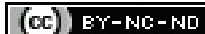


# The Changing Face of Physiotherapy Practice in COVID-19: Perspective of an Indian Physiotherapist

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## ABSTRACT

COVID-19 has taken up the world like a storm. It has placed unusual demands on healthcare delivery systems, including physiotherapy services worldwide. This challenge is even larger than the one placed by Severe Acute Respiratory Syndrome (SARS) or Ebola because of its sheer virulence. Times are changing; we need to do the same and accept the challenge head on. The role of a physiotherapist in the management of the COVID-19 patients is well established but an important issue is the management of non-COVID-19 as well as COVID-19 patients judiciously during these times. The various barriers to practice have increased manifold due to the condition as well as the associated problems which arose due to it. This commentary will comment on the likely impact of this pandemic over the existing physiotherapy delivery structure, challenges arising out of it and their probable solutions, ending with a brief note on India.

**Keywords:** Barriers, Non-COVID patients, Respiratory physiotherapy

## INTRODUCTION

The World Health Organisation (WHO) declared COVID-19 an epidemic on 30<sup>th</sup> January 2020 and eventually a pandemic on 11<sup>th</sup> March 2020 [1]. As of 22<sup>nd</sup> December 2020, it has already infected approximately 76,250,431 people and has been responsible for 1,699,230 deaths worldwide [2]. India reported its first case of COVID-19 on 30<sup>th</sup> January 2020 [3]. As on 22 December 2020, India had 10,075,116 confirmed cases, making it the second most affected country after the USA [2]. The COVID-19 pandemic is testing not just the medical services, but has affected all other aspects of human life.

COVID-19 patients require immediate care, which includes respiratory therapy. Thorough assessment, appropriate goal setting and physiotherapy, continuity of care and communication and Personal Protective Equipment (PPE) are some of the important quality standards identified by Chartered Society of Physiotherapy (CSP) in the management of COVID-19 patients [4]. Measures taken to restrict the infection (like lockdown) created a multitude of difficulties like restricted mobility and cessation or reduction of outpatient and home-care services, which have turned the situation into a rehabilitation nightmare. This nightmare has continued to grow over the past seven months so much, that the CSP has named it as a 'tsunami of rehabilitation needs' [5] which has taken the world along with its waves. This pandemic has also created a set of patients who have unmet rehabilitation needs because of the unavailability or limited availability of rehabilitation services [6].

## IMPACT ON PHYSIOTHERAPY SERVICES

The World Physiotherapy (WP) has urged policy makers not to compromise on the rehabilitation needs of patients [7], as it would lead to increased mortality and morbidity. There are unmet rehabilitation needs, which might lead to issues of decreased and limited functional activities. These may lead to decreased participation and decreased independence, and an overall decrease in quality of life [8]. While an early medical breakthrough for COVID-19 is certainly desirable, the issue of proper rehabilitation of existing COVID-19 patients should not be neglected. As stated above, various restrictions placed by different governments impacted physiotherapy services, which were an integral part of the medical system. These services were negatively affected due to social distancing norms, nonavailability

of what was deemed as nonessential services, cessation of public transportation and restrictions in outpatient and home care. Thus, the needs of the existing patients were severely affected. The need of the hour is a broad based yet inclusive policy which can duly address to the unmet needs of the existing non-COVID-19 patients as well as the current and future needs of the COVID-19 patients.

The role of physiotherapists as a frontline care giver to COVID-19 patients cannot be over-emphasised. The current literature has placed great emphasis on respiratory therapy in dealing with COVID-19 and have emphasised the role of respiratory physiotherapy in managing the symptoms of the disease [9-11]. This is also need to underscore that the emphasis should not only be on respiratory rehabilitation but also on musculoskeletal rehabilitation. WHO classifies patients according to their clinical presentation into the following categories: (a) mild- with no major signs or symptoms of pneumonia; (b) moderate- clinical signs of pneumonia (pyrexia, cough, dyspnoea and faster respiratory rate); (c) severe- severe signs of pneumonia (all the features of moderate with respiratory rate of >30 breaths/min; SpO<sub>2</sub> <90% or severe respiratory distress); (d) acute respiratory stress syndrome; and (e) sepsis and/or septic shock [12]. In this regard, the most common recommended treatment strategies are: early mobilisation, passive/active mobilisation, postural changes (frequent prone lying for >12-16 h), neuromuscular electrical stimulation, exercise, respiratory muscle training and psychosocial support [9,13,14]. Appropriate emphasis should be placed on long term rehabilitation needs to the COVID-19 patients who have been discharged from the ICU as the number of these patients is on a steady rise. It should also be remembered that a number of these COVID-19 patients are elderly who might be having rehabilitation need even prior to getting effected. Hence, due attention must be paid to this population to minimise disability and frailty.

To cope up with the challenge of managing the COVID-19 as well as non-COVID-19 patients along with self-protection a few modifications have to incorporated in the current physiotherapy practise [15]. Personnel protection is a key component in the fight against COVID-19. It is important to keep our healthcare workers safe in order to fight this pandemic. It should be recalled that during SARS, in Toronto and Singapore, around 20 per cent of the affected population were health care workers [16]. Studies conducted on transmission modes have taught us that health care workers working

within one meter of an infected patient should get higher levels of protection [16]. The WP has already started an advocacy campaign for availability of PPE for all physiotherapists [17]. Moreover, since respiratory physiotherapy is an essential part of the management of COVID-19 [9,18,19] physiotherapists working with such patients should be fully compliant with the WHO guidelines [20], which include appropriate usage of PPE. What is also important is the training of all physiotherapists in donning and doffing the PPE properly, which will further help in controlling the spread of the pandemic [18].

Reorganisation of the clinical practise methods is a need of the hour. Management strategies for non-COVID-19 patients should be reorganised urgently [10]. Physiotherapist have to look for newer methods to fulfil their roles keeping infection control policies in mind. Due emphasis should also be given to methods and Standard Operating Procedures (SOPs) which will help in restricting the spread as well as keep the therapist and patients safe. This can be ensured by strictly following the norms developed by WHO. Patient compliance has to be improved so that exercise and home program can become the mainstay of management so as to decrease the number of clinical visits. Orthopaedic and manual therapist need to rethink about their treatment strategies whereby an everyday intervention might not be the treatment of choice in the current scenario. Home treatment programme and video conferencing might be a good choice [15]. Tele-rehabilitation can help to fulfil this rehabilitation gap. It can be utilised for motor and cognitive rehabilitation as well as for monitoring various rehabilitation parameters like cardiovascular [21]. Appropriate usage of various means of telerehabilitation: mobile-app, text, video or telephone requires infrastructure and technological know-how both for the care provider and the care receiver [22-24]. It should be kept in mind that language and education level might be a barrier in effective delivery of telerehabilitation [6]. Community based rehabilitation where home care is the main stay cannot be overemphasised, by virtue of which treatment can be given closer to home with minimum contact.

Interdisciplinary team is the answer for lack of personnel in the current times. Professionals need to remove communication barriers and emphasis should be placed on sharing information and expertise [6,15].

## INDIAN SCENARIO IN PHYSIOTHERAPY PRACTISE

This pandemic has made the Indian healthcare system go haywire, exposing its fragility and inadequacy to deal with it in any meaningful way [25]. Indian government had announced a total lockdown on 24<sup>th</sup> March 2020 with only four hours' notice allowing only essential services [26]. All the outpatient and home care rehabilitation services were suspended and only inpatient services were permissible [23]. This was one of the strictest actions taken by any government in the world to stop the spread of the virus. Even though this decision received a positive response from WHO [27], a number of researchers did not agree with this response [28,29]. Some argued about its economic impact, whereas some had reservations about the ability of the government to undertake an appropriate capacity building measures during lockdown period [28]. Some have also argued that the unprecedented lockdown was ill timed and should have been done later when cases started multiplying exponentially.

The measures adopted by the Indian government had huge impact on the rehabilitation services as well. First of all, the patients were themselves reluctant to move out even if there had been a rehabilitation need, due to the fear of COVID-19. Secondly, the government converted a number of government hospitals into 'COVID-19 only' centres to prevent 'cohorting' of patients with and without COVID-19 [30]. As a result, they were no longer accessible for regular patients with rehabilitation needs. Thirdly, private clinics or home care services were either not working or working at a

highly reduced capacity. And finally, a few functioning hospitals were working at lesser capacity as they had to maintain social distance norms and decreased or rotational staff as per the government guidelines. All this placed a huge stress on the existing system. Several private practitioners relied on telerehabilitation tools like WhatsApp video call and zoom to provide care [23]. But clearly, this was neither sufficient nor a replacement for face to face care work.

Research work published from India on COVID-19 and its effects is minimal, with only a few articles about recommendations on Physiotherapy practise [31]. Anecdotal data suggest that elderly patients with disability and children with special needs suffered maximally and are still suffering. In a country like India, where rehabilitation needs were already unmet, this has escalated the problem further. Alternative technology aided solutions aided has further created new inequities between those who have limited access to such technology and those who primarily operate through such technologies.

Despite the gloominess induced by COVID-19, Dharavi, the largest slum in Asia, has become a success story and model in the world. They reported the first COVID-19 case on 1<sup>st</sup> April 2020 and eventually it turned into a hotspot [32]. However, by June 2020, they reported zero deaths amidst the pandemic. This was only possible due to an effective partnership between the community, government and various NGOs. Dharavi demonstrated that barriers can be bridged with collaborative efforts of all the stakeholders [33].

## CONCLUSION(S)

The COVID-19 pandemic has brought about an irreversible alteration in rehabilitation practises. To address to these alterations, we need to change our care delivery system across the continuum. This change is not just about the mode of delivery of care but also to re-skilling and deployment of personnel. Digital connectivity is the need of the hour, which should be addressed immediately, while at the same time, we need to address concerns of unequal access to technology. The use of latest technology in the field like artificial intelligence tools, robotics and mobile apps should be explored.

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