

Remotely delivered physiotherapy: Can we capture the benefits beyond COVID-19?

Lindsay M. Bearne^{1*}

William J. Gregory²

Michael V. Hurley³

¹**King's College London**, Department of Population Health Sciences, School of Population Health & Environmental Sciences, Addison House, Guy's Campus, London SE1 1UL, UK

²**Salford Royal NHS Foundation Trust**, Rehabilitation Services / Rheumatology Directorate, Salford Royal Hospital, UK

³**St Georges University of London and Kingston University**, Faculty of Health and Social Care, London, UK

*Correspondence: Lindsay M. Bearne PhD MSc MCSP lindsay.bearne@kcl.ac.uk

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The COVID-19 pandemic necessitated a swift transformation of healthcare delivery for people with Rheumatic and Musculoskeletal Diseases (RMDs). Physiotherapy is a core discipline of rheumatology practice, although provision is varied in the UK [1]. Restricted access to face-to-face consultations to reduce exposure to and transmission of SARS-CoV-2, contributed to the rapid transition to “remote physiotherapy” whereby digital technologies were used to deliver physiotherapy. This included physiotherapy consultation by telephone or video platforms (also known as telerehabilitation), augmented by mobile phone applications and capture of patient data digitally.

The use of telerehabilitation has been part of physiotherapy digital strategies for some time, but, before March 2020, integration in mainstream physiotherapy was limited [2]. The pandemic enabled more physiotherapists to evaluate the opportunities and constraints of remote physiotherapy assessment and telerehabilitation.

Remote assessment and monitoring

There is some evidence that remote physiotherapy assessment for RMDs is feasible with good-to-excellent concurrent validity and reliability of some assessment components and high agreement with in-person evaluations[3-7]. Whilst some physiotherapists recognised that remote assessment may not be appropriate in all circumstances and expressed concerns about accurately assessing and diagnosing patients [6], most embraced the opportunity to incorporate these techniques into their practice. Remote physiotherapy assessment was supported by on-going collection of symptoms via electronic patient reported outcome measures that can be used to inform telerehabilitation.

Telerehabilitation

Advantages of telerehabilitation include increased flexibility, accessibility, reduced costs and elimination of risk of infection[4]. Short-term improvements in pain, function and quality of life in people with RMDs can be achieved with telerehabilitation and these benefits are sometimes similar to face-to-face physiotherapy[4, 6, 8]. However, only a limited number of studies include an economic analysis [4].

Patients report high levels of satisfaction with telerehabilitation comparable to face-to-face physiotherapy [4, 9]. This may be because patients find it convenient, are relaxed in their home environment and/or there are less distractions than in a busy clinical environment, that enhances communication. Telerehabilitation may also mitigate important barriers to face-to face physiotherapy such as accessibility and cost (e.g. travel, time, and loss of work). During the

pandemic, patients welcomed continuing access to physiotherapists [10, 11] and this was expanded by rheumatology physiotherapists, in partnership with national organisations, providing education, exercise and physical activity guidance through a range of digital platforms supported by expert-led question and answer panels. However, the long-term consequences of the transition to telerehabilitation is unknown and initial patient satisfaction and engagement may be influenced by the limited treatment options available. Satisfaction may wane beyond the immediate phase of the pandemic as patients may be less willing to accept alterations to usual healthcare delivery[11].

Physiotherapists consider that telerehabilitation offers some time-saving and privacy advantages over face-to-face consultations for patients with RMDs but some physiotherapists perceive video-delivered telerehabilitation more favourably than telephone-delivered rehabilitation [12]. This may be because it allows physiotherapists to observe patients completing their rehabilitation and exercise in their home environment, potentially encouraging self-management. Self-management may be augmented with the use of digital applications (apps) that enable remote monitoring and ongoing support, that potentially facilitates adherence to rehabilitation programmes. There are many apps to support rehabilitation in people with RMDs although the quality of apps is mixed. However, the long-term engagement of patients with apps and their impact on adherence is unclear, and their effectiveness unevaluated [13-15].

One example of how an intervention changed as a consequence of the pandemic is the ESCAPE-pain programme (Enabling Self-management and Coping with Arthritic Pain through Exercise)[16]. ESCAPE-pain integrates self-management education and individualised exercise for people with chronic joint pain. It is usually delivered as a face-to-face, group intervention, but, at the beginning of the pandemic, the team overseeing the programme helped physiotherapy services adjust to deliver the programme remotely. Changes to symptom evaluation, screening for patient safety and suitability for different exercise formats were applied alongside additional measures to ensure personal security. Preliminary findings suggest the remotely delivered programme reduced pain, improved physical function and quality of life to a similar magnitude to the face-to-face group programme. Difficulties around patient recruitment, delivery of the exercise component, technical support for clinicians and patients, equitability and patient experience and satisfaction were reported[17].

Challenges of remote physiotherapy

The quality of remote physiotherapy consultations can be limited by many factors, including patient and clinician digital literacy, variable internet connectivity, technological issues, such as

NHS firewalls and data governance. Crucially, some patients may not have access to equipment or internet services in settings appropriate for telerehabilitation leading to exclusion from remote physiotherapy and potentially creating health inequalities. Physiotherapy service transformation was supported by the rapid development of clinical guidance [18, 19], however, these rarely followed robust methodological development processes and so may be misleading [20].

Whilst remote group physiotherapy sessions appear promising and may reduce some service costs, the set up and maintenance of technology and limitations to the number of people that can be treated in remote group sessions can increase these costs. Tariffs for physiotherapy may inadequately compensate for remote consultations, potentially compromising service delivery.

Moreover, remote delivery reduces the opportunity for peer-to-peer learning and support that face-to-face group programmes can offer and that are important in many healthcare interventions. Furthermore, physiotherapists delivering remote services in isolated settings (i.e. from home) may miss opportunities for peer support and learning. There may also be detrimental effects on recruitment, job satisfaction and retention within the physiotherapy profession.

The time for critical reflection

The changes in physiotherapy introduced during the COVID-19 pandemic provide an opportunity for learning and critical reflection on the future of some rheumatology physiotherapy services. Co-design of services that accommodate the views and needs of all stakeholders is essential. The development of symptom trackers, monitoring devices, patient dashboards integrated with agile and responsive telerehabilitation offers the opportunity for flexible, accessible, patient-centred physiotherapy for people with fluctuating RMD symptoms.

Robustly developed guidelines are required, based on evidence of clinical effectiveness and cost-effectiveness, as well as good clinical governance to ensure a coherent, equitable approach that encourages shared good practice:

Professional bodies and national societies have an important role in updating definitions of good clinical practice. Digital skills and competencies need to be embedded into rheumatology physiotherapy capability frameworks and training and professional development to deliver telerehabilitation supported by online communities of practice.

Crucially, evidence for the translation of existing effective assessments and interventions to telerehabilitation is lacking and robust evidence for the clinical and cost effectiveness of telerehabilitation in the long-term is required to inform future services.

Beyond the COVID-19 pandemic, physiotherapists need to look to optimise evidence-based remote assessment and telerehabilitation, in conjunction with face-to-face consultations for people with RMDs. The development of patient-centred, accessible, equitable and flexible physiotherapy care pathways, with appropriately embedded technological innovations, is an important ambition.

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