

Best Practice Series: Transforming Complex Care Services with Technology

Q&A Session

Regarding monitoring and review of outcomes, is this to be based on improving quality of life?

Katie Thorn - This is still to be determined as the guidance is still in the discovery stage and we don't want to dictate what providers want. However, we envision that this will be focused on outcomes rather than on system benefits or cost savings.

Please could you share the weblink regarding PBS?

<https://www.bild.org.uk/positive-behaviour-support-pbs/>

Do you have any specific sensors to detect seizures?

Amy Lewis - The short answer is yes, we have a range of sensors that can support seizure detection. When looking at sensors for seizure detection, it is important to consider the presentation of the seizure before, during and after. This then opens up options of multiple sensors such as (traditional epilepsy sensors, fluidity and even sound / motion) to achieve the intended goal; from alerting to the event itself but also to better understand someone's seizure events to improve their outcomes moving forward.

How are you evidencing cost saving or avoidance?

Mark Douglas - For 'The Willows', the £479k per annum saving figure quoted is a cashable saving, i.e. the care packages for the individuals at the service have been reduced by that amount since they first moved in. This is a net saving figure, so the cost of providing the Just Roaming system has been deducted from the overall saving figure.

What is your view on health based tech such as Telehealth which seems to be really intrusive requiring robust governance?

Amy Lewis - Our view when setting up technology is that the assessment and review processes will be about finding the least restrictive option. So, from our perspective, and I'm sure Anne, Mark and Katie will agree if what you're suggesting in terms of introducing technology is more restrictive for a person, then it's not suitable for them. So in very broad terms, that's probably the attitude and viewpoint on it.

Mark Douglas - Risk management is a tricky area. We think sometimes it's an objective process. However a huge amount of subjectivity is applied to risk assessments. But if you hold 'what's least restrictive' at the core of that assessment, then you're likely to be heading in the right direction.

Do you use any tech for falls detection within the bungalows? If so what do you use?

Amy Lewis - Just Roaming can incorporate a wide variety of fall detection equipment. Within 'The Willows', there is currently one person at risk of falling. For this individual, we trialled different wearable fall sensors. However, they expressed that they did not like wearing them. So, the Just Roaming team worked with them and their support staff to understand where they would be most at risk from falls. It's about understanding the route cause and working to proactively alert to potential risks. A passive solution was found whereby if they are out of bed for more than 10 minutes, a staff member is alerted to support them, minimising their risk of a fall.

Did you fund the Just Roaming adaptations from S117 funding, NHS capital or through Lifeways getting grants?

Anne Tebbs - The build itself was funded by NHS England capital. The County

Council put in a small amount of capital, and the housing provider put in some capital as well. Nottinghamshire County Council fund the technology that goes into the site due to the improvements to life and ongoing efficiencies that it creates.

Are the peripherals such as the enuresis mat and bed sensors linked to Just Roaming or a separate system/pager?

Amy Lewis - Just Roaming integrates third-party sensors to bring all equipment under one handset and management dashboard. Just Roaming will support the testing and maintenance of third-party devices incorporated into the system. It is a whole service package, not individual TEC.

Were there any particular challenges around implementing the TEC? What was the most difficult part/adjustment?

Mark Douglas - I think the most difficult challenge was getting other professionals to accept that it was worth trying TEC solutions which provided opportunities for less restrictive practice. As mentioned by colleagues on the webinar getting fellow professionals to accept that using less intrusive TEC supported methods other than CCTV or continual 1:1 to monitor and manage risks was a particular challenge. Credit to Nottinghamshire County Council staff and managers at 'The Willows' for strongly advocating that CCTV was not proportionate.

Anne Tebbs - Some of the tenants took a while to come round to the idea of using TEC but when we were able to show how this would improve quality of life outcomes and help them achieve their goals then they were up for trying it.

Any potential to use the tech in 'The Willows' for care at home? I feel like it will be a fundamental change of how home care is planned.

Amy Lewis - I think this particular model of housing is most suitable for it. Because we're using a person's individual situation and their data to understand their patterns. So it's much easier to do that in a single occupancy dwelling, but there are other applications because the TEC package is designed around individual needs, we do support individuals in the community to live more independently.

Anne Tebbs - I do believe we need to commission support to maximise people's day-time opportunities and maximise their quality of life.

How do you manage with multiple occupants?

Amy Lewis - Just Roaming is designed to support people across multiple tenancies. The system triages support requirements to multiple Support workers. Carers can also use the application to communicate and coordinate responses. All responses are recorded in a management dashboard so support levels can be continually adjusted to ensure optimum staffing.

Quite rightly a massive emphasis on PBS and for the tech to work alongside it, not in place of it!

Mark Douglas - From a TEC perspective this has been one of the key learnings at 'The Willows'. The opportunities to use technology (especially activity monitoring systems) to better understand behaviours and link this to PBS is an area which I think needs further work.

How do you manage alerts? Do you use an ARC?

Amy Lewis - 'The Willows' we discussed during the webinar is a compact development with the staff hub within walking distance of each bungalow. All responses are managed by onsite staff through the handset. For people with a more dispersed arrangement i.e multiple properties in the community spread across a geographical area Just Roaming can still improve outcomes. In these instances we work with our health and social care partners to understand response times and individual risk and build a service around this. The system design is to alert a local staffing team to respond to targeted needs.

Technology can be so beneficial to support individuals and services. Enabling people to live a life with the least restrictive option.

Mark Douglas - Agree, TEC provides opportunities for less restrictive support, particularly in scenarios where support is provided 'just in case' an event or risk occurs. Being less restrictive is of course something we should be deploying in our health and care practice as a matter of routine, and respects people's right to dignity and autonomy, but the other benefit as highlighted during the webinar is that for some people less intrusive support also has a positive impact on people's behavior. We support people at 'The Willows' and elsewhere where less support has led to much more relaxed, happy, and autonomous individuals, but equally, an example was given on the webinar where no support has increased anxiety.

support for years and it is a massive change to withdraw it. So, plan accordingly and tailor to the person. You may need to gradually withdraw support over a number of weeks or months; and you can use the activity monitoring element of Just Roaming or similar systems, in conjunction with communicating with the person and insight from support staff to help assess and review the impact of gradual change. We also need to think creatively about how support time is used so that people are given a focus and stimulation, rather than someone being there passively 'just in case' something happens.

Who is the housing provider?

Anne Tebbs - Choice Support.

We have a young lady in a hospital setting in an Acute MH hospital ward, due to closure of female on ASD wards, who self harms with ligatures/ head banging and use of anything to ingest or glass etc to self harm 4 to 5 times per day, can Just Roaming be used in a hospital setting to test what can work in the community - as restraint up to 11 staff daily is what we are seeing?

Anne Tebbs - This sounds like a really upsetting situation. In Nottinghamshire we struggled to get hospital settings to adopt different approaches and had to do this work in the community due to hospital policy.

Amy Lewis - Just Roaming can wrap technology around risk factors to enable a move from hospital settings to a community-based model of support such as discussed with 'The Willows'. A temporary system could be used to develop a support plan for the individual.

How do you manage the alerts? Cost? Management?

Anne Tebbs - The Just Roaming system uses a range of sensors that are bespoke to each individual. These sensors send alerts to staff based onsite and can be acknowledged through a handset. Managers can view how the activity has been responded to through the dashboard. All of the service, dashboard, alerting and hardware is included as one service charge per annum.

Just to clarify on the TEC-specific funding, was that part of the NHSE funding alongside the property or did the support provider factor this into the rate they were asking for to provide support on-site?

Anne Tebbs - This was commissioned separately via TEC contract and not paid to the support provider. This was funded by social care and reclaimed through CHC funding.

Mark Douglas - For 'The Willows', the Just Roaming system was funded from the Council's dedicated budget for TEC.

The question is the introduction of AI as par of tech solutions. I am an advocate for AI but the legalities and ethics of such is still needing much discussion.

Katie Thorn - I agree that there still needs to be a lot of discussion in this space. This is why we're working collaboratively with over 30 organisations on the Oxford Project for the Responsible Use of Generative AI in Social Care. If you are interested in joining us, please do contact us.

There is lots of mention of Risk but I feel this should be about benefits.

Anne Tebbs - Mitigating risks was a key part of supporting people out of hospital but you are right, there are many benefits to people supported in terms of quality of life and building independence.

Mark Douglas - Apologies for the emphasis on risks. This is a reflection of the experience that professionals (and families) tend to focus on risks for individuals when this type of service is being set up, so assumed this will be an area of interest for many of the people on the webinar. I hope we managed to balance this by talking about the benefits for the people living at 'The Willows', but noted for future reference.

Katie Thorn - I agree. I often think of this in the context of falls. We all know that we can prevent all falls easily – you just don't let people get out of bed. But this would have disastrous outcomes for people. Supporting people to live as independently as possible and with dignity will always engender some kind of risk – but the benefits far outweigh this reality.

Can we use the technology to assist people to make their own judgements of risk. Especially where people have experienced total control of their lives?

Anne Tebbs - This is possible and has been used for one of the people we are working with at 'The Willows' who is interested in reducing their support and spending more time unsupported.

Mark Douglas - Unless the person lacks the capacity to engage, then share the information that TEC is gathering so you can work through together about managing risks, understanding behaviours and finding ways to move forward. For some people it will be cathartic to be involved in the process, especially if they have experienced years without control in their lives.

Katie Thorn - This is a truly fascinating question, thank you for asking it. There are several examples of genAI chatbots being developed to support decision making for the care workforce, but I haven't seen anything aimed at individuals. I will keep looking. Please do get in touch with me if you would like a broader discussion on this or to be linked into the Oxford Project on AI in social care.

How are you breaking down fears and barriers with family and carers, this is often prevalent with elderly LD carers?

Anne Tebbs - Families have been very supportive of the approach and understand why the use of TEC is often a safer approach to monitoring wellbeing.

Katie Thorn - I think a really vital part of this is including family and carers in the decision making process (where possible) around the technology you purchase. This helps with buy in as they have ownership from the beginning and often become the biggest advocates for the technology.

Could technology be funded through individual care packages?

Amy Lewis - Yes, the technology can be funded through individual care packages. We have also seen it funded through housing benefits and the Disabled Facilities Grants. If you are looking to implement a Just Roaming service, our team can discuss funding options and even provide supporting information for your applications.

How easy is it to connect other devices to it? Linked smoke detectors from other technology providers or perhaps an existing door lock?

Amy Lewis - Extremely easy; as part of our baseline assessment and site survey, we look at existing pieces of technology and work with you to understand what is beneficial and what can be improved. We then discuss how these technologies can be linked together to bring them under one handset and dashboard. We become the central point of contact in supplying and managing all of the technology.

We use Just Checking and like it a lot due to the human analysis. We've not had a great experience with AI on a recent pilot with an activity monitoring company. Not sure if the accuracy of AI is quite there?

Mark Douglas - Different people and organisations use the term AI to mean different things. Algorithms (which may be considered as 'AI') can be useful to show basic deviations from a person's 'normal' pattern of behavior, which may be helpful if you are using activity monitoring systems on a long-term basis to monitor people and pick up on early signs of decline. For example, identifying that a person is not up and about by a certain time, is visiting the toilet more or less frequently, is not moving around the house as much, or is not using the kitchen or appliances as often. However, some systems on the market use quite limited sources of data to make that analysis, so I agree these systems need to be approached with some caution. There are quite a few 'activity monitoring' systems on the market at varying price points, so I would recommend taking the time to assess whether the range of sensors used by different systems provides sufficient activity data to inform their 'AI' analysis before committing. It's also important to see how this compares against a human analysis of the system's data. For example, if you have a system that only uses a sensor on the front door of a property, but the person also uses the back and side doors to exit, any 'AI' analysis of when the person leaves their home will be flawed. Similarly, if a person uses a main house toilet during the day and an ensuite toilet at night, but the system only has one sensor to monitor toilet use, it is unlikely to perform well in an 'AI' analysis of toileting behavior. The computing world sums this up well in the phrase, 'garbage in, garbage out.'

Katie Thorn - AI is developing rapidly and gaining in accuracy all of the time but yes, there is still some way to go. I can't speak in specific to the technology you piloted, but it's still quite variable as there is little regulation in this space yet.

How do you effectively bring together stakeholders in order to deliver a unified approach to Tech?

Amy Lewis - A lot of the work we do is about winning hearts and minds and having a common purpose. From there it is much easier to bring everyone together and move in the same direction. It's about understanding early on who needs to be involved, at what level and why. The level of change you are trying to implement will also dictate this somewhat. However Just Roaming's project team work with you to identify those stakeholders, bring them together and form a communication plan so everything is transparent and we are working towards shared goals.

Implementing innovative models of technology enabled lives and care often comes across obstacles such as rigid procurement rules and lack of long-term funding. What solutions can be shared from cross-sector innovators?

Amy Lewis - As Mark said everyone is looking for the win-win. It is certainly more challenging when the people-benefits are clear and the cost-benefit is not. Fortunately, in the case of 'The Willows', both were clear and we could evidence that through objective data. However, there are situations when building better models of care and improving lives through tech that one budget may benefit from change where another has foot the bill, but this can't stop this work where we can see obvious benefits to the person. It will take some negotiation - fundamentally, it is about people having conversations with one another and building relationships - worrying less about divides and trying to make it work, despite the challenges - which is easier with solid, people-focused relationships. Making sure we spend time working on those always helps us get where we need to be.

How sustainable is the model, can you scale up?

Amy Lewis - The technology in theory can support an unlimited number of people anywhere in the UK. The limiting factor would be the required response time and where you can position staff to achieve this. For example at 'The Willows' there are a number of significant needs that require a prompt response within minutes. The technology alerts staff to the support need instantly, so staff must be in a place to react and reach the bungalow within the required time. We do support a number of people with Just Roaming in community-based clusters, responding to support needs as they arise. Each situation needs a robust assessment process to evidence need and test the change based on individual risk and support needs.