



Audiology - Communication Research

ISSN: 2317-6431

Academia Brasileira de Audiologia

Rizatto, Ana Julia dos Passos; Corrêa, Camila de Castro;
Martinelli, Roberta Lopes de Castro; Berretin-Felix, Giédre
Portal dos Bebês: atualização e avaliação dos conteúdos sobre as funções orofaciais
Audiology - Communication Research, vol. 25, e2274, 2020
Academia Brasileira de Audiologia

DOI: 10.1590/2317-6431-2019-2274

Disponível em: <http://www.redalyc.org/articulo.oa?id=391562666029>

- Como citar este artigo
- Número completo
- Mais informações do artigo
- Site da revista em redalyc.org

UABEM redalyc.org

Sistema de Informação Científica Redalyc

Rede de Revistas Científicas da América Latina e do Caribe, Espanha e Portugal

Sem fins lucrativos acadêmica projeto, desenvolvido no âmbito da iniciativa
acesso aberto

Website Babies Portal: updates and evaluation of the contents regarding orofacial functions

Portal dos Bebês: atualização e avaliação dos conteúdos sobre as funções orofaciais

Ana Julia dos Passos Rizatto¹ , Camila de Castro Corrêa^{2,3} , Roberta Lopes de Castro Martinelli^{4,5} ,
Giédre Berretin-Felix¹ 

ABSTRACT

Purpose: To update and evaluate of the contents regarding Orofacial Functions of the website Babies Portal of Speech-Language Pathology area. **Methods:** The study involved three steps: restructuring and updating of the orofacial functions section of the Website Babies Portal, through bibliographic review; readability analysis of the new content, through the Flesch Reading Facility Index; and the sections evaluation from the application of questionnaires in two groups: group A was composed of 15 speech therapists and group B was composed of 10 parents/caregivers of children. **Results:** A new section was inserted in the Portal, in orofacial functions topics, denominated “Neonatal Tongue Screening Test” subdivided into five other subsections. In addition, the existing content was reviewed and changes consistent with the current literature were performed. The readability assessment indicated the minimum instructional level required of elementary school for the understanding of content. Group A considered the content to be “excellent”, as well as a good evaluation for the “property”, “purpose classification”, “authority”, “author qualification”, “attribution”, “interactivity” and “updates”. In the evaluation carried out by group B, 64% revealed that the content “helped a lot” in the acquisition of knowledge, in addition to increasing the percentage of hits after accessing the website. **Conclusion:** The content related to Orofacial Functions of the Website Babies Portal was updated and in the evaluation by both groups, it was possible to observe positive results, in relation to all aspects evaluated.

Keywords: Speech therapy; Breast-feeding; Breath; Artificial feeding; Lingual brake; Distance education; Health promotion

RESUMO

Objetivo: Atualizar e avaliar o conteúdo referente às funções orofaciais do Portal dos Bebês da área da Fonoaudiologia. **Métodos:** O estudo envolveu três etapas: reestruturação e atualização da seção das funções orofaciais do Portal dos Bebês, por meio de revisão bibliográfica; análise de legibilidade do novo conteúdo, por meio do Índice de Facilidade de Leitura Flesch; avaliação das seções a partir da aplicação de questionários em dois grupos de participantes: grupo A, composto por 15 fonoaudiólogos, e grupo B, composto por dez pais/cuidadores de crianças. **Resultados:** Foi inserida uma nova seção no *website* Portal dos Bebês, pertencente ao tópico Funções Orofaciais, denominada Teste da Linguinha, subdividida em cinco subseções. Além disso, o conteúdo existente foi revisado e alterações condizentes com a literatura atual foram realizadas. A avaliação da legibilidade indicou o nível instrucional mínimo exigido do ensino fundamental para a compreensão do conteúdo. O grupo A considerou o conteúdo “ótimo”, além de boa avaliação para os quesitos “propriedade”, “classificação do propósito”, “autoria”, “qualificação do autor”, “atribuição”, “interatividade” e “atualizações” do *website*. Na avaliação realizada pelo grupo B, 64% dos participantes, revelaram que o conteúdo “ajudou muito” na aquisição de conhecimentos da área, além de apresentar aumento da porcentagem de acertos após o acesso ao *website*. **Conclusão:** O conteúdo referente a Funções Orofaciais do Portal dos Bebês foi atualizado e na avaliação por ambos os grupos foi possível observar resultados positivos em relação a todos os aspectos avaliados.

Palavras-chave: Fonoaudiologia; Amamentação; Respiração; Alimentação artificial; Freio lingual; Educação a distância; Promoção da saúde

Study carried out at Departamento de Fonoaudiologia, Faculdade de Odontologia de Bauru – FOB, Universidade de São Paulo – USP – Bauru (SP), Brasil

¹Departamento de Fonoaudiologia, Faculdade de Odontologia de Bauru – FOB, Universidade de São Paulo – USP – Bauru (SP), Brasil.

²Universidade de Brasília – UnB – Brasília (DF), Brasil.

³Centro Universitário Planalto do Distrito Federal – UNIPLAN – Brasília (DF), Brasil.

⁴Centro de Especialização em Fonoaudiologia Clínica – CEFAC - Saúde e Educação – São Paulo (SP), Brasil.

⁵Hospital Santa Therezinha – Brotas (SP), Brasil.

Conflict of interests: No.

Authors' contribution: AJPR was responsible for the design, collection, tabulation and analysis of data and preparation of the manuscript; CCC, RLCM and GBF supervised the data collection, participated in the study design, monitored the collection and collaborated with the data analysis and general guidance on the stages of execution and preparation of the manuscript; CCC submitted the manuscript.

Funding: None.

Corresponding author: Giédre Berretin-Felix. E-mail: gfelix@usp.br

Received: December 23, 2019; **Accepted:** April 22, 2020

INTRODUCTION

Babies Portal⁽¹⁾ was developed by professors and students of the College of Dentistry of Bauru, University of São Paulo (FOB-USP), with the aim of providing information on content related to Dentistry and Speech-Language Pathology to parents and caregivers of babies and toddlers.

In the area of Speech-Language Pathology, the referred website presents content on hearing, orofacial motricity, and language. In the field of Audiology, information is provided regarding the auditory system, audiological diagnosis and auditory rehabilitation^(2,3); as for Orofacial Motricity, the website clarifies what orofacial functions are, in addition to informing about harmful oral habits and about breathing in early childhood⁽⁴⁾. The website also addresses aspects related to the acquisition and development of oral language⁽⁵⁾.

Specifically on the topic of Orofacial Motricity, the contents were prepared and made available in five sections, containing information regarding the orofacial functions and the advantages of natural breastfeeding, as well as guidelines to help mothers prepare for breastfeeding, what type of food is suitable for children up to 2 years old, information on oral habits (pacifier, bottle, and finger sucking) and how to take care of baby's breathing. In order to elaborate and evaluate the content referring to Orofacial Functions (specifically regarding suction, breathing, and chewing) of the Babies Portal, questionnaires were applied to two groups of participants, one composed of parents and the other composed of speech therapists, and the results obtained for both groups indicated good quality of the website⁽⁴⁾.

In view of the constant evolution of science, as well as the approval of Law No. 13,002, of June 20, 2014, which requires the realization of the Lingual Frenulum Assessment Protocol in all babies born in maternity hospitals in the country, the need to update the theoretical content in the Orofacial Motricity field, previously inserted in Babies Portal, in addition to adding content about the Neonatal Tongue Screening Test⁽⁶⁾ was confirmed.

Updating the contents about orofacial functions, as well as its permanent evaluation, is a very important step to maintain the primary objective of Babies Portal which is to inform parents and/or caregivers of babies and toddlers up to 3 years of age on important topics in the areas of Dentistry and Speech-Language Pathology in early childhood, taking into consideration the fast and constant evolution of knowledge. Parents and/or caregivers are expected to have easy access to information and to use this knowledge to outline their decisions.

Thus, the objective of this work was to update and evaluate the content referring to the topic Orofacial Functions of Babies Portal, in the area of Speech-Language Pathology.

METHODS

The study was approved by the FOB-USP Human Research Ethics Committee, under number 45785515.1.0000.5417. All participants were clearly informed about the objectives and procedures related to the study and agreed to participate in the research, by signing the Free and Informed Consent Form.

To update the Orofacial Motricity area of the website, the proposed changes were used based on the pioneering work in the area⁽⁴⁾, as well as the results of the bibliographical research carried out, considering various aspects of orofacial motricity in childhood.

For the bibliographical research, databases Bireme, Lilacs, and SciELO were used, using the following descriptors that title the contents belonging to Orofacial Motricity on the Babies Portal: "orofacial functions", "natural breastfeeding", "breathing", "feeding", "pacifier, bottle, finger sucking", "lingual frenulum", and "babies". The searches were performed by two reviewers, and from the results generated from the cross-checking, firstly the titles and abstracts were read and, finally, the articles/theses in full. This way, content related to orofacial motricity in early childhood was included, referring to feeding up to 24 months, breathing, and pacifier, bottle and finger sucking habits, selected after reading and analyzing the works found. As exclusion criteria, studies that presented repeated content, previously discussed on the website, were disregarded.

From the literature consulted, the content that needed updating was defined, as well as the new content that should make up an additional section (tab). In addition, static and dynamic images were selected and produced to illustrate the new section.

The new sections were analyzed for content readability level, using the Flesch Reading Ease Index (FREI), which is based on the length of words and phrases in the text and can be interpreted using a seven-level scale of ease: very difficult (0-30 points), difficult (40-50), fairly difficult (50-60), standard (60-70), fairly easy (70-80), easy (80-90) and very easy (90-100)⁽⁷⁾.

For the evaluation of the Orofacial Motricity topic of the website, two groups were formed: group A, composed of 15 speech therapists working with Orofacial Motricity, and group B, composed of ten parents and/or caregivers of babies and toddlers from 0 (zero) to 36 months old. Initially, both groups registered, providing personal information (age, sex, federation unit), as well as information about internet access (type of connection used, location of access). For group A, data on degree, length of professional experience, and type of work (private or public network) were requested. For group B, information was collected regarding schooling, family income, marital status, child's age, relationship with the child (father, mother or caregiver).

Group A answered the modified Health on the Net Code (HONcode)⁽⁸⁾ questionnaire, which assesses the technical quality of the information provided by the website, based on property, purpose, authority, interactivity, and updates, scoring 0, 1 or 2 on each item. The higher the score obtained (out of a total of 13 points), the better the quality of the website. This group also answered questions for each subsection in the area of Orofacial Motricity, considering the range of technical content as poor (1 point), bad (2), regular (3), good (4), or excellent (5 points)⁽⁴⁾. The higher the score obtained, the better the scope of each subject addressed by the Orofacial Motricity area of the website.

Group B answered a questionnaire after accessing the sections to evaluate the contribution to the acquisition of concepts, with questions for each subsection of the Orofacial Motricity field, informing if the content "did not help", "helped little", "helped somewhat", "helped", or "helped a lot" to acquire new knowledge. The last question of this same questionnaire was about how satisfied the participant was with the information provided on Babies Portal, in general, being able to answer: "not at all", "a little", "somewhat", "satisfied", or "very satisfied". The second questionnaire, prepared by the authors of the study, was answered by this group before and after accessing the website, to assess the level of knowledge about infant feeding, breathing, oral habits, and the Neonatal Tongue Screening Test (Appendix 1).

Participants firstly had access to the content of Babies Portal to then complete the information in the questionnaires that assess the quality of the website and the quality of the technical content provided, within a period of 20 days from the date of the first access, until the completed questionnaires was sent.

RESULTS

The results are presented in three parts: content update, readability analysis, and content evaluation.

Update of the content of the Orofacial Motricity area of the website

Selection of content

The search carried out from the determined descriptors made it possible to find 15 articles that were analyzed and had their results compared to the initial version⁽⁴⁾. Thus, the adequacy of the contents related to the topics was verified: “Feeding up to 6 months”^(9,10), “Feeding from 6 to 24 months”⁽¹¹⁻¹³⁾ and “Breathing”⁽¹⁴⁾. In addition, it was necessary to insert and/or modify the following contents on the website:

- Topic “Pacifier, bottle, and finger sucking”: addresses the different types of nipples for baby bottles and pacifiers, with the orthodontic nipple being suggested, indicating it as the best option to favor the most appropriate suction pattern. Considering that no scientific evidence was found that the orthodontic nipple would cause less damage when compared to the conventional nipple⁽¹⁵⁾, it was decided that the guidelines should be adapted, informing that the orthodontic nipple is mentioned in the literature, but it’s not indicated as the best option. Information on the need for the proper nipple size was also inserted, considering the size of the baby’s oral cavity; the nipple should be changed upon the growth of the baby’s mouth, as indicated in the current literature⁽¹⁶⁻¹⁹⁾, in order to direct parents and/or caregivers when choosing the nipple;
- A new topic was inserted, containing information about the “Neonatal Tongue Screening Test”, considering that in 2014, the law that mandates the Lingual Frenulum Evaluation Protocol in all babies born in maternity hospitals in Brazil was approved. The information regarding this test was included on the website using clear language and explanatory illustrations, so that parents and/or caregivers could understand. This information was divided into a new topic, called “*Teste da Linguinha*” (Neonatal Tongue Screening Test), subdivided into five sections. The subtopics were chosen based on the Neonatal Tongue Screening Test booklet^(6,20-24).

Selection of images

The website Babies Portal features standardized illustration layout, developed by a graphic designer from the Educational Technology Sector of the institution involved. Thus, the

illustrations introduced in this update were developed by that professional, with the exception of an image that had already been made available in the campaign that promoted the Neonatal Tongue Screening Test and can be found on the internet⁽²⁵⁾.

This update included the addition of five new static images, one of which is the image that has become a well-known symbol of the Neonatal Tongue Screening Test. Two images were inserted in order to exemplify the way considered appropriate for the mother to position the baby for the assessment of the lingual frenulum and for breastfeeding. The other two images exemplify a frenulum of a normal tongue and an altered one. Two videos were also added, one with the objective of demonstrating how the evaluation is carried out and the second video addressing the importance of the test, both produced by one of the authors of “*Teste da Linguinha*” (Neonatal Tongue Screening Test), with free access on the internet⁽¹⁾.

Elaboration of the text

The following is the information contained in each of the five new subsections inserted in Babies Portal:

- **What is a tongue-tie?** - Tongue-tie is a common but often overlooked alteration. It is present from birth and occurs when a small amount of tissue, which should have disappeared during the baby’s development during pregnancy, remains on the underside of the tongue, limiting its movements;
- **What is the Neonatal Tongue Screening Test?** - The Neonatal Tongue Screening Test is a standardized test that allows the diagnosis and indication of early treatment for the limitations of tongue movements, caused by tongue-tie, which can compromise the functions exercised by the tongue: sucking, swallowing, chewing, and speaking. The Lingual Frenulum Evaluation Protocol in Babies (Neonatal Tongue Screening Test) was developed during the Master’s degree study of the Speech and Language Therapist Roberta Lopes de Castro Martinelli, at FOB-USP. It is the law: Bill No. 4,832/12, drafted by Federal Representative Onofre Santo Agostini, “mandates the implementation of the Protocol for the Evaluation of the Lingual Frenulum in Babies, in all hospitals and maternity hospitals in Brazil”, was sanctioned by the President and became Law No. 13,002, of June 20, 2014;
- **How the test is performed** - The Neonatal Tongue Screening Test must be performed by a qualified health professional, such as, for example, the speech therapist. They should raise the baby’s tongue to check if the tongue is tied, and also watch the baby cry and suck. The exam has no contraindications. It is recommended that the assessment of the frenulum of the tongue be performed initially at the maternity hospital. Early assessment is ideal for babies to be successfully diagnosed and treated. What to do if the maternity hospital or hospital did not perform the test? Notify your pediatrician or health professional right away, at the first appointment. They should refer the baby to places that are prepared to perform the test. General guidelines for performing the test: 1. Baby positioning: the mother or guardian should support the baby’s neck in the space between the arm

and forearm. Then they must hold the baby's hands.
2. Elevation of the baby's tongue: a specific maneuver is used, whereby the professional introduces the gloved index fingers under the tongue, so that it can be elevated;

- **Importance of the test** - When a baby is born with a tongue-tie, usually close relatives may have the same problem. Due to lack of information, many suffer in silence through the various difficulties that this change can cause. There are babies who have difficulty breastfeeding, causing stress both for them and for the mother; children, youths, and adults with difficulties in chewing/swallowing and speech disorders, affecting communication, social relationships, and professional development. In addition, different movements of the tongue, such as licking ice cream and kissing can be difficult to perform. It is important that your baby is tested as soon as possible, preferably in the first month of life, so that you can find out, as soon as possible, if their tongue is tied, avoiding breastfeeding difficulties, possible weight loss and, especially, weaning early, with unnecessary introduction of the bottle. Following these recommendations makes all the difference for breastfeeding and, consequently, for your child's good health;
- **When it is necessary to perform the retest and how it is done** - In cases where there is doubt, or it is not possible to see the lingual frenulum, the baby is referred for retest within 30 days of life. The professional should advise the parents about possible difficulties in breastfeeding, so that early weaning does not occur during this period. For the retest it is necessary: 1. Baby's condition: it is necessary that the baby is wide awake and hungry (around the time

of nursing); 2. Baby positioning: the mother or guardian should support the baby's neck in the space between the arm and forearm. Then they must hold the baby's hands; 3 Elevation of the baby's tongue: a specific maneuver is used, whereby the professional introduces the gloved index fingers under the tongue, so that it can be elevated and the frenulum seen; 4. Assessment during suckling during breastfeeding: the baby should be breastfed while the professional performs the assessment of the baby's sucking, swallowing, and breathing.

The following are some demonstrative images of the subsections referring to the Neonatal Tongue Screening Test, available in Babies Portal (Figure 1).

Readability analysis

Readability analysis was performed using the Flesch Reading Ease Index. This instrument was applied to each of the subsections of the Neonatal Tongue Screening Test, individually, and in all of them together (Table 1).

Evaluation of the Orofacial Motricity area of the website

Group A - Speech therapists

This group was composed of 15 speech therapists, from 6 different cities in the states of São Paulo and Ceará, all working in the public health network, with a minimum professional

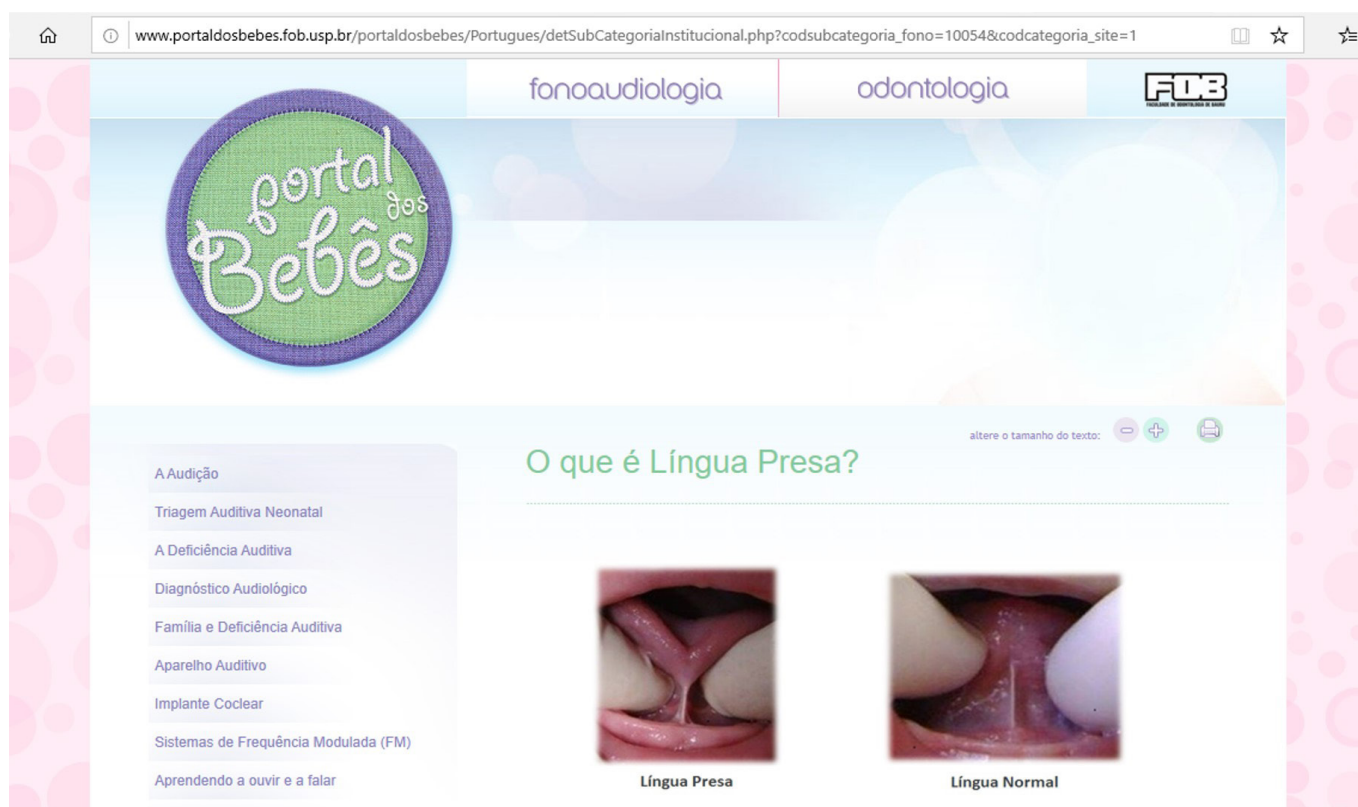


Figure 1. Example of illustration of the new subsections related to the Neonatal Tongue Screening Test, created upon website update

experience of 1 year and 6 months and a maximum of 23 years of professional experience (median of 5 years of experience). All respondents reported having access to the internet with a broadband connection, Wi-Fi, and via radio.

Regarding the modified HONcode questionnaire, it was observed that, for most of the participants, “ownership/sponsorship” was clearly stated; there was distinction in the purpose of the information provided; authority was clearly determined, the author being the health professional; the attribution for all statements containing factual information is present; there was clear invitation for comments or questions, via an email address or link to a form and the date of the first post was provided, but there is no information on the date of the last review or frequency of updates (Figure 2).

The results referring to the other questionnaire answered by the group of professionals, regarding the scope of the contents of the Orofacial Motricity area of the website, are shown in Figure 3.

Group B - Parents/Caregivers

Group B was composed of 5 mothers and 5 caregivers of babies and toddlers, aged 26 to 58 years, responsible for babies and toddlers aged between 3 and 35 months. The participants in this group came from 7 different cities in the states of São Paulo, Rio de Janeiro, and Paraná. Of this group, 3 members

had completed higher education, another 3 had incomplete higher education, 2 of them had completed high school and the other 2 completed elementary school. The minimum family income declared was 1 to 3 times the monthly minimum wage and the maximum, more than 7 times the monthly minimum wage. All participants reported having access to the internet with a broadband connection, Wi-Fi and via radio.

The results obtained in the questionnaire on the importance of content to acquire new knowledge are shown in Figure 4.

Figure 5 shows the results for the questionnaire answered before and after access to the website, in order to measure the level of knowledge.

DISCUSSION

The update of the sections on the Orofacial Functions of the website Babies Portal was necessary, considering the new scientific discoveries in the area, in order to maintain the fulfillment of the main objective of the elaboration of the website, to provide information that is current, of quality, and easy for parents and/or caregivers of babies and toddlers to understand.

Each of the sections had their contents compared with the literature and updated, when necessary. This concern is justified by the dynamism and constant evolution of concepts in the health area, making constant updates necessary. Studies on the topic are scarce, and the work in the health field can be cited,

Table 1. Result of the readability analysis using the Flesch Reading Ease Index for each of the subsections of the Neonatal Tongue Screening Test section on Babies Portal

Subsection	FREI	Classification
What is a tongue-tie?	55%	Fairly Difficult
What is the Neonatal Tongue Screening Test?	43%	Difficult
How the testing is done	72%	Fairly easy
Importance of the test	34%	Difficult
When it is necessary to retest and how it is done	56%	Fairly Difficult
All Content	56%	Fairly Difficult

Subtitle: FREI = Flesch Readability Ease Index

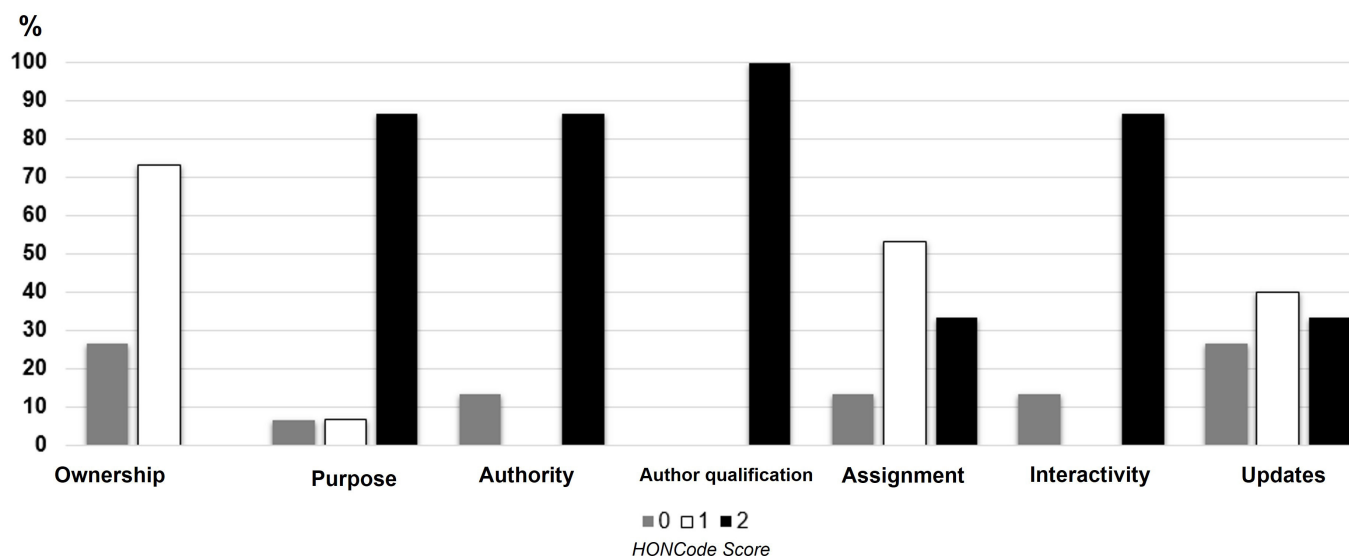


Figure 2. Results of the modified HONcode questionnaire (*Health on the Net Code*), regarding the seven aspects analyzed: property, purpose classification, authority, author qualification, attribution, interactivity, and updates

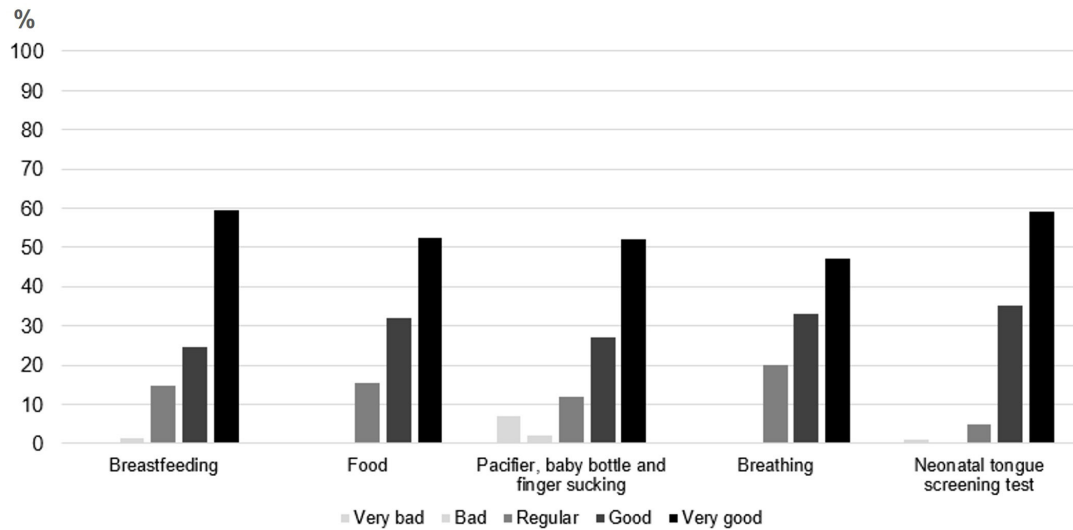


Figure 3. Results obtained on the comprehensiveness of the information, from the analysis of Group A

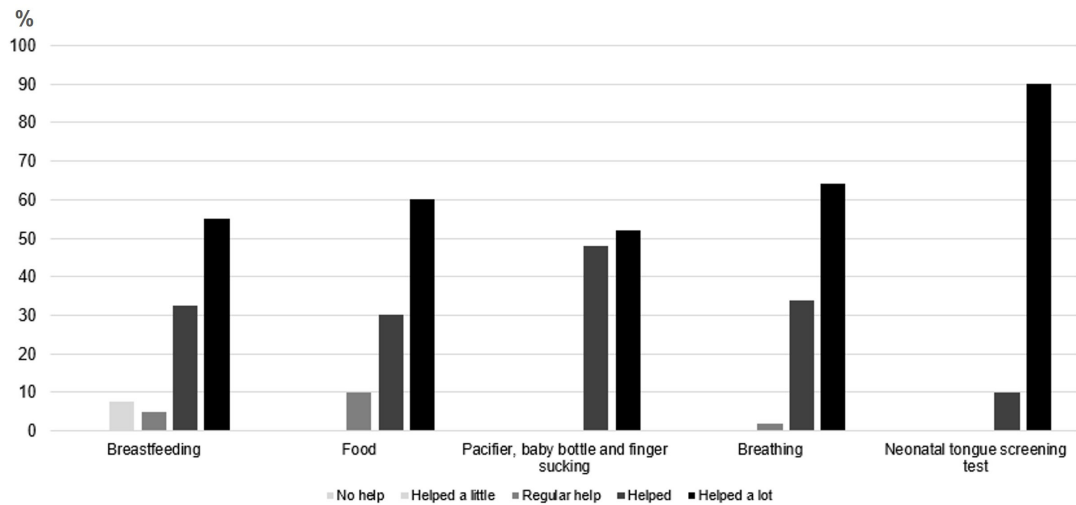


Figure 4. Results obtained from the contribution regarding acquired concepts, according to Group B

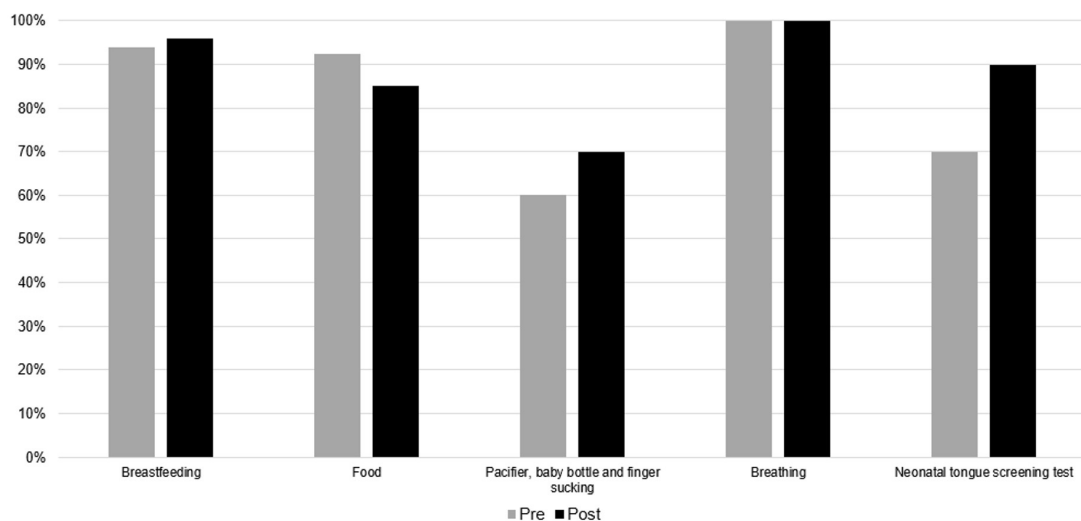


Figure 5. Results of the assessment of the level of knowledge before and after accessing the website Babies Portal by Group B

which identified that 67.7% of the sites on vascular anomaly were updated in the last year⁽²⁶⁾. Specifically about orofacial functions, it was observed that only half of the sites comply with the principles of *Health On The Net Code* (HONcode), and among these principles is updating⁽²⁷⁾.

In the section “Feeding up to 6 months”, information on breastfeeding, nutritive and non-nutritive sucking were considered adequate to current knowledge^(9,10), as well as that of the topics “Feeding from 6 to 24 months”⁽¹¹⁻¹³⁾ and “Breathing”⁽¹⁴⁾. In the topic “Pacifier, bottle, and finger sucking”, there was a need to update the content using recent literature, to bring a systematic review with meta-analysis, demonstrating that there are no differences between changes in the stomatognathic system resulting from the use of the conventional nipple and the orthodontic one⁽¹⁵⁾.

In the update phase, there was a need to modify the content inserted previously on the website⁽⁴⁾, as well as the insertion of content related to the evaluation of the lingual frenulum in babies, popularly known as Neonatal Tongue Screening Test⁽⁶⁾, mandatory for all babies born in maternities and hospitals in Brazil, but its objectives and importance are still hardly known by the population. It is worth mentioning that, with the sanction of this law, the evaluation of the lingual frenulum gained greater notoriety among health professionals, among the babies’ families, and the general population, helping the Lingual Frenulum Evaluation Protocol in Babies to gain space in the media and, of course, increase the number of questions about this subject. Both the protocol and its neonatal lingual frenulum screening have been validated for the Brazilian population^(20,21).

As for the content that was already part of the Baby Portal, the text was adapted to make it clear that, although there is guidance for the use of orthodontic nipples, there is no evidence in the literature about its effectiveness in preventing dento-occlusal changes, or its superiority to other nipples⁽¹⁵⁾.

The Flesch Reading Ease Index, applied to all subsections referring to the Neonatal Tongue Screening Test, was considered fairly difficult. In the sections evaluated separately, the following results were found: “What tongue-tie is” and “When the retest is necessary and how it is done” = fairly difficult; “What the Neonatal Tongue Screening Test is” and “Importance of the test” = difficult; “How the test is performed” = fairly easy. Thus, in order to help understanding, five static images and two videos were used, considering that the audiovisual resources make it possible to expand the clarifications of the subjects covered^(28,29). Other websites on orofacial functions presented the Flesch Reading Ease Index, on average, in the standard classification, requiring the same educational level as the “fairly difficult”, which is elementary education⁽²⁷⁾.

The present study also carried out evaluations using different instruments to ascertain the quality and influence on the knowledge of parents and/or caregivers of babies and toddlers, as well as professionals working in the area, regarding orofacial motricity in early childhood.

The group composed of speech therapists evaluated the technical quality of the website, being positively evaluated in the items of ownership/sponsorship, authority, attribution, and interactivity. Approximately 83% of the professionals considered the comprehensiveness of the contents evaluated to be excellent/good, indicating the reliability of the information on health available on the internet⁽³⁰⁾. These findings are similar to the study carried out to elaborate the sections about the orofacial functions of the website Babies Portal⁽⁴⁾.

In the evaluation carried out by the group of parents/caregivers of babies and toddlers, it was observed that, for more than 94%, the content “helped” or “helped a lot” in understanding the subject, considering all sections. Such findings surpassed the results of the first study, which showed a rate of 88%⁽⁴⁾. This group also showed an increase in the percentage of correct answers to questions about the content, after accessing the website, in three sections. There are no published studies that allow such a comparison.

With this work, it was possible to make available the current content referring to the area of Orofacial Motricity in Speech-Language Pathology and evaluate it with regard to early childhood, on the website Babies Portal. However, the importance of investing in health promotion actions that also reach the population that still does not have access to the internet is emphasized, this proposal being dependent on such technology. The diversity of Brazil, a country with heterogeneous characteristics and possibilities must be considered, seeking to overcome this limitation in the reach of this content for more people.

Babies Portal benefits from the participation of 24 professors and students from FOB-USP. It provides information on Speech Therapy and Dentistry and can be considered an important instrument of guidance to parents and caregivers of babies and toddlers. Currently, however, it is still little used for this objective. Greater dissemination for better use of this instrument is necessary.

Both groups of evaluators were invited to share suggestions for the website. The group composed of professional speech therapists contributed mainly with relevant suggestions for improving the quality of the content offered; however, there was no time to make changes to the website after the end of the evaluations. Therefore, a new work that can make these changes would be interesting. In addition, it is very important that the available information is updated with certain frequency so that it is always kept up to date with scientific discoveries in the area.

CONCLUSION

The content referring to Orofacial Functions of Babies Portal has been updated by adapting the subsection called “*Chupeta*” (Pacifier) and inserting a new section, called “*Teste da Linguinha*” (Neonatal Tongue Screening Test)⁽¹⁾. The website, in the area of Orofacial Motricity, was evaluated by speech therapists and parents/caregivers of babies and toddlers, indicating good technical quality of the content and good potential to help in the acquisition of new knowledge about orofacial functions, in addition to an adequate level of readability, compatible with the minimum educational level required for elementary education to understand the content.

ACKNOWLEDGEMENTS

Programa de Educação Tutorial em Fonoaudiologia (bolsa MEC/SeSu) - (Program for Tutorial Education in Speech and Language Pathology - Ministry of Education/Secretary of Higher Education grant)

REFERENCES

1. USP: Universidade de São Paulo [Internet]. 2019 [citado em 2019 Dez 23]. Disponível em: <http://portal dosbebes.fob.usp.br/>
2. Bastos BG, Ferrari DV. Portal dos Bebês – Seção aparelho auditivo: avaliação por pais de crianças deficientes auditivas. *Rev CEFAC*. 2014;16(1):72-82. <http://dx.doi.org/10.1590/1982-0216201413412>.
3. Bastos BG, Ferrari DV. Babies' Portal website hearing aid section: assessment by audiologists. *Int Arch Otorhinolaryngol*. 2014;18(4):338-46. PMID:25992119.
4. Correa CC, Pauleto ARC, Ferrari DV, Berretin-Felix G. Website Babies Portal: development and evaluation of the contents regarding orofacial functions. *J Appl Oral Sci*. 2013;21(6):581-9. <http://dx.doi.org/10.1590/1679-775720130267>.
5. Martins A, Franco EC, Caldana ML. Elaboração e Avaliação de um *website* sobre o desenvolvimento da linguagem infantil: portal dos Bebês – desenvolvimento da linguagem. *Rev CEFAC*. 2015;17(1):159-68. <http://dx.doi.org/10.1590/1982-021620152614>.
6. Martinelli RLC, Marchesan IQ, Berretin-Felix G. Lingual frenulum evaluation protocol for infants: relationship between anatomic and functional aspects. *Rev CEFAC*. 2013;15(3):599-610. <http://dx.doi.org/10.1590/S1516-18462013005000032>.
7. Biondo-Simões MLP, Martynetz J, Ueda FMK, Olandoski M. Compreensão do termo de consentimento. *Rev Col Bras Cir*. 2007;34(3):183-8. <http://dx.doi.org/10.1590/S0100-69912007000300009>.
8. Barbosa AL, Martins EN. Avaliação da informação dos pacientes sobre miopsias e fotopsias através da Internet. *Arq Bras Oftalmol*. 2007 Set-Out;70(5):839-43. PMID:18157311.
9. Fernandes ATS, Ladewig VM, Almeida-Pedrin RR, Conti ACCF, Marta SN. The relationship between breastfeeding and malocclusion. *Ortodontia*. 2016;49(2):157-62.
10. Knoll LR. Influence of breastfeeding on craniofacial growth and development under the concept of neuro occlusion rehabilitation. *Ortodontia*. 2015;48(2):137-42.
11. Santos SP, Vieira GO, Scavuzzi AIF, Gomes IS Fo. Feeding practices and dental caries: approach on early childhood. *Rev Assoc Paul Cir Dent*. 2016;70(1):12-8.
12. Silva D, Nóbrega L, Valente A, Dias C, Almeida F, Cruz JL, et al. Maternal breastfeeding and the characterization of feeding habits in early infancy: the experience of São Tomé e Príncipe. *Rev Bras Saúde Mater Infant*. 2014;14(3):269-77. <http://dx.doi.org/10.1590/S1519-38292014000300008>.
13. Vendruscolo JF, Bolzan GM, Crestani AH, Souza APR, Moraes AB. The relation between breast-feeding, transition and child development risk. *Distúrb Comun*. 2012;24(1):41-52.
14. Yamaguchi H, Tada S, Nakanishi Y, Kawaminami S, Shin T, Tabata R, et al. Association between mouth breathing and atopic dermatitis in Japanese children 2-6 years old: a population-based cross-sectional study. *PLoS One*. 2015;10(4):e0125916. <http://dx.doi.org/10.1371/journal.pone.0125916>. PMID:25915864.
15. Corrêa CC, Bueno MRS, Lauris JRP, Berretin-Felix G. Interference of conventional and orthodontic nipples in system stomatognathic: systematic review. *CoDAS*. 2016;28(2):182-9. PMID:27191883.
16. Adair SM, Milano M, Dushku JC. Evaluation of the effects of orthodontic pacifiers on the primary dentitions of 24- to 59-month-old children: preliminary study. *Pediatr Dent*. 1992;14(1):13-8. PMID:1502109.
17. Zardetto CG, Rodrigues CR, Stefani FM. Effects of different pacifiers on the primary dentition and oral myofunctional structures of preschool children. *Pediatr Dent*. 2002;24(6):552-60. PMID:12528948.
18. Mesomo C, Losso EM. Avaliação dos efeitos do uso prolongado de chupetas convencionais e ortodônticas sobre a dentição decídua. *JBP: Rev Ibero Am Odontopediatr Odontol Bebê*. 2004;7(38):360-4.
19. Meyers AMPH, Hertzberg JDMD. Bottle-feeding and malocclusion: is there an association? *Am J Orthod Dentofacial Orthop*. 1988;93(2):149-52. [http://dx.doi.org/10.1016/0889-5406\(88\)90293-4](http://dx.doi.org/10.1016/0889-5406(88)90293-4). PMID:3422530.
20. Martinelli RLC, Marchesan IQ, Berretin-Felix G. Lingual frenulum protocol with scores for infants. *Int J Orofacial Myology*. 2012;38:104-12. PMID:23362754.
21. Martinelli RLC, Marchesan IQ, Rodrigues AC, Berretin-Felix G. Tongue frenulum evaluation protocol in babies. *Rev CEFAC*. 2012;14(1):138-45. <http://dx.doi.org/10.1590/S1516-18462012000100016>.
22. Martinelli RLC, Marchesan IQ, Berretin-Felix G. Longitudinal study of the anatomical characteristics of the lingual frenulum and comparison to literature. *Rev CEFAC*. 2014;16(4):1202-7. <http://dx.doi.org/10.1590/1982-021620149913>.
23. Martinelli RLC, Marchesan IQ, Gusmão RJ, Honório HM, Berretin-Felix G. The effects of frenotomy on breastfeeding. *J Appl Oral Sci*. 2015;23(2):153-7. <http://dx.doi.org/10.1590/1678-775720140339>. PMID:26018306.
24. SBFA: Sociedade Brasileira de Fonoaudiologia. Teste da linguinha [Internet]. São Paulo: SBFA; 2014 [citado em 2019 Dez 23]. Disponível em: http://www.sbfa.org.br/portal/pdf/testelinguinha_2014_livro.pdf
25. EBC: Empresa Brasil de Comunicação. Fonoaudióloga defende obrigatoriedade do teste da linguinha [Internet]. 2014 [citado em 2019 Dez 23]. Disponível em: <http://www.ebc.com.br/infantil/para-pais/2014/01/fonoaudiologa-defende-obrigatoriedade-do-teste-da-linguinha>
26. Davis KS, McCormick AA, Jabbour N. What might parents read: sorting webs of online information on vascular anomalies. *Int J Pediatr Otorhinolaryngol*. 2017 Fev;93:63-7. <http://dx.doi.org/10.1016/j.ijporl.2016.12.004>. PMID:28109499.
27. Correa CC, Ferrari DV, Berretin-Felix G. Quality, range and legibility in websites related to orofacial functions. *Arq Int Otorrinolaringol*. 2013;17(4):358-62.
28. Cruvinel OV. Novas tecnologias e o currículo escolar. *Cad FUCAMP*. 2006;5(5):1-11.
29. Veiga EC. A psicopedagogia modular: uma nova perspectiva no campo da avaliação. *Psicol. Argum*. 2010;28(60):11-5.
30. Pacios M, Campos CJR, Martha AS, Barra PSC. Os sites de medicina e saúde frente aos princípios éticos da Health on the Net Foundation – HON. *Rev Bioet*. 2010;18(2):483-96.

Appendix 1. Form for parents (completed before and after accessing the website)

Questionnaire on knowledge of infant feeding, breathing, and oral habits

This questionnaire is part of a survey that aims to improve the provision of information to the community regarding Infant Feeding, Breathing, Oral Habits, and the Neonatal Tongue Screening Test. We hope you can help us identify which information is important to be provided.

We ask you to please complete the questionnaire below. You or your answers will not be identified. Your feedback means a lot to us! We appreciate your attention and the time it took to complete this questionnaire.

1- Do you think that breastfeeding is important for a good development of your baby's teeth and face?

☐ YES ☐ NO ☐ a little

2- Up to what age is it necessary to breastfeed?

☐ 3 months

☐ 6 months

☐ 1 year

☐ 3 years

☐ Other

3- It is cheaper and more appropriate to feed the baby up to six months through:

☐ Type C bagged milk

☐ Baby food with fruits and vegetables.

☐ Milk from a carton

☐ Breast milk

☐ Teas

4- At what age should solid foods be introduced to the baby being breastfed?

☐ 3 months

☐ 6 months

☐ 1 year

☐ 3 years

☐ Other _____

5- The mother's preparation for breastfeeding begins:

☐ Since the prenatal period

☐ After the birth of the baby

☐ From the moment the baby finds it difficult to suck breast milk.

6- Check only one alternative that you consider correct:

☐ The baby must remain asleep during breastfeeding

☐ The mother should provide only the breast that the baby finds the easiest to suck milk from.

☐ The baby should remain positioned as seated as possible.

7- When do you think the cleaning the baby's mouth should start?

☐ When the first front teeth appear

☐ Only when the bottom teeth come out

8- Does cleaning the baby's nose prevent respiratory diseases?

☐ YES ☐ NO ☐ a little

9- Should the baby's nose be washed with saline solution?

☐ Once a day

☐ Once a week

☐ It is not necessary to wash the baby's nose

10- At what age should the baby already eat foods with normal consistency, similar to what adult eats?

☐ 6 months

☐ 12 months

☐ 18 months

☐ 24 months

☐ 30 months

11- Supplementary feeding to breast milk must be offered at fixed times.

☐ Yes ☐ No

12- The orthodontic pacifier, in contrast to the conventional one, can be used indiscriminately, as it does not alter the teeth, muscles, speech, and breathing.

☐ Yes ☐ No

13- Regarding the bottle, check the correct statement:

- ☐ () The possible changes in teeth and muscles caused by the sucking habit will be solved automatically when the habit is broken, regardless of the child's age.
- ☐ () The bottle should be gradually replaced by cups with straws starting at 5 years of age.
- ☐ () When the nipple hole is enlarged, it causes rapid stomach filling and does not work the muscles of the baby's face.
- ☐ () The baby who was breastfed until 2 years of age must continue to be bottlefed until 4 years of age.

14- About the Neonatal Tongue Screening Test check the correct statement:

- ☐ () Tongue-tie occurs when a small amount of tissue disappears during the baby's development during pregnancy.
- ☐ () The tongue screening test is a standardized test that makes it possible to diagnose and indicate the early treatment of the limitations of tongue movements.
- ☐ () The tongue screening test can be performed by any individual who receives guidance, even by the baby's mother.
- ☐ () Tongue-tie is not related to possible difficulties in breastfeeding found by some babies.

Please write your comment or suggestion here, if any.

- ☐ () You don't need to brush baby teeth, as they fall and others come in their place.