Smart Technology in Adult Social Care

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The Parliamentary Review of Health and Social Care in Wales

“Maximise the benefits of technology and innovation”

A Revolution from Within:
Transforming Health and Care in Wales

Delivering Digital Inclusion:
A Strategic Framework for Wales

Measuring the Mountain:
What Really Matters in Social Care to Individuals in Wales?

REPORT OF A CITIZENS’ JURY
Research aims

• Empower people to live more independently

• Increase digital inclusion

• Improve wellbeing and loneliness
Why smart speakers?

Mainstream vs bespoke devices

• Inclusive, reduce stigma
• Constantly updated and evolving
• Fewer devices, lower cost

Terry Peterson
Public Research Partner
My HCRW research fellowship

People with a learning disability in supported living settings

Older people in social housing
Study design

**Participants**

84 people with a learning disability

100 older adults living in social housing (30 so far)

**Intervention group**

Receive smart speakers

**Baseline assessments**

Questionnaires and Interviews

**Control group**

Life as normal

**Follow-up assessments**

Questionnaires and Interviews

~12 weeks

**Control group**

Gift smart speakers

~6-12 months

**Follow-up assessments**

Questionnaires and Interviews

Handbook on using smart technology in social care settings
Results: People with a learning disability

Social value
“It’s nice to always have the company even though I do know she is a robot”

Entertainment and fun
“[I like] being able to play music whenever I like”

Agency
“Definitely makes them feel more independent”
Support worker

Challenges
Perseverance
Support
“Staff have been trying to help me say Alexa. I’ll get there in the end”

80% liked smart speaker & felt it increased independence

Smith, Sumner, Hedge, & Powell (2020). Disability and Rehabilitation: Assistive Technology
Possible improvement in speech intelligibility?

Recorded speech before and after using smart speaker

Intelligibility rated more clear after using smart speakers

Why?
- Intrinsically motivating
- Natural reinforcement
- No social stigma

“As [the person I support] has a speech impairment, having the device seems to encourage them to speak a little slower and clearer”.

Support worker

Speech and language therapists

Smith, Sumner, Hedge, & Powell. (2021). *International Journal of Language & Communication Disorders*
Case study of smart home

- 4 participants
- Varied speech and intellectual ability, 24hr support needs
- Moved into a new smart home in Cardiff

Amazon Alexa – in communal area and in own room
- Music subscription
- Multiroom lighting and automatic lighting
- Video door bell
- Thermostat system
- Smart sockets for electrical appliances, e.g., kettle
- Motion detector for TV control
- Echo show for phone calls/skype
Overall opinions about smart house were very positive
- More fun
- More safe

Participants reported feeling better able to do things for themselves
BUT, no objective change in independence

Perseverancen was high - communication and skill development
BUT, more practice/training to use full range of features

Tailoring of smart technology to needs is needed
Making a difference

Recommendations

- Smart technology could empower people with a learning disability to live more independently
- Accessing entertainment and information easier and more fun
- Provide reminders, reducing anxiety
- Could help people to feel safer

BUT

- One size does not fit all - need to tailor devices
- Need for training and on-going support
Ongoing projects

- Smart speakers for older adults in social housing
- Companion smart speaker - proactive, tailored to needs
- Smart technology to support sensory needs at home
- Privacy assistant for smart technology
- Smart speakers for children with speech difficulties

Smart technology to support sensory needs at home

Privacy assistant for smart technology

Smart speakers for children with speech difficulties

Companion smart speaker - proactive, tailored to needs

Smart speakers for older adults in social housing
Digital skills is related to psycho-social factors

Number of Participants = 3850
50% were 65+ years