Digital rehabilitation report

Commissioned by Eastern AHSN

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Overview and methodology

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Introduction and aims

This report summarises the findings of this study conducted into the delivery of digital rehabilitation services. Many healthcare services were forced to move online due to the covid-19 pandemic, causing a huge shift in the way that rehabilitation is delivered and received. It was therefore particularly important to understand whether this shift to digital rehabilitation is leaving some service users behind, and further accelerating or exacerbating health inequalities.

The two key aims of the project were to:

- Investigate digital rehabilitation programmes both in acute and community settings within the East of England region to provide a snapshot of current context and consider the impact of these on inequalities
- Develop quality improvement recommendations that could be applied in different rehabilitation settings to break down barriers to access digital rehabilitation

This report collates key themes across some case studies and 'real life' service user scenarios. It also looks at any quality improvement recommendations that may be relevant to the study.

This project focused on rehabilitation services being provided across the six East of England ICSs:

- Bedfordshire, Luton and Milton Keynes
- Norfolk and Waveney
- Hertfordshire and West Essex
- Suffolk and North East Essex
- Cambridgeshire and Peterborough
- Mid and South Essex

Methodology

Interviews were conducted with 20 service users and 10 practitioners to explore their experiences of delivering and receiving digital rehabilitation services. Interviews were conducted virtually, via Zoom or Microsoft Teams, and lasted around 45 minutes.

This data was summarised into key themes and a set of six practitioner case studies detailing what digital rehabilitation services were offered. We also produced five service user scenarios to accompany the case studies, which explored the experience of a service user in relation to each case study. The experiences of practitioner and service user were then compared to determine any similarities or differences.

Case study	Practice area
1	Neurological rehabilitation
2	Respiratory rehabilitation
3	Musculoskeletal rehabilitation
4	Cardiac rehabilitation
5	Music therapy
6	Pelvic health

Challenges in recruiting participants

A significant challenge for the project was to make contact with and recruit a participant cohort who had had experiences of rehabilitation services, specifically people affected by health inequalities.

Initially, we tried via local Healthwatch based across the area with limited success. Then we researched and reached out through voluntary, community and social enterprise (VCSE) organisations, but again were unsuccessful as it would have taken to long for them to recruit interview participants. Finally, a recruitment agency was paid to source interviewees, and this enabled us to proceed at pace in line with the project timeline. Incentives were used to encourage participation.

Recommendations for future recruitment:

- To recruit via digital rehabilitation service providers across the area in the first instance
- Establish whether local Healthwatch and the VCSE are in touch with significant proportions of the participant cohort
- Given them longer lead in times and incentivise organizations to support recruitment
- If this is not possible, approach a recruitment agency from the outset

Findings

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Barriers and enablers

Barriers

- **Familiarity** with digital tools can have a significant impact on the quality and success of care.
- It was also a learning curve for practitioners to have to **adapt** to deliver services digitally.
- Access to **hardware** and **good internet connection** can be a barrier for service users.
- service users may lack a quiet and **private place** to take virtual appointments.
- **Expectations** from service user populations about how their care should be delivered can affect their perception of digital services.

Enablers

- Some practitioners took steps to provide **hardware** or **training in software** used to enable service users to engage.
- Digital rehabilitation services provide an option for treatment for those who **may not be able to attend appointments in person**, for example due to shielding from covid or anxiety.
- Many practitioners described employing a **hybrid** model, returning back to face-to-face appointments where appropriate.

Service user assessment and health inequalities

Service user assessment

- There was **inconsistency amongst services in terms of assessing needs** associated with health inequalities.
- It may be **helpful to create a standardised process for assessing service users** against criteria of disadvantage.
- However, this would need to account for the variety of referral pathways that exist for service users to enter services.

Reducing health inequalities

- Practitioners provided **access to technology and training** to address health inequalities where they could.
- However, there was **no consistency in how requests for technology were made or how**, given limited resources, tools were allocated to service users.
- The importance of providing these tools varied by setting and intervention.

Flexibility

Practitioners felt that the main benefit of digital services is that they provide increased **flexibility**:

- service users are able to fit them around busy schedules more easily, including not needing to travel.
- service users who may not be able to have face to face care (shielding because of covid, those with severe anxiety) are **able to still be seen.**
- Practitioners are able to see more service users in a shorter timeframe.
- Seeing more service users can **reduce waiting lists**, which is particularly helpful for service users who have a time window within which they need to be seen in e.g. during pregnancy.

Both practitioners and service users raised concerns about digital rehabilitation being a straight replacement for face-to-face services.

Practitioners felt that the ideal use is a flexible system where there is **a place for both face to face and digital care** depending on context and service user needs.

"I didn't get as much out of digital sessions as I do face-to-face because my problems are so physical. The support was brilliant online (osteopath) but I went downhill physically and suffered a lot." – service user

Communication

Service users

- Many service users discussed how it is harder to **build rapport** with clinicians virtually and how digital services can feel **isolating**.
- There is also a potential clinical risk due to the practitioner not being able to necessarily see whether service users are doing their exercises properly remotely.
- Some service users were unhappy with the **coordination** between services. They described inadequate communication between services and lots of bureaucracy.

Practitioners

- Practitioners also felt it is much harder to **build rapport** and a bigger picture of a **service user's needs** and context remotely.
- Some also described the difficulty of trying to **see service users** properly via video call to assess them.
- For some practices, such as music therapy, there were **limitations in the digital experience**. Practitioners described how it was more difficult, for example, to work collaboratively because they were unable to hear what others were doing as you would in person.

"The coordination that was there, I had to do myself" - service user

Customisation

The degree of customisation across digital rehabilitation services varied. Most practitioners described taking a **hybrid approach** since pandemic restrictions lifted, offering digital services to those who they suit but also ensuring that service users can be seen face-to-face where this is necessary for their needs. In this way, many services were **led by the needs of the individual**.

Some practitioners also detailed how their sessions were customised around the needs of the service user and **what they wanted to gain** from sessions. This was especially true for individual services where practitioners were able to work one-to-one with service users.

Some practitioners described specific customisations available in terms of the digital tools they were using, including:

- Access to online **translation tools** to support service users whose first language is not English.
- Designing a pelvic health referral platform as an **agnostic web app** to ensure as much cross platform functionality as possible for users.

"In terms of music therapy everything is customised because it's all service user led." – practitioner

Coordination between services

Many service users were unhappy with coordination between services for various reasons, including:

- Lack of information sharing between services.
- Lack of communication from services.

Some had positive experiences of one service, but negative experiences of another.

"I never think there is [good coordination] with the NHS because there's no communication and I don't understand why that's so difficult. Might end up going through services again due to poor signposting, or things get miscommunicated and then people don't get service they need. "

Support system

Practitioners

Digital rehabilitation in some cases offered more opportunities for service users' family and wider support network to be involved. For example:

- Family living **geographically far away** from service users in treatment could be more involved via calls.
- A service users' sessions being **recorded** for their family to watch, allowing them to alleviate worries they had.

Many practitioners, particularly those in the NHS were able to refer service users to additional services were appropriate, including community groups or charities.

Service users

Some service users felt 'left behind' by the services, or that support was lacking for them.

- Some service users were **not able to have family or support present** during their digital sessions and would have preferred to have support there.
- service users had **mixed experiences accessing mental health support.** Whilst it was an important support for one, another did not feel comfortable discussing their feelings with people they did not know.

"In therapy, allowing another person in the meeting (like my husband) would be useful." - service user

What works

- Digital sessions mean that practitioners can see a **higher volume of service users** within a **shorter timeframe** which can help address long waiting lists.
- For service users, digital sessions can be **convenient** because they do not need to travel and can fit them around their daily schedule more easily. This is also good for service users who may suffer from fatigue, anxiety, or those at higher risk from covid.
- Where service users have the technology and are able to use it, services can be easy to access. In particular, **younger digitally literate service users with busy schedules** were noted as people who may benefit most from digital services.
- Many practitioners detailed **positive feedback from service users** and were able to evidence **positive clinical outcomes** from providing digital rehabilitation services.

"Zoom, for therapy appointments, which I prefer because I'm in my own home. Don't have to travel, it's a lot to do that. At home I can sit in my pyjamas. Timings are better as I don't worry about missing a bus or being late, just have to turn on laptop." – service user

What doesn't work

- Service users may lack a **quiet and private place** to take meetings.
- Many service users described having **little/no control** over the nature and timing of their appointments.
- Service users may need **extra support** to participate in digital care. For example, a service user needed to get family members to take pictures of their back as requested by the practitioner.
- Both service users and practitioners discussed at length how **communication** digitally is more difficult. It is harder to build a rapport with each other and can mean that it is more difficult to get support around things like correct positions for exercises, when it is harder for the practitioner to see service users and gain a full picture of their situation.

"The default always seems to be remote or telephone type appointment. I don't think that helps (my experience and partner's experience). You just end up delaying the inevitable of seeing someone in person, or having to go privately."
service user

Quality improvement recommendations

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Quality improvement recommendations: Needs assessments and tailored support plans

- **Developing an assessment tool** offering **hybrid models of rehab delivery** depending on a series of factors including condition, service user location, service user occupation and lifestyle, barriers to digital access, ensuring space is created for consultation of service user rehabilitation preferences for personalised care plans.
- **Developing personas to facilitate identification of support needs** across service user characteristics (e.g. ethnicity, age, level of digital literacy). Collaboration with the Race & Health observatory can support this initiative.
- **Designing training on the use of the assessment tool** to ensure it supports decision making without hindering independent clinical assessment and the development of tailored rehabilitation offers.
- **Introducing a process for standardising the use of the assessment tool** while **tailoring it to different rehabilitation provisions** and settings.
- **Co-designing a range of rehab offers**, whereby service users with complex needs have the ability to access different levels of both face-to-face care and digital care.
- **Co-producing digital options with service users, IT practitioners and clinicians** to ensure targeted approaches are developed and implemented. This could include noting on service user records what their communication preferences are and how digital tools can be adapted to meet need.

Quality improvement recommendations: Coordination of care

- **Introducing protocols to ensure effective and timely information sharing** across services to reduce duplication and enhance collaboration. This will be facilitated by the shared care record for ICSs.
- **Standardising when service user information should be shared with other practitioners involved in the care plan**: key milestones in the rehabilitation pathway requiring enhanced support should be identified. This will bring consistency to the way (both intensity and frequency) rehabilitation practitioners in different services are expected to collaborate.
- **Considering how standardised information sharing should be balanced with protecting sensitive service user data** where necessary.
- **Introducing further training for clinicians to ensure they are aware of care pathways** and the range of local services available to their service users. This would bring more consistency to how service users enter systems and are signposted.
- **Exploring how technology can facilitate more effective cross-team collaboration**. Identifying a set of suitable digital solutions for joint rehab sessions to be delivered across teams.
- **Creating a single point of access to services**, with one designated practitioner coordinating shared support plans when different specialists are involved.

Future aspirations and support needs

- **Introducing mechanisms to share best practice** on what has already been done in the digital rehabilitation space, including what services are serving service users well and what can be learnt from them.
- **Introducing a new job role regionally/nationally that could support research and dissemination** of good practice for the development of good practice. This would support clinicians who have limited capacity.
- Offering **comprehensive clinical training on digital delivery**.
- Offering **organisational development support** to embed co-production at an organisational level to encourage ongoing improvement of clinical practice.
- Encouraging **outcome-based conversations, driving quality improvement** initiatives informed by rigorous **evaluation methodologies**
- Capturing **data about how service users are or are not using digital services** to inform future provision.

Conclusion

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Conclusion

Both service users and practitioners acknowledged that there are benefits to digital rehabilitation services, mainly centred around flexibility, convenience and the potential to reduce waiting lists. Many practitioners described having received positive feedback about these services, and some were able to evidence improved clinical outcomes for their service users.

However, many service users interviewed had negative experiences of digital services. Many practitioners and service users felt that face to face rehabilitation was preferable for particular cases, such as physical examinations.

Overall, it seems that there are instances where digital rehabilitation can be effective and may suit the needs of particular service users. The consensus from service users and practitioners interviewed was that there is a place for digital services, but they should be used to supplement face-to-face care where appropriate, and not as a replacement for in person appointments.

It is only through effective need assessment processes, tailored rehabilitation offers and effective coordination across services that digital rehabilitation can generate positive outcomes. Hence, we have formulated a series of quality improvement recommendations that are designed to bring consistency to the way and the extent to which health inequalities and barriers to digital engagement are considered at the beginning of service users' rehabilitation journey.

The development of an assessment tool and personas to facilitate identification of support needs, the co-development of a suite of rehab pathways offering different levels of face-to-face and digital care as well as the standardisation of practices around cross-service collaboration could be facilitated by the creation of an overarching operational framework considering how these initiatives would be best introduced in the context of specific provisions.

It has emerged from our study that there are important considerations that are specific to the condition treated (e.g. neurological vs. respiratory), setting (e.g. inpatient user vs. outpatient user), and/or specialism (e.g. speech and language therapy vs. physiotherapy). An overarching operational framework would guide practitioners through implementation by considering how these differences may affect assessment needs and rehabilitation approaches.

Further investment in research-driven activities and quality improvement, organisational development support, and evaluation would facilitate the development of the operational framework and implementation of the initiatives mentioned above. In turn, this would lead to an enhanced focus on co-development of new solutions with service users, ongoing testing and refinement of innovations and sharing of good practice for continuous learning and improvement.

Appendix- Case studies and patient scenarios

Case studies structure

This section contains six case studies. Four of which present two services with a common characteristic (e.g. condition, setting, rehabilitation speciality, digital platform).

For each case study, we first give context on the services (who they target, how they are delivered) and we then present key insights that have emerged from our interviews with practitioners of these services, exploring the main themes covered in this report.

All but 1 case study has been matched with a 'real life' service user scenario, which describes the experience of a service user who accessed a similar service. The scenarios highlights strengths and weaknesses of digital rehabilitation from the service user perspective.

(Please note that for case study 5, we were unable to interview a service user with experience of music therapy. Therefore, we selected a service user who spoke about two elements that are highlighted in the case study by practitioners; the importance of having relatives join sessions and the difficulty that arises for some service users when there are too many voices on the call.)

Each paired case study and scenario includes a table which summarises key similarities and differences, comparing the practitioner and service user perspective.

Case Study 1: Neurological rehabilitation

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Service background

Service name	University of Essex	Askham Village Community
Integrated Care System	Suffolk and North-east Essex	Cambridgeshire and Peterborough
Service	Neurological rehabilitation	Neurological rehabilitation
Conditions seen	Neurological conditions	Neurological conditions
Services offered	Virtual neuro rehab clinic that provides: • Virtual Learning Platform co-creating resources (students and service users) • Rehabilitation • Aphasia café • Opportunities for service users to share their stories and for students to gain experience • Professional skills training for students	Sessions via Microsoft Teams focussed on: • Speech and language therapy sessions • Occasional physiotherapy sessions
Digital tools used	• Goal Manager - software for service users to track progress • Zoom • Moodle as a VLE (Virtual Learning Environment) used at universities	• Microsoft Teams Video conferencing focussing on Speech and Language sessions • Accurx: a digital platform which sends out text messages to service users to set up video consultations, share clinical documentation and surveys, request photos and more
Referral system	Mainly through Headway, a national charity through Facebook	Through the local hospital, self-referral or a private case manager

Key themes

Barriers and enablers

Time, cost, and resources: both case study sites acknowledged digital tools had allowed far more service users to be seen in a shorter amount of time with the effect of reducing waiting lists.

Access and Inclusion: both sites were also clear about the inclusive potential of digital rehabilitation.

The impact of health inequalities on service access: the experience contributed to students' training at the **University of Essex** and actively improved service user health outcomes. The reduced waiting list times meant resources were able to reach further creating capacity for people who would not normally access services locally, thus filling an unmet need gap.

For **Askham,** the main barrier to navigate was access. These tools allowed families from all over the UK to participate with varying levels of digital literacy. While access was challenging at times, digital tools added a much-needed dimension to communication.

Customisation

The University of Essex played a key role in customising its rehabilitation offer by incorporating teaching into its clinical role. This function was extended to service users so they could learn about their condition in more detail and track their own progress. The University also customised its referral process allowing service users to self-refer directly to the service via Facebook.

Askham spent considerable effort adapting their practice and shaping their tools to meet need. Speech therapy done online proved difficult as the platform could make voice sound monotone.

Since sessions involved speech therapy, using the mouth in speech and therapy sessions could be more difficult since the platform could make every voice monotone and audio transcriptions were not always accurate. Numerous instances of false readings were identified, which was solved by expanding neurological rehab sessions to include exercises for visual / spatial work.

Support system

Digital tools allowed families and service users' wider support structure to become part of the conversation, making the inpatient experience easier and the transition to out-service user services smoother. Through digital rehabilitation the service user's network (family and friends and not just primary carer) were more easily incorporated into their rehabilitation journey. The University observed that this was "strongly beneficial to the transition back to the community".

What works

Both sites were clear about the time and cost benefits of using digital tools in reaching more of the community; in reducing waiting times and providing real benefits to service users, reducing their travelling time and costs. This is significant especially for the most disadvantaged.

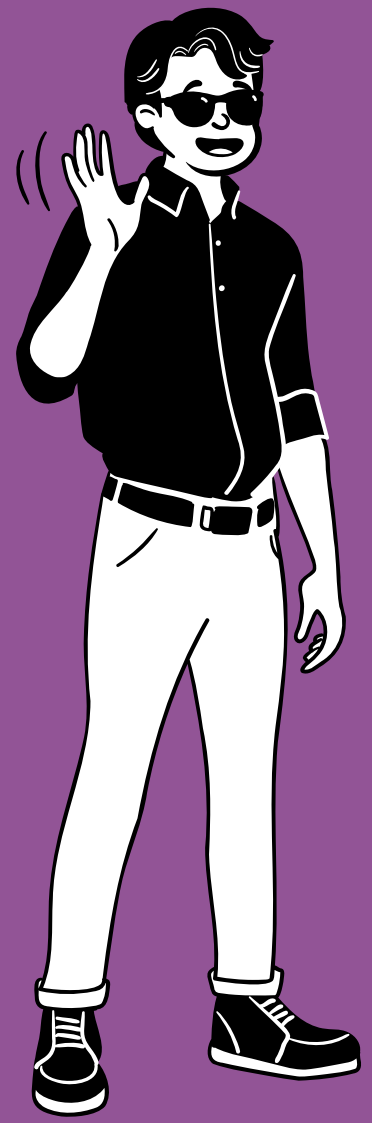
"Waiting lists are vast so it speeds up number of people you can see because it takes away travelling. We would want to support more people."

What doesn't work

Trust and rapport: Both sites spoke about service users' experience being compromised to some extent. It was harder to build a solid doctor-service user relationship despite how familiar these tools had become during the pandemic.

Clinical effects: In some instances, digital rehabilitation also made clinical treatment more difficult for both service users and clinicians by creating space for miscommunication.

"Not all service users can make the link between a 2D image on the screen and the person [and you] can never tell how things are received because of [things like] tech delays. "



Service user scenario

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Service user background

Service user background

The service user is a man in his mid 40s living in Basildon with his family. He suffered a stroke in April 2021 which has had an immense impact on his life. As well as needing his wife to become a carer, his home had to be adapted following an assessment from an occupational therapist. He has been given a wheelchair as he has mobility issues.

The clinical context

The service user suffered a bleed in the brain which meant he was in hospital for 5 weeks. His hospitalisation was complicated by lockdown.

Access to digital rehabilitation

The service user's experience of digital rehabilitation was online physiotherapy sessions: video calls to his consultant neurologist and conversations with his specialist nurse.

Service accessed & Pathway

Occupational therapy and physical therapy under the neurological pathway.

Use of technology

Zoom and video conferencing.

Ease of use

The service user found using the technology straightforward and this was made easier by his family's involvement in critical junctions throughout his treatment. For example, when his carer could not be there for an MRI scan, the session was recorded for the rest of family to see and discuss at a later date. Although he initially had a few challenges using the technology, his young daughters were quickly able to bring him up to speed.

Service user scenario

Barriers and enablers

The service user's care required a great deal of co-ordination between inservice user and out-service user teams. The care team included physical therapists, neurologists as well as occupational therapists as the service user's home had to be adapted. His care was made possible by a range of digital tools and communication platforms during lockdown.

Customisation

An incredibly important aspect of the service user's rehabilitation journey was the ability to access care without having to arrange physically tiring and expensive transport to the hospital. A huge frustration for him was appointments "when there was no real reason to be there [since they were] a waste of time and energy". This was particularly important as his stroke had caused tiredness and fatigue. His carer noted: "when he came home, he had to go to sleep for 3-4 hours. [It] wasn't fair to put him through that". In addition, because his condition didn't allow him to drive, transport to the nearest hospital cost upwards of £150. Choosing the 'right hospital' without having to arrange transport was truly important to the service user and his family. Accessing online rehabilitation also allowed the service user to record his clinical interaction and advocate for a different level of care when he was dissatisfied with the service.

Support systems

Digital tools played an important role in allowing the service user to involve his wider support network and in facilitating his integration back into normal family life. Clinical sessions were recorded for his children to watch, which helped them manage their anxiety around their dad's condition. The family offered great support by compiling a journal that included photos to map progress, which was hugely beneficial psychologically.

What works

There were clear clinical benefits to using digital tools for this service user. Typically, clinical session had his neurologist, physiotherapist and a specialist nurse in the same virtual room whilst he and his carer were at home together. It meant that co-ordination was easy and was of real benefit to the service user since he would normally have had to see each specialist individually.

What doesn't work

Very little. Aside from some issues over bureaucracy (specifically arranging a sicknote for work) both the service user and his carer were very happy with the care received.

Comparison

Theme	Practitioners	Service user
Barriers and enablers	Both practitioners were clear about the cost benefits of using digital technology. The convenience and ease allowed more service users to be seen across a wider geographical area.	For the service user, technology was a clear enabler allowing him and his family to research into the type and quality of care they wanted.
Customisation	Both study sites also customised their practice to a more service user-centred approach making it easier to bring in other voices (e.g. students and/or Headway)	The service user was able to customise his care by ensuring the relevant clinicians were in the same room for one of their digital sessions; meaning they had one session instead of 3 making the process much more convenient for him and his family.
Support system	Both sites were quick to realise the potential of the technologies to include the service user's family and their wider support system (such as Headway, the brain injury association charity).	The technology was incredibly useful for creating space for his family and support system to be fully engaged at certain critical points. They even made photos of scans for a journal his young daughter was making documenting his recovery.
What works	• The time, cost and resource benefits were obvious for practitioners. More service users could be seen at speed reducing waiting times. • The shift to digital sessions had also prompted some innovation both in clinical practice and in referrals.	• The service user found the digital service to be of great use. His condition meant he had to negotiate becoming easily fatigued. Digital sessions made this much easier to deal with. • Travelling to hospital was expensive and time consuming for this service user. Not having to travel removed a considerable source of anxiety. • Overall, the service user and his family were extremely happy with the service they received.
What doesn't work	• Both practitioners were clear that 'something was lost' in terms of rapport and relationship building with service users if digital tools were used exclusively. • The shift to digital communication did create more space for miscommunication and clinical errors – particularly in the way digital platforms 'flattened' the voice to a monotone in speech therapy.	• The service user was made anxious by some bureaucratic lapses that in his mind could have been avoided by the proper use of the technology.

Case study 2: Respiratory rehabilitation

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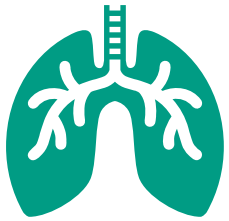
Service background



Service name	West Herts Community Respiratory Service	Ipswich hospital
Integrated Care System	Herts and West Essex	Suffolk and North East Essex
Service	Community respiratory	Respiratory physio
Conditions seen	Respiratory, pulmonary	Respiratory, long covid
Services offered	Digital pulmonary rehabilitation course – group sessions via video call, including welcome pack via post	Virtual group consultations on for service users with long covid
Digital tools used	Blue Jeans/Teams	Telephone, Attend Anywhere, Teams, Living With app
Referral system	Screening tool to determine which model of care service users received. service users stratified based on the severity of their symptoms.	Referred by long covid service, GP or consultant.

Key themes

Barriers and enablers

One of the key barriers to accessing treatment was suitability of technology. One practitioner explained that the functionality on the Blue Jeans platform was more appropriate than Teams for clinical settings. This included the muting function being better for moderators and people's pictures staying stationary on the screen.

West Herts Community Respiratory Service audited the local population to determine what was required from the service. There was an assumption that many of their service users were elderly and would not want to use digital services. However, the audit found that over 50% were happy to engage with a digital model. Due to concerns around covid and shielding, providing services digitally was an enabler to these service users receiving care.

Customisation

There was little customisation of these services. Virtual programmes were not always suitable for service users with more complex needs. However, both services offered alternative care for these clinical cases.

Support systems

Support workers at the West Herts Community Respiratory Service provided training in the Blue Jeans platform as well as a virtual assessment.

Both services were able to refer to other services such as mental health, dietetics, palliative care, speech and language etc. Long covid service users were also referred to local groups where appropriate.

"Most services in the NHS are not standalone – they're always well networked and staff are too. People are doing holistic assessments and if there's something identified then people are signposted to the appropriate service."

What works

Digital sessions reached those who may not be able to attend in-person, such as those with caring responsibilities or with lack of access to transport. They are also more flexible and able to accommodate busy schedules, enabling increased accessibility. Digital rehab conducted online in group setting was conducive to meeting other service users and learning from their experiences, leading to service users feeling less alone. The first review of the digital pulmonary rehabilitation service under the National Asthma and COPD Audit Programme found that clinical outcomes were comparable to those obtained through face-to-face care. Both services received positive feedback from service users on their experiences.

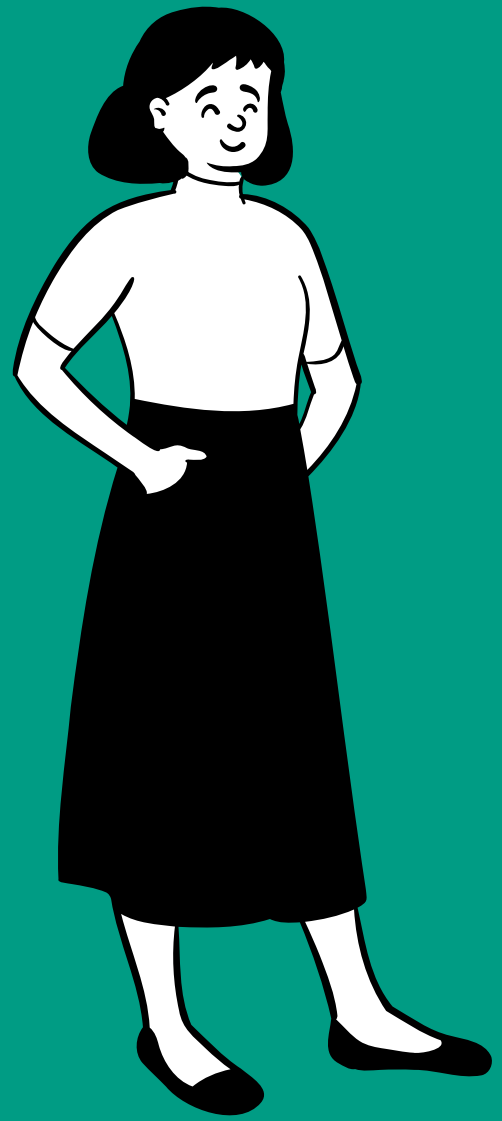
What doesn't work

Practitioners highlighted the difficulty they found building rapport as effectively with service users online.

"The downside obviously is that sometimes you don't necessarily build a rapport that's as strong, sometimes you don't get to see the full picture of how things are at home – you pick up a lot of unconscious info going into people's homes which can be important so may miss that virtually" practitioner, West Herts Community Respiratory service

Examination style care is more difficult to conduct digitally. It may be easier to guide service users with breathing difficulties face-to-face as digital settings rely on good camera angles which is not always a guarantee. If the service user's digital skills are lacking, it may be more difficult to determine their progress.

"There are some things in therapy that you really need to get your hands on and see – that's your limitation from a digital appointment, you're never going to be able to do that. It's not going to compare to being able to assess someone's muscle strength or tone in person." Practitioner, Ipswich hospital



Service user scenario

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Service user background

Service user background

This scenario is centred around a service user who developed a respiratory condition following surgery.

The clinical context

This service user has a respiratory/breathing condition - long covid / pain or disability following surgery. They had wrist surgery.

Access to digital rehabilitation

This service user was initially referred through their GP to a long covid clinic locally. They received an online assessment and were offered support through phone calls. Care was supposed to shift to face-to-face appointments, but this never happened. The service user had all appointments digitally or over the phone.

Service accessed & Pathway

Osteopath services. Initially, once a fortnight with an osteopath, then once a month and then every 6 weeks.

Use of technology

Telephone and video appointments.

Ease of use

The service user found it difficult to get a lot out of the sessions: “I didn’t get as much out of them as I do face to face because my problems are so physical. The support was brilliant online (osteopath) but I went downhill physically and suffered a lot. "

The service user also has memory problems and felt that nothing was done by the service provider to address this.

Service user scenario

Barriers and enablers

The service user felt that service coordination was inconsistent. The osteopath service was satisfactory while the long COVID support tailed off.

Customisation

The service user strongly disliked the service, feeling one part of it was generic and 'pointless' as their problem areas were not addressed in the sessions.

The service user suggested phone calls should not be used for treatment as it takes away the ability of the clinician to relate to the service user.

Support systems

The service user could not access this service through the portal.

The service user was supported by their family, but they wished they had more professional support.

"Checking in via video, not just a phone call. It's not personal, it's not helpful to try and understand someone's physical and mental health problems when you're on the end of a phone. Seeing someone can make such a difference. Making sure that they didn't leave anyone behind, with the long covid stuff I feel like I've totally dropped off the radar, I don't even know how to really get in touch with them. "

What works

The service user was emailed exercises a few days before their session to practice and then the content was covered in the session with demonstration from the physio.

What doesn't work

The service user has memory problems and felt that nothing was done by the service provider to address this.

The service user felt that they did not get a lot, physically, out of the online appointments:

"For me personally, no. I didn't get as much out of them as I do face-to-face because my problems are so physical. The support was brilliant online (osteopath) but I went downhill physically and suffered a lot."

Comparison

Theme	Practitioners	Service user
Barriers and enablers	Access to hardware and reliable internet was a barrier identified by practitioners.	The service user did not experience difficulties with hardware or reliable internet. The service user did have trouble accessing the online portal.
Customisation	Practitioners noted that there was not much customisation of these services, and that virtual programmes may not be suitable for all service users.	The service user feels that online appointments have limited use. They experienced good support, but had poor physical health outcomes as a result of the lack of face-to-face appointments, which they felt would have better adapted to their individual needs.
Support system	Practitioners felt that there are a wide range of holistic support services available.	In reality, the service user felt that they had good support from their family. However, they felt 'left behind' by services, in particular for long-covid. They felt that the phone support was not sufficient.
What works	• Digital sessions reach those who may not be able to attend in-person sessions, e.g. those with caring responsibilities or with lack of access to transport. Can also fit around busy schedules. • Group settings are useful for peer learning and decreasing loneliness. • For pulmonary rehabilitation service, clinical outcomes were comparable to those from face to face.	• The service user was able to access exercises before the session, and also found the phone support of the osteopath excellent.
What doesn't work	• Practitioners explained that it can be difficult to build rapport as effectively with service users digitally. • Practitioners also commented that it is difficult to get the full picture of how things are at home – mentioning that they get a lot of information by going into people's homes which can be important so may miss that virtually. • Practitioners noted that examination style care is more difficult to conduct digitally. For service users with breathing difficulties, it may be easier to guide them in face-to-face settings. If the service user's digital skills are lacking, it may be more difficult to determine their progress.	• The service user found that their particular circumstance of having memory problems was not addressed by the service provider. • The service user felt that they did not get a lot, physically, out of the online appointments.

Case study 3: Musculoskeletal rehabilitation

TRAVERSE

Service background & key themes

Service name	GaitSmart
Integrated Care System	Norfolk and Waveney
Service	Orthopaedics
Conditions seen	Musculoskeletal, post-op
Services offered	Trial of GaitSmart tool to improve gait following hip or knee replacement. In-person sessions to fit a brace type device to measure muscle activation and automatically provide series of exercises. 20 participants in study.
Digital tools used	GaitSmart tool
Referral system	Screened service users to take part. They needed to provide consent to do so. Anyone who has been recommended for an operation in the future.

Barriers and enablers
Devices can be delivered to the home and internet connection is not necessary. service users only need somewhere where they can walk six metres. Appointments happen face-to-face so no additional technology is required. Travelling to appointments every three weeks could be a barrier to some, however the aspiration is to be able to deliver this service in community settings which would ultimately remove this barrier.

Customisation
There was no specific customisation for this treatment. It was not used on service users with previous neurological diseases as this would affect the data and these service users need more specific support.

Support systems
Families and carers can be important in encouraging service users to do their exercises and providing support during rehabilitation. As a research project, they did not refer to any mental health or other organisations.

What works well
Data showed improved outcomes for similar demographics for knee replacement service users, and improvements for hip replacement service users too. 100% of participants completed their exercises over the 12-week period, encouraged by the 'gamification' aspect. If able to be delivered in a community setting this could provide more locally accessible care to service users.

What doesn't work
The device is made to fit all shapes, but may be difficult to fit on obese service users. The device works for knees and hips but has not been adapted for the upper body, so there are limitations on its application.

Service user scenario

TRAVERSE

Service user background

Service user background

The service user is a female in her late 20s living with their partner and children. She works part-time as a receptionist.

The clinical context

The service user suffers from mild asthma which got worse during pregnancy. During both pregnancies, she suffered with a bad back that kept her awake at night. She also suffers from anxiety.

Access to digital rehabilitation

The service user was pregnant during the pandemic, and she received remote digital rehab for her back. She had received face to face rehabilitation for the same issue during her first pregnancy.

Service accessed & Pathway

After a face-to-face appointment with the service user's GP, she was referred to a community physiotherapist based at her GP practice. She started online appointments roughly two weeks after her referral.

Use of technology

Appointments were held over Zoom or Teams, with follow-up phone calls and information sent in the post.

Ease of use

The service user found the online sessions easy to access and practical, noting that she is a 'digital native' but that other people might have struggled.

Service user scenario

Barriers and enablers
The service user found access to their rehabilitation straightforward but found the overall experience disappointing compared to the face-to-face appointments she had in the past for the same issue.

Customisation
The service user felt that the rehabilitation offered was too generic and failed to account for her pregnancy. She found it difficult to follow the movements online, and the follow up documentation detailing exercises used stick-figures to illustrate movements she was unable to do. She found it hard to determine whether she was doing the movements correctly, and some of them caused her pain.

'Being pregnant wasn't taken into consideration for some of the movements the physio asked me to do. The diagrams in the instructions were stick figures which didn't factor in my baby bump.'

Support systems
The service user said she did not feel 'supported or encouraged'. She recalls briefly talking to someone about her mental health, but she described feeling abandoned during her pregnancy due to COVID restrictions. She moved back to being close to her mum before the pandemic and mentions that her mum now provides her with support, but that she was unable to visit during COVID.

What works
The service user described the practicalities of being offered an online appointment, which include convenience and flexibility, as 'the only positive[s]'.

What doesn't work
The service user said that it was 'hard work' accessing rehabilitation online, both for herself and for the physio as it lacked the personal interaction which the service user felt was important. She felt that the services she accessed did not coordinate well.

'No not good coordination. Lack of communication and then lack of understanding between each provider… e.g., the midwife questioning GP's decisions and having to wait multiple weeks to get clarity.'

Comparison

Theme	Practitioners	Service user
Barriers and enablers	Devices can be delivered to the home and internet connection is not needed. No additional technology is required. Travelling to appointments every three weeks could be a barrier to some, but it could be offered in a community setting in the future.	The service user found access to her rehabilitation straightforward but found the overall experience disappointing compared to the face-to-face appointments for the same issue.
Customisation	There was no specific customisation for this treatment.	The service user felt the rehabilitation offered was too generic and failed to account for her pregnancy. She found it hard to determine whether she was doing the movements correctly, and some of them caused her pain.
Support system	Families and carers can be important for encouraging service users to do their exercises and providing support during rehabilitation.	The service user said they did not feel 'supported or encouraged'. She described feeling abandoned during her pregnancy due to COVID restrictions. The service user missed family support during the pandemic.
What works	Data showed improved outcomes for similar demographics for knee replacement service users, and improvements seen for hip replacement service users too. service users were encouraged by the gamification aspect.	The service user described the practicalities of being offered an online appointment, which include convenience and flexibility, as 'the only positive[s]'.
What doesn't work	The device is made to fit all shapes, but may be difficult to fit on obese service users. The device works for knees and hips but has not been adapted for upper body, so there are limitations on its application.	The service user said that it was 'hard work' accessing rehabilitation online, both for herself and for the physio as it lacked the personal interaction which the service user felt was important. She felt that the services she accessed were not well coordinated.

Case study 4: Cardiac rehabilitation

TRAVERSE

Service background & key themes

Service name	Royal Papworth Hospital
Integrated Care System	Cambridgeshire and Peterborough
Service	Cardiac Rehabilitation
Conditions seen	Cardiac conditions
Services offered	Outservice user, community, inservice user acute cardiac rehabilitation system that offers on-site and off-site versions of a cardiac rehabilitation programme
Digital tools used	Zoom and phone call but in the process of creating a bespoke communication platform
Referral system	Referrals come from transfer from other hospitals; primary PCI route or elective service users for coronary intervention or referrals for heart failure service user.

Barriers and enablers

Digital adaption through a bespoke digital platform of a well-established cardiac rehab programme was successful with over 90% retention rate.

A key barrier to the existing provision of digital rehabilitation was the lack of a reliable ICT tool. Zoom and other video conferencing platforms were not appropriate because of staffing, legal and procurement issues. Clinically, service users had to undergo an assessment (an incremental shuttle run or a treadmill 6-minute run) before they could be assessed. They had not found it possible to do this in a safe manner remotely.

service users were being given a DVD of appropriate exercises or access to a 'hidden' Youtube link following a clinical assessment. Communication with service users was via telephone.

Customisation

The practitioner was very much aware of the potential benefits of a new app that is being created in collaboration with two neighbouring NHS Trusts. The challenge is to adapt the considerable expertise the existing cardiac rehab programme to the use of the new app: a number of formal and semi-formal resources have been created to address need across a range of service user characteristics, from physical/mental disabilities to any unexpected illness.

"If someone's unwell, you know the nurse is there, but actually it might be the physio that deals with them if they feel comfortable with it, but it might be then the nurse steps in while the exercise person does the exercise and so on"- Practitioner

The new app offers a 'menu-based' approach that presents the service user with a much more customisable experience allowing them to access, for instance, language resources if English was not there first language. It also potentially offers a number of social and clinical benefits.

"So if people financially haven't got a smartphone, haven't got monitoring equipment, they need weighing scales or …where they need to do their blood pressure, they can have that [arranged for them]." – Practitioner

Support systems

The present system had created an adaptable and resilient service that fully integrated clinical needs and existing support structure of service users. The programme had developed a great deal of knowledge of dealing with a range of service users and the challenge was adapting this know-how into the new platform.

"And so and for some people you know it's more now about listening to what the needs of the service users are rather than being structured and [focussed] on what they have to have [to do]. So for some people you know they just need that support telephone call, they need to talk through those things. So we try and make it as appropriate to those people as we can." – Practitioner

What works

The present system worked well and fully exploited the benefits of a well-integrated Multi-Disciplinary Team (various specialist nurses, physiotherapist, exercise specialist etc.) in inservice user, outservice user and community settings, creating a programme that was popular, resilient and service user-focussed.

"For service users that really have other difficulties, whatever that may be, we try and adapt it as much as possible,…So we've even had things where we obviously have translators coming in to help or we have a [single] point of contact" – Practitioner]

What doesn't work

The present system (Zoom and phone calls) had not harnessed any of the benefits of digital rehab.

The challenge for the new app was to ensure that the benefits of the telephone-based system could be extended to the new system.

Service user scenario

TRAVERSE

Service user background

Service user background

The service user is a female in her late 40s living in London. She is a mother and part-time carer living in Essex from a BAME community (Pakistani-British).

The clinical context

She suffers from Rheumatoid arthritis and a heart condition (Wolf-Parkinson-White syndrome).

Access to digital rehabilitation

The service user was diagnosed with arthritis before the pandemic and her treatment was shifted to a remote digital rehab under lockdown. Previously, her treatment relied on seeing a specialist face to face every couple of months.

Service accessed & Pathway

The service user used Zoom to speak to her GP, her consultant and a specialist nurse. She also used a specialist app to take pictures and videos but could not remember what it was called.

Use of technology

Short (around 10 mins) physio session over zoom 'every month or so'.

Ease of use

She sometimes had to take photos of the swollen joints in her hands so generally easy to use but her condition could sometimes make it particularly difficult at certain times.

Service user scenario

Barriers and enablers
The service user encountered more barriers than enablers to digital access and had a difficult time arranging her care. She felt the most friction dealing with her lack of manual dexterity using the technology.

Customisation
The service user felt that there was very little scope for customisation during her rehab sessions. She did however appreciate the audio-visual component of each session and the opportunity to talk to a clinician.

"I did actually like the service because, you know, you couldn't go in person to see somebody, but at least when you do get to see somebody on a video call, you can maybe explain or show yourself a little bit more better than best digital or type in something or sending you know something over."

Support systems
The service user was offered mental health support but did not feel comfortable talking about her problems to people she did not know.

What works
The service user was 'lukewarm' about the benefits of digital rehabilitation. She found it relatively easy to use, straightforward to follow, and quick but did not see any major advantages.

Her overall assessment was that rehabilitation provided digitally was 'not a bad service'. Because a great deal of her care was all done during the lockdown, she reported it was 'better than nothing'.

What doesn't work
What the service user did find difficult was how isolating Zoom and remote ICT applications could make her feel. She explained that this had an effect on her mental health. She also described how she missed the day to day contact that face to fact treatment offered.

It also appeared that there was a lack of coordination between the various services she was accessing, affecting her perception of the effectiveness of digital rehabilitation.

Comparison

Theme	Practitioners	Service user
Barriers and enablers	The main barrier was the lack of institutional capacity (staffing/ICT resources etc) to fully exploit the potential of digital rehabilitation. The hope was that the new platform being built to respond to this would be an effective enabler of best practice.	The main barrier the service user encountered was with dealing with the technology whilst managing her condition (rheumatoid arthritis) which affected her finger joints.
Customisation	The team behind the program had long experience of meeting the needs of a diverse and varied demographic. Customisation involved anything from printing off programmes; using social media instead physical media or making sure the service user was signposted to the right specialist at the right time.	The service user reported very little opportunity to customise her care.
Support system	The programme was well equipped in providing support at critical junctures such as the transition from inservice user to outservice user services.	Though the service user was offered mental health support, she did not take up that opportunity.
What works	The programme had fully leveraged the expertise and knowledge of its Multi-Disciplinary team and had been able to established a successful practice overall.	It was easy to use and provided a service that was closest to an in-person appointment as possible.
What doesn't work	The service, despite its success, did not fully utilise the potential of digital technology.	There was a lack of coordination between the various services which affected her perception of the effectiveness of digital rehabilitation.

Case study 5: Music therapy

TRAVERSE

Service background

Service name	Chiltern Music Therapy	Cambridge and Peterborough NHS Foundation Trust & Anglia Ruskin University
Integrated Care System	Norfolk and Waveney	Cambridgeshire and Peterborough
Service	Music therapy	Music therapy
Conditions seen	Brain injury, stroke	Dementia
Services offered	• Zoom sessions for inservice users at Norwich Community Hospital • Zoom sessions for outservice users at home	Clinical research projects, including: • Comparison of music therapy and verbal based therapy whilst supporting carers. Carers trained in one of these disciplines to support people with dementia • Online music psychotherapy group • Music therapists working with people with dementia
Digital tools used	Teams, online NHS platform	Zoom (once platform security had improved)
Referral system	Referrals from speech and language team, Norwich Community Hospital	Multidisciplinary referrals – no standard approach as music therapy an allied profession. Can be from doctors, key workers etc.

Key themes

Barriers and enablers

Access to hardware and reliable internet was a common barrier. Both organisations provided some level of hardware provision to service users where possible, which allowed some to participate if they did not own the technology. However, this was not always optimal. One practitioner described how in hospital settings iPads are not always conducive to the most user-friendly experience, especially for complex rehab cases.

During the pandemic, ward staff were mandated to wear PPE in hospitals. This meant that service users could not see their mouths due to mask wearing, which presented a challenge for speech and language therapy. Digital services by Chiltern Music Therapy therefore enabled service users to keep receiving effective treatment in this context.

Customisation

Both services described taking a service user-led approach and creating new ways of working digitally; for example, delivering training in music and verbal based therapy to carers.

"In terms of music therapy everything is customised because it's all service user led." – practitioner

Support system

In both contexts, the presence of family members or carers was an important form of support. They could assist the service user to use the technology while proving the clinician helpful context on the service user's condition that could help paint a more complete picture. For Chiltern Music Therapy sessions delivered in the hospital ward, an assistant was present to help feedback additional information to the music therapist on the call. This was to account for the therapist not being able to fully hear the service user singing or see them due to the angle using an iPad.

What works

When conducting individual appointments, digital sessions gave practitioners the ability to see more service users in a more geographically dispersed area and in a shorter timeframe. Running sessions digitally encouraged creativity. Additional tools, such as Spotify, were made available. The practitioner from Chiltern Music Therapy also filmed exercises and saved them to Google Drive for service users to access after the session.

Attendance to Anglia Ruskin University's public lectures increased significantly since these had been held online. Digital sessions enabled researchers and practitioners to connect with people across the country and the world as one of their projects took place across 5 countries.

What doesn't work

Both practitioners argued that communication in general feels more awkward digitally. Extra verbal communication was often needed to make up for the lack of cues from body language. Making music in a collaborative way is not optimal on digital platforms. Practitioners explained that when using Zoom, it is difficult to hear different voices at once as one would in person, making it difficult for the practitioner to hear the service user singing while they are also singing. It also often happens to hear the voice of the other person singing with a delay, interfering with communication.

> *"I do believe that human interaction relies quite heavily on visceral aspects of relating such as breathing, atmosphere etc / there are some aspects of social relating that might not be helped [digitally]" – practitioner*

Service user scenario

TRAVERSE

Service user background

Service user background

This service user scenario is centred around a female based in Hatfield, Herefordshire. She worked in the NHS for many years, in various roles, and left before the pandemic. She is now studying part-time for a degree.

The clinical context

The service user had food poisoning in 2014 and subsequently developed gastroparesis. She was admitted to hospital in 2020 for two months and found this to be a life changing experience. The service user has also been diagnosed with fibromyalgia and Behçet's disease, which is a rare and understudied condition.

Access to digital rehabilitation

The service user has been under the care of a dietician. Her therapy sessions were delivered via zoom and over the phone for the duration of the pandemic. The service user has also used Microsoft Teams for appointments with her consultant.

Service accessed & Pathway

Weekly sessions

Use of technology

Physio over zoom and telephone and video appointments with dietician.
"Having the time with the dietician over the phone or on zoom was so useful as a place to ask questions and I always got the time. The screen sharing on zoom was really convenient, where they could show me things and explain through them".

The service user also used online platforms to access medical letters and documentation, for which she received text notifications.

Ease of use

The service user found it difficult to keep up with the conversation if there were multiple people on the call and if people spoke too fast, feeling overwhelmed and 'zoned out'.

Service user scenario

Barriers and enablers

For this service user, access to hardware and reliable internet was not a barrier, as she was supplied with sufficient equipment through her university. However, the service user acknowledged that this could be a potential barrier for others.

"For someone who only has a phone, holding that could be painful for long periods. As a suggestion it might be good to provide people with a laptop or a tablet if they are going to do more than 6 months of therapies via zoom."

Customisation

The service user believed that more could be done to tailor online appointments to the needs of service users. She felt that her health condition was not taken into consideration in the design of her digital rehabilitation. The sessions were scheduled for 1 hour without considering that the service user had difficulties controlling her bladder due to her medical condition. The service user would have liked this to have been taken into account. She also thought that it would be more convenient if practitioners had been more conscious of accessibility, by checking for instance if she could read the text on the screen easily and if the background colours were suitable.

"Length of appointments can be an issue with my condition. One doctor wasn't OK with me going to the toilet during a one-hour call. Was told after 10 minutes that if I jumped off the call was told I would have to wait another 6 months for my next appointment."

Support systems

The service user was not allowed to have her spouse present to her digital therapy sessions on Zoom. She would have liked this to be accommodated. Despite this, the service user had a strong support network which consisted of family and friends and was given emotional support from various charities. The service user was offered and used mental health support as she found isolation in lockdown to be difficult.

"In therapy, allowing another person in the meeting (like my husband) would be useful."

What works

During the pandemic, access to hospital wating rooms and restrooms were restricted to prevent the spread of COVID-19. This meant that service users without private transportation had to wait outdoors until the time of their appointment and were expected to leave right after their appointment. This presented a challenge for this service user as she was reliant on NHS transportation, which was often delayed which posed an important challenge since her medical condition presents symptoms that require urgent use of the restroom. The service user therefore found the digital service to be convenient as it enabled her to keep receiving effective treatment in the comfort of her home.

In contrast to the experience she had as an inservice user at the hospital where she often had to explain their rare condition and symptoms again and again to different practitioners, she found the digital service enabled her to build rapport with one consistent practitioner.

"Zoom, for therapy appointments, which I prefer because I'm in my own home. Don't have to travel, it's a lot to do that. At home I can sit in my pyjamas. Timings are better as I don't worry about missing a bus or being late, just have to turn on laptop."

What doesn't work

This service user did not experience any difficulties using the service beyond those related to customisation, in particular the length of her appointments. This was fortunately resolved as she is no longer receiving treatment from the same practitioner who proved to be quite inflexible. However, the service user strongly urges service providers to tailor their approach to avoid unsettling service users with conditions such as anxiety and autism. Too much text on the screen, too many messages and notifications on the platform alongside emails and texts can be overwhelming. The booking system should also be simplified to prevent it being an overwhelming experience.

Comparison

Theme	Practitioners	Service user
Barriers and enablers	Access to hardware and reliable internet was a common barrier.	The service user did not experience difficulties with hardware or reliable internet. The main enabler in this case was the ability to build rapport with the service user's one practitioner for the duration her digital rehabilitation.
Customisation	These services took a service user-led approach and created new ways of working digitally.	The service user feels more work needs to be done to tailor digital rehabilitation services to the needs of users.
Support system	In both contexts, the presence of family members or carers proved to be helpful support for service users.	The service user would have liked to have their spouse present for their digital therapy sessions which shows that involvement of family members is not always a guarantee in digital rehabilitation.
What works	• Digital sessions give practitioners the ability to see more service users, that are more geographically dispersed, in a shorter timeframe. • Running sessions digitally encourages creativity. • Digital rehabilitation allows practitioners to create an online library of resources for service user to access and use later.	• The service user found the digital service to be convenient, as there was no need to arrange transportation. • Using the digital service from home enabled the service user to factor in comfort breaks to help manage the symptoms of her condition.
What doesn't work	• Both practitioners argued that communication feels more awkward digitally. • Extra verbal communications may be needed to determine how the session is going to make up for the lack of cues, such as body language. • For making music in a collaborative way, digital sessions are not optimal. Practitioners described how when using Zoom, you cannot hear everything at once the same way you would in person or hear the other person singing when you are singing.	• The service user strongly urges service providers to tailor their approach to avoid unsettling service user with conditions, such as anxiety and autism. Too much text on screen or too many messages on the platform, emails and texts can be overwhelming. • The booking system should also be simplified to prevent it being an overwhelming experience.

Case study 6: Pelvic health

No matching service user scenario available for this case study

TRAVERSE

Service background

Service name	Allied Health Professionals Suffolk	Milton Keynes University Trust
Integrated Care System	Suffolk and Northeast Essex	Bedfordshire, Luton and Milton Keynes
Service	Perinatal pelvic health physio	Pelvic health
Conditions seen	Pelvic health	Pelvic health
Services offered	ICS wide project offering a single point of access and online video group classes across the ICS.	Antenatal care – offered online videos and group class.
Digital tools used	Digital self-referral platform, Microsoft Teams, Squeezy	Video calls, NHS Squeezy, online videos
Referral system	Virtual self-referral	Referred via midwife, GP or consultants

Key themes

Barriers and enablers

The limited ability of some service users to use technology was a barrier for both services. This included limited access to hardware, good internet or quiet spaces in which to take calls. Money and time were key barriers to people attending appointments as it could be difficult to take time off work. For both services, service users who were able to benefit most from digital care were young service users with a high level of digital literacy.

Social and religious backgrounds can impact the way in which pelvic health is thought about as there is still social stigma around this topic.

"The expectation from our populations [is a key barrier]. I think the social belief is still that if you need care you go and see someone face-to-face and they'll see you in a room." practitioner

Customisation

Language was identified as a key barrier to accessing care; both organisations described translation tools available that could help service users access written information online. Digital self-referral platforms were deliberately designed as an agnostic web app with common coding standards to be easily used on as many devices as possible. Practitioners considered implementing a screen reader, but it presented privacy concerns due to the sensitive nature of data service users would be inputting.

Support systems

Family or carers help some service users get set up with technology and pregnant service users often have their partner involved to support them. Partners were able to join digital group sessions for one organisation. Both provisions signposted service users to other services for issues like birth trauma but did not necessarily have direct support beyond the service offered.

What works

Digital services allowed practitioners to see a higher volume of service users, particularly for online groups where many service users could attend at once. This helped to reduce long waiting lists. For pregnant women in particular this meant that they ere more likely to receive treatment during the pregnancy window when they most needed it.

Digital appointments allowed service users to take calls more flexibly around work without needing to commute, which made online appointment preferable to some. The anonymity of phone calls were also considered an advantage when discussing sensitive medical information. Offering a needs-based service worked particularly well for Milton Keynes University Trust, where service users could still come in for a face-to-face appointment if digital services did not meet their needs.

Both services noted the importance of being clear about what digital services are used to achieve.

What doesn't work

For pelvic health, service users who need a physical examination are unlikely to benefit from digital care as they need to be seen face-to-face.

There is a risk around data handling at an organisational level; practitioners acknowledged the importance of data being managed carefully and effectively. One practitioner felt that there are not enough clinician informaticians who understand the digital landscape in depth and how it can be best utilised to deliver safe care.

"Really focus on what your staff understand to be digital. It's much more than what a computer does ." practitioner

Thank you

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