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Editorial

Out-patient physiotherapy service delivery post COVID-19: opportunity for a re-set and a new normal?

Since the COVID-19 pandemic was declared by the World Health Organization (WHO) in March 2020, there has been seismic shift in healthcare delivery including physiotherapy [1,2]. The COVID-19 pandemic has brought challenges but also opportunities. There have been calls for the profession to maximise opportunities to transform and adapt itself to better meet the needs of populations. This not only relates to tackling the impact of COVID-19 and infectious diseases [3–5], but also the increasing burden of non-communicable diseases and long-term conditions (LTC) [6,7].

Traditionally many out-patient services were based on post-war models of service delivery where patients are seen face to face, usually individually, for an initial longer appointment and followed by shorter appointments over the subsequent weeks. This model was designed in a predigital era when physical hands on and electrotherapeutic interventions prevailed. The first appointment to follow up appointment ratio in musculoskeletal (MSK) out-patients has reduced over time and in 2012 was just an average of 3.14 follow ups per patient [8]. This reduction appears to have been driven by capacity and demand responses, as well as an increased emphasis on self-management and less guidance for ‘hands on’ therapies [9]. Less overall time is spent with individuals. The need to deliver quality, person centred care arguably increases the demand on concentration, and emotional investment from physiotherapists (as well as expert clinical knowledge) [10].

With rising prevalence of long term conditions there has also been an increased focus on supporting patients to self-care through shared decision making (SDM) and personalised care (PC) approaches [11–13]. Supporting self-management not only includes the provision of information but also enabling motivation and self-efficacy to help people achieve greater control and take appropriate action to manage their condition [11]. Physiotherapy self-management usually requires adherence to some form of behaviour change

such as undertaking a home exercise programme or lifestyle adaptations [14,15].

Adherence to physiotherapy self-management programmes is suboptimal [16]. Literature supports the notion that adherence is a multi-dimensional construct, with a range of barriers and facilitators being identified [17–21]. No single interventions have been identified as the panacea for increasing adherence to self-management programmes in physiotherapy [6,22,23].

Pre-COVID-19 we undertook an observational study (in press) based on the behaviour change wheel [24], to explore self-management programmes in MSK outpatient physiotherapy. Video recordings of face-to-face consultations and interviews with patients highlighted that physiotherapists focussed on ensuring patients had the practical capability to undertake the programmes but did not address opportunity or motivational components of adherence. Contextual factors including the physiotherapists’ environment and service delivery structure for appointments affected the provision of programmes and patients’ adherence which is in keeping with other studies [10,20,25]. Patients’ also reported valuing the therapeutic relationship and expressed a desire for social support and group exercises. None of the patients in our study were offered group exercises despite evidence supporting their cost effectiveness [6,26].

COVID-19 has increased the use of digital telehealth [27–29] which has accelerated digital ambitions [30]. However, we must be careful not to just replace the existing appointments with remote consultations but instead consider how we use resources including time, the physical environment and digital technologies to optimise the delivery of evidence based, personalised care [31]. Pugliese (2020) highlights how telehealth has enabled physiotherapists to re-focus on the interpersonal interactions and communication with patients. Post COVID-19 we have the opportunity to consider how we use face-to-face contacts and blend these with

technologies including video or telephone communications, short messaging services (SMS) and online resources [32,33].

This blended approach could be personalised, as we know this is not addressed by a one-size-fits-all approach [24]. Supporting long-term self-care, behaviour change and physical activity participation is complex [15]. It requires physiotherapists to have the appropriate time and skills to develop a strong therapeutic relationship, to explore patients' capability, opportunities and motivations to change their behaviour [13,24]. Providing appropriate time for patient interaction is necessary to build successful therapeutic relationship and engage in shared decision making which are critical in achieving optimal outcomes and adherence [13,20]. The mode of service delivery is also important. Provision of group delivery provides opportunities for peer support and can help patients transition to long-term physical activity participation [34]. Group exercise opportunities should be consistent, accessible and underpinned by evidence based practice. Delivering quality, person centred physiotherapy interactions within reducing episodes of care also potentially risks physiotherapist burnout which has been shown to be a problem particularly when managing patients with chronic conditions [35].

If we were starting from the beginning how would we design out-patient physiotherapy services for now and for the future? How can we support physiotherapists to ensure they deliver safe and effective assessment, whilst utilising technologies to engage patients in the ways they prefer? How can we provide patients with peer support and build transition into longer-term physical activity in their communities?

We propose that physiotherapy service structure should enable physiotherapists to have adequate time for debriefing and reflection to support their wellbeing and learning. Our study utilised video observation which, with current use of video consultations, provides an effective tool to record consultations (in line with consent and information governance policies) and could allow easy opportunity for self-reflection and peer review for physiotherapists [36].

O'Caithain *et al.* (2019) sets out 5 principles in their guidance on developing healthcare interventions which provide a sound basis for us to consider as we re-set; being dynamic, being iterative, being creative, being open and looking ahead [37]. Tack *et al.* (2020) also remind us of the need for the post COVID-19 service delivery era to be determined as a result of careful and robust evaluation that is built around service user views and staff wellbeing [31].

The COVID-19 pandemic provides our profession with unique opportunities to re-design physiotherapy services to better support personalised care and patients' long-term adherence to self-management. This should build on behavioural science theory and adherence research to maximise the physiotherapist's contribution and ensures their health and wellbeing. We must seize the opportunity to review the evidence base, engage with service users, transform and evaluate out-patient physiotherapy care for the future. A new normal for physiotherapy care is within all of our gift.

References

- [1] Chartered Society of Physiotherapy. Remote physiotherapy delivery options. The Chartered Society of Physiotherapy; 2020, csp.org.uk [accessed 24.01.21].
- [2] Keesara S, Jonas A, Schulman K. Covid-19 and health care's digital revolution. *New Engl J Med* 2020;382(23):e82.
- [3] Landry MD, Geddes L, Park Moseman A, Lefler JP, Raman SR, van Wijchen J. Early reflection on the global impact of COVID19, and implications for physiotherapy. *Physiotherapy* 2020;107:A1–3.
- [4] Lee AJY, Chung CLH, Young BE, Ling LM, Ho BCH, Puah SH, *et al.* Clinical course and physiotherapy intervention in 9 patients with COVID-19. *Physiotherapy* 2020;109:1–3.
- [5] Abdullahi A. Covid-19 pandemic experience: can it serve as a clarion call to establish or revamp a specialty known as 'infectious diseases physiotherapy'? *Physiotherapy* 2020;108:1.
- [6] Dean E, Jones A, Homer Peng-Ming Y, Rik G, Margot S. Translating COVID-19 evidence to maximize physical therapists' impact and public health response. *Phys Ther* 2020;100(9):1458–64.
- [7] James SL, Abate D, Abate KH. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2018;392:1789–858.
- [8] Chartered Society of Physiotherapy. *Physiotherapy outpatient services survey 2012*. London; 2013.
- [9] Lin I, Wiles L, Waller R, Goucke R, Nagree Y, Gibberd M, *et al.* What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: systematic review. *Br J Sports Med* 2020;54(2):79–86.
- [10] Hall MS, Podlog L, Newton M, Galli N, Fritz J, Butner J, *et al.* Patient and practitioner perspectives of psychological need support in physical therapy. *Physiother Theory Pract* 2020, <http://dx.doi.org/10.1080/09593985.2020.1780654>.
- [11] de Silva D. *Helping people help themselves: a review of the evidence considering whether it is worthwhile to support self-management*. London: The Health Foundation; 2011.
- [12] Hutting N, Johnston V, Staal JB, Heerkens YF. Promoting the use of self-management strategies for people with persistent musculoskeletal disorders: the role of physical therapists. *J Orthopaed Sports Phys Ther* 2019;49(4):212–5.
- [13] Babatunde F, MacDermid J, MacIntyre N. Characteristics of therapeutic alliance in musculoskeletal physiotherapy and occupational therapy practice: a scoping review of the literature. *BMC Health Serv Res* 2017;17(1):375.
- [14] Novak I. Effective home programme intervention for adults: a systematic review. *Clin Rehabil* 2011;25(12):1066–85.
- [15] Söderlund A, von Heideken Wägert P. Adherence to and the maintenance of self-management behaviour in older people with musculoskeletal pain – a scoping review and theoretical models. *J Clin Med* 2021;15(2):303.
- [16] Peek K, Sanson-Fisher R, Mackenzie L, Carey M. Patient adherence to physiotherapist prescribed self-management strategies: a critical review. *Int J Ther Rehabil* 2015;22(11):535–43.
- [17] Peek K, Sanson-Fisher R, Mackenzie L, Carey M. Interventions to aid patient adherence to physiotherapist prescribed self-management strategies: a systematic review. *Physiotherapy* 2015;102(2):127–35.
- [18] Jack K, McLean SM, Moffett JK, Gardiner E. Barriers to treatment adherence in physiotherapy outpatient clinics: a systematic review. *Man Ther* 2010;15(3):220–8.
- [19] Essery R, Geraghty AW, Kirby S, *et al.* Predictors of adherence to home-based physical therapies: a systematic review. *Disabil Rehabil* 2017;39:519–34.
- [20] Moore AJ. Therapeutic alliance facilitates adherence to physiotherapy-led exercise and physical activity for older adults with knee pain: a longitudinal qualitative study. *J Physiother* 2020;66(1):45–53.

- [21] Peek K, Carey M, Mackenzie L, Sanson-Fisher R. Characteristics associated with high levels of patient-reported adherence to self-management strategies prescribed by physiotherapists. *Int J Ther Rehabil* 2020;27(1):1–15.
- [22] McLean SM, Burton M, Bradley L, *et al.* Interventions for enhancing adherence with physiotherapy: a systematic review. *Man Ther* 2010;15:514–21.
- [23] Room J, Hannink E, Dawes H, Barker K. What interventions are used to improve exercise adherence in older people and what behavioural techniques are they based on? A systematic review. *BMJ Open* 2017;7(12).
- [24] Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci* 2011;6:42.
- [25] Meade LB, Bearne LM, Godfrey EL. *It's important to buy in to the new lifestyle*: barriers and facilitators of exercise adherence in a population with persistent musculoskeletal pain. *Disabil Rehab* 2019;26:1–11.
- [26] O'Keeffe M, Hayes A, McCreesh K, *et al.* Are group-based and individual physiotherapy exercise programmes equally effective for musculoskeletal conditions? A systematic review and meta-analysis. *Br J Sports Med* 2017;51:126–32.
- [27] Pugliese M, Wolff A. The value of communication, education, and self-management in providing guideline-based care: lessons learned from musculoskeletal telerehabilitation during the COVID-19 Crisis. *HSS J* 2020;3:1–4.
- [28] Turolla A, Rossettini G, Viceconti A, Palese A, Geri T. Musculoskeletal physical therapy during the COVID-19 pandemic: is telerehabilitation the answer? *Phys Ther* 2020;100(8):1260–4.
- [29] Bokolo AJ. Application of telemedicine and eHealth technology for clinical services in response to COVID-19 pandemic. *Health Technol* 2021, <http://dx.doi.org/10.1007/s12553-020-00516-4>.
- [30] Greenhalgh T, Shaw S, Wherton J, Vijayaraghavan S, Morris J, Bhattacharya S, *et al.* Real-world implementation of video outpatient consultations at macro, meso, and micro levels: mixed-method study. *J Med Internet Res* 2018;20(4).
- [31] Tack C, Grodon J, Shorthouse F, Spahr N. "Physio anywhere": digitally-enhanced outpatient care as a legacy of coronavirus. *Physiotherapy*; 2020 [in press].
- [32] Bennell KL, Campbell PK, Egerton T, Metcalf B, *et al.* Telephone coaching to enhance a home-based physical activity program for knee osteoarthritis: a randomized clinical trial. *Arthritis Care Res* 2017;69:84–94.
- [33] Bunting JW, Withers TM, Heneghan NR, Greaves CJ. Digital interventions for promoting exercise adherence in chronic musculoskeletal pain: a systematic review and meta-analysis. *Physiotherapy* 2020, <https://doi.org/10.1016/j.physio.2020.10.1016/j>.
- [34] Hurley MV, Walsh NE, Mitchell HL, Pimm TJ, Patel A, Williamson E, *et al.* Clinical effectiveness of a rehabilitation program integrating exercise, self-management, and active coping strategies for chronic knee pain: a cluster randomized trial. *Arthritis Rheum* 2007;57(7):1211–9.
- [35] Rogan S, Verhavert Y, Zinzen E, Rey F, Scherer A, Luijckx E. Risk factor and symptoms of burnout in physiotherapists in the canton of Bern. *Arch Physiotherapy* 2019;9:19.
- [36] Fukkink RG, Trienekens N, Kramer LJC. Video feedback in education and training: putting learning in the picture. *Educ Psychol Rev* 2011;23:45–63.
- [37] O'Cathain A, Croot L, Duncan E, Rousseau N, Sworn K, Turner KM, *et al.* Guidance on how to develop complex interventions to improve health and healthcare. *BMJ Open* 2019;9, <http://dx.doi.org/10.1136/bmjopen-2019-029954>.

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