Augmented reality technology for people with dementia

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Background: Augmented Reality technology applies layers of computer-generated visual and/or auditory information to the existing world. Funded by the Australian Government, Augmented Reality technology was trialled to assist people with dementia to increase quality of life and psychological well-being.

Method: Thirty people (n=30) with different forms of dementia or mild cognitive impairment, living in metropolitan and regional Victoria and in different social circumstances, were provided with augmented and/or other assistive technology that was selected and tailored against their personal goals, wishes and intact abilities. Semi-structured interviews and psychometric tests assessing well-being, self-efficacy, functional independence and usability were undertaken with both the person with dementia and his/her family carer at four time points: T0, Pre-Wait Period; T1, Pre-technology; T2, Mid-technology; and T3, Post technology.

Result: This is late breaking research, with T0 - T2 data collected; and T3 data being collected in March 2019. Data analysis will be finalised by June 2019. Qualitative data is being coded and analysed using thematic analyses. Quantitative data is being analysed using repeated measures analyses of variance, in order to evaluate non-equivalence in mean scores across four dependent variables (depressive mood, quality of life measures, functional capabilities and self-efficacy).

Conclusion: This project will provide information on the benefits and challenges of implementing Augmented Reality technology for people with dementia and offer insights into its effect on well-being, quality of life, functional independence and self-efficacy in people with dementia and their family carers.