Edge Hill University

PGMI
Postgraduate
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Assisted Living Technology

Review of published literature regarding education and qualifications to support implementation of Assisted Living Technology

and

An identification and review of unpublished developments which can inform the initiative

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This review has been commissioned by Liverpool CCG, Mi Programme

April 2015

Contents

1. Introduction

The use of technology in the health and social care delivery is expanding both in the delivery of direct care and significantly in supporting patients and service users to manage and optimise their own health and wellbeing (Peate,2013, Suter, Suter & Johnston, 2011, Kings Fund, 2015). Recognition of the potential and actual contribution of technology to care delivery is fundamental to delivery, as confirmed within NHS England's Five Year Forward View (2014), with the commitment to ensure the National Information Board establishes a set of "road maps" which will lay "out who will do what to transform digital care", including processes for information sharing and the use of technology to transform care provision. Appreciation of the contribution of technology is crucial given that to date systematic implementation has yet to be delivered (NHS England 2014). Explanations for this failure identify cultural, organisational and workforce barriers to implementation (Hendy et al, 2012, Doyle, 2015).

Within this context of identifying the support required for delivery, Liverpool CCG in support of the Mi programme, commissioned Edge Hill University, Faculty of Health and Social Care to undertake an initial scoping project to explore the evidence to support the development of an Assisted Living Technology qualification, comparable to the European Computer Driving Licence, and identify recommendations for practice.

2. Scope of the Project

The University was commissioned to:

- Review the published literature regarding education and qualifications to support implementation of Assisted Living Technology. The project explored the education needs of professional health and social carers in line with the utilisation of the European Computer Driving Licence within the NHS
- Identify and review any unpublished developments which can inform this initiative

In delivering the project Edge Hill University were committed to working with the North

West Coast Academic Health Sciences to identify areas of best practice for sharing

3. Methodology

The project team utilised the following approaches to complete the work:

- Review of published literature
- Review of Grey literature
- Discussions and conversations with key local and national leaders

Ongoing conversations were held with the project commissioner to support delivery.

4. Definition of key terminology

In exploring this area of practice there is an acknowledgement that a wide range of terminology and language is used within the literature. For the purpose of clarity within this report the following key definitions have been adopted:

4.1. Assisted Living Technology

The rapid development of technology is such that at present there is no standardised definition for technology defined as Assisted Living Technology. In delivery of this work programme the Project Team have applied the following definitions:

British Assistive Living Technology Association.

Assistive technology is any product or service that maintains or improves the ability of individuals with disabilities or impairments to communicate, learn and live independent, fulfilling and productive lives.

Skills for Care Definition

Assisted Living Technologies means:

- *Telecare* - the use of technology, including monitors and sensors, to promote independent living and support to people in need of care to live longer at home, in homely environments and in their communities. This may include returning home after a period of illness. It can include both simple and more complex systems and equipment.

- *Digital participation services* - to educate, entertain and stimulate social interaction to enrich the lives of people in need of social support.

- *Wellness Services* - to encourage people to adopt and maintain a healthy lifestyle, to prevent or delay the need for support.

This definition is adapted by Skills for Care from Lewin D, et al (2010) - *Assisted living technologies for older and disabled people in 2030.* London: Plum Consulting.

4.2. Grey Literature

The project utilised Grey Literature within this project. Grey Literature is defined as

'That which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publishers ' Fourth International Conference on Grey Literature (1999)

The grey literature was generated from Internet searches, links to known forums and discussions with key individuals.

5. Existing National Frameworks

Exploration of the literature identified 2 key national frameworks which outline the key role functions and competencies expected of staff commissioning and delivering care inclusive of Assisted Living Technology. In identifying the competencies required of staff, these frameworks provide a structure for delivery equivalent to that offered by the European Computer Driving Licence offered for basic computer literacy skills. The key frameworks are identified as follows:

- NHS England Technology Enabled Care Services Resources for Commissioners (2015)
- Skills for Care - Commissioning Assisted Living Technologies Guidance, Skills for Care (2014) and Learning and Development Framework

5.1. NHS England Technology Enabled Care Services Resources for Commissioners (2015)

Launched in 2015 this toolkit provides a practical guide for commissioners to facilitate the implementation of Technology Enabled Care services. Identifying the need for technology to be embedded within an integrated care delivery system the toolkit addresses key issues for commissioners including strategic context and drivers, information governance concerns, implementation factors, recommendations for training and change management, and evaluation frameworks. The toolkit slides brings together links to key resources to support delivery without outlining the potential mode of delivery.

5.2. Skills for Care - Commissioning Assisted Living Technologies Guidance, Skills for Care and Learning and Development Framework (2014)

The Commissioning Guidance is a comprehensive practical guide, which supports development and delivery with practical strategies for integrated delivery.

The Learning and Development Framework for Assisted Living Technology and Assisted Living Services provides for the delivery of the complete process. The resource provides extensive guidance regarding:

- Readiness for Change
- Customer Flow Analysis
- Workforce Analysis
- Learning Design and Delivery
- Checking stage

Within the context of this report the learning design and delivery component of the resource is extensive with knowledge, skills and competencies identified to support a comprehensive range of Assisted Living Technology tasks. There are clear recommendations for development of roles to support service users, with delivery of learning adapted to the needs of the workforce and delivered utilising both face to face and alternative methods of provision. As an evidence based resource this framework provides a structure for development and implementation of an education programme.

In addition to the framework, the resource includes provision of an App. This App supports health and social care practitioners with decision making regarding technology at the point of

care. Whilst it has limited technology solutions as options, the principles of professional supported decision making are established.

6. Literature Review

A review of the literature was undertaken utilising Discover more, COCHRANE and CINAHL search engines. The key search terms used were Assisted Living Technology, workforce, education and training. In identifying appropriate articles for consideration the literature review process excluded papers that did not address workforce development, education, training or staff perceptions. A number of articles regarding patient and users support for utilisation were excluded as being outside of the remit of this project. The review included papers that summarised existing literature without exploring the primary articles. The literature identified 131 762 articles relating to Assisted Living Technology however with only a limited number of articles exploring the evidence base related to the issue under consideration.

To support wider understanding the literature review was expanded to include literature which identified professional engagement challenges to the use of Assisted Living Technology. The lack of evidenced based papers resulted in the exploration of opinion based and descriptive research papers to be included. The literature identified 3 key themes which emerged in consideration of staff engagement in the use of Assisted Living Technology:

- Requirement for formal education and training to support implementation
- Culture, and the impact on health and social care promotion of Assisted Living Technology
- Change management strategies and impact upon Assisted Living Technology

6.1 Education to support Assisted Living Technology

A number of papers identified the need for education and training packages to support delivery, recognising that the failure to support staff impacts upon confidence in use of technology (Wigfield et at 2012, Chambers et al 2014, Taylor et al, 2014, Brewster, 2013). In particular, Taylor et al (2014) identified the value of education and training to support successful implementation of telehealth. The findings of this review, of 3 case studies within the UK, specifically recognised that training was a key enabler for development, concluding

that education was central to increasing the potential of remote monitoring, through increased knowledge and confidence amongst staff.

Whilst there is a recognition that professionals working in health and social care must be supported to develop the skills and knowledge to engage with technology (Fiorentino 2002), Swenty and Titzer (2014) in their exploration of Advanced Nurse Practitioners within the U.S.A. argue that this will only occur with the realisation by professionals and educators that informatics skills and understanding of technology is fundamental to effective role function; highlighting the necessity to develop an increasing sense of urgency to support a change in practice. This sense of urgency is cognisant within the UK health service as increased demands, current financial challenges and new models of care necessitate a change in care provision.

In recognising the value of education and requirement for systematic workforce development Wigfield et al (2012), call for a national framework to support the development of social care staff. The detailed findings of this research study are reported within the University of Leeds Workforce Development for Assisted Living Technology: understanding roles, delivery and workforce needs Report (2012) and form the foundation of the Skills for Care Assisted Living Technology Learning and Development Framework. This report outlines a knowledge and skills framework for education without prescribing an education model for delivery, instead suggesting the delivery of education is dependent upon meeting the needs of the specific workforce groups and will range from awareness training for all staff, to delivery of enhanced knowledge and skills for direct care users. The focusing of education to specific target groups is aligned with the integrated whole system approach to health and social care delivery. This integrated approach to care delivery acknowledges that technology is best applied to “hot spot” points within care provision pathways, with training and education specific to these areas (Wigfield et al 2012).

Whilst, the report did not identify a delivery model for education to underpin Assisted Living Technology use, Wigfield et al (2012) concluded that education provision must include:

- *Holistic training including both technical awareness and social and communication skills*

- *Formal off-the-job training provided with either the Local Authority or externally, including hands on interactive experience with technology*
- *On the job training supported by on-going support*
- *Supplier led training to be incorporated but not the only source of training*
- *Inclusion of competency based accredited element*

Chambers et al (2014) were more specific in their opinion paper calling for training to be delivered across basic awareness and understanding, generic knowledge, skills and competencies, including digital health assessment and specific skills and expertise for particular types of digital health modalities. Furthermore, Taylor et al (2014) argue that training must be ongoing and not restricted to the demonstration of technology. The need for on-going education is further supported by Powell, Wallace and Wild (2013) in describing the implementation of technology within Oregan, outlining the requirement for generalisation training, continuing education and with the addition of direct mentoring for support.

The variation in structure of training and education support for required implementation is further compounded by a variation in the training opportunities offered to staff. Wigfield et al (2012) advocate the value of mandatory training as important in ensuring staff attend, noting that uptake with voluntary training was, within their exploration of 3 case studies, less successful as staff time was prioritised to other issues. Similarly, they reported that attendance at training was challenging for staff working in non-statutory organisations, the absence of training for this group of staff resulted in a reported lack of engagement. They highlight the challenge for smaller organisations as the commitment to the provision of education and training, presents a real challenge if working within smaller scale contracts. NHS England (2015) recognise this challenge identifying the central role of the Commissioner in the development of the workforce in the introduction of Assisted Living Technology.

6.2. Clinical Culture

6.2.1. Organisational Readiness

Recognition of the impact of organisational and professional culture on working practices is well documented with clear impact in consideration of the implementation of technology (Taylor et al, 2014, Hendy 2012). Hendy et al (2012) in exploring the barriers to implementation of telecare and telehealth suggest that the lack of organisational readiness is an important factor in consideration of adoption. Defining organisational readiness as the preparedness to participate and succeed within the programme, the paper identifies that whilst the organisations within the Whole System Demonstrator Project had positively engaged in the project, the culture within the organisations was predominantly one which favoured a traditional model of health care delivery, and as such whilst there was a commitment to using technology there was insufficient attention given to how this impacted upon professional roles. Jennett et al (2003) concur recognising that organisational acceptance and preparedness is fundamental to successful implementation.

Similarly Wigfield et al (2012) identified that whilst one case study area was committed to Assisted Living Technology there was no prioritisation of this within the delivery of the organisation training and development schedule. This level of commitment from organisations is challenging as health and social care providers face significant changes in care provision in addition to increasing demand and patient acuity. Support for prioritisation of this technology is recognised as a shared responsibility for both provider and commissioners who are challenged to work together to raise the profile of technology in care provision (Chambers, 2014).

6.2.2. Staff acceptance of technology

The importance of acceptance and perception of benefit from a staff perspective is recognised within a number of studies. The University of Sheffield Mainstreaming Assisted Living Technology (2014) identified staff attitudes ranged from resistance to enthusiasm, with varied opinions about the motives for investing in telehealth and the potential impact on nursing roles. Buehler, Ruggiero and Mehta (2013) note that use of technology to support health care delivery is accepted in developing countries where the lack of highly skilled health professionals has necessitated a different model of care delivery. Similarly Swinton, Robinson

& Bischoff (2009) reported that staff acceptance is greater within rural communities than urban populations, where staff identified less benefit. This raises questions concerning culture and acceptability from a clinician rather than patent perspective, with a consequential impact on changing attitudes and behaviours of professionals as a priority.

The professional acceptance of technology is further identified within Segar's (2013) exploration of the use of telehealth within a distinct geographical area. Specifically, within this study the Practice Nurses emphasised the importance of face to face engagement with patients over remote monitoring, and were reluctant to accept the potential change within their role. The central value of the therapeutic role and relationship is recognised as fundamental to health and social care professionals' model of practice.

The underpinning values of professionals is reiterated by Swinton, Robinson & Bischoff (2009) who highlight the professionals' commitment to a collaborative working relationship with service users and clinicians; the building in of technology to enhance this underpinning value was central to facilitating professionals' use of the technology. Similarly Brewster (2013) recognised that technology changed the patient-nurse relationship with less face to face contact. Skills for Care (2014) identify that acknowledgement of this belief is central to reducing resistance to Assisted Living Technology and facilitating increased use as mainstream options for care. Brewster (2014) suggests that the change in role raised concerns regarding accountability and credibility, particularly for nurses, arguing that these concerns can be supported through training including appropriate risk and safety management.

In contrast, Hibbert et al (2004) argue that the views and acceptability of telehealth was not related to face to face contact but the wider concern of the practitioners' views of their professional self-image and status, these issues being far greater than training. Similarly, MacNeill et al (2014) in their analysis of 3 of the Whole Systems Demonstrator sites reported that nurses were accepting of telehealth if it enhanced their role, but not as a substitute, and as such training is not fundamental to acceptance. The impact of Assisted Living Technology on health and social care practitioner's traditional modes of working is further explored by Chambers et al (2012) who report that clinicians raise specific concerns in relation to patient safety and additional time for delivery as barriers to adoption. The change in role, with the move towards self-care and self-efficacy is fundamental to the utilisation of technology

(Suter, Suter & Johnston, 2011). However the impact of a changing balance of power between professional care givers and recipients of care cannot be underestimated (Stewart, 2005).

MacNeill et al's (2014) exploration of the Whole System Demonstrator also reports on the views of General Practitioners, noting that they perceived telehealth as adding to their workload, and potentially undermining their authority. This confirms the findings of 2020 Health (Cruickshank and Paxman, 2013) evaluation of Yorkshire & the Humber Telehealth Hub that whilst telehealth had the potential to reduce workload of General Practitioners, they remained apprehensive about its use with the belief that it would lead to more workload.

In addition to this concern Segar et al (2013) identified General Practitioners hesitancy in implementation of the telehealth as a consequence of the failure to evidence effectiveness of use. The challenge of effectiveness is similarly identified by Taylor et al (2014), Henderson (2013) and Bardsley, Stevenson and Doll (2013) who report that the Whole System Demonstrator failed to identify evidence of impact upon the financial cost of health care provision or an increase or decrease in attendance within General Practice.

This perception of the limited value of telehealth amongst General Practice was similarly is reported by Brewster (2013) who suggested that this resistance has the potential to impact upon other practitioners support and use of this technology. Acceptance and adoptability by General Practice is significant, as generalist and gatekeeper to resources they have the potential to shift acceptability amongst other professionals and patients; furthermore as clinical commissioners the opportunity for influence in practice is greater (Segar 2013).

6.2.3. Staff Confidence

A further potential barrier to utilisation amongst staff is confidence in technology. Specifically, Taylor et al (2014) report the importance of building trust in the technology by clinicians, as they were required to change their role and relationship with patients and service users. This is arguably a fundamental change in professional understanding and as such must be considered within the implementation of technology in the wider care process and promotion of self-care. Brewster et al (2013) cited that clinician's previous experience and concerns regarding "teething problems" were important in reducing confidence, and similarly if the technology was not perceived to be easy-to-use, or user friendly then there was a reluctance to use it. In support of change Taylor et al (2014) identified the importance of reliable and flexible technology and dedicated resources as essential in helping to overcome early barriers

to acceptance, along with appropriate staff training and a partnership approach to implementation.

6.3. Management of Change – relationship to the implementation of Assisted Living Technology

The literature highlights the importance of introduction of technology as part of a managed change process, 2020 Health (Cruickshank & Paxman, 2013) recommend that in considering implementation the focus should not be upon the technology, but the management of change, arguing that it is this that drives adoption of best practice care pathways and methods.

Taylor et al (2014) argue that frontline staff acceptance is an important factor in determining the successful adoption of new technologies, but has rarely been the central focus of study. The recognition of resistance to change by staff adversely affects utilisation of technology is accepted (Wigfield et al 2012), yet as Hendy et al (2012) outline utilisation of technology is a complex change and as such it requires evolutionary implementation driven by front-line staff. Warm and Thomas (2011) support this approach within their opinion piece, arguing that there is increased acceptability of professionals to utilise technology if they are involved within the design phase with Taylor et al (2014) noting that staff report increased acceptance of technology when they are engaged in the process of service design and recognise the benefits for themselves. In addressing this concern Taylor et al (2014) advocate the need for a Clinical Informaticist in practice; this role focused upon support for training and education of staff including linking the bridge between service development and formal education. Similarly, Faife, (2008) describes an innovative approach to adoption through the development of new workers with key skills and competencies in relation to an understanding of how assistive technology works, an ability to explain and to encourage take up by service users and carers, demonstrate equipment to professionals, develop public communication skills, assess, provide advice and information, work in partnership and, at a later stage, abilities in and knowledge of installation and maintenance and technical skills

The importance of understanding how individuals are supported to change personal perceptions is outlined by Wu, Li and Fu (2011) who assert that health professionals are not early adopters of technology in the workplace environment, often requiring proof of concept and clarification of safety and efficacy. Wu, Li and Fu (2011) site the importance of Theory of

Planned Behaviour as impacting upon use of technology – this framework considers the individual role and organisational systems to support use. In addition it considers the application of a Technology Acceptance model, and personal innovativeness to understand the use of IT. The paper argues that professionals need to be aware of technological, organisational and relationship to individual perceptions are fundamental for use.

Similarly, Hendy's (2012) evaluation of the Whole System Demonstrator indicated that the benefit of implementation as an evolutionary process dependent upon local integration and need. Early successes in changing attitude were also identified as important, encouraging staff to use telehealth and facilitating clinical learning and increased adoption. Salisbury et al (2015) highlights that the mainstreaming of telehealth hinges on clinical 'buy-in', where barriers to successful implementation exist, clinicians can lose faith in using technology to perform tasks traditionally delivered in person. Addressing barriers is therefore crucial if clinicians are to adopt telehealth into routine practice.

6.4. Technology within the broader change process

Recognition of an understanding of the change process on individual behaviour is accepted; however there is less consideration in the literature to consideration of system wide change and impact upon workforce needs. Recognising the change in health care provision within the UK, Taylor et al (2014) described the impact of technology on staff, they reported that this was perceived as a further change, within an NHS system that had experienced extensive change both at a local and national level. Whilst the concern that technology was perceived as another change is noteworthy in considering support for implementation.

To support change Liddell, Adshead and Burgess (2008) promote implementation through whole system structural processes including clear policy direction, management leadership, and access to trial technology, information sharing and effective procurement. These are arguably recognised within NHS England 5 Year Forward View (2014) recommendations with the intention to nationally support change in adoption and use of technology. Similarly, Faife (2008) in the description of the implementation of Assisted Living Technology within Norfolk advocates that the effective implementation of technology is dependent on managing large scale change within complex organisations, rather than choice of technology. Adopting a broader approach to implementation Drotar et al (2006) suggests that utilisation of a

conceptual frameworks that identify types and users of technology, barriers, supports and outcomes is central to effective implementation.

In addressing this issue Sailsbury et al (2015) summarise the complexity of technology as an intervention, and telehealth in particular, as a co-dependent process that necessitates the interaction of the technology, the infrastructure, the human support and capability of the patient. This paper draws upon review of existing literature and analysis of a qualitative study of patients and professionals experiences of telehealth to propose a model of implementation that considers the following 4 co-dependent concepts:

- Engagement of patients and professionals
- Effective chronic disease management
- Partnership between providers
- Patient, social and health care context

Whilst this model remains untested it does provide a framework for implementation.

6.5. Relationship between the key themes

The literature review recognises that Assisted Living Technology use has the potential to impact significantly on care provision, changing the nature of care provision delivered within and across the health and social care economy and for individuals in the receipt of care. To support delivery the literature suggests that system change requires engagement and prioritisation across the organisation and system, including commissioners and service providers. Within this context consideration of workforce development needs and concerns must be integrated within wider service change and addressed at a simultaneous point. The utilisation of a structured model of change would facilitate systematic implementation.

6.6. Recognised Gaps in the Literature

In reviewing the literature it is noted that there is no evidence regarding:

- Evaluation of training and development packages impact upon use of technology
- Preferred model of education delivery
- Model of education for commissioners
- Specific education needs to meet the needs of General Practitioners

- Utilisation of specific change models to support staff behaviour change within this context

7. Review of Grey Literature and wider sources

The review of grey literature and none traditional sources included scoping of current education programmes, exploration of commissioning models for Assisted Living Technology, identification of preparation for use within pre-registration training in addition to exploration of examples of best practice.

7.1. Current education opportunities to support employment and adoption of Assisted Living Technology

As described in section 6.1, a number of studies conducted by the Skills for Care in collaboration with some partner Universities have resulted in developing national learning and development frameworks for assisted living technology and services. The Skills for Care framework provides a detailed analysis on workforce by mapping standards, frameworks and qualifications. It also identifies necessary skills and training needs for the workforce at many different levels. A UK wide study that has contributed to development of "A Workforce Learning strategy" (Technology to Care, 2014), whilst primarily focusing on employers needs established an ambitious vision and acknowledged that other stakeholders such as educators will have to play an important role in achieving the vision: "*By 2019, individuals will be supported by a confident, knowledgeable and skilled social care workforce, working creatively with Electronic Assistive Technology6 to support their well-being, choice and independence.* ". Burtney and Buddery (2012) from the same consortium whose desk based research informed the strategy, at the time of their study found that there is variation between the four UK countries in terms of the approaches to learning and workforce development. A study commissioned by the Northern Ireland Housing Executive and conducted by the University of Ulster (Martin, 2010) exploring the future housing and support needs of older people has identified a gap in relation to the knowledge and skill of healthcare staff to manipulate and understand the technology. Staff education and training was identified as one of the key issues for implementation of technology-enriched supported housing options and recommended to look at development of undergraduate programmes and staff training courses to support not only acquiring the necessary skillset but also to change of mind-set on how workforce understand their role in healthcare delivery.

Wigfield et al (2013a) in their study of the workforce development implications of Assisted Living Technology (ATL) in the English social care sector have also found that there whilst some efforts have been made towards delivering assisted living technology training for the workforce there is no standardised approach to ATL workforce development that can be used across the health and social care sector. The various approaches deployed with in the UK have been classified as: academic courses, professional qualifications, or short training courses. The Skills for Care (2012) and The Association for Assistive Technology (FAST) have published a comprehensive list of Degree, Diploma and Certificate courses in the UK, together with other accredited short and product specific courses (Appendix A). The FAST list was last updated in June 2014, just before the Department of Health made decision to cut the contract to FAST.

For the purpose of this report we analysed different sources and have produced an up to date list of courses offered across the UK. Furthermore, we reviewed each course in details in terms of its content and assessed its suitability for the Assisted Living Technology workforce development. Some of these courses tend to be for assistive technology in general rather than specifically designed for ALT.

Table 1: Assisted living technology training courses

Approach/Course Type	Details	AT/ALT content
Degree Level		
MSc in AT (PgCert, PgDip)	Health and Social Care, Coventry University, 3-5 yrs PT,	AT for health, social care, education and third party. Included ALT
FD in AT	Health and Social Care, Coventry University, 2 yrs FT	AT: introduction to AT, AT Process and Practice, Telehealth and Telecare, Inclusive design and accessible environments, Effective management of AT equipment
MSc in AT (PgCert, PgDip) in Assisted and Independent Living	Health and Built Environment (joint course), University of Salford, 3 yrs PT	**ATL** – Inclusive residential environments, Design for Accessibility and inclusion , Assistive and Mainstream Technologies
PgCert in Telehealth and Telecare	Faculty of Health and Social care,	AT: Introduction to Telehealth and Telecare (20 credit module also

	University of Hull, 1 year PT	available for BSc and MSc programmes)
MSc Computing (Universal Design and Assistive Technology)	Comp Science and IT, Dublin Institute of Technology. 2 yrs FT	AT: Design and development of technology
Professional Certificates/Qualifications		
BTEC Professional Certificate in Healthcare and AT	British Healthcare Trade Association (BHTA). 3-day course, Level 4	AT: Social inclusion and diversity, Person-centred assessment, Sensory loss: visual and hearing impairment, Communication: speech loss, Mental health issues – long term disability on mental health, depression, anxiety and dementia
Certificate in Telecare Services (QCF)	Chartered Institute of Housing, NVQ Level 3,	AT: professional practice skills for housing, Call handling for telecare services operators, Handling telecare customer data safely and securely,Providing telecare services, The context of telecare services provision.
Certificate in Supporting Users of AT	City and Guilds, Level 2.	AT: how assistive technologies work and what is available, ethics and uses of assistive technology, effective communication with users of assistive technology.
PDA Telehealthcare	Scottish Qualifications Authority (SQA), SCQF level 6	AT: Working in Telehealthcare Telehealthcare: Installation, Maintenance and Repair, Call Handling, Response
Professional Courses		
Independent Living Training	Independent Living Partnership Ltd	AT: Trusted Assessor
Coventry University Assistive Technology Learning Tool	Coventry University. Online course.	No longer available

7.2. Commissioning Assisted Living Technology

The Supporting Commissioners of Assisted Living Services Research Report (Consilium Research & Consultancy, 2014) reports on the findings of a survey of 49 Social Care Commissioners focusing upon their knowledge, skills and processes in the commissioning of Assisted Living Technology. Central to this report is the recognition of the inconsistency in understanding of the commissioning process amongst commissioners, with a variation in the knowledge base required to effectively commission. Commissioners in particular reported learning by trial and error and that they lacked the knowledge, skills and experience to effectively commission for Assisted Living Technology. In addition the report highlights the impact of the failure to commission effectively on front-line staff, and in particular the resulting perception that technology is a bolt on to core services; the consequence of which may be a reluctance to use the technology. The distance between commissioners and frontline staff is arguably further challenged by the drive towards commissioning of technology from organisations external to the provider organisations who are able to deliver at scale but not connected to the front line staff.

7.3. Telemedicine Readiness Evaluation and Assessment Tool

A number of assessment tools have been developed to support organisations to identify and understand the benefit of utilising Assisted Living Technology within organisations. These are non-evidence based tools but do identify the need for training and development of the workforce. There is no evidence outlining their use within organisations.

7.4. Preparation of Future workforce

Whilst the utilisation of Assisted Living Technology is promoted by professional bodies such as the Royal College of Nursing, the skills and competencies to support delivery have not yet been adopted by the accountable body responsible for development of the national curriculum. Notably the Nursing and Midwifery Council is guided by European guidelines in the establishment of the competencies and curriculum framework, and these are not yet addressed.

In considering the wider workforce needs, Health Education England provides a national perspective. The review of Heath Education England strategy identifies that to date the focus regarding technology has concentrated on the utilisation of technology to support learning,

rather than as an intervention in care. This focus on technology in learning is mirrored within the on-line conversations regarding supporting new health and social care professionals. Engagement with Health Education England in shaping the standard and content of commissioned education for health care professionals will be important in driving future use of Assisted Living Technology.

7.5. Professional Bodies support for Assisted Living Technology

Professional body support for Assisted Living Technology is minimal, with the exception of the Royal College of Nursing where consideration has been given to both the need for understanding of technology and nurses confidence regarding its use. Whilst accepting the challenge of impact upon role delivery and change to patient relationships, the RCN are significant in addressing the issues of governance and reinforcing the existing standards of care and the application to working with newer technology. Notwithstanding this the impact of the RCN on practice is limited given that it is not a statutory body a significant number of nurses are not members.

8. Identification of key principles to underpin education programmes to support implementation of Assisted Living Technology across health and social care

Accepting that the evidence is weak the review of the literature, Skills for Care framework, exploration of existing programmes and discussion with key informants a number of core principles have emerged for future education programmes. These are identified as follows:

- Context of care provision – move towards promotion of self-care, patient empowerment and control, as evidenced within the Shape of Caring Review (Willis, 2015)
- Assessment of patient need
- Assessment of patient capability
- Use of technology
- Development of an ongoing therapeutic relationship based upon patient/professional trust
- Evaluation of use and acceptability

9. Recommendations

The recommendations are set within the context of building capability within the workforce to facilitate effective utilisation of Assisted Living Technology.

The key recommendations for Liverpool CCG are:

- Identification of the local cultural barriers and drivers for change with consideration of how these will be addressed within future education commissions which address Assisted Living Technology
- Systematic workforce training needs analysis and commissioning of targeted education based upon Commissioning Guide as identified by NHS England and Skills for Care
- Systematic provider workforce training needs analysis and commissioning of targeted education based upon Skills for Care knowledge and skills framework.
- Evaluation of the impact of workforce development on Assisted Living Technology usage and implementation.

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