



BURNED PATIENTS AND PHONOAUDIOLOGICAL DEMAND IN THE VOICE AREAS AND OROFACIAL MOTRICITY: EVIDENCES IN LITERATURE

Vanessa Oliveira Tupinambá	Speech Therapist Postgraduate University Nilton Lins & Avenue Professor Nilton Lins, 3259, Flores - Manaus.
Patrícia da Silva Pereira*	Speech Therapist Postgraduate University Nilton Lins & Avenue Professor Nilton Lins, 3259, Flores - Manaus. *Corresponding Author
Luan Coelho de Brito	Speech Therapist Graduate Uninorte Laureate & Avenue Joaquim Nabuco, 1281, Centro - Manaus
Jessiane Farias de Souza	Speech Therapist Graduate Uninorte Laureate & Avenue Joaquim Nabuco, 1281, Centro - Manaus
Leidimara Galeno de Oliveira	Speech Therapist Graduate Uninorte Laureate & Avenue Joaquim Nabuco, 1281, Centro - Manaus

ABSTRACT

Speech and hearing care in burned patients with vocal and orofacial alterations is extremely important and necessary in hospital beds. However, the indication of the speech therapist is not well valued. For this reason, the objective of this study is to show the speech-language pathology demand in patients affected by burns in Brazil who need care in the specialties of voice and motor orofacial. The method was carried out through a systematic review of articles published in the SCIELO, TEDE and LILACS database, with inclusion and exclusion criteria with the objective of reaching data that evidence the speech-language pathology demand in burn patients. A survey was carried out between the years of 2008 until 2016, where seven articles with the proposed subject were selected. All studies involve the relation of burned patients with Speech Therapy in the field of oral and vocal motor rehabilitation. The findings in publications are within the theme proposed in the paper, affirming the phonoaudiological demand in all the articles found. The total number of articles reporting orofacial motor care and six reporting vocal changes in individuals affected by inhalation burns. There has been a significant increase in the number of publications on the subject, however, in the proposed research, it can be stated that both burns that face and inhalations cause alterations in the mobility of phonoarticulatory organs and changes in the mucosa of the rhinopharynx, oropharynx and laryngopharynx. Further, the need for more in-depth studies to confirm the importance of professional speech-language pathologists with the cited audience.

KEYWORDS : Burns, burn, voice, orofacial motricity, speech therapy

INTRODUCTION

Burn can be defined as any injury caused by thermal, chemical, electrical or radioactive agents in the skin, which in turn can lead to partial or total destruction of the tissue, which can reach even the deepest layers, such as subcutaneous muscles, tendons and bones. Bringing psychological and aesthetic damages to patients. (PRESTES and LOPES JUNIOR apud LIMA et al, 2015)

Injuries caused by burns are the third leading cause of accidental death in all age groups. Seventy-five percent result from the victim's actions and occur in the home environment. Accidents in the group of children and adolescents under 14 years old result in almost 6,000 and more than 140,000 hospital admissions annually in the public health network. (RODRIGUES, VANIN, NASI, 2010).

For Arrunátegui (2009), the initial visits to the burned patient should have in their initial focus the evaluation of the airways, breathing, circulation, organic dysfunctions, volume replacement and treatment of potentially lethal injuries (following the ATLS protocol – Advanced Trauma Life Support). Also the evaluation of the depth and extent of burns, as well as the detailed history regarding the mechanism of the trauma, etiologic agent, elapsed time between the event and the first care and previous treatments, so that the care is coherent and in a manner timely.

Inhaled injury results from the inflammatory process of the airways after inhalation of toxic gases and incomplete combustion products, says Spinelli et al. (2010). And it complements that there is need of the action of the multiprofessional team to reduce the mortality rate that can reach up to 77%.

For Toledo (2001), phonoaudiology is a specialty focused on the study of development, disorders and human communication differences in its aspects of speech, voice, oral and written language, hearing and oral motor sensory system. And the role of this professional is to promote, enable, perfect and recover the communicative standards complement Borges, Vieira and Barreto (2011).

Burns that reach the face can cause scars that impair the ability to communicate, as well as the functionality of the oral motor system. In this way, phonoaudiology demonstrates how important its work is in the patients affected by burns, but there is still a shortage of professionals who work with this population (TOLEDO, 2001).

Therefore, the objective of this study was to highlight the demand for speech and hearing care in the areas of voice and motor orofacial in patients affected by burns in Brazil.

MATERIAL AND METHODS

The respective work was elaborated by means of an integrative review of the literature, through the exploration of published articles in order to gather and synthesize results of Brazilian researches on the phonoaudiological demands within the areas of vocal and orofacial motricity with burned patients.

The searches were done in the databases SCIELO (SCIENTIFIC ELECTRONIC LIBRARY ONLINE), TEDE (SYSTEM OF ELECTRONIC PUBLICATION OF THESES AND DISSERTATIONS) e LILACS (LATIN AMERICAN AND CARIBBEAN LITERATURE IN HEALTH SCIENCES). The descriptors used were: voice, burned, burns, orofacial motricity, speech therapy.

The articles found were pre-analyzed by reading titles and abstracts appropriate to the proposed theme.

Only articles that met the following criteria were included in the review: articles published in Portuguese, publications as of 2008 and articles with an approach related to the audiologist's performance with the burn patients. The search gathered a total of 79 articles and following the exclusion criteria, we selected seven articles that dealt with the purpose of this study.

RESULTS

Of the 79 articles analyzed, 43 were selected based on their theme. Subsequently, through its abstract, 28 articles remained for analysis. However, only seven were within the inclusion criteria proposed in this review and the studies analyzed are described in Table 1.

Tabela 1: Characteristics of the analyzed studies

Author	Year	Title	Location	Sample	Method	Age	Alterations	Interventions
1. Turcznski et al.	2008	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	11	Case study	11 to 20 years	Alterations of ORO, reduced mouth opening and OLA alterations	Vocal and Orofacial Motricity
2. Ramos et al.	2009	Speech therapy in patients with facial burns	Paraná, CE	10	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity
3. Barroso et al.	2008	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	11	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity
4. Rodrigues et al.	2010	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	10	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity
5. Barroso et al.	2008	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	11	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity
6. Martins et al.	2014	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	11	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity
7. Lima et al.	2015	Effectiveness of individualized orofacial motricity therapy in patients with facial burns	Paraná, CE	11	Case study	11 to 20 years	Laryngitis and severe orofacial dysfunction	Vocal and Orofacial Motricity

When analyzing the scientific studies, a similarity was observed between the speech and hearing demands of the orofacial and voice areas, and it can be stated that both the airways and facial mimetics and neurovegetative functions of swallowing and chewing, present an equal demand in the speech-language pathologies studied.

According to the results, seven of the seven articles reviewed were unanimous in reporting that the main demand for speech and hearing care is in the Orofacial Motricity. While six of the seven articles reported searches for Speech-Language Pathology in the speciality of voice because the patients were victims of inhalation burns, compromising airways.

DISCUSSION

The data that compose the present study showed that there are national surveys of burned cases with phonoaudiological demand, but the number of findings is still low.

When related to geographic distribution, the Northeast presented the highest prevalence of publications in the national scope, with a total of four findings. Where the states of Pernambuco and Ceará stood out with two surveys each. It was followed by the North region, in the state of Pará, with two researches on the subject and the southern region in the state of Rio Grande do Sul, with one research found. Of these, only one from the state of Ceará did not mention the voice area as a speech-language pathology complaint in burn patients. Probably by the type of research performed, since it was limited only in facial mimics (ALCÂNTARA et al., 2014; TURCZNSKI and BARROSO, 2008).

in the study approach, were found mostly male subjects, between adults and children aged 0 to 52 years. The observed results regarding its prevalence were in males. The children who were surveyed were related to differences in behavior of each gender, cultural factors, determining greater freedom in boys, as they are more exposed than girls, who are subject to greater vigilance. And in adults, since men in relation to women, perform higher functions with greater risks of accidents with burns (ALCÂNTARA et al., 2014).

Regarding the intervention, data from the Federal Council of Speech and Hearing Therapy (2001) showed that the primary objective of the speech therapist with burn patients is to perform an early work and to rehabilitate the functional sequelae of the stomatognathic

system and the vocal apparatus. Concerning speech-language intervention time, two studies presented duration of 10 sessions, two sessions per week, with direct intervention, still in bed one day after discharge from the Burn Treatment Center. One study pointed to speech therapy with home care consultations in 15 sessions, also with weekly visits. And three other studies suggest that care should be taken in the hospital without definition of sessions, but with the initiation of therapy after thirty days of the accident, complements Lima et al.(2015).

In the performance of orofacial motricity therapies, the predominant type of exercise for Toledo (2001) was the isotonic, since it aims to lengthen the muscle fiber maintaining the same tone. While the vocal activities, the exercises were aimed at increasing respiratory capacity.

During the data collection, the difficulty was observed for greater results in relation to the intervention time of the speech-language pathologist. Thus, the delay of the intervention brought to the patient greater sequelae in the orofacial motricity, as well as in the respiratory dynamics and mainly by the discomfort and pain presented by some patients and also by the lack of the professional in the team, generating other morbidities to the patients (RAMOS et al, 2009).

In view of the above, it is possible to observe that there is still a shortage in the scientific studies about the speech-language pathologist's performance in burn patients, relating the time and frequency of the speech-language intervention in the areas of voice and orofacial motor (FEDERAL COUNCIL OF FONOAUDIOLOGY, 2001).

Regarding the results presented by the patients who participated in the studies analyzed, Turcznski and Barroso (2008) found that there was a need for speech-language intervention with the objective of improving facial mimetics, adjusting the neurovegetative functions and increasing the respiratory dynamics of these patients, promoting communication with more quality.

CONCLUSIONS

Burns have been a major public health problem in the country, leading to burned patient serious structural, functional and emotional changes, impairing their social and work life. Therefore, there is a need for more publications in the specialties of speech therapy cited in this study, to demonstrate the effectiveness of these early therapies, promoting the rehabilitation of patients with vocal and orofacial alterations.

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