders in three EU sites, Manchester, Nicosia and Bordeaux. Findings *will be published soon*.

Key Publications:

Dawes P, Wolski L, Himmelsbach I, Regan J, Leroi I. Interventions for hearing and vision impairment to improve outcomes for people with dementia. A scoping review. *Int Psychogeriatr*; 2019 Feb;31(2):203-221. doi: 10.1017/S1041610218000728. [Epub 2018 Sep 24].

Leroi I, Himmelsbach I, Wolski L, Littlejohn J, Jury F, Parker A et al. Assessing and managing concurrent hearing, vision and cognitive impairments in older people. An international perspective from healthcare professionals. *Age and Ageing*; 2019, 0:1-8. DOI: 10.1093/ageing/afy183

Regan J, Frison E, Collin F, Dawes P, Hann M, Himmelsbach I et al. Individualised sensory intervention to improve quality of life in people with dementia and their companions (SENSE-Cog trial). Study protocol for a randomised controlled trial. *Trials*; 2019 Jan 25;20(1):80. doi: 10.1186/s13063-018-2973-0.

The SENSE-Cog Project

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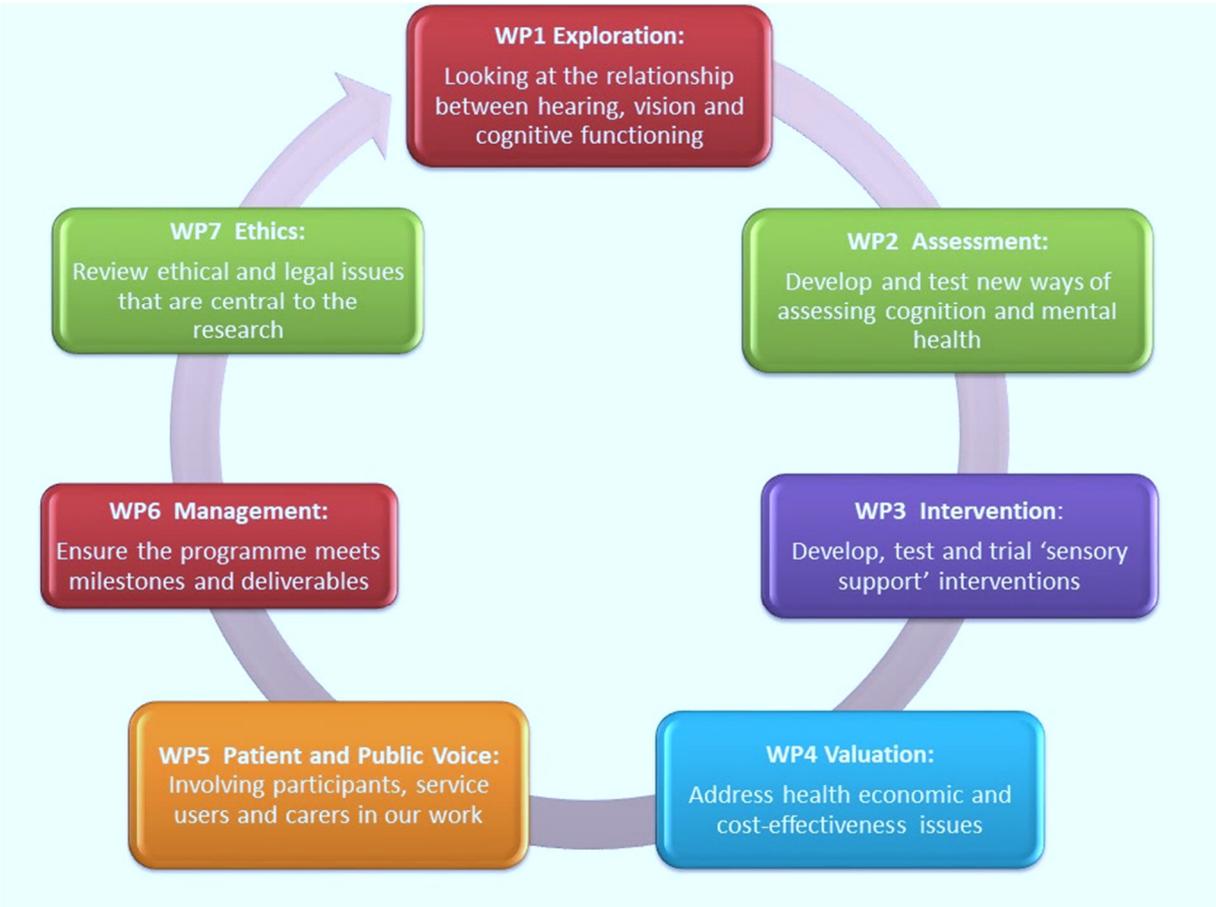
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The SENSE-Cog sensory intervention (SI)