

The use of touch screen technology by people with dementia and their carers in care home settings

Creative therapy interventions such as artistic or musical activities and life story work, and interventions that aim to restore or improve memory can be beneficial in supporting people with dementia to perform activities of daily living and so improve quality of life. Touch screen tablet computers are becoming more widely available and the ease of use of devices such as Apple's iPad, together with the variety of interactive applications, are making 'restorative memory' and creative therapy interventions more accessible. Despite the potential benefits of these interventions, the use of touch screen devices in care settings remains limited (NAO 2010).

This article presents the experiences of people with dementia and their carers when using touch screen technology, giving an insight in to their thoughts and feelings regarding the technology's application. We undertook an evaluation of a series of pilot projects being carried out by the MemoryApps partnership in 11 residential and nursing care home settings across the West Midlands and South West regions, where iPad touch screen devices were used in one-to-one and group sessions with older people with advanced dementia.

Positive experiences of touch screen technology

During a series of topic-guided interviews, focus groups, case studies and field observations, people with dementia and the staff involved in their care reported mainly positive experiences of using touch screen technology. It was found to be beneficial for supporting dementia care in a number of areas.

Using the iPad was found to increase communication with other residents, staff, and family members. Both group and one-to-one sessions encouraged residents to engage with other people around them, creating a positive social environment overall, as *"I think it bring[s] a group aspect as well [...] everyone can get involved an' speak to each other"*. It was noted by staff that the iPad enhanced interpersonal interactions directly through the activities involving the iPad, but also indirectly as the iPad device itself became a topic of conversation.

Communication also improved between residents and their children, grandchildren and visiting school children, as the different generations were connected by their shared experiences of using the device.

"It is amazing seeing relatives play with their grandchildren on this equipment, it keeps both parties interested and relaxed."

The iPads were also used to help people record their life history, and this process evoked a number of memories for the people with dementia. The positive emotions associated with these memories were stressed as having an important role to play in enhancing care. *"I liked to look at the crabs because I went crabbing as a young girl with my dad down at [the] Bay"*

From the life story sessions it was found that using applications such as Life Journal, or using an application such as YouTube to search for films and music that people recognised from their youth were

very positive ways of using touch screen technology to support reminiscence activities. *“I think it’s wonderful, things they can be brought up that you’d forgotten about”.*

Care staff found that using the touch screen technology with residents, especially on a one-to-one basis, improved their relationships with the residents as it provided a means of engagement, interaction and information sharing. The closer relationships made it possible for the care staff to identify individual eccentricities for different residents more easily and recognise triggers for disruptive behaviours. Having a better understanding of these factors resulted in lower resident distress and carer burden relief, which can potentially result in an improved quality of life.

“I think it influence as well the relationship between staff and the residents, a closer relationship [...] you work with residents and [...] you talk about things you get to know them better”.

The learning opportunities presented by the technology were also seen to have a positive impact on quality of life. For example, applications such as Skype can provide a means of keeping in touch with family and friends who live far away, as the case study illustrates.

Case study

An 87-year old female from a White British background had been in her present care setting for 20 months. She was interviewed three times over a six-month period. In the first interview, she expressed a desire to talk to her daughter who lived abroad. Over the course of six months she was able to achieve this by becoming more familiar with using the iPad, and is now in regular contact with her daughter.

“We got speaking me and my daughter. On Skype. I get to see her much more now and we talk. We laugh too.”

Being able to see and talk to her daughter had a profound impact on the resident, and her happiness was very evident. It was clear from the interviews that she had increased her confidence and understanding of the functions of the iPad, which may also have improved her self-esteem.

Enhanced communication with family can have a positive impact for people with dementia, particularly in terms of their effective compensatory strategies and performance of activities of daily living.

At a practical level, participants in group sessions generally saw the iPad as being easier to use than traditional computers, which encouraged them to use the devices.

“The iPad doesn’t have keys or a mouse like those big things we used before. It helps me with my hand-eye coordination and can be easier.”

Touch screen technology as a challenge

Along with the benefits of the iPads, some difficulties relating to using the technology were raised by people with dementia and their care staff. However, these tended to be practical issues which were seen as challenges to be overcome, rather than limitations preventing the touch screen technology from being used.

The weight of the device and problems with seeing the screen because of its reflective surface were noted, although many participants found that using a pillow to support the device at the right angle provided a simple solution.

"I find it difficult to see [the iPad] sometimes because it's shiny. But [name of carer] usually puts a cushion underneath and that helps".

Users recognised that although basic use of the iPad was quite easy, full interactive use could be complex, and it was found that the technology was used most effectively when residents worked together with staff. This reflects the positive comments from residents regarding the ways in which the iPads were used with staff as seen previously. The main concern raised by staff related to *their* own confidence in using the technology, as they felt this could have a negative impact on the client's experience.

"I would worry that I was spending, [...] too much time working out how to use it and putting off the person I am with."

Providing training for staff lacking confidence in their knowledge of touch screen technology would resolve this issue as it would enable staff to feel more comfortable when using the technology, improve the experience for residents, and enable the touch screen technology to be used to its full potential.

At a more organisational level, corporate issues related to problems getting WiFi access were also noted, including security and financial issues. These issues would need to be addressed before widespread adoption of touch screen technology could take place in care settings.

"We have been reliably informed (Laughter) that we can have WiFi connected to the private rooms of each resident, but there was a policy issue with the local council about WiFi connectivity in a communal area".

Summary

Touch screen technology can be used to positively support dementia care in a number of areas including:

- Supporting reminiscence activities
- Increasing interpersonal interactions
- Increasing intergenerational communication
- Improving staff-resident relationships
- Improving quality of life

However, in order to implement touch screen technology in a residential or nursing care home the following practical issues would need to be considered:

- Ergonomics (e.g. weight and reflective surface)
- Making full use of the technology

- Staff confidence using the devices
- Connectivity and security

Discussion

Overall, people with dementia felt very positive about their use of touch screen devices. The perception of both staff and residents was that touch screen technology has a constructive role to play in the care of people with dementia.

The evidence gathered lends support to the idea that touch screen technology can make a substantial contribution to helping people to 'Live well with dementia' through their engagements in an active process of memory recall, restorative therapy and social engagement. Moreover, the study indicated a potential rehabilitative role for touch screen technology in dementia.

References

Memory Apps For Dementia, www.memoryappsfordementia.org.uk. Accessed 20th March 2012.

National Audit Office (2010). *Improving dementia services in England – an interim report*. London: The Stationary Office.

Authors

Professor Dominic Upton, Institute of Health and Society, University of Worcester, d.upton@worc.ac.uk

Jennifer Bray, Association for Dementia Studies, University of Worcester

Dr Tim Jones, Senior Lecturer, University of Worcester

Dr Penney Upton, Senior Lecturer, University of Worcester