



# Physiotherapists' practices in Intensive Care Units in Brazil - current scenario: cross-sectional study

*Práticas fisioterapêuticas na Unidade de Terapia Intensiva no Brasil - cenário atual: estudo transversal*

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## Abstract

**Background:** the role of the physiotherapist in intensive care units (ICU) has been recognized in the management of mechanical ventilation (MV), prevention and rehabilitation of functional losses in patients. However, underexplored current survey on the practices of physiotherapists in the ICU. **Aim:** to carry out a survey of the current practices of physiotherapists working in ICUs in Brazil. **Methods:** online questionnaire with 33 questions related to assessment and intervention, existence of care protocols and their barriers, applied to physiotherapists in an adult ICU in Brazil. **Results:** the research was carried out during the COVID-19 pandemic, thus, 72 professionals answered the questionnaire, 70.8% female, 58.9% located in São Paulo. Of these, 77.8% reported the existence of established protocols for physical therapy care, but they present barriers such as the lack of auxiliary devices for motor physical therapy (70.8%) and physical therapy (44.4%). Although early mobilization is encouraged in 90.1% of hospitals and 64.3% use functional scales, only 1.4% and 2.8% mentioned sitting and walking, respectively. **Conclusion:** despite the existence of protocols, ICU physiotherapists still perform early mobilization without the application of sitting, walking, use of scales and functional tests essential for rehabilitation, in addition to performing respiratory techniques without scientific basis. Therefore, it is necessary to seek a paradigm shift and prioritize actions aimed at professional qualification.

**Keywords:** Physiotherapy; Exercise; Intensive Care Units.

## Resumo

**Introdução:** o papel do fisioterapeuta em unidades de terapia intensiva (UTI) tem sido reconhecido no manejo da ventilação mecânica (VM), prevenção e reabilitação de perdas funcionais em pacientes. Entretanto, há levantamento pouco atual sobre as práticas dos fisioterapeutas na UTI. **Objetivo:** realizar um levantamento das práticas atuais dos fisioterapeutas que atuam em UTIs no Brasil. **Métodos:** questionário online com 33 questões relacionadas à avaliação e intervenção, existência de protocolos assistenciais e suas barreiras, aplicado a fisioterapeutas de uma UTI adulto no Brasil. **Resultados:** a pesquisa foi realizada no período da pandemia do COVID-19, assim, responderam ao questionário 72 profissionais, 70,8% do sexo feminino, 58,9% localizados em São Paulo. Destes, 77,8% relataram a existência de protocolos estabelecidos para atendimento fisioterapêutico, mas apresentam barreiras como a falta de dispositivos auxiliares para fisioterapia motora (70,8%) e fisioterapia (44,4%). Embora a mobilização precoce seja incentivada em 90,1% dos hospitais e 64,3% utilizem escalas funcionais, apenas 1,4% e 2,8% mencionaram sentar e caminhar, respectivamente. **Conclusão:** apesar da existência de protocolos, os fisioterapeutas de UTI ainda realizam mobilização precoce sem aplicação de sentar, caminhar, uso de escalas e testes funcionais essenciais para reabilitação, além de realizar técnicas respiratórias sem embasamento científico. Portanto, é necessário buscar uma mudança de paradigma e priorizar ações voltadas à qualificação profissional.

**Palavras-chave:** Fisioterapia; Exercício; Unidades de Terapia Intensiva.

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## INTRODUCTION

The period of ICU stay, most of the time prolonged, translates into prolonged sedation and immobility, which, associated with other clinical factors, lead to a significant picture of muscle weakness and loss of function<sup>1-3</sup>. The physiotherapist plays a fundamental role in the intensive care environment, focusing on respiratory care and reducing the deleterious effects of immobility, preventing loss of function and muscle strength, as well as restoring these conditions when installed through the appropriate prescription of physical exercises<sup>4-7</sup>. Thus, early mobilization, when well prescribed, is capable of improving functional outcomes, reducing risks associated with intensive care, as well as length of stay, minimizing costs generated by this type of hospitalization<sup>4,5</sup> increasing the quality of life and reducing mortality<sup>6</sup>.

Given the due importance of their performance, the COVID-19 pandemic made the importance of the role of the physiotherapist in the ICU even more evident, and the concern for these professionals to be trained and base their practices on scientifically proven effective assistance. In Brazil, and in the world, there are systematic reviews, clinical trials and guidelines that guide the work of physiotherapists in ICUs<sup>4,7-9</sup> however, it is presumed that their performance may differ considering the different countries or even in the different hospitals in Brazil, and there are currently no data or even reports on this scenario.

In this context, it is important to highlight that not only a survey on the presence of the physiotherapist, but also the types of assistance provided, especially considering those based on scientific evidence, should be considered to guarantee the quality of physiotherapy assistance in these units. There are few, and not current, studies that demonstrate the practices of physiotherapists working in ICUs in Brazil<sup>9</sup>. In this context, carrying out a survey on physiotherapy practices in the ICU will bring important subsidies to make current practices public in view of the advancement of quality research and the emergence of new interventions with scientific evidence<sup>10,11</sup>. Therefore, this study aims to carry out a survey of the current practices of physiotherapists working in intensive care in Brazil.

## METHODS

### Study design and context

Cross-sectional study following the checklist of Strengthening the reporting of observational studies in epidemiology<sup>12</sup>, of a qualitative and quantitative nature, in an online questionnaire format. The project was approved by the Ethics Committee for Research with Human Beings at UFSCar (CAAE: 44534721.5.0000.5504/Opinion n°: 4.608.203), and complied with all the ethical precepts established in CNS Resolution n° 510 of 2016.

Then, the survey was widely disseminated through different digital media (WhatsApp, emails (sent by class

entities), Instagram, Facebook, radio program and news sites in the region).

### Survey population

As an inclusion criterion, it was necessary to be a health professional, specifically physiotherapists with a certain degree (specialization to postdoctoral), who were registered in Brazil and currently working in an adult ICU in Brazil. With these conditions, individuals were invited to answer the questionnaire, which was available for responses in the period between April 2021 and February 2022. Responses with less than 80% of complete data were excluded

### Survey instrument

Thus, upon being included in the research, the participants initially had electronic access to the Free and Informed Consent Form (TCLE) and free access to the questionnaire before the decision to participate. When they clicked on the accept button, their consent and answers to the questions were recorded. There was no mandatory question, as recommended by the National Research Ethics Commission (Conep Brazil) for research with any stage in a virtual environment, seeking to avoid the participant's embarrassment when answering any question asked.

The questionnaire used consisted of 33 questions, twenty-four multiple-choice questions and nine open questions, formulated by the researchers, based on the main characteristics of physiotherapeutic activities in the ICU. The assessment instrument was divided into 4 sections that evaluated the main research outcomes. In the first session, it contained information related to personal characterization (age, gender and status) and professional characterization (education, length of experience, place of activity). Then, in the second session, questions about the existence of physiotherapeutic protocols, how the choice of resources and techniques occurs, whether based on scientific evidence; establishment of the physiotherapeutic diagnosis and therapeutic goals for each patient, monitoring of the quality of care through indicators, and the main difficulties in routine assistance.

In the third session, questions were asked related to physiotherapeutic assessment and survey of resources that are used for neurological, respiratory, cardiovascular and musculoskeletal assessment, and questions about the use of scales and functional tests. Finally, in its last session, it contained questions referring to physical therapy intervention, and whether the choice of resources and techniques is guided, mainly, by randomized and controlled clinical trials, whether there is autonomy in the management of mechanical ventilation, which techniques are used for the removal of secretions and lung expansion, early mobilization and intervention with physical exercise. In all items of the questionnaire, it was allowed to choose more than one option of resource used.


**Table 1.** Demographic data, training and professional performance, and hospital characteristics.

Variable	Frequency n (%) n= 72
<b>Age (years)</b>	33.96 (28-40)*
21-25	8 (11.1)
26-30	15 (20.8)
31-35	18 (25)
36-40	14 (19.4)
41-45	12 (16.7)
46-51	3 (4.2)
Uninformed	2 (2.8)
<b>Gender</b>	
Feminine	51 (70.8)
Masculine	20 (27.8)
Uninformed	1 (1.4)
<b>State</b>	
São Paulo	41(56.9)
15 other states	30 (41.7)
Uninformed	1 (1.4)
<b>Academic Degree</b>	
Specialization	39(54.2)
Master's degree	16 (22.2)
Doctorate degree	14 (19.4)
Post doctoral	1 (1.4)
Uninformed	2 (2.8)
<b>Year of Completion of Graduation</b>	
1996-2005	19 (26.4)
2006-2012	19 (26.4)
2014-2021	22 (36.6)
Uninformed	11 (15.3)
<b>Type of Undergraduate Institution</b>	
Public	29 (42)
Private	40 (58)
Uninformed	3 (4.2)
<b>Practical experience in intensive care</b>	
≤ 5 anos	29 (40.8)
6-10 anos	18 (25.4)
11-20 anos	22 (31)
> 20 anos	2 (2.8)
Uninformed	1 (1.4)
<b>Type of hospital</b>	
Public	32 (44.5)
University	15 (20.8)
Private	15 (20.8)
Military	1 (1.4)
Two hospitals	6 (8.3)
Uninformed	3 (4.2)
<b>Total number of ICU beds</b>	17.13 (10-20)*
6-10	36 (50)
11-19	14 (19.4)
20-30	14 (19.4)
31-53	7 (9.8)
Uninformed	1 (1.4)
<b>Total number of beds in the hospital</b>	187.73 (45-250)*
10-100	27 (37.5)
101-300	21(29.1)
301-500	6 (8.3)
501-1300	3 (4.2)
I don't know	8(11.1)
Uninformed	7 (9.8)
<b>Number of physiotherapists per 6-hour work shift. in 24 hours in the ICU</b>	
1-3	50 (69.5)
4-6	14 (19.4)
7-15 (24 hour shift)	6 (8.3)
Uninformed	2 (2.8)

\*These values represent the median and interquartile range of 25 and 75.

## Statistical analysis

Questionnaire responses were stored in a database and transcribed into Excel 2011 (Microsoft Corp. Redmond, WA, USA) To analyze the median and interquartile range of some quantitative variables, the SPSS (IBM SPSS Statistics 22) software was used. All responses collected and those not reported by professionals were described. Categorical variables were described as frequency rates and percentages and quantitative variables were expressed as mean and standard deviation (SD).

## RESULTS

A total of 72 responses were received over a 30-week period. Professionals between 26 and 51 years old answered the questionnaire, most of them female (70.8%), located in the state of São Paulo (56.9%) and with a postgraduate degree (54.2% specialization, 22.2% Master's and 19.4% PhD), 31% have been working in the ICU for more than 10 years (Table 1).

Most ICUs have care protocols, but there are barriers in the care routine, such as the lack of devices to assist motor therapy and devices to assist respiratory physiotherapy. The choice of resources based on guidelines, consensus and therapeutic recommendations is still little used by professionals, as well as randomized controlled clinical trials. Furthermore, little is defined about physiotherapeutic diagnosis and the establishment of therapeutic goals for the treatment of hospitalized patients (Table 2.1).

**Table 2.1.** Responses related to physiotherapeutic assistance.

Variable	Frequency n (%) n= 72
<b>Existence of established protocols*</b>	<b>56 (77.8)</b>
<b>Main difficulties*</b>	
Absence of defined protocols	16 (22.2)
Shortage of devices to aid respiratory physiotherapy	32 (44.4)
Lack of motor therapy aid devices	51 (70.8)
scarce time	2 (2.8)
Shortage of qualified professionals	3 (4.2)
Gravity	1 (1.4)
Difficulty of multidisciplinary work	4 (5.6)
high demand	1 (1.4)
Uninformed	1 (1.4)
<b>Choice of resources and techniques by therapeutic guidelines. consensus and recommendations*</b>	<b>32 (44.4)</b>
Uninformed	1 (1.4)
<b>Search for randomized controlled clinical trials*</b>	<b>31 (43.1)</b>
Uninformed	10 (13.9)
<b>Definition of physiotherapeutic diagnosis and therapeutic goals are well established*</b>	<b>32 (44.4)</b>
Uninformed	1 (1.4)

\*The values in percentage (%) represent professionals who reported adopting the resource or strategy in their professional practice. In all items it was allowed to choose more than one option.



Regarding the neurological, respiratory, cardiovascular, musculoskeletal function assessment instruments used, they are presented in Table 2.2.

Mobility and functional scales are used by 45 professionals, the most cited being the Perme score, the Icu Mobility Scale (IMS), the six-minute walk test and the sit-to-stand test, but many professionals still do not use any scale or do not inform (Figure 1A and B).

The majority reported having autonomy in managing mechanical ventilation. Early mobilization is encouraged in hospitals. Regarding early mobilization, it was not carried out mainly due to the lack of equipment for its application, existence of contraindications (hemodynamic and/or

respiratory) and high workload for the team due to the high number of patients in the ICU (Table 3).

The most used resources for removing secretions and lung expansion are shown in Figure 2A and Figure 2B, respectively.

The use of Bundle ABCDEF was presented by only 17 (25.8%) professionals. Several mobilization strategies were mentioned, however, sitting and walking were mentioned by only 1.4% and 2.8% respectively (Figure 2C).

**Table 2.2.** Responses related to the daily physiotherapeutic assessment.

Variable	Frequency n (%) n= 72
<b>Neurologic function</b>	
Glasgow Coma Scale	69 (95.8)
RASS scale	58 (80.5)
Ramsay Scale	24 (33.3)
CAM-ICU	13 (18.1)
De Jonghe's Cooperation Score	2 (2.8)
Deep reflex assessment	17 (23.6)
Evaluation of movement disorders (myoclonus. tremors. dystonia. bradykinesia)	38 (52.8)
CPOT	1 (1.4)
BPS	1 (1.4)
VAS	1 (1.4)
Uninformed	1 (1.4)
<b>Respiratory function</b>	
Respiratory frequency	70 (97.2)
Peripheral oxygen saturation (pulse oximetry)	70 (97.2)
Respiratory muscle strength (manovacuometry)	50 (69.4)
Peak expiratory flow	24 (33.3)
Vital capacity	10 (13.9)
Ventilometry	21 (29.2)
thoracic expansion	61 (84.7)
Cough	68 (94.4)
Assessment of respiratory mechanics	65 (90)
Uninformed	1 (1.4)
<b>Cardiovascular function</b>	
Heart rate	69 (95.8)
Blood pressure	70 (97.2)
Arterial lactate	31 (43.1)
Borg scale	47 (65.3)
Uninformed	1 (1.4)
<b>Musculoskeletal system function</b>	
Pupil assessment	55 (76.4)
Muscle tone	63 (87.5)
Coordination	54 (75)
Balance	53 (73.6)
MRC	55 (76.4)
Handgrip strength (dynamometry)	11 (15.3)
Functionality and mobility scales	41 (56.9)
Uninformed	1 (1.4)

**Caption:** CPOT: Critical Care Pain Observation; BPS: Behavioral pain scale; VAS: Visual analogue scale; MRC: Muscular strength. The values in percentage (%) represent professionals who reported adopting the resource or strategy in their professional practice. In all items it was allowed to choose more than one option.

## DISCUSSION

This study aimed to survey the current scenario of practices of physiotherapists working in ICUs in Brazil. From the reports, most professionals reported having established protocols for physical therapy assistance and monitoring by indicators, however, they have difficulties for their implementation. The evaluation and definition of the physiotherapeutic diagnosis and the goals it does not seem well established, there is autonomy for assistance, especially with regard to mechanical ventilation, and the choice of resources and techniques is little based on scientific evidence.

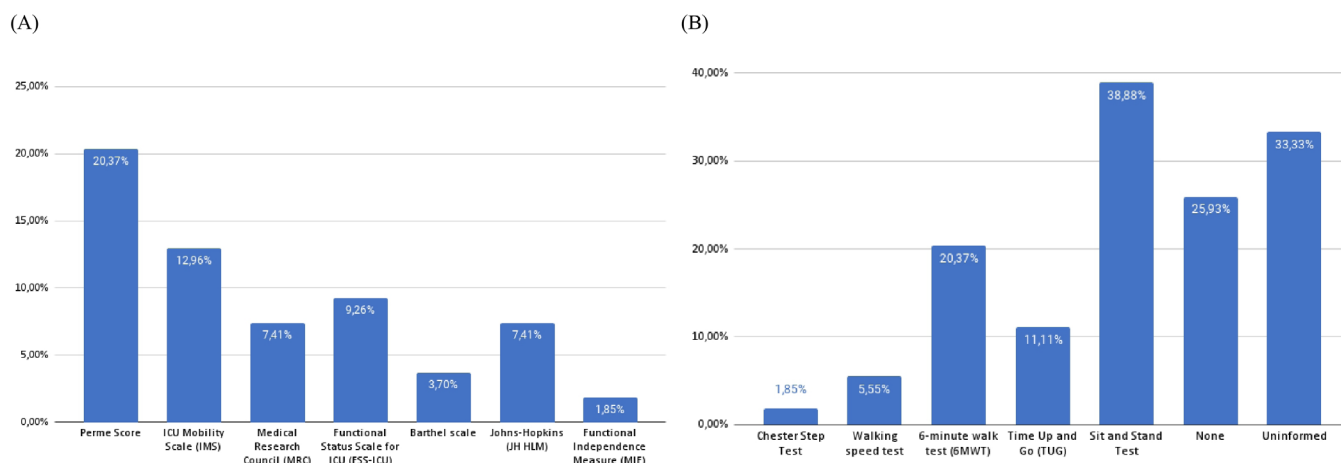
Regarding the presence of institutional protocols, although 77.8% of the participants reported working in ICUs that have established protocols for

**Table 3.** Responses related to the intervention.

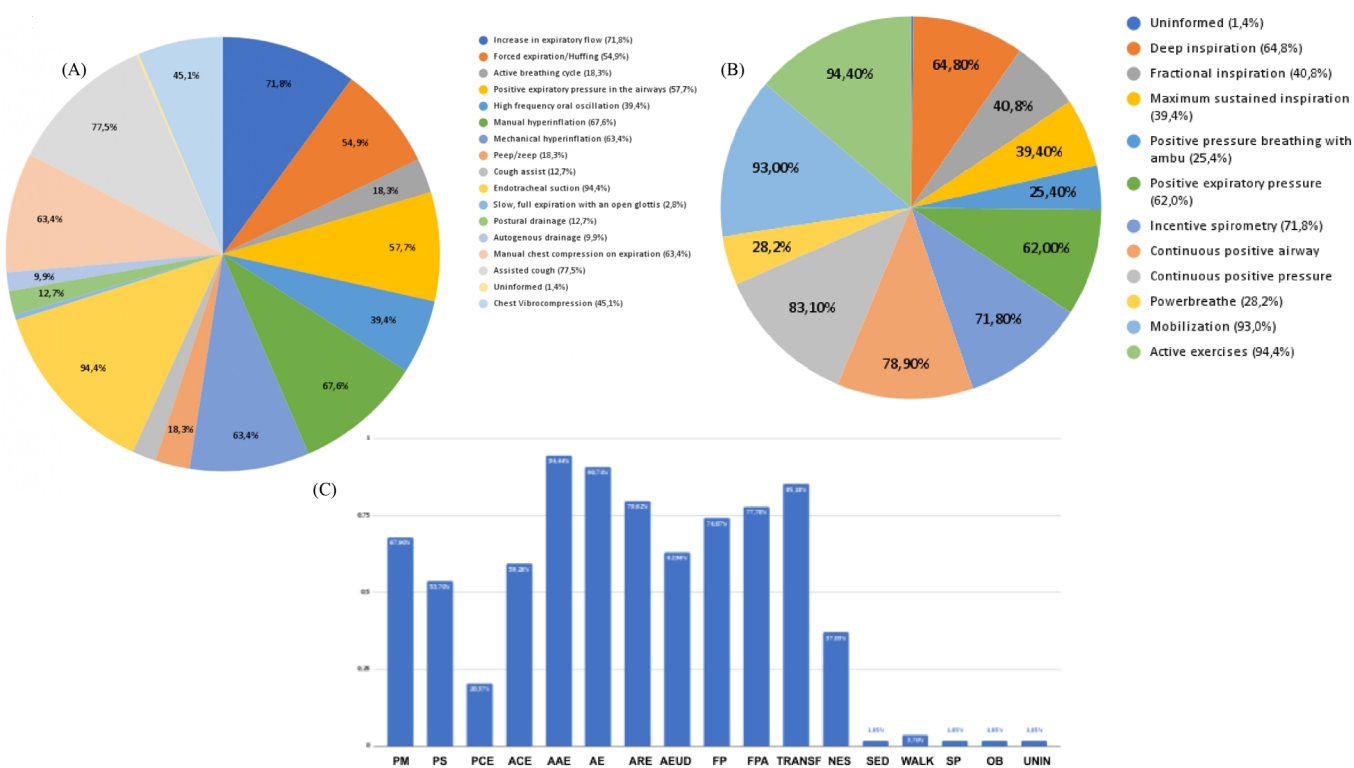
Variable	Frequency n (%)
<b>Professionals who reported autonomy in managing mechanical ventilation n=71</b>	
Uninformed	2 (2.8)
Encouraging early mobilization	65 (90.2)
<b>Justifications for not applying early mobilization n=44</b>	
Lack of equipment for the application of therapy	28 (63.6)
Absence of protocol	14 (31.8)
Disbelief in motor therapies to reduce muscle atrophy in this type of patient	1 (1.4)
High workload for the team due to the high number of patients in the ICU	26 (59.1)
Lack of qualification to apply the chosen method	14 (31.8)
Reduced team. which makes it difficult to provide comprehensive care to patients	21 (47.7)
Presence of drains and/or catheters	7 (15.9)
Presence of probes and/or vascular accesses	5 (11.4)
Contraindications (hemodynamic and/or respiratory)	27 (61.4)
Lack of adequate physical space	11 (25)
financial barriers	8 (18.2)
Uninformed	28 (38.9)
<b>Physical exercise prescription is not based on functional scales n=70</b>	
Uninformed	45 (64.3)
Uninformed	2 (2.8)
<b>Monitoring the quality of care through indicators n=68</b>	
Uninformed	42 (61.8)
Uninformed	4 (5.6)

The values in percentage (%) represent professionals who reported adopting the resource or strategy in their professional practice. In all items it was allowed to choose more than one option.





**Figure 1.** (A) Responses related to the use of mobility scales. (B) Responses related to the use of functional tests.



**Figure 2.** Responses of the questionnaire. (A) Responses related to secretion removal therapy. (B) Responses related to lung expansion therapy and respiratory muscle training. (C) Responses related to strategies adopted for early mobilization.

physiotherapeutic assistance, the existence of several barriers such as the scarcity of aid devices for respiratory physiotherapy and motor therapy, and the resistance from the team, mainly from professionals who have been working in the ICU for more than 10 years (31%), hindering the implementation of protocols and optimal performance of the team. Care protocols make it possible to systematize the approach to the patient, as well as facilitate the continuous monitoring of care through quality indicators<sup>10</sup>.

Monitoring the results of physiotherapeutic care through indicators seems to occur in many ICUs, revealing that the teams are concerned in managing the quality of care, however, the need for more effective actions to improve the scenario of physiotherapeutic action in the ICU is evident, as discussed below<sup>13</sup>.

Exercise prescription is based on a previous assessment with appropriate instruments, and 64.3% reported using a functional scale, or another instrument to assess the



level of functionality, mobility and/or muscle strength as a basis for determining the functional diagnosis, milestones of mobility to be achieved, and elaboration of an individualized, safe and effective treatment plan.

The physiotherapeutic evaluation is the starting point for determining the physiotherapeutic diagnosis and elaborating the treatment plan according to the needs of each patient, reducing possible injuries. The assessment requires a broad vision and systemic integration from the physical therapist, including possible alterations in several systems, such as neurological, respiratory, cardiovascular and musculoskeletal. During the assessment, the adoption of scales and functional tests in critically ill patients has become routine in many hospitals, as they are able to reveal the patient's level of functional performance and mobility, being used as tools for comparing levels of functionality pre and post intervention<sup>14,15</sup>.

### Current scenario regarding interventions

With regard to the intervention, deep inspiration breathing exercises and breathing exercises were used by 59,26% and 35,8% of the participants, respectively, and are examples of resources without proven evidence. The evidence is of low quality and the studies are mainly in patients in the postoperative period of upper abdominal and thoracic surgeries<sup>16-18</sup> and clearly show that this type of intervention is not able to reduce pulmonary complications and length of hospital stay.

On the other hand, the majority (83.1%) reported using positive pressure resources such as intermittent positive pressure breathing (IPPB), continuous positive airway pressure (CPAP), positive expiratory airway pressure (EPAP) and ventilation with two levels of airway pressure (BiPAP), resources capable of promoting positive results in lung volume or functional residual capacity<sup>8,19,20</sup>.

The role of the physiotherapist in the management of mechanical ventilation is clearly relevant, regarding this function, most participants (95.8%) reported having autonomy in conducting mechanical ventilation, and only 10% reported some barrier such as the lack of alignment of the physiotherapy team and the hierarchy imposed by other professionals on the team regarding the monitoring and adequacy of ventilatory parameters.

Most patients on invasive mechanical ventilation have pulmonary complications, such as ventilator-associated pneumonia and increased production and retention of bronchial secretions<sup>21,22</sup>, making it important to use secretion removal therapies. Among them, endotracheal aspiration (94.4%), widely used in clinical practice and presents several recommendations as long as they are well indicated<sup>23</sup>. Assisted cough (77.5%) was also cited, and despite the low quality of evidence, it has the advantage of few adverse events when used in mechanically ventilated critically ill patients<sup>24</sup>. A lung hyperinflation with the ventilator as a resource for bronchial clearance was cited

by 49,3% of the professionals and has proven to be more effective when compared to endotracheal aspiration alone<sup>25</sup>.

The use of mechanical ventilation and prolonged immobility leads to both respiratory and peripheral muscle weakness in critically ill patients, leading to a longer duration of mechanical ventilation, establishment of motor deficiencies, longer hospital stays and higher mortality rates<sup>26</sup>.

Physiotherapy and early mobilization, initiated within the first 48 hours after the institution of MV, comprise strategies aimed at minimizing these consequences of immobility<sup>7</sup>. Many professionals (80.9%) reported that there is an incentive to perform early mobilization in the ICU in which they work. Despite studies so far presenting different methodologies<sup>27</sup>, early mobilization is strongly recommended internationally, with an impact mainly on reducing muscle weakness acquired in the ICU<sup>28</sup> and consequent improvement in functional status and respiratory function<sup>29</sup>.

Performing exercise active, assisted and resisted active was cited by 91.5%, 91.5% and 78.9% of professionals respectively, however, in the absence or low use of instruments that assess the degree of mobility and functionality, makes the intervention ideal and individualized with exercises impaired, since the professionals did not carry out an adequate evaluation and prescription of the therapy prior to the intervention.

In addition, carrying out strategies such as sitting down and walking, a fundamental part of early mobilization protocols and essential in the recovery of critically ill patients<sup>30</sup> were practically not mentioned (1.4 and 2.8% respectively), given.

In view of this scenario, when questioning the lack of performance of these physiotherapeutic techniques, as a justification, it was reported that early mobilization was not performed, mainly due to the lack of equipment for its application (63.6%), the existence of contraindications (hemodynamic and/or or respiratory) (61.4%) and high workload for the team due to the high number of patients in the ICU (59.1%). This finding was similar in the study by Fontela et al.<sup>31</sup>, who identified as barriers the unavailability of professionals, time to perform and excessive stress at work.

Dubb et al.<sup>32</sup>, after a review of 40 studies related to mobilization barriers, also mainly presents hemodynamic and respiratory instability, pain and fatigue as the main barriers, and points to planning and interdisciplinary work as the way to gradually approach mobilization in the ICUs. Regarding the ABCDE of intensive physical therapy, only 17 participants (23.6%) presented it as an adopted strategy, even though it is a set of interventions capable of reducing the length of stay and possible complications generated by immobility, in addition to reducing the rate of delirium and mortality<sup>33</sup>.



As for manovacuometry and inspiratory muscle training, although well established in the literature the importance of assessing inspiratory muscle strength and the benefits and impact of training on muscle strength and weaning from mechanical ventilation (90% de chances de ter um desmame de sucesso)<sup>34,35</sup>, was pointed out, respectively, by only 69.4% and 28.2% of professionals. With regard to the percussion technique, according to studies carried out in different pathologies and varied populations, the studies report that this technique, even in a hospital environment with patients on mechanical ventilation, is not effective<sup>36,37</sup>.

As for the search for randomized controlled clinical trials, just over half of the participants reported this practice, although these types of studies consist of the appropriate type of research to evaluate the effects of interventions, demonstrating cause and effect relationships between several variables. In addition, this study identified the use of resources that do not have quality clinical research that proves their effectiveness and the low number of responses in relation to important conducts, fundamental in the rehabilitation process, such as sitting and walking.

The levels of evidence are extremely important, they indicate the clinical relevance of the studies and, thus, help in the choice of effective interventions<sup>37</sup>. However, even with professionals presenting at some postgraduate level, there is a lack of foundation in quality studies to carry out their interventions. This analysis agrees with the study Scurlock-Evan et al.<sup>37</sup>, when they pointed out that there is a misperception about evidence-based practice.

### Limitations

As a limitation of the present study, there is the difficulty in obtaining a significant number of responses, despite wide dissemination, and also the non-homogeneity of responses in relation to Brazilian states. The research was carried out using a questionnaire with a convenience sample, presenting some methodological limitations, although the topic covered is of great importance.

Furthermore, the possible lack of adequate human resources and the severity and complexity of COVID-19 illness of patients in intensive care units may also have influenced the results. Even if the collection period is one year after the start of the Covid-19 pandemic, the number of professionals available in ICUs may not reveal the usual reality. This fact is even more worrying due to the impact on the quality of care given the lack of human resources in the ICUs.

Another limitation found in the present study was the application of an instrument which had not been validated at a previous time, making it important to apply it later on the same population in addition to expanding the number of participants and states involved, being able to evaluate more specific issues such as analysis of constructs and measurement properties of the instrument evaluated,

in addition to a study surveying the outcomes by state, through a subgroup analysis.

### CONCLUSION

Although reports, mainly from the state of São Paulo, show the establishment of care protocols based on scientific evidence, there seems to be little clarity regarding the scientific evidence and some data seem worrying and controversial, such as the resources for removing secretion and expansion, and the use of respiratory encouragers despite the lack of scientific evidence proving the benefit, still being used by these professionals.

There are still important barriers to quality physiotherapeutic care, and essential resources such as sitting, walking and the use of scales and functional tests, fundamental in the rehabilitation process, were rarely mentioned by professionals.

The current practices of physiotherapists in ICUs deserve attention in search of a paradigm shift and teaching based on the pillar of evidence-based practice and actions aimed at professional qualification deserve to be prioritized.

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### CONFLICT OF INTEREST

None to declare.

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