

# Out-of-hospital physical therapy during pandemic: the vision and positioning of professionals

*Fisioterapia extra-hospitalar durante a pandemia: a visão e o posicionamento dos profissionais*

*Fisioterapia extrahospitalaria durante la pandemia: la visión y el posicionamiento de los profesionales*

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**ABSTRACT** | The COVID-19 pandemic caused atypical moments for the population. In Brazil, to promote measures to control viral dissemination, Decrees issued by several government levels indicated the essential and non-essential services that could remain in operation during a certain period. Out-of-hospital physical therapy was considered nonessential. This article aims to verify whether physical therapists consider the practice of out-of-hospital physical therapy as an essential service during periods of humanitarian crises, such as the COVID-19 pandemic. Additionally, we aim to identify the types of care procedures performed during this period. We performed a cross-sectional, quantitative, and descriptive survey with descriptive analysis, conducted by an electronic questionnaire published on the websites of the Regional Councils of Physical Therapy and Occupational Therapy (CREFITO's) of Paraná – CREFITO 8, Santa Catarina – CREFITO 10, and Rio Grande do Sul – CREFITO 5. 78% of the volunteers are female, and 44% are registered in CREFITO 8, 40% are physical therapist of CREFITO 5, 16% are registered in CREFITO 10, and 100% of the sample considered out-of-hospital physical therapy an essential service. Regarding the schooling level, 70% have a graduate degree and 54% work in private establishments. During the decree of essential services, 56% of the professionals did not practice. Out-of-hospital physical therapy is essential in pandemic crises. In addition to providing initiation and continuity to patient treatment, it avoids unnecessary visits to hospitals.

**Keywords** | Pandemics; Physical Therapists; Social Isolation.

**RESUMO** | A pandemia da COVID-19 provocou momentos atípicos para a população. A fim de promover medidas de controle da disseminação viral, decretos emitidos pelos diversos níveis governamentais indicaram serviços essenciais e não essenciais que poderiam permanecer em funcionamento no Brasil durante determinado período. A fisioterapia extra-hospitalar foi considerada não essencial. O artigo tem como objetivo verificar se a fisioterapia no âmbito da atuação extra-hospitalar é considerada um serviço essencial, na visão de fisioterapeutas, durante os períodos de crises humanitárias, a exemplo da pandemia causada pela COVID-19, e identificar os tipos de procedimentos assistenciais executados. Para isso, foi realizada pesquisa transversal, quantitativa e descritiva do tipo survey com análise descritiva. Realizada por meio de um questionário eletrônico publicado nos sites dos Conselhos Regionais de Fisioterapia e Terapia Ocupacional (Crefito) do Paraná, de Santa Catarina, e do Rio Grande do Sul (respectivamente, Crefito 8, 10 e 5). Nos resultados, foi observado que 78% dos voluntários são do sexo feminino, sendo que 44% estão registrados no Crefito 8, 40% são fisioterapeutas do Crefito 5, 16% são registrados no Crefito 10 e 100% da amostra considerou a fisioterapia extra-hospitalar um serviço essencial. Em relação ao grau de formação, 70% dos profissionais que responderam possuem pós-graduação lato-sensu e 54% atuam em estabelecimentos privados. Durante o decreto de serviços essenciais, 56% dos

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profissionais não atuaram. Com isso, conclui-se que a fisioterapia extra-hospitalar é essencial em crises pandêmicas. Além de dar início e proporcionar continuidade ao tratamento do paciente, evita visitas desnecessárias aos hospitais.

**Descritores** | Pandemias; Fisioterapeutas; Isolamento Social.

**RESUMEN** | La pandemia del COVID-19 provocó momentos atípicos para la población de todo el mundo. Con el fin de promover medidas para evitar la propagación del virus por Brasil, los decretos emitidos por los gobiernos indicaron servicios esenciales y no esenciales que podrían permanecer en funcionamiento por determinado periodo. La fisioterapia extrahospitalaria se consideró no esencial. Este artículo tiene por objetivo verificar si los profesionales consideran la fisioterapia en el contexto de la acción extrahospitalaria como un servicio esencial durante periodos de crisis humanitaria, como la pandemia provocada por el COVID-19, así como identificar los tipos de procedimientos asistenciales realizados. Para ello,

se realizó una investigación transversal, cuantitativa y descriptiva, del tipo encuesta, con análisis descriptivo. Se usó un cuestionario electrónico publicado en los sitios web de los Consejos Regionales de Fisioterapia y Terapia Ocupacional (Crefito) de Paraná, de Santa Catarina y de Rio Grande do Sul (Crefito 8, 10 y 5, respectivamente). Los resultados indican que el 78% de los voluntarios son mujeres, el 44% están registrados en Crefito 8, el 40% son fisioterapeutas en Crefito 5, el 16% están registrados en Crefito 10, y el 100% de la muestra considera la fisioterapeuta extrahospitalaria un servicio esencial. En cuanto al nivel educativo, el 70% de los profesionales que respondieron tiene posgrado lato-sensu y el 54% trabajan en establecimientos privados. Durante el decreto sobre servicios esenciales, el 56% de los profesionales no trabajaban. Esto permite concluir que la fisioterapia extrahospitalaria es fundamental en crisis pandémicas. Además de iniciar y dar continuidad al tratamiento del paciente, evita que este vaya a hospitales sin necesidad.

**Palabras clave** | Pandemias; Fisioterapeutas; Aislamiento Social.

## INTRODUCTION

In December 2019, a series of unexplained cases of what was thought to be pneumonia were reported in the city of Wuhan, China. On January 30, 2020, the World Health Organization (WHO) declared the 2019-nCoV epidemic as a Public Health Emergency of International Concern (PHEIC)<sup>1</sup>. In Ordinance No. 188, of February 3, 2020, Brazil declared an Emergency in Public Health of National Concern, due to human infection by SARS-Cov-2<sup>2,3</sup>.

The national government created Law No. 13,979 on February 6, 2020, which provided measures to handle the PHEIC resulting from the coronavirus<sup>4</sup>. The President of the Republic released the Decree No. 10,282 on March 20, 2020, regarding public services and essential activities, to ensure the acquisition of goods, services, and supplies intended to combat the pandemic and to promote social distancing<sup>5</sup>. Each state was then allowed to act according to its epidemiological data, determining the closure and opening of essential and nonessential services.

In this context, physical therapy was considered a nonessential service, except for the physical therapy in hospitals and in intensive care, consequently the state of Santa Catarina prohibited the professional from practicing in Decree No. 515 of March 17, 2020; followed by Rio Grande do Sul, with Decree No. 55,130 of March 20, 2020; and, finally, the state of Paraná, by Decree No. 4,317,

of March 21, 2020<sup>6-8</sup>. After a few weeks, the states decided to allow the opening of nonessential services and the out-of-hospital physical therapy services returned to work in Santa Catarina by Ordinance No. 223, of April 5, 2020; in Rio Grande do Sul by Ordinance No. 274, of April 24, 2020; and in Paraná, the capital Curitiba published Decree No. 470, 26 March 2020, enabling such services<sup>9-11</sup>.

Physical Therapy was regulated as a high level profession on October 13, 1969, by Decree-Law No. 938. The physical therapist performs methods and techniques in order to restore, to develop, and to conserve the physical capacity of the patient. Thus, the professional practice is essential across the entire health-disease process<sup>12</sup>. Article 196 of the Constitution of the Federative Republic of Brazil of 1988 indicates that health is a part of the people's right and the State's duty, guaranteed by social and economic policies aimed at reducing the risk of disease and other injuries<sup>13</sup>.

A better understanding of the field's importance needs to be thoroughly discussed within the Physical Therapy community—including among co-workers, local associations, specialty associations, and within regional and federal councils—in order to establish what is essential in the field to cover the necessary care for the population, as well as set the boundaries and limits of the practice during critical scenario. In this sense, this study aims to verify whether out-of-hospital physical therapy is, according to physical therapists, considered an

essential service during periods of humanitarian crises, such as the pandemic caused by COVID-19. In addition to identifying the types of care procedures that were performed during that period.

## METHODOLOGY

The research occurred on ethical principles, based on Resolution No. 466/2012 of the National Health Council. The confidentiality agreement was signed to preserve the privacy and anonymity of the subjects regarding all information.

This is a cross-sectional, quantitative, and descriptive study with descriptive analysis, conducted through an electronic questionnaire published on the websites of the Regional Councils of Physical Therapy and Occupational Therapy (*Conselho Regional de Fisioterapia e Terapia Ocupacional – Crefito*) of the state of Paraná (Crefito-8), Santa Catarina (Crefito-10), and Rio Grande do Sul (Crefito-5).

The study included professionals from the three state capitals of Southern Brazil who were regularly enrolled in their Crefito in 2020 and, especially, who volunteered to participate in the research through an electronic signature of the informed consent form (ICF). According to the statistical data of Crefito-8, the capital Curitiba registers 4,077 professionals, the Crefito-10 in Florianópolis has 1,547 physical therapists, and the Crefito-5 holds 3,665 records in the capital Porto Alegre. There is no formal registration agency – such as the e-Social, the National Institute of Social Security (INSS), or the General Register of Employed and Unemployed Persons (Caged), among others – that fully cover the range of the professional's practice that could serve as basis for research. The aforementioned agencies record only the spectrum of formal work; however, most physical therapists, like many in the health area, act as independent professionals.

The questionnaire proposed in this research was answered by 50 physical therapists. This sample range represents the total of 9,289 physical therapists from the three capitals – without distinction between hospital or out-of-hospital practice, since there are no precise data on this – considering a sampling error of 10% and a confidence level of 90%. This means that it is estimated that for every 1,000 physical therapists interviewed, 900 demonstrate the characteristics expressed here.

The survey was carried out through a form produced via Google Forms, the link of which was posted on the

pages and social networks of the Crefitos. The first section of Google Forms was the ICF. The survey began in the second section, composed by 18 questions, nine of which were single-answer and nine were multiple choice answers.

The collected data were analyzed with the help of the IBM Statistical Package for the Social Science (SPSS) version 22.0 software. The qualitative variables were expressed by frequency and percentage. All results were expressed through tables and/or graphs. The statistical tests were performed with a significance level  $\alpha=0.05$  and, therefore, 95% of confidence. The investigation of an association between qualitative variables was performed by applying the likelihood-ratio teste and Fisher's exact tests.

## RESULTS

Table 1. Sample characteristics

	n (%)
	n=50
Sex	
Female	39 (78.0)
Male	11 (22.0)
Crefito	
Crefito-8 (PR)	22 (44.0)
Crefito-10 (SC)	8 (16.0)
Crefito-5 (RS)	20 (40.0)
Professional training time (years)	
Up to 5	9 (18.0)
From 5 to 10	9 (18.0)
From 10 to 20	14 (28.0)
Over 20	18 (36.0)
Further education	
Further Training courses:	23 (46.0)
Academic specialization	35 (70.0)
Master's degree	11 (22.0)
Doctorate/Post-Doctorate	4 (8.0)
None	3 (6.0)

(continues)

Table 1. Continuation

	n (%)
	n=50
Field(s) of Activity	
Trauma-Orthopedic	28 (56.0)
Respiratory	18 (36.0)
Neurofunctional	15 (30.0)
Oncology	12 (24.0)
Intensive Care	12 (24.0)
Hospital-based	12 (24.0)
Gerontology	10 (20.0)
Sports	6 (12.0)
Physical Therapy of the Work	6 (12.0)
Cardiovascular system	5 (10.0)
Dermato-functional	5 (10.0)
Women's health	3 (6.0)
Acupuncture	3 (6.0)
Aquatic therapy	3 (6.0)
Osteopathy	2 (4.0)
Other	9 (18.0)
Salary income (monthly)	
1 to 2 minimum wages	2 (4.0)
3 to 5 minimum wages	14 (28.0)
More than 5 minimum wages	34 (68.0)

Source: survey data (2020).

The sample consists of 50 participants, of whom 39 are female and 11 are male. When asked about the region of activity, it was observed that 22 were in the Crefito-8 region, 20 in the Crefito-5 region, and 8 in the Crefito-10 region. Demographic characteristics can be observed in Table 1.

About their employment relationship, 27 (54%) physical therapists work in the private sector, 32 (64%) professionals are self-employed, and 31 (62%) are employed. In the view of the whole sample, out-of-hospital physical therapy is considered an essential service to be maintained during the decrees of essential and non-essential services, and 29 (58%) professionals believe that all of the professional fields should work during the decree (Table 2).

Regarding the specialties, 18 (36%) professionals believe that respiratory and neurofunctional physical therapy should work during periods in which only essential services were maintained. When asked about having participated in actions during the pandemic, 22 (44%) reported not having participated in any action and 17 (34%) professionals provided guidance to the population (Table 2).

Table 2. Profile of work, essentiality, and participation in actions during the pandemic

	n (%)
	n=50
Employment type	
Private	27 (54.0)
Private and public	12 (24.0)
Public	11 (22.0)
Employment relationship	
Self-employed professional	32 (64.0)
Employed	31 (62.0)
Employer	3 (6.0)
Perceive out-of-hospital physical therapy as an essential service	50 (100.0)
Specialties that should act in periods when only the services considered essential were maintained	
Respiratory	18 (36.0)
Neurofunctional	18 (36.0)
Cardiovascular system	17 (34.0)
Gerontology	16 (32.0)
Trauma-Orthopedic	16 (32.0)
Oncology	15 (30.0)
Acupuncture	12 (24.0)
Women's health	10 (20.0)
Physical Therapy of the Work	10 (20.0)
Osteopathy	8 (16.0)
Chiropractic	6 (12.0)
Sports	3 (6.0)
Aquatic therapy	1 (2.0)
All	29 (58.0)
Participation in health actions during the pandemic	
Guidance to the population	17 (34.0)
Screenings	7 (14.0)
Vaccination campaign	2 (4.0)
Others	9 (18.0)
Did not participate	22 (44.0)

Source: survey data (2020).

The Federal Council of Physical Therapy and Occupational Therapy (*Conselho Federal de Fisioterapia*

e *Terapia Ocupacional – Coffito*) authorized the use of technology in the modalities of teleconsultation, teleconsulting, and telemonitoring to attend patients during the time the decree was in effect, in which only essential services were maintained, remembering that the out-of-hospital physical therapy service was considered non-essential. Of the interviewees, 25 (50%) professionals did not use these resources and 16 (32%) used the telemonitoring modality. These new mediums were mainly used by the specialty of trauma-orthopedic physical therapy (Table 3).

On the in-person practice maintained during the decree, 22 (44%) physical therapists stated that they had worked directly with out-of-hospital physical therapy and the main areas of activity were respiratory, neurofunctional, and trauma-orthopedic physical therapy (Table 3).

Table 3. Types of technologies used, and physical therapy assistance provided during the decree of essential services

	n (%)
	n=50
Use of remote technologies	
For teleconsultation	12 (24.0)
For teleconsulting	8 (16.0)
For telemonitoring	16 (32.0)
Does not use technologies	25 (50.0)
Fields in which remote technologies was used	
Trauma-Orthopedic	12 (24.0)
Neurofunctional	5 (10.0)
Respiratory	4 (8.0)
Gerontology	4 (8.0)
Physical Therapy of the Work	2 (4.0)
Oncology	2 (4.0)
Sporting	1 (2.0)
Women's health	1 (2.0)
Dermato-functional	1 (2.0)
Intensive Care	1 (2.0)
Other	5 (10.0)
Practiced out-of-hospital physical therapy during the decree	
Yes	22 (44.0)
No	28 (56.0)
Assistance provided	
Respiratory	11 (22.0)
Neurofunctional	9 (18.0)
Trauma-Orthopedic	9 (18.0)
Oncology	8 (16.0)
Intensive Care	7 (14.0)
Gerontology	5 (10.0)
Cardiovascular system	2 (4.0)
Physical Therapy of the Work	2 (4.0)

(continues)

Table 3. Continuation

	n (%)
	n=50
Osteopathy	2 (4.0)
Acupuncture	2 (4.0)
Sporting	1 (2.0)
Others	4 (8.0)

Source: survey data (2020).

Table 4. Hygiene measures and physical therapeutical activity during the beginning of the COVID-19 pandemic

	n (%)
	n=50
Hygiene and safety measures adopted	
Alcohol gel	28 (56.0)
Hand hygiene	27 (54.0)
Use of mask	27 (54.0)
Frequent cleaning of the workplace	26 (52.0)
Lab coat	23 (46.0)
Gloves	20 (40.0)
Social distancing	19 (38.0)
Cough etiquette	18 (36.0)
Scheduled times with little agglomeration	17 (34.0)
Surgical shoe cover	15 (30.0)
Surgical Cap	14 (28.0)
Time without working in the initial covid-19 pandemic period	
1 week	5 (22.7)
1 to 2 weeks	5 (22.7)
2 to 3 weeks	6 (27.3)
More than 4 weeks	6 (27.3)
I didn't go without working during that period	28 (56.0)

Source: survey data (2020).

Crossings of various aspects were performed, such as places of activity, time of training, monthly income, and areas of professional activity, whether practicing or not during the essential services decree, and none of these professional characteristics presented a statistically significant relationship (Table 5).

It was noted in this study (Table 5) that regardless of the profile of professional practice involving training time, field of activity, and income of the professionals in the study, there was no influence on the direct decision to perform specific physical therapy work during the period in which only essential work was maintained. In parallel, all professionals, without distinction of profiles, understand that they should be able to work and be practicing, since they see their profession as an essential service.

Table 5. Analysis of associations between professional registration, training time, salary income, and areas of activity with the performance during the decree of essential activities

	Performance in the pandemic, n (%)		p-value
	Yes	No	
	n=22	n=28	
Crefito			
Crefito-8	10 (45.5)	12 (42.9)	0.460 <sup>†</sup>
Crefito-10	2 (9.1)	6 (21.4)	
Crefito-5	10 (45.5)	10 (35.7)	
Professional Training time (years)			
Up to 5	3 (13.6)	6 (21.4)	0.609 <sup>†</sup>
From 5 to 10	3 (13.6)	6 (21.4)	
From 10 to 20	6 (27.3)	8 (28.6)	
Over 20	10 (45.5)	8 (28.6)	
Monthly income			
1 to 2 minimum wages	1 (4.5)	1 (3.6)	0.380 <sup>†</sup>
3 to 5 minimum wages	4 (18.2)	10 (35.7)	
More than 5 minimum wages	17 (77.3)	17 (60.7)	
Field of activity			
Trauma-Orthopedic	13 (59.1)	15 (53.6)	0.778 <sup>††</sup>
Respiratory	8 (36.4)	10 (35.7)	0.999 <sup>††</sup>
Neurofunctional	9 (40.9)	6 (21.4)	0.214 <sup>††</sup>
Oncology	3 (13.6)	9 (32.1)	0.186 <sup>††</sup>
Intensive Care	4 (18.2)	8 (28.6)	0.512 <sup>††</sup>
Hospital-based	6 (27.3)	6 (21.4)	0.743 <sup>††</sup>
Gerontology	7 (31.8)	3 (10.7)	0.084 <sup>††</sup>
Sporting	3 (13.6)	3 (10.7)	0.999 <sup>††</sup>
Physical Therapy of the Work	3 (13.6)	3 (10.7)	0.999 <sup>††</sup>
Cardiovascular system	4 (18.2)	1 (3.6)	0.155 <sup>††</sup>
Dermato-functional	1 (4.5)	4 (14.3)	0.368 <sup>††</sup>
Women's health	2 (9.1)	1 (3.6)	0.576 <sup>††</sup>
Acupuncture	2 (9.1)	1 (3.6)	0.576 <sup>††</sup>
Aquatic therapy	1 (4.5)	2 (7.1)	0.999 <sup>††</sup>
Osteopathy	1 (4.5)	1 (3.6)	0.999 <sup>††</sup>
Other	4 (18.2)	5 (17.9)	0.999 <sup>††</sup>

Source: survey data (2020).

<sup>†</sup>Value obtained after applying the likelihood ratio test; <sup>††</sup>value obtained after applying Fisher's exact test.

## DISCUSSION

It was possible to observe (Tables 2 and 3) the perception physical therapists have on the essentiality of their practice during the pandemic and the professionals' performance in the periods of the decrees of essential services, considering that out-of-hospital physical therapy was not framed as an essential activity<sup>14</sup>.

The entire sample of this study regarded that out-of-hospital physiotherapy should be considered as an essential service during the pandemic. Additionally,

most of the sample reported acting in health-related campaigns during the pandemic, providing guidance and information to the population.

The Coffito Resolution No. 424 of July 8, 2013, which establishes the Code of Ethics and Deontology of Physical Therapy, reports the duties of the physical therapist. In accordance with Article 4, Article 9(V), Article 10(I), and Article 15(I) and (II)

Article 4 – The physical therapist shall provide assistance to human beings, both individually and collectively, participating in the promotion of health, in the prevention of disease, and in the treatment and recovery of their health and palliative care, always aiming towards the quality of life, without discrimination in any form or pretext, according to the principles of the health system in effect in Brazil. (...)

Article 9 – The fundamental duties of the physical therapist are constituted, according to his/her specific area and attribution: (...)

V – To make their professional services available to the community in the event of war, catastrophe, epidemic, or social crisis, without claiming personal advantage incompatible with the justice principle of bioethics. (...)

Article 10 – The physical therapist shall be prohibited from: I - Denying assistance to human beings or to the collective in case of undoubted urgency. (...)

Article 15 – It is forbidden for physical therapist to: I – Abandon the client/patient/user during treatment, without the guarantee of continuity of care, except for relevant reasons;

II – Consult or prescribe physical therapeutic treatment in a remote manner, except in cases regulated by the Federal Council of Physical Therapy and Occupational Therapy<sup>15</sup>. (Free translation)

Considering the severity and speed with which the coronavirus has spread in several countries and in Brazil, during the confrontation of the pandemic, Coffito allowed the Resolution No. 516 of March 20, 2020, which provided the temporary suspension of Article 15, item II of Resolution No. 424/2013, previously mentioned above, establishing other measures during the confrontation of the crisis caused by the COVID-19 pandemic, allowing remote service in the modalities of teleconsultation, teleconsulting, and telemonitoring. Specifically, in Article 2, it exposes the definition of each modality of remote care and grants autonomy to the professional to decide which patients can be seen remotely<sup>16</sup>.

In this research, the entire sample had the perception that the performance of out-of-hospital physical therapy is an essential service (Table 2). The American Physical Therapy Association (APTA) supported the provision of home and community physical therapy care – considered as out-of-hospital physical therapy – for patients who may be harmed by delays or cancellation of therapy sessions<sup>17</sup>.

A study conducted in the United States described that physical therapists were considered essential workers under state and federal guidelines; this was during the period when the federation implemented strategies to reduce the spread of COVID-19, with national recommendations for social distancing in effect and with most states implementing even stricter stay-at-home orders, limiting work-related trips outside the home only for those who perform essential work<sup>18</sup>.

The council states that the decision regarding the opening and closing of medical clinics and offices is up to health surveillance and health management agencies at the state, municipal, or federal levels, respecting and complying with the recommendations of the Ministry of Health and other health authorities; they also emphasize that the council did not prohibit activities in medical clinics and offices. Finally, it was concluded that the in-person modality should be maintained if there was the possibility of remote care resulting in cardiorespiratory and vascular complication, significant losses of functional capacity, and risks of worsening that could lead the patient to seek hospital care<sup>19</sup>.

There is emerging evidence that physical therapists add value, especially considering that many visits to hospitals are to treat musculoskeletal injuries and, in the elderly population, these visits can cause falls and/or ambulation problems. Physical therapists can also deal with other conditions in times of humanitarian crises, such as benign paroxysmal positional vertigo (BPPV), which has a high occurrence in emergency rooms. With home follow-up to avoid falls and recurrent injuries, going to an emergency room could be avoided. Additionally, involving physical therapists in care transitions can help reduce revisits to emergency rooms and hospital admissions<sup>20</sup>.

One article reports that one of the biggest concerns during the pandemic is the ability of hospitals to deal with a sudden increase in infected patients while attending patients with non-infectious diseases or with traumatic injuries. Moreover, home care can prevent the lack of resources and supplies in emergency centers<sup>21</sup>.

Ignoring these essential functions, allowing physical therapy to be designated as non-essential, and considering

as optional the urgently needed physical therapeutical interventions, during a time of crisis, can disproportionately harm the most vulnerable patients. In addition to sending an alarming message to payers and to the public about the value of physical therapists<sup>22</sup>.

In this research, 28 physical therapists provided physical therapeutical assistance during the decree of essential and non-essential services and 22 professionals went some time without practicing (Table 4). One study points out that with many physical therapy clinics closed or experiencing substantial volume reductions, there may be opportunities to develop innovative models of home or clinical care for urgent musculoskeletal problems that increase staff availability. The study reports that physical therapists are trained to be the first point of contact in the health system, and to completely close the clinics and offices is to define rehabilitation as non-essential<sup>23</sup>.

In this research, 25 volunteers stated that they did not use the available technologies during the decree of essential and non-essential services (Table 3). A published article recommends the presence of telemedicine and rehabilitation to promote and maintain a patient's discharge away from hospital environment, to monitor quarantined patients, and to ensure continuity of care for patients with and without COVID-19. The same study describes that the areas of intervention in remote rehabilitation should be adapted to the functional state of the subject, considering cognitive training, mobility, resistance training, and gait training. It also states that they are developing a low-cost application for remote monitoring of patients, containing cognitive and motor rehabilitation exercises that can benefit their recovery<sup>24</sup>.

Another study points out that the use of technology is useful for sharing complex clinical cases with hospitals and clinics, avoiding unnecessary patient travel<sup>25</sup>. One study showed that, in respiratory rehabilitation, technologies are useful for remote monitoring of exercises, which can be performed online and offline, and for monitoring vital signs and cardiovascular parameters<sup>26</sup>. For cognitive and motor rehabilitation, technological modalities should be adapted to each clinical case; with remote motor rehabilitation being especially recommended for patients who have few losses of activities of daily living (ADL)<sup>26,27</sup>.

According to our survey, all the physical therapists who worked during the decree reported that they used more than one personal protective equipment (PPE) and hygiene measures (Table 4). The Coffito Resolution No. 517 of 25 March 2020 tasks the professionals, technical leaders, and/or physical therapists coordinators of each

Health Unit with the responsibility of verifying and ensuring that the physical therapists have the necessary PPEs at their disposal<sup>27</sup>.

It was noted in our study (Table 5) that regardless of their professional profile involving training time, field of activity, and income of the professionals in the study, there was no influence on the direct decision to perform specific work with physical therapy during the period in which only essential work was maintained. In parallel, all professionals, without distinction of profiles, understand that they should be able to work and be practicing, since they see their profession as an essential service.

Closing clinics and medical offices to reduce the risk of COVID-19 infections without considering the harmful impact of interruptions or impediments to treatments can paradoxically increase other risks, such as hospitalizations for falls, fractures, acute pain, among other predictable situations induced by the pandemic and that may occur in the individuals' day-to-day life. If the risk and benefit ratio is not considered favorable, physical therapy care, in some cases, can be performed remotely and professionals are assured by their councils on such action. It is known that the option to make use of technologies is not feasible for all patients and it is not possible to replace or provide remote service exclusively, as it can exacerbate the existing inequalities in the system. These approaches to physical therapy services need further studies and discussing physical therapy assistance in their different contexts seems to be essential.

A limiting aspect of this study was the number of professionals responding to the research's proposal, which may have been influenced by several aspects, including the pandemic moment characterized by the interruption of demands for physical therapy after a period of greater social distancing and temporary interruption of out-of-hospital services, as well as the difficulty in making information about the research reach the target audience due to restrictions to access personal data inherent to the representative institutions of the profession, which, by law, have restrictions.

## CONCLUSION

Physical therapists are able to analyze and decide on risks and benefits of providing in-person assessments and interventions during the COVID-19 pandemic. These professionals participate in the entire health

and disease process, contributing to health promotion, disease prevention, treatment, and rehabilitation.

The governmental interpretation of considering physical therapy as a non-essential service sends an alarming message to the general population regarding the value of health care, harming patients who depend on physical therapy treatment. Through this study, we have shown how important out-of-hospital physical therapy is to the population; thus, it should be considered an essential healthcare service, performing care procedures with the proper use of protective equipment during the pandemic.

## REFERENCES

1. Jin YH, Cai L, Cheng ZS, Cheng H, Deng T, Fan YP, et al. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version). *Mil Med Res.* 2020;7(4):1-23. doi: 10.1186/s40779-020-0233-6.
2. Brasil. Ministério da Saúde. Portaria n. 188, de 3 de fevereiro de 2020: declara Emergência em Saúde Pública de importância Nacional (ESPIN) em decorrência da Infecção Humana pelo novo Coronavírus (2019-nCoV). *Diário Oficial da União.* 2020 Feb 4;1:1.
3. Croda JHR, Garcia LP. Resposta imediata da vigilância em saúde à epidemia da COVID-19. *Epidemiol Serv Saude.* 2020;29(1):e2020002. doi: 10.5123/S1679-49742020000100021.
4. Brasil. Lei n. 13.979, de 6 de fevereiro de 2020: dispõe sobre as medidas para enfrentamento da emergência de saúde pública de importância internacional decorrente do coronavírus responsável pelo surto de 2019. *Diário Oficial da União.* 2020 Feb 7;1:1.
5. Brasil. Decreto n. 10.282, de 20 de março de 2020: regulamenta a Lei n. 13.979, de 6 de fevereiro de 2020, para definir os serviços públicos e as atividades essenciais. *Diário Oficial da União.* 2020 Feb 21;1:1.
6. Santa Catarina. Decreto n. 515, de 17 de março de 2020: declara situação de emergência em todo o território catarinense, nos termos de COBRADE n. 1.5.1.1.0 – doenças infecciosas virais, para fins de prevenção e enfrentamento à COVID-19, e estabelece outras providências. *Diário Oficial do Estado de Santa Catarina.* 2020 Mar 17:1-3.
7. Rio Grande do Sul. Decreto n. 55.130, de 20 de março de 2020: altera o decreto n. 55.128, de 19 de março de 2020, que declara situação de calamidade pública em todo território do Estado do Rio Grande do Sul para fins de prevenção e enfrentamento à epidemia causada pela COVID-19 (novo coronavírus), e dá outras providências. *Diário Oficial do Estado do Rio Grande do Sul.* 2020 Mar 21;57:4.
8. Paraná. Decreto n. 4.317, de 21 de março de 2020: dispõe sobre as medidas para a iniciativa privada acerca do enfrentamento da emergência de saúde pública de importância decorrente da COVID-19. *Diário Oficial do Estado do Paraná.* 2020 Mar 21;10651:4.
9. Santa Catarina. Secretária do Estado da Saúde. Portaria n. 223, de 5 de abril de 2020: autoriza, em todo o território catarinense,

- a partir de 6 de abril de 2020, a realização de atividades listadas nesta Portaria. Diário Oficial do Estado de Santa Catarina. 2020 Apr 5;21:238:1-2.
10. Rio Grande do Sul. Secretária do Estado da Saúde. Portaria n. 274, de 24 de abril de 2020: regulamenta a realização de procedimentos eletivos pela rede de prestadores de serviços de saúde, SUS e PRIVADOS, no âmbito do Estado do Rio Grande do Sul, tais como hospitais, clínicas, consultórios, serviços de diagnóstico por imagens, serviços de óticas, laboratórios óticos, serviços de assistência e prótese odontológica. Diário Oficial do Estado do Rio Grande do Sul. 2020 Apr 24;81:97-9.
  11. Paraná. Decreto n. 470, de 26 de março de 2020: estabelece medidas complementares para o enfrentamento da Emergência em Saúde Pública, decorrente do novo Coronavírus (Covid-19) e define os serviços públicos e as atividades essenciais que devem ser resguardados pelo Poder Público e pela iniciativa privada. Diário Oficial Municipal de Curitiba. 2020 Mar 26;57:53-8.
  12. Brasil. Decreto-lei n. 938, de 13 de outubro de 1969: o fisioterapeuta e o terapeuta ocupacional, diplomados por escolas e cursos reconhecidos, são profissionais de nível superior. Diário Oficial da União. 1969 Oct 14;1:8658.
  13. Brasil. Constituição da República Federativa do Brasil de 1988. Brasília, DF: Senado Federal; 1988.
  14. Shiwa SR, Schmitt ACB, João SMA. O fisioterapeuta do estado de São Paulo. *Fisioter Pesqui.* 2016;23(3):301-10. doi: 10.1590/1809-2950/16115523032016.
  15. Conselho Federal de Fisioterapia e Terapia Ocupacional (BR). Resolução n. 424, de 8 de julho de 2013: estabelece o Código de Ética e Deontologia da Fisioterapia. Diário Oficial da União. 2013 Aug 1;1:85-7.
  16. Conselho Federal de Fisioterapia e Terapia Ocupacional (BR). Resolução n. 516, de 20 de março de 2020: dispõe sobre a suspensão temporária do Artigo 15, inciso II e Artigo 39 da Resolução COFFITO n. 424/2013 e Artigo 15, inciso II e Artigo 39 da Resolução COFFITO n. 425/2013 e estabelece outras providências durante o enfrentamento da crise provocada pela Pandemia do COVID-19. Diário Oficial da União. 2020 Mar 23;1:184-5.
  17. American Physical Therapy Association. APTA statement on patient care and practice management during COVID-19 outbreak. Alexandria: APTA; 2020. Available from: <https://www.apta.org/patient-care/public-health-population-care/coronavirus/statement-on-patient-care-and-practice-management-during-covid-19>
  18. Thomas P, Baldwin C, Bissett B, Boden I, Gosselink R, Granger CL, et al. Physiotherapy management for COVID-19 in the acute hospital setting: clinical practice recommendations. *J Physiother.* 2020;66(2):73-82. doi: 10.1016/j.jphys.2020.03.011.
  19. Kim HS, Strickland KJ, Mullen KA, Lebec MT. Physical therapy in the emergency department: a new opportunity for collaborative care. *Am J Emerg Med.* 2018;36(8):1492-96. doi: 10.1016/j.ajem.2018.05.053.
  20. Ranney ML, Griffeth V, Jha AK. Critical supply shortages – the need for ventilators and personal protective equipment during the Covid-19 pandemic. *N Engl J Med.* 2020;382(18):e41. doi: 10.1056/NEJMp2006141.
  21. Falvey JR, Burke RE, Malone D, Ridgeway KJ, McManus BM, Stevens-Lapsley JE. Role of physical therapists in reducing hospital readmissions: optimizing outcomes for older adults during care transitions from hospital to community. *Phys Ther.* 2016;96(8):1125-34. doi: 10.2522/ptj.20150526.
  22. Iannaccone S, Castellazzi P, Tettamanti A, Houdayer E, Brugliera L, Blasio F, et al. Role of rehabilitation department for adult individuals with COVID-19: the experience of the San Raffaele hospital of Milan. *Arch Phys Med Rehabil.* 2020;101(9):1656-61. doi: 10.1016/j.apmr.2020.05.015.
  23. Brugliera L, Spina A, Castellazzi P, Cimino P, Arcuri P, Negro A, et al. Nutritional management of COVID-19 patients in a rehabilitation unit. *Eur J Clin Nutr.* 2020;74(6):860-3. doi: 10.1038/s41430-020-0664-x.
  24. Agostini M, Moja L, Banzi R, Pistotti V, Tonin P, Venneri A, et al. Telerehabilitation and recovery of motor function: a systematic review and meta-analysis. *J Telemed Telecare.* 2015;21(4):202-13. doi: 10.1177/1357633x15572201.
  25. Ferioli M, Cisternino C, Leo V, Pisani L, Palange P, Nava S. Protecting healthcare workers from SARS-CoV-2 infection: practical indications. *Eur Respir Rev.* 2020;29:200068. doi: 10.1183/16000617.0068-2020.
  26. Gutenbrunner C, Stokes EK, Dreinhöfer K, Monsbakken J, Clarke S, Côté P, et al. Why rehabilitation must have priority during and after the COVID-19-pandemic: a position statement of the Global Rehabilitation Alliance. *J Rehabil Med.* 2020;52(7):jrm00081. doi: 10.2340/16501977-2713.
  27. Conselho Federal de Fisioterapia e Terapia Ocupacional (BR). Resolução n. 517, de 25 de março de 2020: dispõe sobre a fiscalização quanto à disponibilização dos Equipamentos de Proteção Individual (EPI) para o enfrentamento da crise provocada pela Pandemia do COVID-19. Diário Oficial da União. 2020 Mar 26;1:132.