

**Conclusion:** There is growing evidence that assistive technologies are feasible and effective for supporting social health of people with dementia and caregivers. People living with dementia, formal and informal caregivers, policymakers, designers, and researchers can refer to the DISTINCT Best Practice Guidance to inform their approach to assistive technology. Future research can build on these results, to further understand and improve usability, (cost-)effectiveness, and implementation of assistive technology in dementia.

### **Cost-effectiveness of a tablet-based intervention to support social health in dementia: results from the FindMyApps randomized controlled trial**

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**Objective:** Scalable, cost-effective interventions to support social health in dementia are required to address growing prevalence in the face of healthcare workforce shortfalls. Until now, very few high quality studies have addressed the effectiveness of assistive technologies for social health in dementia, and almost none have evaluated the cost-effectiveness. Effectiveness of the FindMyApps intervention was investigated and an economic evaluation was undertaken.

**Method:** A single-centre, non-blinded, randomized controlled trial (RCT) was conducted, comparing the effectiveness of FindMyApps with a digital care as usual control intervention (normal tablet computer with general advice). Primary outcomes measured at baseline and three month follow-up were social participation and self-management of community-dwelling people with mild cognitive impairment (MCI) or early stage dementia (MMSE 18-25), and sense of competence of their informal caregiver. Healthcare usage data was collected using a modified version of the RUD-lite instrument. Incremental costs and effectiveness associated with FindMyApps compared to the control intervention were estimated.

**Results:** Data collection was completed in November 2022. Of 150 dyads randomized, follow-up data were available from 128 dyads (14.7% loss to follow-up). The dataset has been cleaned and analyses are ongoing. Alongside main effects on primary outcomes, both a cost-effectiveness analysis and a cost-utility analysis will be reported, from a societal and healthcare perspective. Cost and effect differences between FindMyApps and digital care as usual will be estimated with bivariate regression analyses and incremental cost-effectiveness ratios will be reported (the difference in the mean total costs between the groups divided by the difference in mean effect between the groups). Cost-effectiveness acceptability curves will demonstrate the probability that FindMyApps is cost-effective compared to digital care as usual.

**Conclusion:** The results of this study establish the extent to which FindMyApps is effective and cost-effective for supporting social health in dementia. Implications for healthcare professionals, researchers and policymakers with respect to further implementation of FindMyApps are highlighted, as well as remaining uncertainty and directions for future research. The results of this study demonstrate the feasibility of large-scale (cost-)effectiveness evaluations with assistive technology, which should be replicated as gold-standard evidence for other technologies and health priorities.