

Original Article

Characterization of occupational therapeutic practice regarding daily living activities of patients with respiratory failure in adult intensive care units

Caracterização da prática terapêutico-ocupacional frente às atividades de vida diária de pacientes com insuficiência respiratória em unidades de terapia intensiva adulto

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How to cite: Avelar, T. G. C., Oliveira, H. T., Nascimento, J. S., & Bombarda, T. B. (2025).

Characterization of occupational therapeutic practice regarding daily living activities of patients with respiratory failure in adult intensive care units. *Cadernos Brasileiros de Terapia Ocupacional*, 33, e3969. <https://doi.org/10.1590/2526-8910.ctoAO406439692>

Abstract

Introduction: Patients in Intensive Care Units (ICUs) may present various clinical conditions, including respiratory failure (RF), defined as a clinical condition in which the respiratory system is unable to maintain oxygen and/or carbon dioxide arterial pressure values within normal limits. The occupational therapist working in the ICU is part of the rehabilitation team, with activities of daily living (ADL) as one of the intervention focuses. **Objective:** To characterize occupational therapy practice regarding ADL in patients with RF in the ICU context. **Methodology:** This is a cross-sectional, descriptive, and quantitative study. Participating occupational therapists work in Brazil and provide care in ICUs to people aged 18 or older with RF. Data were collected through a virtual questionnaire and analyzed using descriptive statistics. **Results:** According to the participants, the most impacted ADL in the ICU context are bathing, functional mobility, and toilet hygiene, while the ADL most targeted by interventions are feeding, functional mobility, and personal hygiene. The main factors identified as restricting ADL performance in this context are cardiovascular and sensory function alterations, presence of delirium, and service dynamics. **Conclusion:** The characteristics of occupational therapy practice focused on ADL of patients with RF in the ICU highlight the high complexity of this

Received on Oct. 17, 2024; 1st Revision on Oct. 31, 2024; 2nd Revision on Feb. 2, 2025; Accepted on May 25, 2025.



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professional role, which demands specific competencies from the occupational therapist to provide qualified, safe, and effective care.

Keywords: Activities of Daily Living, Respiratory Insufficiency, Intensive Care Units, Occupational Therapy.

Resumo

Introdução: Os pacientes nas Unidades de Terapia Intensiva (UTI) podem apresentar diversos quadros clínicos, entre eles, o quadro de insuficiência respiratória (IR), definido como condição clínica na qual o sistema respiratório não consegue manter os valores da pressão arterial de oxigênio e/ou da pressão arterial de gás carbônico dentro dos limites da normalidade. O terapeuta ocupacional em atuação na UTI está vinculado à equipe de reabilitação, tendo as atividades de vida diária (AVD) como um dos focos de intervenção.

Objetivo: Caracterizar a prática terapêutico-ocupacional frente às AVDs em pacientes com IR no contexto da UTI. **Metodologia:** Trata-se de uma pesquisa transversal, descritiva e de abordagem quantitativa. Participaram terapeutas ocupacionais atuantes no Brasil que realizam atendimentos em UTI com pessoas com idade igual ou superior a 18 anos com IR. Os dados foram coletados por meio de um questionário virtual e a análise, realizada por estatística descritiva. **Resultados:** Na percepção dos participantes, as AVD mais impactadas no contexto da UTI correspondem ao banho, mobilidade funcional e higiene sanitária, enquanto as de maior foco de intervenção referem-se à alimentação, mobilidade funcional e higiene pessoal. Os principais fatores avaliados como restritores do desempenho das AVD nesse âmbito são alterações das funções cardiovasculares e sensoriais, presença de *delirium* e dinâmica do serviço. **Conclusão:** As características da prática terapêutico-ocupacional voltadas às AVD de pacientes com IR na UTI demarcam uma alta complexidade para atuação profissional, o que exige competências específicas do terapeuta ocupacional para provimento de uma atenção qualificada, segura e eficaz.

Palavras-chave: Atividades Diárias, Insuficiência Respiratória, Unidade de Terapia Intensiva de Adulto, Terapia Ocupacional.

Introduction

The clinical instability of an individual, whether resulting from pathologies of the cardiovascular, respiratory, neurological, renal, or metabolic systems, or from a high risk of death, makes health care in high-complexity settings such as the Intensive Care Unit (ICU) necessary. The development and advancements of these units, associated with the use of high technology and other more invasive devices, promote increased survival of critically ill patients (Brasil, 2020; Santos et al., 2017).

The ICU is defined as a hospital environment with an organized system to offer high-complexity life support, with multiple monitoring modalities and advanced support to maintain life during extremely severe clinical conditions. This care is provided continuously, 24 hours a day, by a specialized multidisciplinary team (Brasil, 2020).

The ICU environment is surrounded by specific sensory characteristics that distance the patient from their usual environment. It is also a place designated for the hospitalization of more severely ill patients who require specific interventions and devices. Through the appropriation of the ICU routine, understanding its functioning, and proper reading of its equipment, the occupational therapist gains practical confidence to provide strategies and apply technical resources amidst the instability of critical clinical conditions (Coelho et al., 2020; Bombarda et al., 2016).

Patients hospitalized in ICUs may present various clinical conditions, including respiratory failure (RF), which is defined as the clinical condition in which the respiratory system is unable to maintain oxygen arterial pressure (PaO₂) and/or carbon dioxide arterial pressure (PaCO₂) within normal limits for a given metabolic demand (Lagina & Valley, 2024; Martinez & Andrade, 2020).

Individuals with RF may exhibit various symptoms and signs depending on the severity, such as dyspnea, increased respiratory rate, decreased cognitive function, motor incoordination, apathy, fatigue, among others (Martinez & Andrade, 2020; Oliveira et al., 2019).

In addition to the symptoms and signs presented due to the health condition, the critical patient may also present, due to health conditions or external factors, impairments in body functions (global muscle weakness, pain, memory-related complaints) and limitations in occupations, such as difficulty in performing feeding, bathing, personal and toilet hygiene, reduced mobility, among others (Okuma et al., 2017; Bombarda et al., 2016).

It is important that patients with RF have access to a multidisciplinary team, aiming at optimizing the patient's health and well-being (Alam, 2016). In the ICU, this is guaranteed through Resolution RDC No. 7/2010 of the Brazilian Health Regulatory Agency (Anvisa), which ensures that the patient receives care in various specialties, such as speech therapy, nutrition, dentistry, occupational therapy, among others (Brasil, 2010).

In this context, the occupational therapist acts to minimize the impacts resulting from hospitalization, understanding the individual based on their needs and life repertoire (Santos et al., 2018; Bombarda et al., 2016; Garcia, 2023; Coelho et al., 2020). Costigan et al. (2019), in a scoping review, found a strong connection between occupational therapy practice in the ICU and interventions focused on motor skills; however, they describe that the professional's practice may also include actions related to participation in activities of daily living (ADL), cognitive interventions, as well as those related to emotional aspects within the scope of practice.

Bittencourt et al. (2021), based on a systematic review, demonstrated that the occupational therapist working in the ICU is linked to the rehabilitation team due to interdisciplinary interventions, with ADL and instrumental activities of daily living (IADL) training being one of the main interventions present in the scope of the profession's practices.

According to the fourth edition of the document *"Occupational Therapy Practice Framework: Domain & Process"* by the American Occupational Therapy Association (AOTA), ADL (Activities of Daily Living) are those activities performed by the individual aimed at self-care and are routinely carried out, such as feeding, bathing, dressing, toileting, functional mobility, personal hygiene, and sexual activity

(Gomes et al., 2021), with their intervention being the exclusive practice of the occupational therapist (Brasil, 2006).

Specifically in working with patients with respiratory diseases, the occupational therapist acts from assessment to hospital discharge planning, intervening in ADL and in safe discharge, employing energy conservation techniques, fatigue management, and routine planning, aimed at performing daily activities more efficiently. The professional may also intervene through active listening, teaching anxiety management techniques to cope with fatigue and dyspnea, may use augmentative and alternative communication techniques and tools, and promote environmental adaptations and guidance for the performance of occupations while using respiratory support devices (Norfolk and Norwich University Hospitals, 2025; Garcia, 2023; Bombarda et al., 2016; Colombini et al., 2017).

Although ADL are pointed out in the literature as a focus of occupational therapy intervention in the ICU, they still represent a gap to be explored, given the lack of detailed accounts regarding the operationalization of this approach with critically ill patients (Bittencourt et al., 2021). ADL in the ICU are impacted in various ways, either by the patient's health condition or by institutional organizational factors. In patients with RF, the performance of ADL requires even more caution, as the patient may be using a respiratory support device, which can become a barrier to performing these activities independently (Garcia, 2023).

Given the technical specificity required in this approach and guided by the following research question, "How have Brazilian occupational therapists been performing ADL-related practices in adult ICUs with patients with RF?", this study aimed to characterize occupational therapy practices regarding activities of daily living in ICU patients with respiratory failure, as well as to identify the main challenges faced in occupational therapy practice with RF patients.

Method

This is a cross-sectional study, with a descriptive design and a quantitative approach. Inclusion criteria considered occupational therapists working in Brazil who provide care in ICUs to individuals aged 18 or older with respiratory failure. Excluded from this study were interns, occupational therapists with ICU experience who are currently inactive, and Brazilian occupational therapists working abroad.

As a data collection instrument, a questionnaire was developed by the researchers, based on the concepts and terminology from the fourth edition of the aforementioned document by the American Occupational Therapy Association (AOTA). The questionnaire was structured into four parts, as follows:

Part I – closed questions aimed at understanding the profile of the participating professional (age, sex, time since graduation, postgraduate degrees, time working in hospitals and ICUs), and questions aimed at characterizing the intensive care unit where the occupational therapist works (type of ICU, state where the ICU is located, number of beds, professional workload in the ICU, composition of the multidisciplinary team, among others).

Part II – closed questions aimed at characterizing the profile of patients with respiratory failure (aspects of mobility, level of alertness, characteristics of support

devices, level of dependence), along with one open question focused on the main occupational therapy demands for this population.

Part III – closed and open questions focused on characterizing activities of daily living (ADL) practices (addressed ADL, factors that interfere with ADL performance, frequency of ADL-focused approaches, evaluation methods, contraindication criteria for performance, etc.).

Part IV – closed and open questions aimed at identifying challenges experienced in practice.

The research instrument was evaluated by three judges, identified as occupational therapists with more than two years of experience in adult ICU, in order to assess the clarity, coherence, language level, content, and format of the instrument, resulting in suggestions for the inclusion of questions and adjustments to answer choices. After the judges' feedback, the instrument was revised and structured using the Google Forms platform. A pre-test was conducted to verify the instrument's functionality, which proved to be suitable for the proposed objectives.

Data collection took place from February to April 2023, and the invitation for professionals to participate in the study was disseminated via social media and occupational therapy-specific instant messaging groups. An email was also sent to the Scientific Association of Occupational Therapy in Hospital and Palliative Care Contexts (SAOT-HPC, the Brazilian Association of Occupational Therapists (ABRATO) and its regional offices, and the Regional Councils of Physiotherapy and Occupational Therapy, requesting that they share the invitation among registered professionals.

By clicking on the distributed link, potential participants were able to access the content of the instrument to make an informed decision. Upon agreeing to the Informed Consent Form (ICF), participants were given access to the survey questions. The data from the closed questions, which are the focus of this article, were analyzed using descriptive statistics through the software Statistical Package for the Social Sciences – SPSS, version 25, with “distribution” characteristics through relative and absolute frequencies, means, and standard deviation.

This study followed the guidelines of Resolution No. 466/2012 of the Brazilian National Health Council – CNS and was approved by the Research Ethics Committee of the Federal University of São Carlos, under opinion No. 5.690.620.

Results

Participant profile

Twenty-four occupational therapists working in adult ICUs in Brazil participated in this study. Based on the characteristics of the profession, 87.5% of the participants were female. Regarding the age range of the participants, 45.8% were between 30 and 39 years old, followed by 33.3% between 20 and 29 years old (Table 1).

Regarding the participants' educational background, it was found that more than half of the occupational therapists (62.5%) had six or more years of education. Furthermore, 95.8% of them had completed one or more postgraduate degrees, with the majority of activities being in related fields, that is, postgraduate degrees not

specifically related to the hospital setting (Table 1). Only one participant reported having a specialist degree in Occupational Therapy in Hospital Settings from the Federal Council of Physical Therapy and Occupational Therapy (COFFITO).

Table 1. Sociodemographic, academic and professional information.

Sociodemographic profile	Variable	N (24)	%
Sex	Female	21	87.5
	Male	3	12.5
Age range	20 to 29 years	8	33.3
	30 to 39 years	11	45.8
	40 to 49 years	4	6.7
	50 years or more	1	4.2
Training profile	Variable	N (24)	%
Time of graduate training	Up to 1 year	4	16.7
	1 to 5 years	5	20.8
	6 to 10 years	6	25
	11 years or more	9	37.5
Postgraduate	Yes	23	95.8
	No	1	4.2
Type of postgraduate degree	Advanced training in the hospital field	4	16.7
	Advanced training in other fields	1	4.2
	Specialization in the hospital field	4	16.7
	Specialization in other fields	16	66.7
	Residency in the hospital field	9	37.5
	Residency in other fields	3	12.5
	Master's degree with research in the hospital field	2	8.3
	Master's degree with research in another field	3	12.5
	Doctorate with research in the hospital field	0	0
	Doctorate with research in another field	1	4.2
Professional profile	Variable	N(24)	%
Time working in hospital settings	Up to 1 year	4	16.7
	1 to 5 years	13	54.2
	6 to 10 years	6	25
	11 to 15 years	1	4.2
Time working in ICU	Up to 1 year	7	29.1
	1 to 5 years	12	50
	6 to 10 years	4	16.7
	11 to 15 years	1	4.2
Other ICUs operating in addition to the adult ICU	neonatal ICU	5	20.8
	pediatric ICU	6	25
	specialized ICU	6	25
	Mixed pediatric ICU	0	0

As detailed in Table 1, regarding time of experience in hospital settings, most participants reported having between 1 and 5 years of experience (54.2%), followed by those with 6 to 10 years of experience (25%). Concerning ICU experience specifically, it was found that 79.1% of occupational therapists have up to five years of practice in this setting. Additionally, it was observed that beyond the adult ICU, many participants also work in other ICUs (neonatal, pediatric, and specialized).

General data on occupational therapy work in adult ICUs

It was observed that participants work in adult ICUs located mainly in the Southeast (29.6%) and Northeast (29.6%) regions. The ICU bed capacity in which occupational therapists work consists mainly of units with 11 to 20 beds (58.3%), followed by units with up to 10 beds (25%).

Most occupational therapists (41.7%) reported working 21 to 30 hours per week in the adult ICU, followed by 29.2% who work up to 5 hours per week in the unit. It is important to highlight that 8.3% of participants reported working more than 30 hours per week in this setting — we do not have additional information that would allow us to assess whether this workload over 30 hours in adult ICUs refers to occupational therapy residents, is associated with more than one employment relationship, or whether this workload occurs in a single facility, in which case it would exceed professional guidelines, a factor that should be further explored in future studies.

Regarding the work shifts of these professionals, 25% reported working exclusively in the morning shift; 25% exclusively in the afternoon shift; 4.2% reported working during the night shift; and 45.8% of participating occupational therapists stated they work in more than one shift (morning and afternoon) (Table 2).

Table 2. Data on the work routine in the adult ICU.

Characteristics of the work routine in the adult ICU	Variables	N (24)	%
Workload	Up to 5 hours per week	7	29.2
	6 to 10 hours per week	2	8.3
	11 to 20 hours per week	3	12.5
	21 to 30 hours per week	10	41.7
	More than 30 hours per week	2	8.3
Acting shift	Morning	6	25
	Afternoon	6	25
	Morning and Afternoon	11	45.8
	Evening	1	4.2
Number of beds available in the adult ICU	Up to 10 beds	6	25
	11 to 20 beds	14	58.3
	20 to 40 beds	4	16.7

Table 2. Continued...

Characteristics of the work routine in the adult ICU	Variables	N (24)	%
Number of patients for which the occupational therapist is responsible in a work shift of up to 6 hours in the adult ICU	Up to 6 patients	5	20.8
	7 to 10 patients	12	50
	More than 10 patients	2	8.3
	Variable demand, no stipulated number	5	20.8
Carrying out the workday exclusively in the adult ICU	Yes	6	25
	No	18	75
Team composition	Doctor	24	100
	Nurse	24	100
	Nursing Technician	24	100
	Physical Therapist	24	100
	Nutritionist	24	100
	Psychologist	18	75
	Speech Therapist	16	66.7
	Social Worker	16	66.7
	Occupational Therapist	1	4.2

Only 25% of occupational therapists work exclusively in adult ICUs, as 75% of participants reported also working in other hospital sectors such as wards and outpatient clinics.

Regarding productivity indicators, an average of 7.9 daily appointments conducted by occupational therapists in the adult ICU setting was observed, ranging from 4 to 12 appointments per day. Half of the participants reported between 7 and 10 appointments per day.

When asked about care coverage in the adult ICU, 75% of professionals stated they were unable to meet the full demand of the unit. Additionally, 16.7% reported the presence of another occupational therapist working in the ICU; however, even working together, they stated that the existing demand in the unit is not met. A small number of occupational therapists (12.5%) reported providing care to all beds, and 4.2% reported full coverage in the unit through shared appointments with another occupational therapist.

As detailed in Table 2, all participants indicated a minimum adult ICU team composition including a physician, nurse, physical therapist, nursing technician, and nutritionist. Regarding interprofessional work, nurses (100%), physical therapists (100%), physicians (100%), nursing technicians (100%), psychologists (75%), and speech therapists (66.7%) were cited as the main professionals with whom joint work is carried out.

Regarding the work routine in adult ICUs, exactly half of the occupational therapists (50%) reported participating in “rounds” – as the meetings between different clinical professionals to discuss hospitalized patient cases and establish and align care goals are

known – while non-participation was reported by 12.5%, and 37.5% stated that these meetings do not include the multidisciplinary team.

The main referral pathways for occupational therapy were through interconsultation/referral (62.5%). Other referral methods included active search (58.3%), outcomes from multidisciplinary meetings (45.8%), and medical prescription (16.7%).

Profile of patients with Respiratory Failure treated in the adult ICU

As expected, the profile of patients with RF involves impairments in motor, sensory, and process skills.

Specifically regarding the level of consciousness of patients with RF, a similar distribution was observed among patients with altered levels of consciousness (coma, vegetative state, minimally conscious state, sedated) (66.7%), patients who were awake and indicated for ADL training (62.5%), and patients who were awake but had contraindications (respiratory, cardiovascular, neurological, and/or clinical) for ADL training (58.3%).

In relation to mobility among patients with RF, there was a predominance of aspects related to bed restriction (70.8%) and readiness for bedside sitting (70.8%). The performance level of such patients was mainly classified by occupational therapists as dependent for ADL, but with a favorable prognosis and rehabilitation potential (70.8%), followed by patients who were dependent for ADL with unfavorable clinical and functional prognosis (66.7%), and patients with difficulty communicating verbally, either due to a temporary or permanent problem (66.7%) (Table 3).

Table 3. Profile of patients with RI treated in the adult ICU.

Profile of patients with RF treated in the adult ICU	Variable	N (24)	%
Level of consciousness	Changes in level of consciousness (vegetative coma, minimally conscious state, sedation, among others)	16	66.7
	Patients with daily awakening	14	58.3
	Patients who are awake but have a clinical contraindication for ADL training	14	58.3
	Patients who are awake and have an indication for ADL training	15	62.5
Mobility	Restricted to bed	17	70.8
	Allowed to sit at the bedside	17	70.8
	Allowed to assume an upright position	12	50
	Allowed to engage in some activity outside of bed	11	45.8

Table 3. Continued...

Profile of patients with RF treated in the adult ICU	Variable	N (24)	%
Performance level	Dependent for ADL, but with a favorable prognosis and potential for rehabilitation	17	70.8
	Dependent for ADL, with an unfavorable clinical and functional prognosis	16	66.7
	No limitations in activities of daily living except bathing and bladder and bowel elimination	10	41.7
	Difficulty managing communication	16	66.7
Devices in use	Tracheostomy in mechanical ventilation	18	75
	Oxygen therapy in nasal catheter	17	70.8
	Orotracheal intubation in mechanical ventilation	16	66.7
	Nasogastric or nasogastric tube	16	66.7
	Central venous access	16	66.7
	Indwelling urinary catheter	15	62.5
	Peripheral venous access	15	62.5
	Non-invasive ventilation	14	58.3
	Oxygen therapy in non-rebreathing mask	13	54.2
	Infusion pump	13	54.2
	Hemodialysis catheter	13	54.2
	Drain	11	45.8
	Invasive blood pressure	9	37.5
	ECMO	1	4.2
	External ventricular shunt	1	4.2

Considering that the use of devices potentially limits occupational performance, an average of 7.8 devices per patient (SD=5.1) was found, with the most common being tracheostomy for mechanical ventilation (75%), nasal catheter for oxygen therapy (70.8%), orotracheal intubation for mechanical ventilation (66.7%), nasogastric tube (66.7%), and central venous access device (66.7%).

ADL approach in the adult ICU context

From the participants' perspective, it was assessed that the ADL that suffer the greatest impact in the adult ICU context are bathing (70.8%), functional mobility (50%), and sanitary hygiene (45.8%). Still regarding the perception of these professionals, the factors that most restrict the occupational performance of ADL of patients with RF are: changes in cardiovascular functions (62.5%), changes in sensory functions (45.8%), delirium (41.7%) and service dynamics (41.7%) (Figure 1).

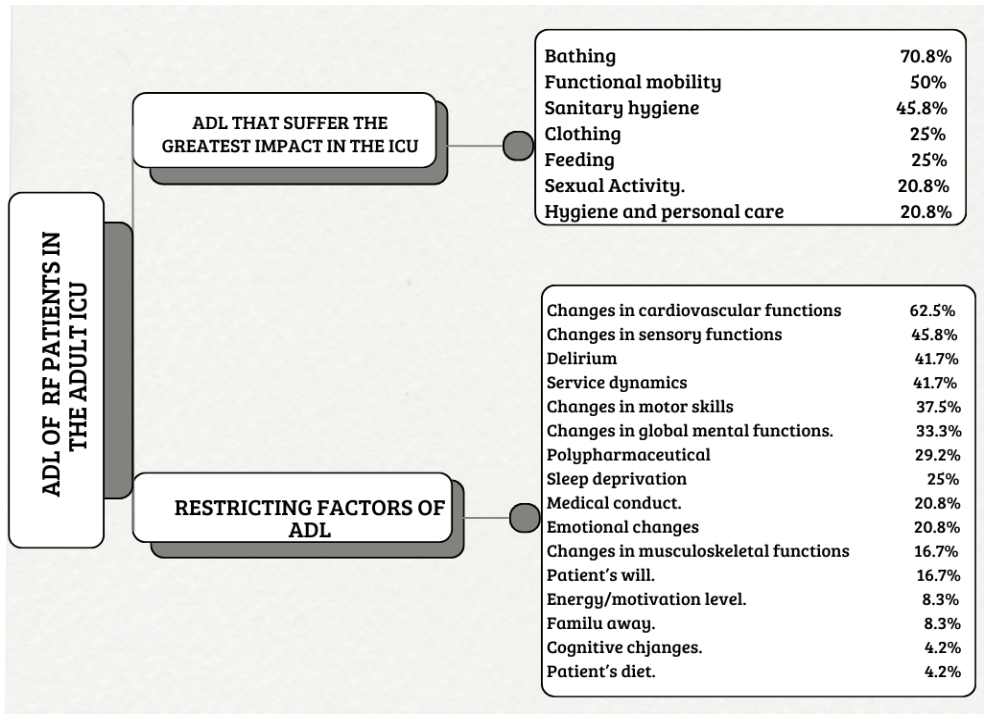


Figure 1. Perceptions about the ADL of patients with RF in the ICU.

Occupational therapists stated that they primarily address the ADL of feeding (66.7%), personal hygiene (58.3%), and functional mobility (50%) in the adult ICU routine.

The evaluation of ADL is mainly carried out through a combination of validated instruments and the unit's assessment protocol (50%). Evaluation based exclusively on a validated instrument was indicated by 25%; evaluation based on a protocol created by the service/professional, by 20.8%; and evaluations conducted through observation were reported by 4.2% of the occupational therapists participating in this study. Identified as part of the instruments used in the occupational therapy evaluation process for patients with RF in the adult ICU setting were the Canadian Occupational Performance Measure (COPM), Functional Independence Measure (FIM), Katz Index, Barthel Index, and Palliative Performance Scale (PPS).

The practical routine of occupational therapists focused on ADL involves multiple actions, as reported by the participants:

1. chart review (75%);
2. case discussion with the medical team (58.3%);
3. case discussion with the multidisciplinary team (79.2%);
4. motor skills assessment (70.8%);
5. cognitive skills assessment (75%);
6. sensory assessment (62.5%);
7. analysis of occupational performance (62.5%);
8. application of standardized instruments (58.3%);
9. monitoring of vital signs (66.7%);
10. bedside ADL interventions (79.2%);
11. ADL interventions out of bed (50%);
12. documentation in the medical record (79.2%);
13. sanitization of used materials (79.2%).

Most occupational therapists (41.7%) reported intervening in ADL with patients with RF in the adult ICU three times per week, followed by 20.8% who do so four times per week, and 20.8% five times per week.

The main actions directed toward the ADL approach carried out by these professionals with patients with RF in the adult ICU setting refer to guidance on energy conservation techniques to improve ADL performance (79.2%), optimization of functional positioning for ADL performance (79.2%), definition of the level of independence in ADL (70.8%), and monitoring and supervision of ADL performance, including for patients considered independent (70.8%) (Figure 2).

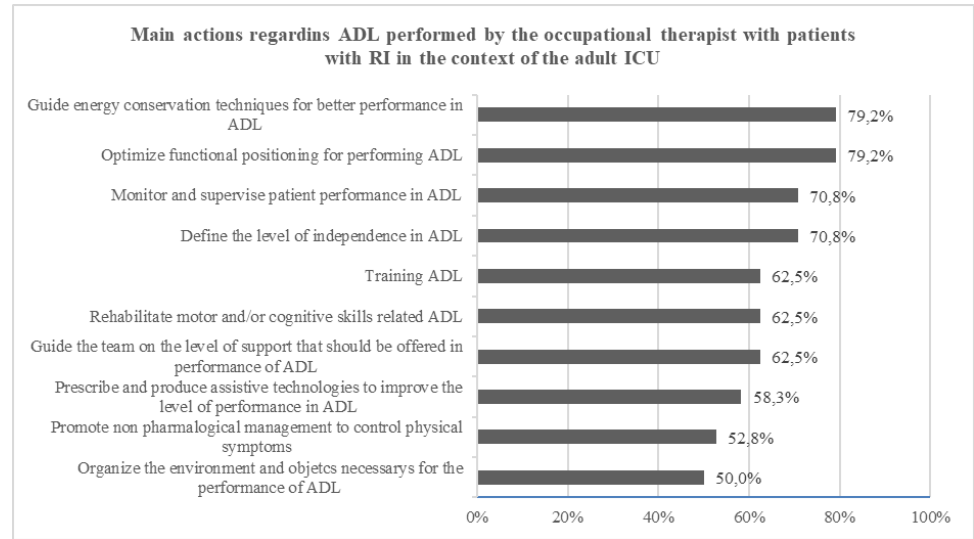


Figure 2. Main actions regarding ADL performed by the occupational therapist with patients with RF in the context of the adult ICU.

The challenges identified by occupational therapists in the context of care in the adult ICU mainly included the scarcity of scientific literature on the subject (54.2%) and the lack of material resources (54.2%). Also indicated were the lack of understanding by the team regarding the role of the occupational therapist (50%), absence of guidelines from the council (45.8%), and the scarcity of training opportunities such as postgraduate programs for occupational therapists in the context of critical care (33.3%). More specifically, challenges linked to weaknesses in undergraduate training (20.8%), lack of experience with critical patients (16.7%), lack of knowledge regarding cardiorespiratory parameters (12.5%), reduced working hours (16.7%), and difficulties associated with the number of patients per shift/professional (4.2%) also emerged.

Discussion

By exploring the characteristics of occupational therapy work focused on the ADL of patients with RF in the ICU setting, this study found a discrepancy between the activities perceived as most impacted (bathing, functional mobility, and toileting) and those most frequently addressed by occupational therapists (feeding, functional mobility, and personal hygiene).

The fact that bathing and toileting ADL were recognized as the most impacted activities but were not among the main focuses of intervention may hypothetically be associated with environmental factors.

Considering aspects of physical structure, dynamics, and procedural routines in the ICU, one can infer limiting factors for addressing these activities, such as the absence of bathrooms in the unit, scheduling of bathing before the occupational therapist's working hours, and high demand on the nursing team. These are possible factors that may restrict joint actions to promote greater patient participation in such activities.

Another potentially limiting factor, specifically for the bathing ADL, lies in the clinical condition of the patient, given that bathing, in particular, requires significant energy expenditure due to its multiple steps and time demand, which may result in symptom exacerbation (Nascimento et al., 2023). For this reason, in some cases, it is contraindicated to perform it out of bed. Additionally, the number of devices in use may be a complicating factor.

Regarding toileting, although diaper changes and cleansing are carried out by the nursing staff, occupational therapists can assess the patient's motor, cognitive, and sensory skills to encourage improved performance in this activity (e.g., guiding the patient to recognize when they are defecating or urinating, alerting when the diaper is soiled, encouraging active participation in position changes with side-rolling and pelvic lifting movements).

It is emphasized that the use of diapers should be indicated only in cases of severe fecal and/or urinary incontinence or performance limitations that prevent the use of other aids to assist in the excretion process. However, there are gaps in criteria for diaper use, which often results in their routine and non-systematic adoption for critical patients (Bitencourt et al., 2018), reinforcing the impact on this ADL and inciting reflections on potential ways to promote this performance.

Regarding the ADL identified as the main focus of intervention, the importance of this approach is evident in relation to clinical characteristics, energy expenditure per activity, and environmental context.

Feeding was identified as the most commonly addressed ADL by occupational therapists, possibly because feeding training helps organize patients' routines, offering a sense of normalcy in a setting often characterized by confusion and clinical focus.

Another possible justification lies in the nutritional and psycho-emotional importance of feeding. According to Freitas et al. (2024), nutritional intake from feeding is essential for clinical recovery and prevention of musculoskeletal loss, while culturally and socially, it is a source of pleasure and sensorimotor-affective memories.

Another ADL frequently addressed by occupational therapists was personal hygiene, which includes activities such as shaving, brushing teeth, combing hair, among others (Gomes et al., 2021). The frequency of interventions targeting both feeding and personal hygiene may be linked to the fact that these activities do not require getting out of bed, can be performed in a seated position – which requires less energy expenditure – and allow for the use of low-cost assistive technology to reduce performance deficits if needed (Nascimento et al., 2023).

Functional mobility, which includes in-bed movements, wheelchair use, transfers, and ambulation (Gomes et al., 2021), is an essential approach when considering the risks associated with immobility. According to Nascimento et al. (2023), training the ADL of functional mobility enables the occupational therapist to improve positioning, both in bed and in sitting at the bedside, fostering reaching and manipulation skills, as well as performance skills needed for other activities dependent on mobility. This intervention requires analysis of barriers and facilitators to promote safe performance and engagement in the ADL (e.g., assessing the distance to be traveled, risks along the way, handling of medical devices, etc.).

It is noteworthy that approximately 25% to 35% of participants did not report conducting motor, cognitive, and sensory skill assessments, as well as medical record review, vital signs monitoring, and performance analysis as part of their routine intervention. According to the Federal Council of Physical Therapy and Occupational Therapy, it is the exclusive responsibility of the occupational therapist to assess patients' functional skills in order to prescribe and conduct training focused on enhancing ADL performance capabilities (Brasil, 2006).

The occupational therapists in this study identified the main factors restricting ADL performance in the ICU as cardiovascular and sensory function alterations, the occurrence of delirium, and service dynamics. Cardiovascular, respiratory, and sensory functions are bodily structures and functions requiring physiological and anatomical knowledge by occupational therapists, as they are interrelated with the patient's ability to engage in occupations. Given such changes and understanding that they restrict performance, occupational therapists should consider during their interventions parameters such as systemic blood pressure, heart and respiratory rates, temperature, oxygen saturation, and sensory deficits requiring compensatory strategies (Gomes et al., 2021).

Based on these analyses, occupational therapists should implement interventions aimed at gradually rehabilitating the skills required for occupational performance. The main intervention strategies employed in addressing ADL, as reported by participants, included guidance on energy conservation techniques, optimization of positioning, performance monitoring and supervision, all of which require the occupational therapist to analyze the activity and assess the energy cost involved in the proposed task.

The level of dependence in ADL of patients with prognoses ranging from restorative potential to poor functional outcomes underscores the importance of such analysis for therapeutic planning in the ICU. According to Ferreira et al. (2023), occupational therapists can train ADL using two approaches: ascending grading, where external assistance is gradually reduced to promote more independent performance; or descending grading, in which the patient's limitations are compensated by modifying activity demands, such as incorporating rest breaks, removing steps, or using assistive technology during training.

Additionally, energy expenditure assessment can be carried out based on the Metabolic Equivalent of Task (MET), allowing the occupational therapist to understand the energy cost of each ADL, an important factor for guiding intervention (Colombini et al., 2017).

To determine the best approach, it is essential for occupational therapists to identify occupational performance skills and potentials, as well as to assign therapeutic diagnoses and prognoses using occupational therapy-specific tests and protocols adapted to the life cycle, context, and individual needs of each patient (Brasil, 2011).

The complexity of critical patients with respiratory conditions is undeniable, as evidenced by our results regarding patient profiles, bedridden individuals, with varying levels of functional dependence, ranging from potential for rehabilitation to poor outcomes, communication impairments, and numerous devices in use. These aspects highlight the impact on occupational repertoire and, due to clinical and contextual characteristics, underscore the need for specialized knowledge.

In this perspective, it was observed that the occupational therapists participating in this study had relatively recent experience in the ICU, with most reporting up to 5 years in this field. They also reported not working exclusively in the ICU and providing care in other areas including neonatal and pediatric patients. This diversity in practice, in our analysis, contributes to more generalist actions, limiting the development of more specialized practices by occupational therapists.

It is also inferred that the reduced workload in the ICU tends to hinder the provision of more qualified care when considering the frequency of care recommended for achieving positive outcomes. Furthermore, working in multiple units may lead to potential overload, aligning with the reported lack of coverage for existing demands.

Although it was found that there is insufficient coverage of care demands in the ICU context, occupational therapists reported an average of 7.9 daily sessions, which aligns with the estimate defined in the occupational therapy care parameters for a 6-hour shift (Brasil, 2014).

Another point to be mentioned refers to the influence of the biomedical model on occupational therapy practice. This is supported by data indicating work based on medical prescriptions and lack of participation in rounds, justified by the claim that such actions do not involve the multidisciplinary team. Although a minimal percentage of participants reported that occupational therapy is triggered through medical prescriptions in the ICU, it is important to emphasize that, according to professional prerogatives and resolutions from the Federal Council of Physical Therapy and Occupational Therapy, occupational therapists have autonomy to make diagnoses and prescribe treatments without needing to submit their practices to a physician (Paraná, 2023).

It is worth noting that the expanded clinical perspective is currently endorsed by major health policies, and in contrast to the report of work based on medical prescriptions, participants also affirmed the existence of interdisciplinary collaboration among team members, including at least physicians, physical therapists, nurses, and nursing technicians.

The most frequent way of initiating occupational therapy care was through interconsultation/referral requests. However, it is important to reflect that the interconsultation system limits the occupational therapist's continuous participation in the unit, requiring greater efforts by the professional to integrate with the team (Frizzo & Corrêa, 2018). This situation may explain one of the challenges reported by participants: lack of understanding by the team regarding the role of the occupational therapist.

Thus, considering the nuances of hospital dynamics and the complexity of this practice focused on high-complexity care, the data from this study demonstrated that occupational therapy care targeting the ADL of patients with RF in the ICU requires not only specific knowledge and skills in occupational therapy but also a broad understanding of the clinical and contextual conditions surrounding intensive care.

Conclusion

The description of the characteristics of occupational therapy practice focused on the ADL of patients with RF in the adult ICU highlighted data related to the profile of the patients served, care dynamics, and the main interventions carried out in this setting. The integrated analysis of this data illustrates the high complexity of this work, which demands specific competencies to provide qualified, safe, and effective care.

When considering the influence of the physical environment and unit dynamics as restricting factors for occupational performance, as well as the structure of material and human resources (occupational therapists working across multiple units, which affects the frequency of patient care and care coverage, and complaints about lack of materials), environmental factors (both structural and dynamic) appear as the main obstacles to professional practice.

As a study limitation, the number of participants is noted, which does not allow for generalization of these characteristics across different regions of the country, highlighting the need for further research. It is suggested that more studies be

promoted in this area, especially with designs that allow data source triangulation to strengthen the evidence base for this practice.

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Author's Contributions

Thais Gomes Cabral de Avelar: text conception, organization of sources and/or analyses, writing, final review. Huryel Tarcio de Oliveira: text conception, data collection, final review. Janaina Santos Nascimento: analysis organization, writing, final review. Tatiana Barbieri Bombarda: text conception, analysis

organization, writing, final review. All authors approved the final version of the text.

Data Availability

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

Funding Source

None.

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Profa. Dra. Mariana Midori Sime