Physiotherapy in a Post-Covid World

Niklaus Quek[1], Jenny Alexanders[1]

Corresponding author: Dr Jenny Alexanders j.alexanders@tees.ac.uk
Institution: 1. Teesside University
Categories: Educational Strategies, Students/Trainees, Teaching and Learning, Curriculum Evaluation/Quality Assurance/Accreditation, Undergraduate/Graduate

Received: 23/10/2020
Published: 16/12/2020

Abstract

Lockdowns all over the world have influenced the physiotherapy profession in every conceivable way with nearly half of physical activity has fallen across the globe, including physiotherapists and students alike. The forced closure of private MSK clinics and physiotherapy departments in hospitals have seen an uptake in telehealth demand for physiotherapy services. Musculoskeletal physiotherapists must now ask themselves how they could treat patients effectively in absence of offering any face to face or therapeutic hands on. This short opinions piece evokes forward thinking regarding the current positions MSK clinicians face alongside the growing concerns for future physiotherapy students.

Keywords: COVID; Physiotherapy Education; Online Teaching; Telehealth Physiotherapy

Physiotherapy in a Post-COVID World

Lockdowns all over the world have influenced the physiotherapy profession in every conceivable way. In a self-reported study by Sirivastav, Sharma and Samuel (2020) nearly half of physical activity has fallen across the globe, including physiotherapists and students alike. The social climate has not been pleasant either, a study by Li et al. (2020) explored social reactions taken from a well-known Chinese social media site (Weibo). The study observed patterns of emotional indicators after the discovery of COVID-19 and revealed a significant decline in life satisfaction, negative emotions and an increased sensitivity to social risks. The reality of these findings coupled with the destruction of the economy, universities moving to online teaching and physiotherapy placements leading to reduced opportunities for clinical experience, we are left to wonder what is next for the future for physiotherapy. In terms of businesses, the forced closure of private clinics and physiotherapy departments in hospitals have seen an uptake in telehealth demand for physiotherapy services (Turolla et al., 2020). The pandemic disproportionally challenges those in rural dwelling or impoverished populations (Patel et al., 2020) and populations including those with learning disabilities, sensory loss, all of which may not effectively participate in such alternatives (Douglas et al., 2020). We would have to seriously ask ourselves how we could make our telehealth communications more inclusive towards these populations or face the consequences of overlooking the underprivileged which could counterproductively increase susceptibility of hospitalisations in this pandemic.
If telehealth options are totally unviable, what else can be done? What if an instance of network outage occurs globally, what could be a possible contingency? Musculoskeletal physiotherapists must now ask themselves how they could treat patients effectively in absence of offering any face to face or therapeutic hands on. The same could be asked for our physiotherapy student population, is teaching online an equal substitute for practical sessions and does this sufficiently prepare students for practice? Could telehealth models provide a conducive environment for education, consultation, group-training, exercise instruction and assessments? How would businesses price and justify these new costs or measures taken to treat patients? How would risk-assessing and multi-disciplinary communication be conducted through the lens of only using a digital platform? Should an injury occur during an online telehealth consultation from an advice given by the physiotherapist, who would be liable?

Whilst there have been widespread closure of private clinics and NHS physiotherapy services, there has been a rise in early discharges in hospitals to reduce spread and to maximise bed space for patients infected with the virus (Waring et al., 2014). Improper discharge and a reduction in contact time with the physiotherapist could engender complications for patient recovery and increases in rehospitalisation. Corroborated by Flavey, Kraffit and Kornetti (2020) closures of practices and skeletal ran NHS physiotherapy services could cause iatrogenic repercussions which could potentially "increase hospitalisation risk through increased falls, fractures, or other predictable consequences of quarantine-induced immobility" (p.1060). In addition, Barberi and Mielli (2018) reported that that early discharge could paradoxically increase health care costs if it requires more intensive post-care treatments or rehospitalisation. Working in these unfamiliar times warrants a continuous reassessment of clinical governance and audit to ensure that these approaches are safe.

Physical activity is well documented as one indicator used for measuring health and rate of progress of conditions (Brolinson and Elliott, 2007). Given the aforementioned, evidence surrounding worrying levels of physical activity, it clearly outlines a damming influence in the betterment of their conditions (Jack et al., 2010). In addition, mental and social issues such as low self-efficacy, depression, anxiety and a lack of social support contributed to barriers in treatment adherence. Now has become the most vital time that physiotherapists advocate for upkeep of physical training and rehabilitation exercises. However, could there additionally be work done promoting positive mentalities and community-building spirits within the physiotherapy realm that may serve as a pillar of social support in these trying times? Furthermore, could this potentially call for stronger bridging and bonds between the discipline of physical therapy and personal training to be working hand-in-hand? With the influx of covid-19 patients on the rise, demand must be met out by current practitioners for those needing rehabilitation post-discharge. Would there be sufficient resources for such paradigm shifts?

From an education perspective, a review conducted by (Macznik, Ribero and Baxter, 2015), demonstrated that online technology can be effective for boosting practical skills performance, deep learning and encouraging retrospection for physiotherapists. This was especially evident during discussions on message boards and debates held online which may have simuated a much more welcoming environment and one that is less direct than opposing a view in real life. Teachers can make use of such research on online technologies and take advantage of platforms which evidently provides the best results in terms of learning in order to maintain interest and relevance which would go a long-way during 3-hour long lessons for students lounging in the comforts of their home.

Universities have adopted hybrid curriculums whereby certain lessons are held virtually and practical lab sessions are conducted on campus. In order to ascertain safety and to prevent a total lockdown, lecturers have been guided on promoting PPE, social distancing and sanitisation (Brasset al., 2020). An order that will be seen for the time to come. With that said, more health and safety regulations should be instilled within students and part of their assessment as well. E.g. Failure to comply with mask-wearing or sanitising after usage of equipment could bring about a deduction in marks. A pragmatic approach to an ever-changing environment must see student's follow-suit. Could there be any reason to excuse students for protesting enforced face mask- wearing or should the mask be
considered part of a new uniform?

Recent evidence has shown that Universities are making attempts in supporting students to work and learn from their home environment during the pandemic, but this is not consistently being demonstrated across all institutions (Sahu, 2020). It may be the case that this period of adjusting to online learning is presenting with new challenges. For instance, if online learning for physiotherapy students is here to stay then the curriculum may need to include IT-based modules such as coding or program familiarisations (Python, Zoom, Microsoft Teams, Skype, etc.) to ensure that all students are digitally forward facing (Sharma et al., 2019). One suggestion for improving online teaching and learning would be to provide clearer guidance for student online etiquette and professional digital behaviour. This may also help address students dealing with the appropriate storage of potential confidential information that is shared through a general virtual platform when compared to a more secure platform such as an electronic health system. The other challenge is how will physiotherapy students manage such confidential data on virtual placements and platforms without jeopardising encryption?

It is questions like these which calls for the utmost coordination and effort from the leading physical therapy professionals, international bodies, accredited academic and research institutions, and patient advocacy groups to collaboratively answer so as to ascertain some certainty in these uncertain times.

**Take Home Messages**

- It is important that physiotherapy students are provided with the technological support to help them transition in to an online way of learning.
- Delivery of online physiotherapy sessions must be innovative and be relevant to make up for reduced valuable clinical practical sessions.
- Potentially reaching out to clinical experts to help deliver online sessions to bridge theory to practice when working in restricted COVID times.

**Notes On Contributors**

**Mr Niklaus Quek** - Physiotherapy Colleague - Teesside University (United Kingdom). Niklaus has an interest in contemporary physiotherapy practice. His recent research has involved the effects of COVID within physiotherapy education and telehealth within musculoskeletal physiotherapy. Niklaus's work is mainly qualitative.

**Dr Jenny Alexanders** - Senior Lecturer in Physiotherapy - Teesside University (United Kingdom). Jenny has a wealth of both clinical and academic experience surrounding clinical education, psychological interventions used by MSK physiotherapists and goal setting strategies using in Anterior Cruciate Ligament rehabilitation. Her publications range from systematic reviews, cross sectional studies, qualitative designs and ethnography. ORCID ID: [https://orcid.org/0000-0001-5519-3311](https://orcid.org/0000-0001-5519-3311)

**Acknowledgements**

None.
Bibliography/References

Barberi, S. and Mielli, L. (2018) 'Rehabilitation and Discharge', *Fragility Fracture Nursing*: Springer, Cham, pp. 125-136.

Brassett, C., Cosker, T., Davies, D. C., Dockery, P., *et al.* (2020) 'COVID-19 and anatomy: Stimulus and initial response', *Journal of Anatomy*, 237(3), pp. 393-403. https://doi.org/10.1111/joa.13274

Brolinson, P. G. and Elliott, D. (2007) 'Exercise and the immune system', *Clinics in Sports Medicine*, 26(3), pp. 311-319. https://doi.org/10.1016/j.csm.2007.04.011

Douglas, M., Katikireddi, S. V., Taulbut, M., McKee, M., *et al.* (2020) 'Mitigating the wider health effects of covid-19 pandemic response', *BMJ*, 369. https://doi.org/10.1136/bmj.m1557

Falvey, J. R., Krafft, C. and Kornetti, D. (2020) 'The essential role of home-and community-based physical therapists during the COVID-19 pandemic', *Physical Therapy*, 100(7), pp. 1058-1061. https://doi.org/10.1093/ptj/pzaa069

Jack, K., McLean, S. M., Moffett, J. K. and Gardiner, E. (2010) 'Barriers to treatment adherence in physiotherapy outpatient clinics: a systematic review', *Manual Therapy*, 15(3), pp. 220-228. https://doi.org/10.1016/j.math.2009.12.004

Li, S., Wang, Y., Xue, J., Zhao, N. and Zhu, T. (2020) 'The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users', *International Journal of Environmental Research and Public Health*, 17(6), pp. 2032. https://doi.org/10.3390/ijerph17062032

Macznik, A. K., Ribeiro, D. C. and Baxter, G. D. (2015) 'Online technology use in physiotherapy teaching and learning: a systematic review of effectiveness and users' perceptions', *BMC Medical Education*, 15(1), pp. 160. https://doi.org/10.1186/s12909-015-0429-8

Patel, J., Nielsen, F., Badiani, A., Assi, S., *et al.* (2020) 'Poverty, inequality and COVID-19: the forgotten vulnerable', *Public Health*, 183, pp. 110. https://doi.org/10.1016/j.puhe.2020.05.006

Sahu, P. (2020) 'Closure of universities due to Coronavirus Disease 2019 (COVID-19): impact on education and mental health of students and academic staff', *Cureus*, 12(4). https://doi.org/10.7759/cureus.7541

Sharma, R., Nachum, S., Davidson, K. W. and Nochomovitz, M. (2019) 'It's not just FaceTime: core competencies for the Medical Virtualist', *International Journal of Emergency Medicine*, 12(1), pp. 8.

Srivastav, A. K., Sharma, N. and Samuel, A. J. (2020) 'Impact of Coronavirus disease-19 (COVID-19) lockdown on physical activity and energy expenditure among physiotherapy professionals and students using web-based open E-survey sent through WhatsApp, Facebook and Instagram messengers', *Clinical Epidemiology and Global Health*. https://doi.org/10.1016/j.cegh.2020.07.003

Turolla, A., Rossettini, G., Viceconti, A., Palese, A., *et al.* (2020) 'Musculoskeletal physical therapy during the COVID-19 pandemic: is telerehabilitation the answer?', *Physical Therapy*, 100(8), pp. 1260-1264. https://doi.org/10.1093/ptj/pzaa093

Waring, J., Marshall, F., Bishop, S., Sahota, O., *et al.* (2014) 'Health Services and Delivery Research'. *An ethnographic study of knowledge sharing across the boundaries between care processes, services and organisations: the contributions to 'safe' hospital discharge*. Southampton (UK): NIHR Journals Library.
Appendices

None.

Declarations

The author has declared that there are no conflicts of interest.

This has been published under Creative Commons "CC BY 4.0" (https://creativecommons.org/licenses/by-sa/4.0/)

Ethics Statement

This is a short opinions/ personal piece, therefore ethical approval was not required.

External Funding

This article has not had any External Funding

MedEdPublish: rapid, post-publication, peer-reviewed articles on healthcare professions’ education. For more information please visit www.mededpublish.org or contact mededpublish@dundee.ac.uk.