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Outcomes for older telecare recipients: the importance of assessments

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Abstract:	Summary. This paper explores the role of telecare assessment, review and staff training in meeting the needs of older people living at home. Using original empirical data obtained from an online survey of English local authorities (LAs) it reveals considerable variation in assessment and review practice and in training given to social work and other staff who assess and review, which may impact on outcomes for telecare users. The study findings are situated within an English policy context and earlier findings from a large, government funded randomized controlled trial. This trial concluded that telecare did not lead to better outcomes for users. Findings. Our survey findings suggest that it may be the way in which telecare is used, rather than telecare itself that shapes outcomes for people who use it, and that 'sub-optimal' outcomes from telecare may be linked to how telecare is adopted, adapted and used; and that this is influenced by staff training, telecare availability and a failure to regard telecare as a complex intervention. Application. The findings may help to reconcile evidence which suggests that telecare does not deliver better outcomes and LA responses to this which either discount or contest its value. The article suggests that to use telecare to achieve optimal outcomes for older people, social workers, care managers and other professionals involved in assessing for telecare will need to be given enhanced training opportunities, and their employers will need to perceive telecare as a complex intervention rather than simply a 'plug and play' solution.

Table 1. *Type of Local Authority and Region (n=152)*

Local Authority type		
	Frequencies (%)	
Shire County	30	(20)
Unitary	33	(22)
London Metropolitan	17	(11)
Other Metropolitan	22	(15)
Not stated	12	(8)
Non respondent Council	38	(25)
TOTAL	152	(100)
Region		
London	17	(11)
South East	20	(13)
South West	10	(7)
East	8	(5)
West Midlands	15	(10)
East Midlands	3	(2)
North West	12	(8)
Yorkshire and Humberside	10	(7)
North East	7	(5)
Not stated	12	(8)
Non respondent Council	38	(25)
TOTAL	152	(100)

Table 2. LA *perception of needs telecare is intended to meet and the means by which these needs will be met* (n=152) * statistically significant (p= <=0.05)

			Frequencies (%)			
Needs telecare is intended to meet		All responses	Local authority telecare service	Commissioned telecare service	Not known	Non-respondent Council
Delaying and reducing the need for care and support*	Most important	88 (58)	69 (80)	15 (79)	4 (44)	0
	Least important	3 (2)	1 (1)	1 (5)	1 (11)	0
	Not answered	23 (15)	16 (19)	3 (14)	4 (57)	0
	Total	114 (75)	86	19	9	38 (25)
Enhancing quality of life for people with care and support needs*	Most important	84 (55)	65 (76)	14 (74)	5 (56)	0
	Least important	9 (6)	7 (8)	2 (11%)	0	0
	Not answered	21 (14)	14 (16)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38
Safeguarding adults whose circumstances make them vulnerable and protecting them from avoidable harm*	Most important	74 (48)	58 (67)	11 (58)	5 (56)	0
	Least important	13 (9)	8 (9)	5 (26)	0	0
	Not answered	27 (18)	20 (23)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
To prevent carer breakdown/to support carers*	Most important	74 (49)	63 (73)	7 (37)	4 (44)	0
	Least important	14 (9)	4 (5)	9 (47)	1 (11)	0
	Not answered	26 (17)	19 (22)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Ensuring people have a positive experience of care and support*	Most important	59 (39)	47 (54)	7 (37)	5 (56)	0
	Least important	30 (20)	21 (24)	9 (47)	0	0
	Not answered	25 (16)	18 (21)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)

The means by which telecare is intended to meet needs						
Manage risk/promote safety*	Most important	93 (61)	72 (84)	16 (84)	5 (56)	0
	Least important	0	0	0	0	0
	Not answered	21 (14)	14 (16)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Reminds and prompt people to do/not do things*	Most important	67 (44)	51 (59)	11 (58)	5 (56)	0
	Least important	29 (13)	15 (17)	5 (26)	0	0
	Not answered	49 (32)	20 (23)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Enable communication/social contact /prevent loneliness*	Most important	43 (28)	31 (72)	7 (37)	5 (56)	0
	Least important	44 (29)	35 (41)	9 (47)	0	0
	Not answered	49 (32)	20 (23)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Enable people to engage in hobbies/valued/meaningful activities*	Most important	25 (15)	16 (19)	5 (26)	4 (44)	0
	Least important	63 (41)	11 (58)	51 (59)	1 (11)	0
	Not answered	50 (33)	19 (22)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Keep people oriented in time and place*	Most important	53 (35)	43 (50)	7 (37)	3 (33)	0
	Least important	34 (22)	23 (27)	9 (47)	2 (22)	0
	Not answered	49 (32)	20 (23)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)
Provision of support to unpaid carers*	Most important	70 (46)	55 (64)	12 (63)	3 (33)	0
	Least important	17 (11)	11 (13)	4 (21)	2 (22)	0
	Not answered	49 (32)	20 (23)	3 (16)	4 (44)	0
	Total	114 (75)	86	19	9	38 (25)

Table 3. *What do you assess within your telecare assessment? (n=152) * p= <=0.05)*

		Frequencies (%)				
		All responses	Local authority telecare service	Commissioned telecare service	Not known	Total
The person's daily routines*	Yes	75 (49)	60 (70)	11 (58)	4 (44)	0
	No/not sure	7 (5)	4 (5)	3 (16)	0	0
	Not known	32 (21)	22 (26)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The person's ability to communicate*	Yes	76 (50)	61 (71)	11 (58)	4 (44)	0
	No/not sure	7 (5)	4 (5)	3 (16)	0	0
	Not known	21 (20)	21 (24)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The person's memory and whether this is impaired *	Yes	77 (51)	63 (73)	11 (58)	3 (33)	0
	No/not sure	7 (5)	3 (3)	3 (16)	1 (11)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The person's ability to mobilise and move around*	Yes	77 (51)	62 (72)	12 (63)	3 (33)	0
	No/not sure	7 (5)	4 (5)	2 (11)	1 (11)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The mental and physical capacity of the person*	Yes	75 (49)	61 (71)	11 (58)	3 (33)	0
	No/not sure	9 (6)	5 (6)	3 (16)	1 (11)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38

The person's physical environment (e.g. the presence of steps or stairs)*	Yes	74 (49)	59 (69)	12 (63)	3 (33)	0
	No/not sure	9 (6)	6 (7)	2 (11)	1 (11)	0
	Not known	31 (20)	21 (24)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
What social support the person has (e.g. family, friends, neighbours, or paid carers)*	Yes	74 (49)	59 (69)	12 (63)	3 (33)	0
	No/not sure	10 (7)	7 (8)	2 (11)	1 (11)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
What activities a person needs to do in a day*	Yes	70 (46)	57 (66)	10 (53)	3 (33)	0
	No/not sure	14 (9)	9 (10)	4 (21)	1 (11)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
What may be unsafe about the way a person does an activity or activities*	Yes	67 (44)	56 (65)	9 (47)	2 (22)	0
	No/not sure	17 (11)	10 (12)	5 (26)	2 (22)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The person's insight into their abilities and limitations*	Yes	63 (41)	51 (59)	8 (42)	4 (44)	0
	No/not sure	21 (14)	15 (17)	6 (32)	0	0
	Not known	30 (20)	20 (23)	5 (25)	5 (56)	0
	Total	114 (75)	86	19	9	38
What activities are important for the person to do in their day*	Yes	59 (39)	48 (56)	8 (42)	3 (33)	0
	No/not sure	23 (15)	16 (19)	6 (32)	1 (11)	0
	Not known	32 (21)	22 (26)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The person's grip strength and dexterity*	Yes	53 (35)	41 (48)	10 (53)	2 (22)	0
	No/not sure	31 (20)	25 (29)	4 (21)	2 (22)	0

	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38
The ability of the person to problem solve*	Yes	45 (30)	37 (43)	8 (42)	0	0
	No/not sure	39 (26)	29 (34)	6 (32)	4 (44)	0
	Not known	30 (20)	20 (23)	5 (26)	5 (56)	0
	Total	114 (75)	86	19	9	38

Table 4. *Is a formal assessment of need for telecare always done before telecare is provided? (n=152)* p=<=0.05.

		Frequencies (%)			
	All responses	Local authority telecare service	Commissioned telecare service	Not known	Non-respondent council
Yes, always	25 (16)	23 (27)	2 (11)	0	0
Yes, but with some exceptions (e.g. hospital discharge)	31 (20)	24 (28)	5 (26)	2 (22)	0
No	23 (16)	17 (20)	5 (26)	2 (22)	0
Not sure	6 (4)	4 (5)	2 (11%)	0	0
Not stated	28 (18)	18 (21)	5 (26)	5 (56)	0
Total	114 (75)	86	19	9	38

Table 5. *Are assessments for telecare ever done in any of the following non-home environments? (n=152)* * p=<=0.05.

			Frequencies (%)			
		All responses	Local authority telecare service	Commissioned telecare service	Not known	Non respondent Council
In hospital settings*	Yes	60 (40)	49 (57)	8 (42)	3 (33)	0
	Not answered	54 (36)	37 (43)	11 (58)	6 (67)	0
	Total	114 (75)	86	19	9	38
In re-ablement settings*	Yes	52 (34)	42 (49)	8 (42)	2 (22)	0
	Not answered	62 (41)	44 (51)	11 (58)	7 (78)	0
	Total	114 (75)	86	19	9	38
Over the telephone*	Yes	46 (30)	37 (43)	7 (37)	2 (22)	0
	Not answered	68 (45)	49 (57)	12 (63)	7 (78)	0
	Total	14 (75)	86	19	9	38
Via the internet*	Yes	10 (7)	5 (6)	4 (21)	1 (11)	0
	Not answered	104 (68)	81 (94)	15 (79)	8 (89)	0
	Total	114 (75)	86	19	9	38
In some other non-home environment*	Yes	22 (15)	18 (21)	3 (16)	1 (11)	0
	Not answered	92 (61)	68 (79)	16 (84)	8 (89)	0
	Total	114 (75)	86	19	9	38

Table 6. *If people can spend Direct Payment money on telecare is your ASCD able to offer or arrange for advice to help them choose what to buy? (n=152)* p=<=0.05.

	Frequencies (%)				
	All responses	Local authority telecare	Commissioned telecare service	Not known	Non-respondent council
Yes	37 (24)	31 (36)	5 (26)	1 (11)	0
No	7 (5)	7 (8)	0	0	0
Not sure	16 (11)	8 (9)	7 (37)	1 (11)	0
Not applicable	18 (12)	16 (19)	1 (5)	0	0
Not stated	36 (24)	24 (28)	6 (32)	6 (67)	0
Total	114 (75)	86	19	9	38

Table 7. *Who provides training for telecare assessors and how long does it take to complete? (n=152)* *p<=0.05.

				Frequencies (%)	
(a) Who provides training *(n.b. Responses to 'who provides training' below are to multiple choice questions: totals may differ).*	All responses	Local authority telecare service	Commissioned telecare service	Not known	Non respondent Council
On the job training on a peer-to-peer basis*	44 (29)	37 (43)	5 (26)	2 (22)	0
A Local Authority training team or person*	35 (23)	28 (33)	6 (32)	1 (11)	0
A telecare manufacturer or supplier*	53 (35)	45 (52)	4 (21)	4 (44)	0
A college or university*	5 (3)	3 (4)	2 (11)	0	0
Some other forms of training	17 (11)	16 (19)	0	1 (11)	0
(b) Duration *					
½ - 1 working day	37 (24)	32 (37)	4 (21)	1 (11)	0
2 – 3 working days	3 (2)	3 (4)	0	0	0
4 – 5 working days	2 (1)	1 (1)	1 (5)	0	0
More than 1 week	22 (15)	17 (20)	3 (16)	2 (22)	0
Not known	17 (11)	11 (13)	5 (26)	1 (11)	0
Not answered	33 (22)	22 (26)	6 (32)	5 (56)	0
Total	0	0	0	0	38

Table 8. *Why do people ask for telecare to be removed – apart from death or moving into care? (n=152)*

	Frequencies (%)				
	All responses	Local authority telecare service	Commissioned telecare service	Not known	Non-respondent Council
Their needs change: telecare is no longer needed or no longer helps	66 (43)	55 (64)	9 (47)	2 (22)	0
Concerns about costs or rental charges	44 (29)	33 (38)	9 (47)	2 (22)	0
They 'just can't get on with it'	37 (24)	29 (34)	7 (37)	1 (11)	0
They feel it doesn't work properly – devices work at the wrong time or fail to work	29 (19)	25 (29)	3 (16)	1 (11)	0
Aesthetics and the appearance of the device	7 (5)	5 (6)	1 (5)	1 (11)	0
Concerns about loss of privacy	3 (2)	0	3 (16)	0	0
Other reasons to those listed	9 (6)	1 (1)	7 (37)	1 (11)	0

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Introduction, definitions, and background

This article is concerned with how English local authorities (LAs) use electronic assistive technology and telecare. An earlier, government funded randomised controlled trial of telecare conducted in England (described in more detail below) found little evidence to suggest that it delivered better outcomes to recipients but despite this finding, LAs appear to have continued to invest in telecare services. This article focuses on how local professionals assess and review for telecare and the training they receive to enable them to do this. It will suggest that changes to how these are completed may help to improve outcomes for older users.

Definitions

The pace of technological development and innovation means that terminology is rapidly evolving and so it is important to offer a definition of telecare from the outset. One such suggests 'Assistive Technology (AT) medical devices are intended to compensate for or alleviate an injury, disability or illness or to replace a physical function' (GOV.UK, 2018a). In this article, we focus on both the technologies and the service infrastructure in which they are located. With respect to the former we pragmatically refer to 'stand-alone' devices (i.e. devices not linked to a remotely sited call/ monitoring centre) as 'electronic assistive technology' or AT, while devices that are call centre linked are described as 'telecare'. Commonly used telecare devices include pendant alarms with which a wearer can summon help via a call centre in an emergency by pressing a button; or fall detectors which automatically alert a call centre if it a wearer has fallen. Assistive technologies (which do not send information outside the home environment), include devices like medication dispensers that remind someone that it is time to take tablets and dispense these automatically to prevent accidental overdosing.

Background and context

Telecare in England at the present time could justifiably be described as a 'policy problem', because long-standing policy support for telecare is not fully supported by evidence. The Whole System Demonstrator project, currently still the largest telecare/telehealth study in the world, was a randomized controlled trial (RCT) taking place in three local authority sites. It recruited 5,806 people from 217 National Health Service (NHS) General Practice primary care services, randomly assigned into intervention or control arms of the trial. It was commissioned by the then English Department of Health (DH) to assess the effectiveness of telecare/telehealth (Bower et al., 2011), and described by its authors as generalizable (Steventon, Grieve, & Bardsley, 2015). It was widely assumed the Whole System Demonstrator Project would validate invariably positive findings from earlier, usually much smaller studies (e.g. Alaszewski & Cappello, 2006; Bowes & McColgan, 2006; Cahill, Begley, Faulkner, & Hagen, 2007; Calder, 2006; Woolham, 2005) and support policy decisions already taken by the DH. The Government had committed £80m Preventive Technology Grant (PTG) funding and launched policy guidance for local authorities to develop telecare services before the Whole System Demonstrator Project trial started (DH 2005, 2006). Performance indicators were introduced to encourage Local Authority Adult Social Care Departments (ASCDs) to work with providers and suppliers to install telecare in homes of eligible people in the shortest time possible. Additionally, a concordat between DH and telecare industry published in January 2012 called for the rapid upscaling of telecare under the aegis of the 'Three Million Lives' campaign, citing, in justification, *assumed* findings (DH, 2012,; Innovate UK, 2015). However, the Whole System Demonstrator Project concluded that in the intervention arm of the trial – 80% of whom were older people – telecare made little difference to patterns of service use (Steventon et al., 2013); though offering small benefits to health related quality of life these were not 'transformative' (Hirani et al., 2014) and not cost-effective compared to 'ordinary care'

(Henderson et al., 2014). Though attracting a small amount of criticism from some working in the sector (Lowe, 2013a, 2013b), the findings of the Whole System Demonstrator Project appear to have been subsequently neglected or ignored. There was no reappraisal of the value of telecare by ASCDs, which continue to implement telecare according to unchanged DH policy requirements, and with considerable levels of investment: for example, £20m in Hampshire (Sourcingfocus.com, 2014), £14m by Birmingham City Council (Chartered Institute of Housing, 2012; Smith & Tomlinson, 2013); £2m in Hertfordshire (MacBeath, 2013) and £2m in North Yorkshire (Tunstall Healthcare Limited, 2009). This neglect is curious: local authorities continued to invest in services that did not appear to improve outcomes; particularly in a context of rising demand arising from an ageing population in the UK and most European Countries (Organisation for Economic Co-operation and Development, 2017) and public sector 'austerity' policies imposed by the Government which had drastically reduced Local Authority income (Innes & Tetlow, 2015).

The study from which findings presented in this article are derived emerged from an attempt to understand this by exploring how local authorities in England were using telecare to support older people (Woolham, Steils, Fisk, Porteus, & Forsyth, 2018). Specifically, it reports on findings from an online survey of English local authorities (LAs) that describe how social workers, care managers and other professionals assess for, and review telecare use for and by older people, and the training they have received to equip them for this role. It has five main sections. The first will describe the background to telecare use and why assessment for telecare is important. The second describes the methods used to collect data. The third section presents findings from the survey and the fourth discusses the significance of these for practice and policy. The final, fifth section, offers conclusions.

The importance of assessment, review and training for telecare and older people

Rising demand for paid care and support to support 'ageing in place' (Sixsmith & Sixsmith, 2008), are increasing interest in telecare and assistive technology both in England and other European countries (Milligan, Roberts, & Mort, 2011). Older people are much more likely to use adult social care services than other age groups, and telecare is thought particularly suited to their needs (Barlow, Bayer, & Curry, 2006). Several early telecare studies have emphasised the importance of careful assessment particularly for older people (Bjørneby, Topo, & Holthe, 1999; Marshall, 2000; Wey, 2004; Woolham, 2005), and to ensure assessors have the necessary skills (The Assistive Technology Forum & The Foundation for Assistive Technology, 2005). Later studies also argued that the complexities of assessing for and installing telecare for older people are often considerably under-estimated. Several recent qualitative studies have highlighted the importance of matching need to technology (Greenhalgh et al., 2015; Sugarhood, Wherton, Procter, Hinder, & Greenhalgh, 2014); for assessments and reviews to take place in the home of the telecare recipient (Greenhalgh et al., 2015; Milligan et al., 2011; Wherton & Monk, 2008); and for regular reviews and monitoring. The need for assessments to understand 'the soft periphery', i.e. the people who are needed to make telecare work (Sugarhood et al., 2014); the ethical implications of installing even 'simple' telecare devices (Ganyo, Dunn, & Hope, 2011); and to focus more on how people interact with technology (Mort, Roberts, & Callén, 2013; Pols & Willems, 2011; Wherton & Monk, 2008) have also been suggested.

Explanations for 'sub-optimal' assessments include a tendency to use standardised and 'objective' assessment tools which do not offer a sufficiently detailed picture of a telecare recipient's life (Greenhalgh et al., 2015); because the 'framing' of telecare from a technology 'push' rather than demand 'pull' perspective leads to a deficient understanding of potential user needs (Milligan et

al., 2011); or because a preoccupation with telecare as a means of saving money distorts the role that telecare could potentially play by narrowing the focus of the assessment (Eccles, 2010; Sugarhood et al., 2014). Greenhalgh, Procter, Wherton, Sugarhood, and Shaw (2012) also argued that telecare 'stakeholders' – assessors, installers, and manufacturers – can hold different values and ethical perspectives which, though usually unacknowledged, often conflict in operational settings, affecting approaches to assessment and review.

The role of assessment in telecare deployment is also neglected in guidance. For example, National Institute for Health and Care Excellence (NICE) guidance suggests only that telecare should be discussed, and possibly demonstrated, to people with social care or health needs. The primary role of the practitioner is therefore to provide information rather than prescribe or recommend technology based on assessed need (NICE, 2015).

Methods

Data in this article comes from an online survey of all ASCDs in England, and unconnected to the Whole System Demonstrator Project. Questions were developed by project team members with guidance from an Advisory Group comprising representatives of national organisations responsible for promoting telecare use or delivering services to older people, as well as older people and unpaid carers. The survey used 'Survey Monkey' software and was 'live' from 2nd November 2016 to 5th January 2017. It was promoted widely beforehand in the professional press, social media, practitioner networks and at several relevant events, targeted specifically at Local Authority telecare lead managers, most of whom were identified and contacted directly. Where a lead manager could not be identified the Directors of Adult Social Care Services in these LAs were sent a personally addressed email with a link to the survey, requesting they forward the link

to the telecare lead manager or equivalent for completion. A reminder was emailed three weeks later.

Data analysis used SPSS statistical software (v.22). Invalid responses removed from the dataset included 'views' of the survey (Survey Monkey treats all visits to the survey site as responses) as well as responses from private individuals, and respondents from other UK nations. The survey invited respondents to specify their Local Authority or employer (if different) and the overwhelming majority did so. Most (86) were from a Local Authority but 19 were employed within a commissioned telecare service: usually a District or Borough Council Housing Department. More than one response was made from a very small number of LAs. Here, the most complete response was included only so there was only one response per Local Authority. However, it was also decided to include responses from nine respondents who did not disclose their Local Authority or employer. It was clear that these responses came either from a Local Authority or a commissioned service. Analysis was by frequency and crosstabulation by in-house vs commissioned telecare service.

Findings

154 responses were received and the final number of valid responses was 114 or 75%. In the tables below, the number and proportion of respondents who did not answer specific survey questions, and the number and proportion of LAs that did not take part, are presented. The denominator throughout is therefore sample size (all 152 English LAs) and not the number of responding LAs.

Table 1 here

The shape and direction of telecare services are largely determined by Local Authority strategic objectives.

Table 2 here

Table 2 illustrates Local Authority priorities. Delaying the need for other kinds of care and support was a priority for 58% and 55% prioritised enhanced quality of life for users. Table 2 shows that though Local Authority and commissioned service responses were mostly similar, but there were marked differences in respect of priorities attached to preventing carer breakdown, ensuring people had a positive experience of care and support, and safeguarding, which were all higher priorities among local authorities. With respect to how these priorities would be met, findings showed an emphasis on risk management and safety, and on providing support for unpaid/family carers. Comparison by Local Authority and commissioned service responses were also mostly similar, with the exception of enabling communication and social contact, and keeping people oriented in time and place which appeared to be much more likely to be a Local Authority priorities.

Responses also showed that assessments were undertaken by three main professional groups: Care Managers or Social Workers were most frequently mentioned (45%), followed by Occupational Therapists (37%) and specialist telecare workers (36%). In some ASCDs all three professional groups were encouraged to assess for telecare, along with staff such as housing support workers. In other LAs assessments were undertaken by only one group.

Information about the scope of a telecare assessment was obtained.

Table 3 here

Although assessment activity was quite widely focused, some topics seemed more likely to be overlooked than others: for example, grip strength and dexterity, and ability to problem-solve: both of which could be expected to influence decisions about the kinds of devices to make available but were not 'covered' in assessments in 20% and 26% of LAs respectively. Analysis according to whether the respondent was employed in a Local Authority or a commissioned telecare service suggested that on all areas of assessment, Local Authority respondents were more likely than commissioned providers to consider the topics included within an assessment process.

The survey also asked: '*does the assessment focus on what it is hoped will be achieved by installing (telecare) technology?*' 40% overall felt that assessments had such a focus. A smaller proportion (16%) said this did not always happen and fewer (5%) were unsure.

The quality of telecare assessments was generally not seen as problematic. Telecare leads were asked: '*Thinking of commissioners or senior managers in your Local Authority or independent sector organisation, to what extent have deficits in skill to assess for telecare and to match need to telecare devices accurately been issues that have been resolved or need to be resolved?*' A minority – 15% – said this had been or was a major issue: of the rest, 22% considered it a minor issue, while for 20% it had not been an issue at all.

Variations in assessment practices emerged. Only 16% reported that a formal assessment of need was always completed before telecare was provided, but as table 4 indicates, formal assessments before provision were much less likely to occur in commissioned services

Table 4 here

The location of the assessment also varied (see table 5).

Table 5 here

Though most assessments seemed to be completed in a recipient's home, 40% said they also took place in hospital settings, and 34% in reablement settings. Assessments were sometimes completed by telephone (30%) and seven per cent via the internet. Telephone or internet-based assessments generally seemed to refer to requests for specific kinds of device from Direct Payment (people receiving 'cash for care' from a Local Authority) or their families, or to complete annual telecare reviews. Analysis by Local Authority/commissioned service in table 5 suggested that internet-based assessments were more likely within commissioned services.

The survey also asked: '*Can people who have a Direct Payment spend part of it on telecare in your Adult Social Care Department?*' Overall, over a quarter of LAs (28%) stated that this was the case, but less than a quarter said arrangements were in place to provide advice about what devices to buy. Table 6 compares responses from Local Authority or commissioned services respondents and suggests a much higher degree of uncertainty about Direct Payments and telecare among respondents from commissioned services.

Table 6 here

Data provided about manufacturers, suppliers and the range of devices available indicated that 72% of ASCDs procured telecare from less than 6 suppliers: in practice, a single UK manufacturer was by far the most frequently used supplier. The most commonly supplied items of technology were pendant alarms (38%), fall detectors (37%), bed/chair occupancy sensors (28%), smoke alarms (26%) and door and exit sensors (23%). A range of other devices, to remind, prompt, identify location, or manage risk were also mentioned.

Information about training offered to telecare assessors was also sought. Just under half (47%) of respondents said training was provided. Five per cent said it was not, while four per cent were not sure.

Over a third said that training was provided by a telecare manufacturer/supplier, and almost a quarter said the duration of this training was between one half and one working day. Table 7 compares type and duration of training by Local Authority and commissioned service respondents. Local Authority respondents made more use of training offered by telecare manufacturers, and more use of peer led training. Commissioned service respondents were more likely to refer to training provided by a university or college. Local Authority staff seemed more likely to receive training of shorter duration, though slightly more also mentioned training that took place over more than one week.

Table 7 here

A final stage in a typical Local Authority telecare deployment process is de-commissioning. Though we did not ask how *frequently* users or carers asked for telecare to be removed, one indirect measure of impact and acceptability is *why* telecare users, or their families asked for it to be de-commissioned, excluding death or a move into long-term care. Table 8 provides a breakdown of reasons.

Table 8 here

Overall, over 40% of respondents cited changes of need as reasons for technology removal; followed by costs and rental charges - reflecting a decision by most English ASCDs to charge for telecare after an initial six-week period over which care is usually provided free of charge. 24% felt recipients asked for it to be removed because they 'just can't get on with it' or that it did not work properly (19%). Comparison by Local Authority and commissioned service respondents indicated that for Local Authority respondents, changes in user need and problems with the device were more likely to lead to technology removal, whereas for commissioned service respondents, concerns over rental charges were the more likely reason.

Discussion

The findings presented here have significance for social care practice and policy and suggest that changes may be needed for telecare to be effective. Their significance, and the kinds of changes that may be needed will be explored below.

Alignment of strategic and operational objectives

The widely adopted operational focus on safety and risk management as a way of preventing or delaying a move into long-term care and use of telecare to support carers align with national strategic aims of reducing the need for care and support and to enhance quality of life and well-being (Department of Health and Social Care, 2018a, 2018b; Her Majesty's Government, 2014). However, arguably it also excludes an extensive range of other possible uses of telecare. For example, video communication, including Skype, could play a role in alleviating loneliness, which affects many older people (Lund, Nilsson, & Avlund, 2010; Pols, 2012; Steptoe, Shankar, Demakakos, & Wardle, 2013; Windle, Francis, & Coomber, 2011; Woolham, Daly, & Hughes, 2013) and has also attracted policy 'attention' (GOV.UK, 2018b). Surprisingly, our study found only one Local Authority using technology to identify and address loneliness and social isolation.

More generally, the use of telecare primarily to keep people safe and manage risk could result in deployment of a particular range of devices, as both prophylactic and panacea, thereby offering, variously, partial solutions, solutions to non-existent problems, or a remedy for a third party (for example, a family carer), rather than the direct recipient. Thus, people susceptible to falls might be given a falls detector without consideration of the circumstances in which falls might occur or if another, non-technology based, approach would be more effective (Stewart & McKinstry, 2012). Pols and Willems (2011) and Greenhalgh et al. (2013) argue that successful telecare use requires interaction between the technology and the technology user. 'Pragmatic customisation' or 'bricolage' (Greenhalgh et al., 2013) refers to a process through which technology is adapted to the needs of the user, and by the user, the latter in often unexpected ways. They suggest that an inability to adapt technology can be a reason for technology abandonment, but that this is seldom acknowledged; often because the brief and standardised nature of the assessment and review constitute major barriers to genuinely person-centred approaches to assessment policy

guidance. NICE guidance, referred to earlier in the article, also suggests that the primary role of practitioners is just to share information (NICE, 2015). This falls short of what may be required. Eccles (2010), Mort et al. (2013) and Van Hout, Pols and Willems (2015) also point to the potential for telecare to be 'oppressive' and disabling if the recipient is deprived of the choice of non-telecare based forms of care and support. Sugarhood, Wherton, Procter, Hinder, and Greenhalgh (2014) provide a clear example of how attempts to adapt technology by users to meet their needs (specifically, use of pendant alarms by lonely people to speak to someone in a non-crisis situation) are deemed to be an inappropriate and illegitimate use of this device.

Use of telecare without an assessment

Our survey found that telecare was frequently provided – at least initially – without a prior assessment. If the prospective recipient was in receipt of 'cash for care' from either a direct payment or self-funding, an assessment may also not be offered, or may be offered but declined. The need for telecare to be installed very quickly may also have been a reason for non-assessment; for example, to support the transfer of care following hospital discharge. In each of these scenarios there is a risk of not identifying all needs for which telecare might help. Other research has found that if telecare is introduced 'post emergency' to manage immediate risk there is a greater likelihood of it being subsequently rejected (AKTIVE Consortium, 2013). The close involvement of the recipient in decisions about which technologies to deploy through collaborative assessment (Johnston, Currie, Drynan, Stainton, & Jongbloed, 2014; Wherton & Monk, 2008) may help ensure these address a wider range of possible needs (Federici, Meloni, & Borsci, 2016; Wey, 2006); and co-produce decisions about needs and devices to install (Sugarhood et al., 2014). Greenhalgh et al. (2015) maintain that telecare is never 'plug and play' (because recipients will seek to adapt the technology to their own lives), but that assessors are 'encouraged

to behave as if it is'. Additionally, we do not know if 'light touch' and 'efficient' approaches to telecare deployment miss other needs for which telecare might be beneficial or increase risk that devices will be rejected.

Assessments and reviews in non-home environments

Home-based assessment of need for telecare helps an assessor ascertain whether a device would be helpful. It affords a contextual understanding (Wherton & Monk, 2008): an opportunity to see how the device(s) would fit in the spatial environment of the home, and how the prospective recipient interacts with their home environment and others who may live in it. The assessor may have relevant expertise or experience and be able to suggest modifications and alternatives unknown to recipients or others. Non face-to-face assessments, by contrast, may reflect the continuing financial pressures facing ASCDs arising from UK public sector 'austerity' policies, or possibly a propensity for LAs to seek to project a more consumer, than professionally led, approach to service delivery.

Other international research has claimed that the absence of 'follow-up' to telecare recipients soon after telecare installation can lead to recipient disappointment and underutilisation (Gramstad, Storli, & Hamran, 2014). Milligan et al. (2011) suggest that what they describe as 'distance caring' – non-home-based reviews – may also fail to identify other problems in a telecare user's life. Our study found that reviews, when they occurred, were mostly conducted by telephone. Many English ASCDs reportedly are unable to meet current policy requirements that reviews should be annual (Carter, 2016) so adopt telephone-based reviews and establish criteria to determine when they are required (Association of Directors of Adult Social Services London, 2014).

Advice to direct payment users about telecare

Nearly a quarter (24%) of telecare leads said that their ASCD offered people receiving a direct payment information or guidance to support purchasing decisions about telecare. We do not know if, without access to advice and guidance, wrong choices might occur, and devices that do not meet the needs of direct payment owners are purchased. Nor do we know if private purchases offer good value, or whether they are always compatible with one another, but particularly with call centre 'hub' technology. Finally, we do not know whether private purchasers are the careful and expert consumers identified in literature on personalised care funding (Glasby & Littlechild, 2016; Needham & Glasby, 2014; Poll & Duffy, 2008; Poll, Duffy, Hatton, Sanderson, & Routledge, 2006) and assumed in policy reviews (Boyle, 2013). There is very limited evidence that Direct Payments and self-directed support lead to better outcomes for older people who use them: at the present time the weight of evidence suggests they do not (Glendinning et al., 2008; Woolham, Daly, Sparks, Ritters, & Steils, 2017). However, in England, a 'mixed economy' of telecare provision is long-standing (de Leonibus, Bartosova, & Lewis, 2013) with increasing numbers of telecare users purchasing privately (Gibson, Dickinson, Brittain, & Robinson, 2015; Gibson et al., 2016; Greenhalgh et al., 2013).

Telecare training

The survey findings suggested that much training provided in ASCDs may have been 'product based': focused upon demonstrating how specific devices work. Such training is arguably a marketing opportunity for the supplier. Peer-led training (training provided in operational environments by more experienced staff) was mentioned by 39% of respondents. Its quality and effectiveness will depend on the trainer(s)' knowledge and whether, in busy operational settings,

it is possible to give or receive it. Others assert the importance of assessments for telecare being conducted by people with deep understanding of both devices and the risks of technology rejection (Berge, 2016; Greenhalgh et al., 2015; The Assistive Technology Forum & The Foundation for Assistive Technology, 2005).

Many of our findings suggest that the ability of ASCD staff to match need to technology was affected by structures and processes over which professional or front-line social worker and social care staff have limited control. This has also been observed in other studies. Greenhalgh et al. (2015) refer to service providers – social workers, care managers and others - seeing the need for personalised solutions without having the means to deliver them. However, our findings also suggest practitioners have varied levels of knowledge and awareness about telecare which could affect the quality of telecare assessments and reviews. Sugarhood et al. (2014) argue that varied knowledge can give rise to telecare service provision that is dependent on the background of the telecare assessor, rather than the needs of the recipient.

Why people ask for telecare to be removed

Our survey findings suggested that many factors associated with requests to decommission telecare could be attributed, at least in part, to shortcomings in the assessment process. A third (33%) of respondents indicated that requests to decommission arose because recipients did not value the technology, or that installed devices appeared not to work properly. 43% also said telecare was either no longer needed or no longer helped. Though the health or independence of some older telecare users might improve, some devices – for example pendant alarms or fall detectors – might still have a valuable preventive function. Where telecare was deemed to no longer be useful, practitioner access to, or knowledge of, a wider range of telecare or related

products – particularly passive alarm systems requiring no input from the end user – may also have been relevant. The survey suggested that some practitioners only have access to a limited range of devices offered by a handful of suppliers. These findings also lend support to the work of Wherton and Monk (2008), Pols and Willems (2011), Sugarhood et al. (2014) and others, who call for a better understanding of how telecare is adapted – or not adapted – by users, to become either valued or rejected.

Our findings also provide quantitative evidence to support work by Greenhalgh et al. (2013, 2015), whose ethnographic work with telecare 'stakeholders' emphasise the importance of spending time with prospective telecare users to understand how they live and interact with their socio-spatial environment. These authors also emphasise the need for assessors to have the practice skills to do this, and of the vital importance of practice, or clinical reasoning, focusing on contexts, constraints and the goals of the telecare recipient.

Is telecare the problem, or the way it is used?

These finding may help to explain the findings from the Whole System Demonstrator Project that outcomes for telecare users were no better than for those who received usual care or support, because they suggest that it may be the ways in which telecare was used, rather than telecare per se, that was responsible for these findings. The trial did not control what devices were installed: it was concerned with 'usual telecare deployment', asking the three participating site 'to design and procure their own telecare systems' (Steventon et al., 2013). It also offered a list of telecare devices used in the telecare arm (Bower et al., 2011) but not how telecare was being deployed.

RCTs do not always explore *why* a given intervention may or may not work unless a process evaluation is incorporated (Creswell & Plano Clark, 2011; Pols, 2012; Robson, 2002). In relation to telecare use in England, this 'why' question remains important: the level of investment by many ASCDs in setting up telecare services has been considerable. Initial 'pre-Whole System Demonstrator Project' government funding, policy guidance, and performance indicators were one set of reasons for investment. The influences of performance indicator targets on the way telecare services have developed in ASCDs in England have received attention elsewhere. Greenhalgh et al. (2016) suggested that installation of telecare to achieve imposed numerical targets may have downgraded the importance of assessments designed to match devices to need, focusing attention away from the complexities of telecare provision. An important outcome of this is that in the UK arrangements for assessing people for telecare are claimed to be 'sub-optimal' (Greenhalgh et al., 2016) because the policy focus remains fixed on technological innovation and rapid 'up-scaling' rather than on achieving a better understanding of how existing telecare technologies are adapted and used, and how to best support their use.

Further research may help establish whether telecare *itself* is unlikely to produce cost-effective, positive outcomes for recipients, as Whole System Demonstrator Project researchers concluded, or whether it is to do with *how* telecare services are provided.

Limitations

An online survey was chosen as the best method to collect data and the survey achieved a high response rate. Most published telecare research over the last decade have used qualitative designs. Findings in this article are compared and contrasted with some of this qualitative

literature. We have suggested that our findings may indicate that insights from some of these qualitative studies may apply more widely.

The survey achieved a high response rate, with all regions and Local Authority types represented (see table 1), though some participants did not answer all questions. Amongst eligible responses, 20% came not from a Local Authority but a locally commissioned telecare provider: typically, housing departments (in another tier of English local government), housing associations, or voluntary organisations. Finally, if multiple responses were received from the same Local Authority, responses with the largest number of completed questions were included.

Conclusions

Because the findings of the Whole System Demonstrator Project have been widely overlooked or ignored this may have dissuaded some ASCDs from looking more closely at their own telecare assessment practices whilst at the same time being encouraged to commit to, and invest in, telecare. Department of Health and Social Care (DHSC) policy in England remains supportive of the development of Local Authority telecare services. Indeed, the more recent NHS England new models of care programme include technology 'vanguards' (NHS England, 2016) to better co-ordinate the delivery of care and support at home. The Association of Directors of Adult Social Care Services (ADASS) (2015) has also strongly encouraged the use of telecare, though it has overlooked Whole System Demonstrator Project findings in favour of its own evidence.

Our findings suggest that concerns raised in recent qualitative and ethnographic studies of telecare use may be prevalent in English local authority telecare services. Attention needs to be paid to assessment activity as a way of improving outcomes; and the amount of funding available for training and staff support relative to the level of investment in telecare equipment may need to be re-balanced. The re-discovery of person-centred rather than personalised approaches to service delivery (Woolham et al., 2017), trusted assessor frameworks (Winchcombe & Ballinger, 2005), or, what has more recently been called 'practical reasoning' (Greenhalgh et al., 2015) could support LAs in using telecare more effectively. However, to do so will require significant changes in focus, sanctioned by changes in policy and guidance, with much more attention paid to how, through social worker, care manager of other professional assessment, telecare can be matched, and adapted, to fit in with the lives of recipients. This might require, for example, thinking of assessment and reviews as recursive processes rather than linear and temporal outcomes, and telecare as a complex intervention rather than something that can be 'plugged and played'. It is far from clear in the present financial climate and in an area where providers are key to the commissioning process whether this will be possible.

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Conflicts of interest

No conflicts of interest are declared by members of the research team who prepared this article.

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