From Strategy to Practice: Improving Dementia Care – Touchscreen Technology

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Association for Dementia Studies

- Established May 2009 and launched in March 2010

- Start-up funding from:
  - University of Worcester
  - Worcestershire PCT
  - Worcestershire CC
  - Dementia UK

- Now self funding through education training, consultancy, research activities.
The Evaluation Team
What we do

- ADS work in partnership with health and social care providers, commissioners, charities, educational establishments and government agencies to improve the lives of those living with dementia.
- Our team reviews, evaluates and develops best practice in health and social case.
- Together we reviewed the impact of Touchscreen technology in dementia care.
Cycle of Evidence Based Practice Knowledge Transfer

Better lives for people living with dementia

Theory

Practice

Research

Strategy

Evaluation

University of Worcester
Impact of Touchscreen Technology for People with Dementia & Their Carers
Project Context

- Restorative memory (memory repetition, errorless learning, reality orientation therapy and reminiscence therapy) techniques frequently implemented for people with dementia (Sitzer, Twamley & Jeste, 2006).
- Creative therapies (music, arts and dance) have the power to stir feeling and memory, promoting both reminiscence and reality orientation, and are beneficial to those with cognitive impairment (Hayes, 2011).
- Touchscreen technology such as the iPad affords new opportunities for both restorative memory and interaction although a dearth of research currently exists.
Touchscreen Technology & Older Adults

‘The use of such technology allows carers to engage with people with dementia within a mutually supportive, interactive environment, positively benefiting their relationship’ (Astell et al., 2010)
iPad use in Care Settings

- Pilot projects implemented across the West Midlands & South West regions.
- iPad technology implemented in a number of care homes via:
  - Individual use (carer or individual)
  - Scaffolded use (carer-individual)
  - Group use (activity sessions)
- Primary research goals:
  - Capture experiences of person using the technology and the impact it has on individual staff working with the person they care for.
  - Develop an understanding of the potential for such technology.
  - Identify how such technology can form an effective intervention as part of a care journey for someone with dementia.
Evaluation Methodology

- 11 care home settings.
- 10 topic-guided interviews (9 older adults with dementia and 1 staff member).
- 2 case-study (semi-longitudinal) participants.
- Activity sessions comprised in total 149 residential participants (116 female and 33 male, age range 55-95 years).
- 2 focus groups (1 South-West and 1 West Midlands) with care home staff and managers (10-female participants).
- Data collected over a 6-month period.
Evaluation Methodology

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<th>Participant Name:</th>
<th>Applications Used Today:</th>
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<table>
<thead>
<tr>
<th>Participant Gender &amp; Age:</th>
<th>Time Spent with Device Today:</th>
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<tr>
<th>Date &amp; Time:</th>
<th>Level of Engagement:</th>
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<tr>
<td>/ /2011</td>
<td>High</td>
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Interview Questions

1. What do you like about the device?
2. What have you been using the device for today?
3. What would you like to use the device for in the future?
4. What don’t you like about the device?
5. Do you enjoy using the device?
6. Do you spend more time with other people when using the device?
7. What is your favourite thing you use the device for?
8. What one thing would you like the device to do?

Carers/Staff Only

9. Does the device detract from other activities?
10. How do other residents respond when you spend time with one person to use the device?
Application Data

Rated Applications from 77 residents

Scale (1= Poor; 10= Good)

Group (Activity) Sessions
Interaction Results

- Both scaffolded and group sessions afford opportunities for interaction with other residents, carers/staff members and family members.
- Levels of interaction vary by both chosen activity and care home.
- Reminiscence applications (150 Years of History and Life Journal) highly rated by residents.
- Males interact for longer periods with touchscreen device than females.
- Females interact with other residents and carers/staff members more than males.
- Touchscreen device affords ‘social networking’
Interview Results

Interaction and challenge themes represented in focus group data alongside benefits and inter-generational parity

Reminiscence & Recall

“I liked to look at the crabs because I went crabbing as a young girl with my dad down at Ladye Bay”

Increasing Interaction

“I suppose I do like to talk to [resident name] more when we are looking at this device together”

Challenges

“Do I like using it? I’m not used to it yet, I might get used to it”
Focus Group Results:  
Inter-Generational Parity

“We have noticed a difference especially when relatives and their children are invited. Children are standoffish. They love, the children love anything what...makes them feel they can get involved with their families. Touchscreen technology seems to get them involved”

“Yeah, some residents talk about games like angry bird – they have played which kid’s seem to love…”
Focus Group Results: Enhancing Quality of Life

“I think it [the device] can be a positive to their life really(.) As it means you can access things you were unable to do before(.)mm and learn new things and say it could up open up a conversation with someone or with a group(.)…”

“…You can talk to them more [residents] and get to know them better(.) also their hand eye co-ordination…can be improved and concentrating on something…using the brain as well and you are interactive”
Focus Group Results: Touchscreen Challenges

“When I’ve worked with people and people have said oh it’s quite heavy… so I tend to think oh I can put it [the device] on a cushion or a pillow and it can be(.) You know adjusted to suit the light or time of day(.)”

“And it’s something they con(,) they’re control of really(,) you know(,) and it keeps them interested(,) it’s immediate you know so it helps…”
Focus Group Results Summary

- **Inter-Generational Parity:** Participants with dementia experienced increased communication and collaboration with younger generations when using touchscreen technology.

- **Enhancing Quality of Life:** A range of benefits to residents were described including opportunities for learning, communication, and improved staff-resident relationships.

- **Touchscreen Technology Challenges:** Ergonomics such as weight and screen resolution, problems with connectivity and limited staff confidence were described as challenges rather than barriers to use.
Case Study Results

- 77 year White British female
- At the care setting for 2 years
- Interviewed April, July and September 2011.
Advantages of Touchscreen Technology

Easier to use than ‘traditional’ computers:

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

Portable and Adaptable:

“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.”
Remembering as a Secondary Activity

“We looked at flowers and coloured them in. I remembered my favourite the Blue Bell.”
Advantages of Touchscreen Technology

Life story work:

“I have a record on the iPad, [name of carer] and I we get pictures of places I have visited. I drag them across, name them when I can and we record it. Helps me exercise (…..) my memory.”
Learning Through Action

Smith et al., 2011 - People with dementia are better able to learn information that requires an accompanying action.
A Carer’s View

The best purchase I ever made. Having the iPad has revolutionized her care. Everyone has seen changes in her awareness and concentration over the past two months.

- Carer of a 94 year White British female
Memory Apps for Dementia

Tim Lloyd-Yeates
Executive Director
Alive!

Andrew Morris
Mental Health and Learning Disabilities Officer
NHS Hereford and Hereford council

Email: tim@aliveactivities.org

www.memoryappsfordementia.org.uk
Questions...
Workshop Discussion

“We have evaluative evidence of how touchscreen technology can be implemented in practice but lack a strategy for implementation – What should the strategy look like if it should exist at all?”