Rehabilitation: how can services meet demand?

The need

Rehabilitation aims to give people the tools they need to lead the fullest lives possible. It helps them to regain skills, abilities, or knowledge that may have been lost or compromised through illness, injury, or acquiring a disability. At its best, rehabilitation is a multidisciplinary, person-centred treatment for anyone with a health condition, disability or injury that limits their function. With rehabilitation, some people recover from illness or injury. Others learn to live as well as they can for as long as they can - and have the most active social and work lives possible.

One member of the public explains

> *"Rehabilitation has allowed me to reach my pre-illness condition. It helped with mobility so that I can become more active and enjoy life without discomfort after a period of being bedridden. Psychologically, I gained more self-confidence and the ability to cope psychologically with post-traumatic events."*

Irfan Ahmed, Public contributor

Globally, one in three people could be helped by rehabilitation because of a health condition[1]. People of all ages benefit, but the need increases with age. Ageing populations, and increasing numbers of people living with one or more long-term conditions, are fuelling the need for rehabilitation. This means services need to be tailored to meet the requirements of people with different combinations of conditions, and differing levels of support needs that may fluctuate and change over time. Rehabilitation is an essential part of universal health coverage.

One carer illustrates the benefits of effective rehabilitation delivered by knowledgeable and skilled practitioners.

> *"My mother received excellent stroke rehabilitation in 2008. She had a lot of specialist care and her physiotherapy input was the key to her recovery because her practitioners were outstanding. It makes a difference when you have professionals with a lot of experience."*

Chandrika Kavira, Carer for two older people

In 2017, the World Health Organisation (WHO) recognised that many countries are not equipped to respond to existing rehabilitation needs. It issued a call for action, *Rehabilitation 2030*[2] which encourages countries to scale up rehabilitation as a health priority.

Rehabilitation 2030 identifies four key areas which will underpin improvements:

- Providing technical support and building a skilled rehabilitation workforce
- Leadership, prioritisation and resource mobilisation
- Developing norms, standards and technical guidance
- Shaping a strong research agenda and monitoring progress

The COVID-19 pandemic has amplified demand. About one million people in the UK are thought to have persistent symptoms after contracting COVID[3]. Many will need rehabilitation for ongoing physical, psychological, and cognitive difficulties. In addition, some people with pre-existing long-term health conditions have deteriorated faster than usual during the pandemic. Their existing symptoms may have deteriorated following a COVID infection, physical distancing measures may have reduced social contact or disrupted access to rehabilitation services.

A UK rehabilitation strategy for people with long-term conditions

In March 2019, a group of charities supporting people with long-term health conditions teamed up with organisations representing rehabilitation professionals to form the Community Rehabilitation Alliance. Together, they called on the UK national and local government to fund a national strategy to improve access to rehabilitation services for people with long term conditions. It aims to ensure that people with long-term health conditions get the rehabilitation they need.

The Community Rehabilitation Alliance calls for:

- a fully funded national rehabilitation strategy
- a new model for integrated multidisciplinary rehabilitation
- a national clinical lead to implement this strategy
- the expansion of the rehabilitation workforce

Lauren Walker, a Professional Advisor from the Royal College of Occupational Therapists, comments

> *"There are examples of excellent multi-disciplinary rehabilitation services in the UK, but there is a lot of variation in the services that are available, and not everyone has timely access to the support that they need. This exacerbates the health inequalities already experienced by some individuals and groups, and means that access to rehabilitation is currently unfair and inequitable.*
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> *There is a need to explore approaches to rehabilitation that are centred on people, rather than conditions, and to make sure that everyone who would benefit from rehabilitation has access to it – no matter who they are or where they live. To do this it is necessary to work in a truly multi-disciplinary way, making the best use of the skills that different members of the workforce bring, and to identify approaches that reach those most in need in an effective way."*
>
> *Lauren Walker, Professional Adviser, Royal College of Occupational Therapists*

Optimising rehabilitation for all

To achieve this ambition, rehabilitation strategies and services clearly need to be based on the best available evidence. This Collection brings together lessons from NIHR-supported research that has been highlighted as NIHR Alerts - accessible summaries of evidence - over the past year. They explore ways of delivering effective rehabilitation to the people who need it.

A key issue in delivering optimal rehabilitation services is the limited numbers of knowledgeable, supportive and trusted clinicians. Rachel Newton, Head of Policy, Chartered Society of Physiotherapy explains

> *"In order to address the inequity of access and variability in provision, we need to expand the rehabilitation workforce. This includes developing advanced practitioner roles across long term conditions and making best use of non-registered workforce, such as exercise professionals and support workers."*
>
> *Rachel Newton, Head of Policy, Chartered Society of Physiotherapy*

Innovative approaches involving other staff members are required. One study took a fresh look at rehabilitation for women with pelvic organ prolapse. Specialist physiotherapists usually deliver this care but in this programme, non-specialist health professionals were trained. Two specialist physiotherapist trainers ran a one-day training session for other (non-specialist) physiotherapists and women's health nurses. Several hospital trusts were involved and each site developed its own model of delivering the new service according to its resources, location, organisational structure, and staffing. In all sites, women's symptoms improved both six and 12 months after treatment, and they were satisfied with the care they received.

Some specialist physiotherapists were concerned about a loss of professional identity. Their fears were most pronounced in areas with sufficient specialists, and were less intense in remote or rural areas with fewer specialists. To address these fears, the researchers suggest a model in which specialist physiotherapists determine a woman's suitability for rehabilitation and take on the most complex cases themselves. They then provide training and support to other non-specialist staff, who treat women with more straightforward needs. This arrangement could help address the demand for this type of rehabilitation.

Another trial introduced the role of rehabilitation assistants. They delivered a home-based rehabilitation programme, called COmmunity based Rehabilitation after Knee Arthroplasty (CORKA), to people at risk of poor recovery after knee replacement surgery. CORKA included a personalised exercise programme, walking training, practising everyday activities and the provision of appropriate aids and equipment, if needed. An initial home assessment was conducted by a qualified therapist and a rehabilitation assistant. The rehabilitation assistant led the subsequent six sessions, except for one session midway through the treatment, which was taken by the therapist.

In a trial, there were no differences in the outcomes achieved with CORKA, compared with traditional outpatient physiotherapy. However, CORKA was cheaper to provide than usual care (£66 less per patient). When all costs were considered, including costs to society, CORKA was cost-saving and slightly more effective than usual care. This was largely because patients receiving CORKA had less time away from paid employment.

Suzy Halliday, a Specialist Nurse and Cancer Pathway Manager observes

> *"I was particularly interested in the CORKA study which describes a well conducted trial that included a large participant group and reported on cost effectiveness.''*
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> *Suzy Halliday, a Specialist Nurse and Cancer Pathway Manager*

Optimising the care of people severely affected with long-term conditions such as Parkinson's disease, motor neurone disease and multiple sclerosis can be challenging. They require input from different specialties and integration of services across health and social care systems. A new model of care called 'short-term integrated palliative care (SIPC)' was designed to meet these complex needs. SIPC includes an holistic assessment followed by care planning and referral to, or liaison with, other care providers.

In a recent trial, all participants received their usual care, and some received SIPC in addition. SIPC was delivered by multi-professional palliative care teams in three face-to-face visits, with phone calls in between, over six to eight weeks. This research found that there were no differences between the groups at 12 weeks in terms of physical or psychological factors. Crucially, despite the additional person-centred care, costs for each person who received SIPC were £562 less than the other group. This was mainly due to a reduction in hospital stays.

Matt Liston, Head of Research and Development, Chartered Society of Physiotherapy comments

> *''Lessons learned from these studies could be used to redesign services to be more person centred and accessible. that meet the needs of people living with multiple long term conditions. These studies provide insight into the development of personalised rehabilitation approaches based on needs and symptoms rather than diagnoses. These should be used to drive change in the delivery of care.''*
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> *Matt Liston, Head of Research and Development, Chartered Society of Physiotherapy.*

Telerehabilitation

Telerehabilitation is another promising approach. Telerehabilitation is delivered via television, laptops, smartphones and wearable devices. It may make it easier and cheaper for some people to access care and could be cost saving for healthcare providers. Examples include computer-based cognitive behavioural therapy to treat anxiety and depression, and apps or online programmes to encourage people to exercise more. This approach could appeal to children and young people.

A recent review included 17 studies looking into remote interventions for children. It found some evidence that remote interventions can help children under 12 to adopt new lifestyle habits and behaviours to help manage their health. The most promising programmes included support from a healthcare professional, involved parents, and used games (such as exercise games). These programmes helped children to take greater responsibility for their recovery. Parents raised some concerns about the suitability of some programmes for young children and warned that content would need to be changed frequently to help longer-term engagement.

These findings resonate with one public commentator

"Overall, greater use of technology could be a cost-effective solution and may allow the service providers to reduce waiting times for rehabilitation, allowing them to prioritise other key areas."

Irfan Ahmed, Public contributor

Traditionally, psychological therapies are delivered face-to-face but there is evidence that telephone treatment is as successful as face-to-face treatment for people with mild to moderate mental health problems [3]. Telephone-delivered psychological interventions are recommended by the National Institute of Health and Care Excellence (NICE) for the treatment of anxiety and depression**.** Despite this, both therapists and patients remain concerned about the use of telephone therapy.

As part of a larger project called Enhancing the Quality of Psychological Interventions Delivered by Telephone (EQUITy), researchers carried out a systematic review of studies comparing telephone-delivered and face-to-face therapy for mental health problems. They included 15 papers that focused on the interaction between therapist and patient. The researchers found that telephone sessions were shorter than face-to-face therapy. But there was no evidence of differences in the way therapists and patients rated their interactions, the amount of information a patient disclosed, empathy, attentiveness or participation. This review suggests that rehabilitation delivered via the telephone is both acceptable and effective.

Matt Liston from the Chartered Society of Physiotherapy highlights that

''remote consultations have become part of routine care throughout the COVID-19 pandemic. Factors that should be considered in delivery of remote rehabilitation consultations include; patient choice, clinician competencies, digital inclusion, resources and infrastructure, and governance. Hybrid approaches include in person and remote consultation, and these could be offered interchangeably throughout patient pathways.

Matt Liston, Head of Research and Development, Chartered Society of Physiotherapy.

Healthcare professional training

Online training for health professionals might also help overcome skills shortages. One study focused on the SARAH programme, exercise-based rehabilitation for people with hand and wrist pain and disability due to rheumatoid arthritis. Therapists were initially trained face-to-face to deliver the programme. The researchers who originally developed SARAH then designed a freely available self-paced online training programme for therapists called iSARAH.

Their evaluation of iSARAH found that almost all therapists (99%) felt confident and capable of delivering the programme immediately after training. Most (85%) said they intended to use it. Six months later, two in three (66%) therapists reported that they were using SARAH with their patients.

Data from 97 patients suggested that they were not disadvantaged if their therapist had been trained online. Their symptoms improved to a similar degree to the people in the original clinical

trial. The researchers have now developed an online version of SARAH for patients with the aim of making the programme more widely available. However, some people may not have access to equipment or internet services in settings appropriate for rehabilitation, leading to exclusion from remote rehabilitation and potentially creating health inequalities.

Despite these concerns, the potential of telerehabilitation is recognised by the public and professionals alike.

> *"I love the idea of SARAH and other mobile applications and remote technology which can help deliver rehabilitation. It means you can actually get to see people's faces and you can foster a group and social element which is great for wellbeing and motivation. I've seen this in Stroke and Alzhiemers groups produced virtually during the pandemic."*
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> *Chandrika Kavira, Carer for two older people*

> *"Digital solutions have rapidly become an accepted part of healthcare delivery during the pandemic, and it is important to consider how online and 'remote' approaches might support a more flexible and personalised approach to rehabilitation in the future. As discussed in the Collection, this might include providing online training to the workforce, or offering telerehabilitation options that may be more accessible and offer greater choice to individuals."*
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> *Lauren Walker, Professional Adviser, Royal College of Occupational Therapists*

Moving forward stronger

As services are rebuilt following the COVID-19 pandemic, the demand for rehabilitation will accelerate. A coordinated approach for the rehabilitation of people with long term conditions is needed in response to the WHO's *Rehabilitation 2030* call for action.

The approach must embrace:

- the best evidence, used to optimise the delivery of rehabilitation
- robust clinical leadership to support novel, localised, needs-led service provision
- innovative training methods to build a skilled workforce
- as research agenda shaped to inform best practice

Suzy Halliday, a SpecialistNurse and Cancer Pathway Manager comments

> *"I think there is significant room for a collective approach to rehabilitation including the opportunity for co-productive working and this would support the recommendations of the NHS Long Term Plan."*
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> *Suzy Halliday, a Specialist Nurse and Cancer Pathway Manager*

Lauren Walker, from the Royal College of Occupational Therapists, considers that the learning from the studies in this collection could be used to develop new rehabilitation services for people with long-term symptoms following COVID-19 infections.

"Many rehabilitation services are supporting people with Long COVID, and the lack of evidence for rehabilitation of this new condition is challenging. However, some of the symptoms and functional problems experienced by people with Long COVID are very familiar to rehabilitation practitioners. As discussed in one of the studies in this collection, it is helpful to consider how specialist practitioners from different disciplines might share their expertise by offering training to multi-disciplinary colleagues, to facilitate more integrated approaches to supporting people, and to make the best use of the workforce."

Lauren Walker, Professional Adviser, Royal College of Occupational Therapists

This Collection provides examples of research that explores some innovative ways to deliver rehabilitation services. This kind of research will enable us to 'Move forward stronger' and address the unmet, and growing, need for rehabilitation.

References

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