Revista Científica Escola de Saúde Pública do Ceará Paulo Marcelo Martins Rodrigues
1808-7329 (1809-0893)

RELATO DE EXPERIÊNCIA, ATUALIZAÇÃO E/OU INOVAÇÃO TECNOLÓGICA
Saúde Pública / Coletiva

SPEECH THERAPY PRACTICE IN INTENSIVE CARE UNIT

ATUAÇÃO FONOAUDIOLÓGICA EM UNIDADE DE TERAPIA INTENSIVA

RENDIMIENTO DE LA TERAPIA DEL HABLA EN UNIDAD DE TERAPIA INTENSIVA

Andrea Cintia Laurindo Porto[1], *Sara Raquel Alves de Souza*[2], *Moisés Andrade dos Santos de Queiroz*[3] e *Christina Cesar Praça Brasil*[4]

ABSTRACT
To report speech therapy performance in the intensive care unit. This was a descriptive study with a qualitative approach of the experience report type, describing the experiences of a speech therapist resident in intensive care over a period of two years, within the multidisciplinary residency program in an intensive care unit. To carry out data collection, participant observation was used as a strategy, which allowed understanding and describing the object of the experience. In the intensive care unit, patients are in a serious condition, with indicators of dysphagia being common, requiring in-depth and specific knowledge regarding the anatomophysiology of the phonoarticulatory organs. Dysphagia causes a risk of respiratory infection among other conditions. In the intensive care unit, patients require more specialized and continuous professional attention, in addition to a good relationship between the team. Speech therapy within the intensive care unit has generally provided a faster and safer return to normal eating.
Keywords: *Residence; Speech Therapy; Patient Assistance Team*.

RESUMO
Relatar a atuação fonoaudiológica na unidade de terapia intensiva. Tratou-se de um estudo descritivo de abordagem qualitativa do tipo relato de experiência, descrevendo as vivências da fonoaudióloga residente em terapia intensiva, no período de dois anos, dentro do programa de residência multiprofissional em unidade de terapia intensiva. Para a efetivação da coleta dos dados, utilizou-se como estratégia a observação da participante, o que permitiu compreender e descrever o objeto da vivência. Na unidade de terapia intensiva, os pacientes encontram-se em estado grave, sendo comum indicadores de disfagia, havendo a necessidade de conhecimentos aprofundados e específicos em relação à anatomofisiologia dos órgãos fonoarticulatórios. A disfagia ocasiona risco de infecção respiratória entre outros acometimentos. Na unidade de terapia intensiva, os pacientes necessitam de atenção profissional mais especializada e contínua, além da uma boa relação entre a equipe. A atuação fonoaudiológica dentro da unidade de terapia intensiva tem proporcionado, de maneira geral, o retorno mais rápido e seguro da alimentação normal.
Descritores: *Residência; Fonoaudiologia; Equipe de Assistência ao Paciente*.

RESUMEN
Informar el desempeño de la logopedia en la unidad de cuidados intensivos. Se trata de un estudio descriptivo con enfoque cualitativo, del tipo relato de experiencia, que describe las vivencias de un logopeda residente en cuidados intensivos durante un período de dos años, dentro del programa de residencia multidisciplinario en una unidad de cuidados intensivos. Para realizar la recolección de datos se utilizó como estrategia la observación participante, la cual permitió comprender y describir el objeto de la experiencia. En la unidad de cuidados intensivos los pacientes se encuentran en estado grave, siendo comunes los indicadores de disfagia, requiriendo conocimientos profundos y específicos sobre la anatomofisiología de los órganos fonoarticulatorios. La disfagia provoca riesgo de infección respiratoria entre otras afecciones. En la unidad de cuidados intensivos los pacientes requieren una atención profesional más especializada y continua, además de una buena relación entre el equipo. La logopedia dentro de la unidad de cuidados intensivos ha proporcionado en general un retorno más rápido y seguro a la alimentación normal.
Descriptores: *Residencia; Terapia del Lenguaje; Equipo de Asistencia al Paciente*.

[1] Universidade de Fortaleza, Fortaleza/CE - Brasil.
[2] Universidade de Fortaleza, Fortaleza/CE - Brasil.
[3] Universidade Pitagóras de Fortaleza, Fortaleza/CE - Brasil.
[4] Universidade de Fortaleza, Fortaleza/CE - Brasil.

INTRODUCTION

Speech-language pathology in the intensive care unit is of great importance, as patients usually have a severe clinical condition, often associated with swallowing and communication disorders resulting from diseases or surgical procedures. Thus, speech-language pathology intervention aims to contribute to the stabilization of the clinical picture through preventive and early intervention, reducing the risks of bronchial aspiration and promoting interrelationship with the multidisciplinary team.[5.]

Within the Multiprofessional Residency Program (RMS) in intensive care, a *Lato Sensu graduate program* characterized by in-service teaching, residents participate in theoretical, practical, and theoretical-practical classes. These meetings take place through core seminars, preceptorships, theoretical classes, and field activities, providing relationships and interactions between multidisciplinary, interdisciplinary and transdisciplinary teams. As a scientific contribution, the residents develop the Residency Conclusion Work (TCR), which highlights the importance of the performance of speech therapy in the intensive care unit. Thus, the program seeks to carry out methodological transformations in the training process of the members, in addition to meeting the growing demand for intensive care professionals, enabling them to assist critically ill patients, stimulating clinical reasoning, knowledge in diagnosis and clinical prognosis, in addition to the competencies and skills necessary for residents in training to act in a humanized way in relation to patients, family members and other members of the multiprofessional team[1].

Among the institutions that promote the RMS, the General Hospital of Fortaleza (HGF) is recognized as the largest tertiary hospital in the state network, a reference in highly complex procedures. Currently, it offers RMS in the areas of: neurology and neurosurgery, organ and tissue transplantation, intensive care in neonatology and intensive care. These residencies were implemented in partnership with the Department of Work Management and Health Education of the Ministry of Health and the State Department of Health of the HGF. The selection processes are annual, with a notice containing the availability of vacancies, rules of the contest and scholarship values, valid for 2 years[2].

The search for RMS by graduates of the Speech-Language Pathology and Audiology course draws attention to the importance of multiprofessional training at the level of specialization and the need for teaching-service integration for the current moment of the Unified Health System (SUS). The integration of the speech-language pathologist in the Intensive Care Unit (ICU) is something recent compared to other professions in the Health Sciences, given that speech-language pathology was regulated in 1981[3]. Since then, speech-language pathologists have been inserted in the most diverse health care services, especially tertiary health care through the rehabilitation of communication and swallowing disorders[3,4].

Hospital speech-language pathology is a specialty that requires in-depth knowledge of the anatomophysiology of phonoarticulatory organs (OFA's) and their disorders[6, 7]. That said, the present report aims to report the experience of a speech therapist participating in a multiprofessional residency in intensive care, providing bedside care with adult patients from a tertiary level hospital.

METHOD

This was a descriptive study with a qualitative approach of the experience report type, describing the experiences of the speech-language pathologist resident in intensive care over a period of two years, within the Multiprofessional Residency program in the intensive care unit, in a regime of 60 hours per week from Monday to Friday at the General Hospital of Fortaleza (HGF). The resident joined the program in March 2020, integrating the multidisciplinary team of the aforementioned hospital, completing it in February 2022. For data collection, the participant's observation was used as a strategy, which allowed understanding and describing the object of the experience.

Considered as a tertiary health level SUS teaching hospital, a reference in intensive care, the Intensive Care Center (ICU) of the General Hospital of Fortaleza has 38 adult ICU beds, subdivided into three colors: yellow, blue and green. Each color is related to a specialty and clinical profile. The team that makes up each ICU is multiprofessional, composed of intensive care physicians, nursing staff, physiotherapists, speech therapists, occupational therapists, psychologists and orthodontists in a diversified work regime, such as on-call workers, day laborers and residents. Among the RMS training classes in ICUs, speech therapy was included last.

An average of 200 consultations are performed per month, recorded in the electronic medical record and in speech-language pathology follow-up notebooks. The main speech-language pathology approaches include the transition from alternative to oral (OP) feeding, swallowing stimulation, feeding management, phonation rehabilitation (voice and breathing), language (aphasia) and myotherapy (facial paralysis, dysarthrias and motor disorders). The daily demand for care is sometimes collected by active search by speech therapists or requested by the multiprofessional team, such as doctors, nurses, physiotherapists, and other professionals.

It is noteworthy that most of the speech-language pathology demands of the intensive care units of the HGF are related to the rehabilitation of impacts caused by the use of mechanical ventilation, whether prolonged intubations or tracheostomies, sequelae of neurosurgery after tumors and stroke, sensorineural lowering due to diabetes, metabolic disorders, and drug action.

For the systematization and analysis of the data obtained in the resident's experiences, this report was prepared with the objective of synthetically describing the activities performed. This process seeks to promote an approximation between the theory learned and the reality of the practice experienced. In addition, it is intended to provide a critical and reflective analysis of the experience, highlighting the challenges faced, the strategies adopted, and the results achieved. In this way, it is expected to contribute to a better understanding of the role of speech therapy in the intensive care unit and to the continuous improvement of professional practices.

RESULTS

Swallowing is a complex process that involves structures from the oral cavity to the stomach. During the study period, it was observed that speech-language pathology intervention contributed to the reduction of complications such as bronchial aspiration and respiratory infections. An average of 200 monthly consultations were performed,

recorded in the electronic medical record and speech-language pathology follow-up notebooks.

Among the main functions of the speech therapist in the ICU observed by the resident, the indication of an alternative feeding route and the tracheostomy weaning process (TQT) stand out. In addition to swallowing disorders, other factors that interfere with oral feeding include poor acceptance, taste issues, diarrhea, nausea, vomiting and constipation, highlighting the need for multidisciplinary care.

The experience of oropharyngeal dysphagia should be carefully investigated, especially in patients who have had prolonged orotracheal intubation (OTI) or the presence of TQT. Such procedures, which are often performed in the ICU to maintain breathing, also increase the risk of bronchial aspiration due to altered sensitivity in the upper airway.

DISCUSSION

Swallowing is a complex process that involves structures from the oral cavity to the stomach and results from neural control.[5] Dysphagia, defined as a swallowing disorder, if not properly managed, increases the risks of laryngeal penetration, tracheal aspiration, respiratory infection, septic shock, malnutrition, and prolonged hospital stay.[6]

Only in 2010 did the Collegiate Board of the National Health Surveillance Agency (ANVISA) approve Resolution No. 7, which adds the speech therapist as necessary among the minimum requirements for the operation of the ICU.[8] Despite the good results presented, such as a decrease in cases of aspiration pneumonia and early discharge of patients, it is observed that there are still ICUs in which the speech therapist is not included in the multidisciplinary team. In addition, there is a difficulty in the team's understanding of the performance of the speech therapist.[7]

The speech therapist who works in the ICU needs previous knowledge of how each procedure can interfere in the patient's speech therapy rehabilitation process. In addition, it must understand the distinction between alternative diets and respiratory issues, such as the use of invasive and non-invasive mechanical ventilation, and cuff weaning.[10] The application of speech therapy requires in-depth knowledge about tactile-thermal-gustatory stimuli for swallowing rehabilitation, stimulating, when possible, through volume, rhythm and variation of feeding consistency.[11]

SPEECH THERAPY IN THE ICU

Speech-language pathology care in the ICU, as observed in the resident's practice, begins with the active search routine in collaboration with the multiprofessional team. The established sequence includes reading the medical record and medical prescription, talking to the team about the possibility of care, collecting materials necessary for evaluation/therapy, requesting food and utensils from the nutrition team, biosafety measures, initial presentation, positioning in front of the patient at the bedside and adequacy of the patient's posture.

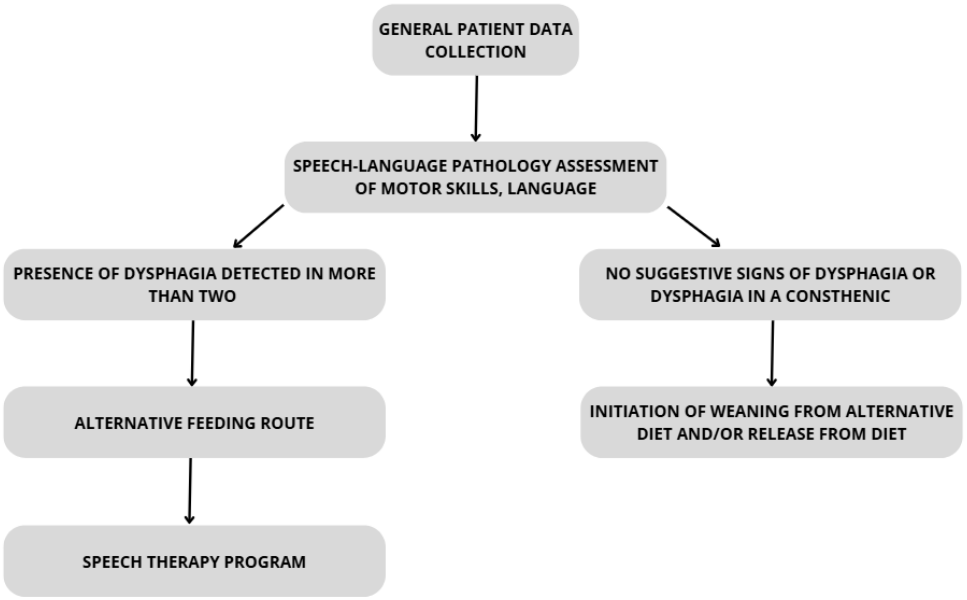
PARTNERSHIP WITH THE MEDICAL TEAM

The speech-language pathology work together with the medical team helps in deciding on the safest food route for the patient. Speech-language pathology care is requested mainly for extubated patients, due to the risks of bronchial aspiration or malnutrition. After the clinical evaluation, the clinical signs presented by the patient are discussed and it is suggested that they remain or wean from an alternative feeding route. Other aspects discussed include the adverse effects of medications on swallowing, such as excessive sleepiness, nausea, disorientation, xerostomia, and decreased appetite.

PARTNERSHIP WITH NUTRITION

The resident emphasizes the great affinity between the performance between Nutrition and Speech-Language Pathology and Audiology, especially in the period of weaning from alternative feeding and transition to feeding by OP, since when direct stimulation of swallowing with food begins (fig.1). Thus, the interprofessional deliberation between nutritionist, speech therapist and other team members is integrated into the ICU routine regarding the balance in the acceptance of OP, constipation and aspects of nutrition and hydration of the patient.

Figure 1: Speech-Language Pathology and Audiology work with the nutrition team.



Source: Produced by the authors, 2024.

PARTNERSHIP WITH NURSING

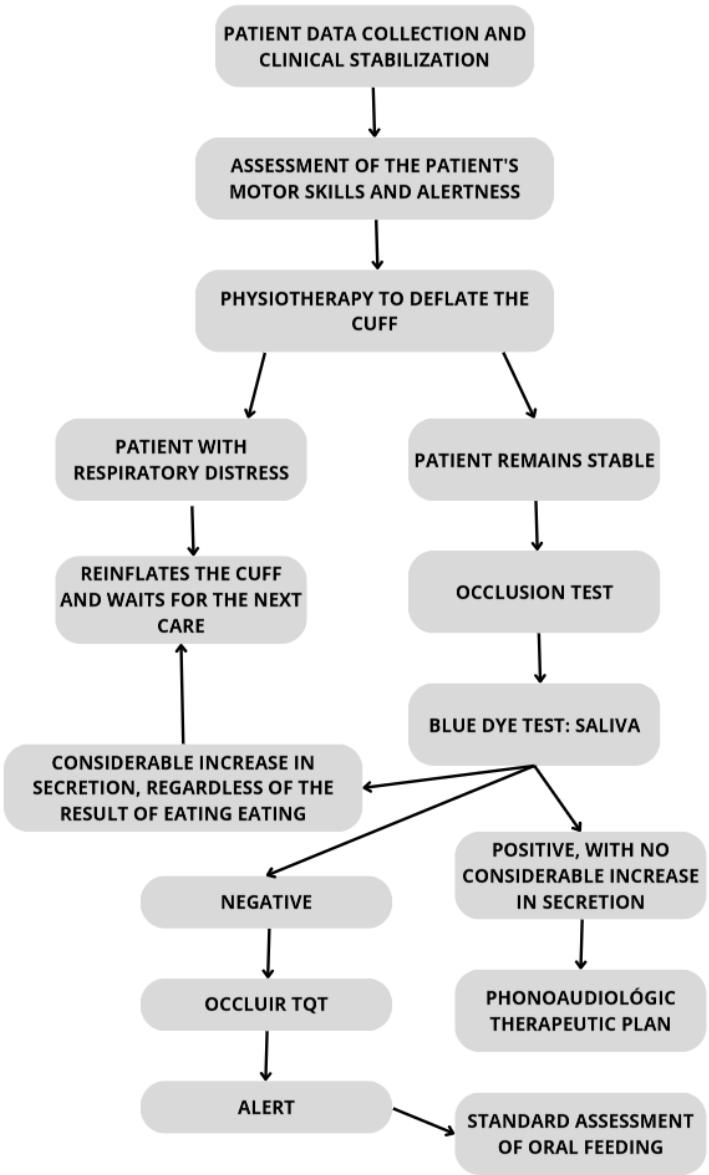
Interaction with the nursing team is constant, as these professionals participate in the direct care of patient monitoring. Nursing assists the speech-language pathology follow-up with recent information on the general condition of patients, such as dysphagic complications and condition evolution. The resident guides the nursing team on posture, oral hygiene, and the most appropriate way to offer food orally, with control of

consistencies and volume. In the RMS in ICU, quarterly continuing education actions are carried out on the management of dysphagic patients for the entire nursing team.

PARTNERSHIP WITH PHYSIOTHERAPY

Collaboration occurs mainly in cases of patients who need a more careful consideration of the interconnection between breathing and swallowing functions. In this team, the speech therapist observes the presence, color and amount of secretion, in addition to the frequency of aspirations. The clinical evaluation of swallowing can be aided by the use of colored foods, offered in liquid or pasty consistency with blue food coloring, to verify the presence of stained residues in the lower airway, which indicates orotracheal penetration. Based on this interaction, it is decided whether or not to start cuff and tracheostomy weaning (TQT).

Figure 2: Speech-Language Pathology and Audiology work with the Physiotherapy team.



Source: Produced by the authors, 2024.

CONCLUSION

The work of the speech-language pathologist with the multidisciplinary team in the RMS in ICU favors the quality of care for patients with communication and swallowing disorders, especially in cases of prolonged orotracheal intubation, use of tracheostomies and alternative feeding routes. Speech-language pathology intervention is crucial for the early identification and appropriate management of these disorders, contributing significantly to the reduction of complications, such as bronchial aspiration and respiratory infections, in addition to promoting the functional recovery of patients.

The RMS in the intensive care unit provides an experience of multidisciplinary, interdisciplinary, and transdisciplinary action among health professionals, strengthening the interaction and bond between professionals of each category who work in intensive care units. This integration is essential for creating more complete and effective care plans based on a holistic approach to the patient. The joint experience not only improves the technical skills of the residents, but also stimulates the exchange of knowledge and practices between the different areas of activity, promoting an environment of continuous and collaborative learning.

However, some limitations were identified during the experiment. The absence of speech-language pathologists in some ICUs, combined with the lack of understanding of the importance of this professional on the part of the multidisciplinary team, can compromise the effectiveness of care. On the other hand, the potential of this experience is remarkable. Multiprofessional Residency training prepares professionals to face the complex and dynamic challenges of the intensive care environment, developing critical skills, such as clinical reasoning, quick decision-making, and effective communication with patients and families. This intensive and immersive training empowers professionals to offer more humanized and patient-centered care, contributing to better clinical outcomes and greater patient and team satisfaction.

REFERENCES

1. Carmo LFS, Santos FAA, Mendonça SC, Araújo BCL. Management of the risk of bronchoaspiration in patients with oropharyngeal dysphagia. Rev CEFAC. 2018 ago;20(4):532-40.
2. Ministério da Saúde (BR). Secretaria de Gestão do Trabalho e da Educação na Saúde. Departamento de Gestão da Educação em Saúde. Residência multiprofissional em saúde: experiências, avanços e desafios. Brasília; 2006.2.
3. Hospital Geral de Fortaleza [Internet]. Apresentação. [acesso em 2020-11-19]. Disponível em: http://www.hgf.ce.gov.br/index.php/apresentacao/apresentacao.
4. Conselho Regional de Fonoaudiologia. Apresentação. [acesso em 2020-11-19]. Disponível em: http://www.crefono6.org.br/lei-696518.
5. Conselho Federal de Fonoaudiologia. História da Fonoaudiologia. [acesso em 2020-11-19]. Disponível em: https://www.fonoaudiologia.org.br/historia-da-fonoaudiologia/.
6. Carmo LFS, Santos FAA, Mendonça SC, Araújo BCL. Management of the risk of bronchoaspiration in patients with oropharyngeal dysphagia. Rev CEFAC. 2018 ago;20(4):532-40.

7. Padovani AR, Moraes DP, Sassi FC, Andrade CRF. Avaliação clínica da deglutição em unidade de terapia intensiva. CoDAS. 2013;25(1):1-7.
8. Ministério da Saúde(BR). Agência Nacional de Vigilância Sanitária. Resolução Nº 7, de 24 de fevereiro de 2010. [acesso 2020-11-18]; Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2010/res0007_24_02_2010.html.
9. Barroqueiro PC, Lopes MKD, Moraes AMS. Critérios fonoaudiológicos para indicação de via alternativa de alimentação em unidade de terapia intensiva em um hospital universitário. Rev CEFAC. 2017 mar;19(2):190-7.
10. Santos LB, Mituuti CT, Luchesi KF. Atendimento fonoaudiológico para pacientes em cuidados paliativos com disfagia orofaríngea. Audiol Commun Res. 2020;25:e2262.
11. Sales Assunção G, Andrade dos Santos de Queiroz M, de Albuquerque Cabral Silva J, Rolim Teixeira Henderson MN, Laurindo Porto AC, Praça Brasil CC. A influência da intubação na deglutição de pacientes neurocirúrgicos. Cadernos ESP [Internet]. 19º de setembro de 2023 [citado 15º de maio de 2024];17(1):e1650. Disponível em: https://cadernos.esp.ce.gov.br/index.php/cadernos/article/view/1650.