THE FEASIBILITY AND ACCEPTABILITY OF DIGITAL TECHNOLOGY FOR HEALTH AND WELLBEING IN SOCIAL HOUSING COMMUNITIES IN CORNWALL: A QUALITATIVE SCOPING STUDY

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INTRODUCTION

- Digital technology (such as smartphone applications, wearable activity monitors, and virtual assistants inter alia) provides an appealing, accessible, scalable, and low cost tool to promote health and wellbeing (Baker et al. 2018; Muellman et al. 2018). However, the evidence is far from established.

- The Smartline project aims to explore the role that digital technology may play in increasing physical activity and social connectedness in social housing residents from low socioeconomic status communities in Cornwall.

- Social housing residents in rural areas are a unique population that is likely to have much to gain from access to and use of digital technology, but may be disproportionately affected by the digital divide.

- Existing barriers identified include functional (such as access to technology), physical (such as health issues) and attitudinal barriers (Neves et al. 2013).

AIMS

The aims of this scoping study were:

- To explore existing digital technology use and competence;
- To identify perceived barriers and facilitators to technology use;
- To scope the feasibility and acceptability of potential digital interventions in the Smartline cohort.
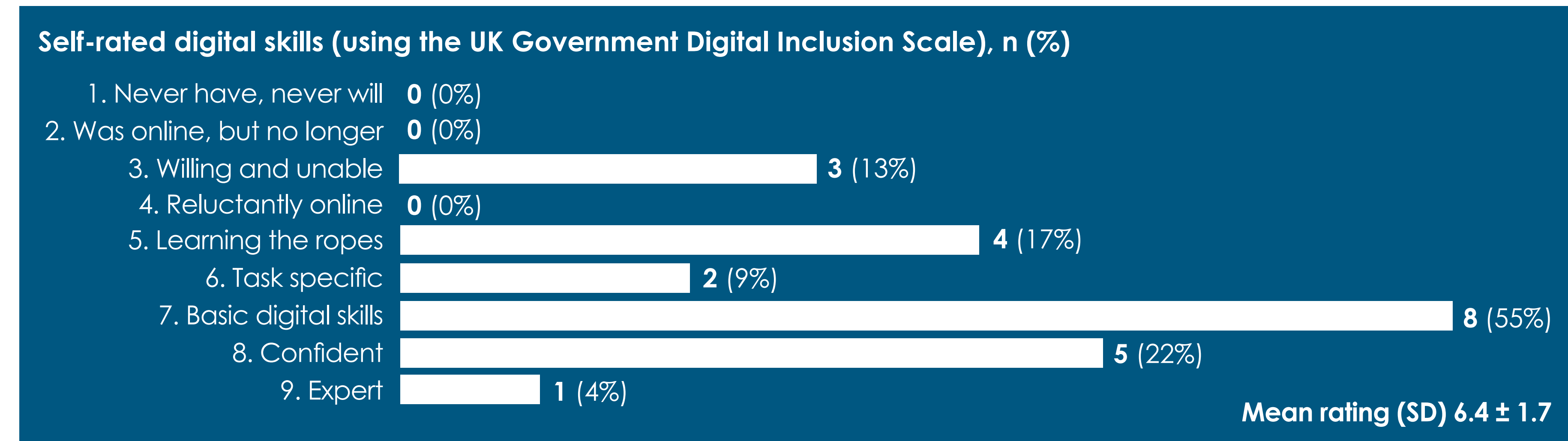
METHODOLOGY

- Purposive, maximal variation sample of Smartline participants;
- Three semi-structured focus groups (19 participants) and individual telephone interviews (n = 4) were conducted;
- Eight different digital technologies were identified for discussion. Selection of technologies was based on existing studies in older, isolated, and physically inactive groups which indicated potentially feasible and acceptable technologies.

RESULTS

1. SKILLS AND EXPERIENCES OF DIGITAL TECHNOLOGY

Existing levels of experience with digital technology are diverse, ranging from 'willing and unable' to 'expert'.

Self-rated digital skills (using the UK Government Digital Inclusion Scale), n (%)

1. Never have, never will	0 (0%)
2. Was online, but no longer	0 (0%)
3. Willing and unable	3 (13%)
4. Reluctantly online	0 (0%)
5. Learning the ropes	4 (17%)
6. Task specific	2 (9%)
7. Basic digital skills	8 (55%)
8. Confident	5 (22%)
9. Expert	1 (4%)

Mean rating (SD) 6.4 ± 1.7

2. BARRIERS & FACILITATORS

The headline perceived barriers and facilitators for study participants are listed below.

Theory	Barriers	Facilitators
Psychological and attitudinal	Fear of getting it wrong *"We don't order anything online because we're afraid that we might press the wrong thing"*	Strong willingness to try *"I'll give anything a go"*
Functional	Lack of skills and knowledge *"The internet is convenient, but most things I don't have a clue how to do"*	Supportive family member *"I can browse the internet, but get my daughter to do the order and payment"*
Physical	Non-significant theme	Non-significant theme
Technology associated barriers	Usefulness and usability *"I can walk down the road just to do that, why would I use an App?"*	Ease of use *"Just the ease of use. If it'll do what it says on the tin then I'm quite happy trying"*
Privacy & Security	Lack of competence and confidence *"If the Pentagon can get hacked, I have no chance"*	Supportive family member *"My daughter is on the ball with this stuff. She has set all the apps up and looks after them for me"*

3. TOP THREE TECHNOLOGIES

Top three technologies and reasons for preference. Ranking in 1-3 order from most to least.

Type of technology	Preference reasons
1. Wearable activity monitor(e.g. Fitbit®)	Help achieve goals set by doctor, easy to use, and very interested in heart rate and sleep monitoring functions.
2. Virtual assistant (e.g. Amazon Alexa)	Easy to use, seen as *"useful for just about anything"* and *"good for entertainment and information finding"*. Particularly beneficial for people with health problems or limited mobility.
3. Social messaging or networking (social messaging preferred)	Connect with people with shared interests, but perceived need for training in using different features.

FINDINGS

- Strong willingness to learn new skills and/or improve existing skills;
- Need to improve awareness of what technologies are available and their capabilities for improving health and wellbeing;
- A supportive family member is important to overcome barriers and facilitate adoption.

CONCLUSIONS:

- In the diverse group of Smartline participants, there is a need and desire to use digital technology to improve heath, wellbeing and social connectedness.
- Acceptability (adoption and use) of the technology rests on a complex interplay of social, attitudinal, knowledge, and usability factors.
- Barriers may be overcome with increased awareness, training, and provision of a 'digital buddy'.

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