Tele-education about cleft lip and palate: development of an educational website about cleft lip and palate

Teleducação em fissura labiopalatina: elaboração de website

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ABSTRACT

Purpose: to create an educational website about cleft lip and palate for healthcare professionals and students. Methods: a qualitative and exploratory study structured from a design proposal consisting of the following four phases: analysis and planning (review of scientific data), modeling (structuring with content and illustrations), evaluation (by experts working in the area) and final implementation (website availability). Results: in the analysis and planning phase, 408 articles were used to structure the website's topics. In the modeling phase, the content was divided into 7 sections, 16 static images and an evaluative questionnaire were created. In the evaluation phase 10 specialized speech-language pathologists participated and suggested maintaining 7 sections on the website. All evaluations with suggestions for modifications that had an agreement index below 90% were met, both in content and in the questionnaire. Afterward, the website and questionnaire were updated for future user evaluation. The website is available at www. fissuralabiopalatina.unb.br. Conclusion: we concluded that through systematic instructional design the website about cleft lip and palate was created for the orientating students, healthcare professionals and the public alike.

Keywords: Cleft lip; Cleft palate; Health education; Telemedicine; Speech, language and hearing sciences

RESUMO

Objetivo: elaborar um website de cunho educacional sobre fissura labiopalatina para profissionais e estudantes da área da saúde. Métodos: trata-se de um estudo qualitativo, exploratório, estruturado a partir da proposta de design instrucional, composta por quatro fases: análise e planejamento (busca nas bases científicas), modelagem (estruturação com o conteúdo, ilustrações e questionário), avaliação (por especialistas que atuam na área) e implementação (disponibilização do website). Resultados: na fase de análise e planejamento foram encontrados 408 artigos para estruturar os tópicos do website. Na modelagem, o conteúdo foi dividido em 7 seções, criadas 16 imagens estáticas e um questionário avaliativo. Na fase de avaliação, participaram 10 fonoaudiólogas especialistas que sugeriram a manutenção de 7 seções no website. Todas as avaliações com sugestões de modificações que tiveram índice de concordância abaixo de 90% foram atendidas, tanto no conteúdo, como no questionário. Após, o website foi reformulado, assim como o questionário, para futura avaliação dos usuários. O website está disponibilizado em www.fissuralabiopalatina.unb.br. Conclusão: por meio da sistemática do design instrucional, o website sobre fissuras labiopalatina foi constituído para a orientação de estudantes, profissionais da área da saúde e população em geral.

Palavras-chave: Fenda labial; Fenda palatina; Educação em saúde; Telemedicina; Fonoaudiologia

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INTRODUCTION

Cleft lip and palate (CLP) are one of the most common malformations that occur during the embryonic period until the 12th gestational week and can cause changes in the functions of sucking, hearing and speech^(1,2). Since health professionals deal directly with patients and their guardians, it is essential that they must know about CLP for guidance and to establish a conduct, additionally it is important that this information is available to the general public⁽³⁻⁵⁾ because a lack off guidance can negatively influence the therapeutic process of patients with CLP⁽⁶⁾.

The dissemination of information can be done through Tele-health, specifically through Tele-education which allows the transmission of information from information and communication technologies (ICTs), enabling a greater reach, lower costs and greater motivation of the public⁽⁷⁾. Concerning Speech, Language and Hearing Sciences publications, these are still prevalent in the areas of audiology and language, being characterized in recent works⁽⁸⁾.

Among the possibilities of Tele-education are websites, represented by virtual pages with a high content flexibility (images, videos and texts), which can serve numerous purposes⁽⁹⁾. On the other hand, the relative ease of developing and making websites available can culminate in the problem of excess information, which is not always up-to-date, reliable, and supported by scientific content. Recent studies including the field of Speech, Language and Hearing Sciences, have emphasized that, in addition to structuring, developing and disseminating information online, the aspect of evaluating the content and usability of the site must be considered, to guarantee the objective of effectively reaching the target population⁽¹⁰⁻¹²⁾.

This aim of this study was to develop a virtual learning environment (VLE), in the form of a website with the aim of providing general guidance on CLP for health professionals and students, in addition to creating a questionnaire on the subject with the objective of ascertaining their knowledge of CLP.

METHODS

This is a qualitative and exploratory study, approved by the Research Ethics Committee at the University of Brasília (UnB), number 3.159.051.

The development of the website was supported by updated scientific data and the contribution of the evaluations by specialized professionals experienced in cleft lip and palate. The process was structured based on the instructional design proposal, composed of four phases: analysis and planning, modeling, implementation and evaluation⁽¹³⁾.

1st Phase - Analysis and Planning

Basic scientific data on cleft lip and palate content were used by accessing LILACS, SciELO and PubMed.

The searches were carried using the following script:

1. Definition

2. Impact

- 3. Etiology
- 4. The type of cleft lip and palate
- 5. Diagnosis
- 6. Primary surgeries
- 7. Professionals involved in the treatment
- 8. Oral hygiene
- 9. Ways of eating
- 10. Hearing
- 11. Speech
- 12. Language

2nd Phase - Modeling

After the elaboration of the script and searches were performed, the information for the website was built, using Microsoft PowerPoint 2010, for viewing the content together with the graphics features.

Existing videos and images were selected and available on the internet, to aid better understanding of the subjects covered.

In addition to structuring the website, a specific questionnaire was prepared, based on the bibliographic survey carried out in the 1st phase and the aspects listed for constructing the website, so that the relevance of its content could be analyzed by the evaluators.

3rd Phase - Evaluation

Selection of Evaluators

To choose the participants in the evaluation process of the website, speech-language pathologists with experience in CLP and working in institutions other than the institution responsible for the study were selected for inclusion. Speech therapists who did not complete all stages of the study were excluded.

After accepting the invitation, the objective of the study was explained and instructions were sent out. All participants signed a Free and Informed Consent Form, which was available online. At this stage of the study, the website did not have a domain name, so in order to be able to access the content of the pages it was offered in PDF format, with a pre-established period of three days for participants to carry out the evaluation of the website. It was necessary to extend the deadline for another eight days, due to the difficulties of joining.

Website content evaluation protocol

To evaluate the theoretical content of the website, the quantitative measure of agreement percentage was used to measure interobserver agreement, using the following formula:

$$%agreement = \frac{Number of participants in agreement}{Total number of participants} \times 100$$
 (1)

A rate of 90% was considered an interobserver agreement index⁽¹⁴⁾, that is content with an agreement rate of 90% or more was considered acceptable (without any need for modification).

To evaluate the website, a questionnaire was designed and made available on Google Forms, in which the theoretical content of the website was evaluated, with regard to the scope and quality, in the view of the evaluators. The evaluation options were agree, disagree and/or provide suggestions. In the same question, it was possible to select both answer options and make suggestions regardless of the option selected.

The informational aspect of the website was found to be adequate because all the answers given by the evaluating speechlanguage pathologists were considered and modifications were made according to their suggestions.

Questionnaire evaluation protocol

A questionnaire was prepared to assess the knowledge of students and health professionals about cleft lip and palate, so that afterward it would be possible to compare their knowledge before and after using the website.

The evaluation of the questionnaire was carried out by the same evaluators, and each question was judged in a format of predefined answers (satisfactory or unsatisfactory), after which it was possible to make suggestions for changes. The quantitative measure of the agreement percentage was also used, considering 90% as a measure of interobserver agreement⁽¹⁴⁾, as described in the previous item.

4th Phase - Implementation

The website was designed to disseminate information to people from different parts of the country, expanding the reach of scientific information to the public. The content, enhanced by illustrations was implemented through a free platform, which allowed the structuring of its transmission.

Subsequently, considering the need to improve the visual aspect of the website and also to characterize the scientific stringency, the assistance of a web designer was contracted to carry out the adaptation and standardization of the graphic content (attributing to the website's redesign character), in addition to the support of the institute's IT Department, to transfer it to the official platform of the institution to which the project is linked. Guidance was received on how to prepare a register to choose the template and, the sector provided the necessary technical support for creating the site and availability of the website was carried out by Joomla (content management system).

With the objective of establishing an inclusive design with the aim of promoting an approach that could reach the largest number of people, illustrations were created with a focus on clarifying the information on the page, resulting in greater efficiency in communication and helping to make the content easy to understand and remember. For this purpose the following parameters were considered⁽¹⁵⁻¹⁷⁾, raised in the elaboration of the images: Technical Factors:

- The use of simple lines were emphasized to facilitate communication, which had to be understandable and appropriate to the end user;
- The identity of the project generated a visual link with the university and its website;
- Colors were used to link writing and images to dashes and arrows.
- Variations in style and design were avoided for the purpose of maintaining standardization;
- The images used were of appropriate quality and size, avoiding low quality images or images that exceed the size supported by the website, which could result in longer loading times of the page;
- Descriptions were positioned closely to the figures.

Symbolic Factors:

- It was created characters that appears several times during the project, in order to generate empathy;
- Familiar representations were used to ensure ease of identification and more natural representations;
- To entice users to spend a longer time on the website, contextualized and informative static images were created to be aesthetically pleasing and stimulating for the user.

RESULTS

1st Phase - Analysis and planning

Research was carried out of existing scientific data. The distribution of topics and number of articles is shown in Figure 1.

The topics proposed in the script were structured using the previously mentioned research. The language was simplified to be as direct as possible with specific information, to attain an attractive and accessible content for the diverse audience that the site aimed to reach.

2nd Phase - Modeling

The content was divided into 7 sections, as follows: objective of the site, definition, causes, treatments (primary surgeries), curiosities, types of cleft and frequent doubts, the last two being divided into subsections, which include cleft lip and palate, submucosal cleft, food, hearing, speech and language.

According to the structuring of the subject added to the content, 16 static images were created by the designer for ease of understanding of the information and to motivate the user to explore the entire content of the website.

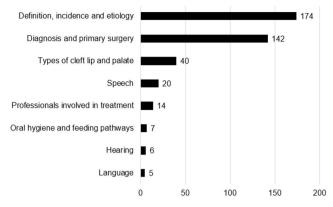


Figure 1. Themes in the databases of the literature search to the theoretical foundation of the content on cleft lip and palate.

3rd Phase - Evaluation

Selection of the Evaluators

In total, 21 speech-language pathologists with experience in CLP were invited by e-mail to participate, 10 females responded to the e-mail and completed all the phases of the study. All of them had relevant experience, or had worked in reference centers in the CLP service. The average number of years of experience of the speech therapists, specifically with CLP, was 18.9 years, varying between 8 and 36 years (Table 1).

Website content evaluation protocol

Evaluation of the website was as follows, the interobserver agreement rate reached was 90% in the delivery item, which did not have any changes. The other items did not reach an interobserver agreement value of 90%, however they presented an agreement value of 80% in relation to the appearance of the website and definition of CLP 72.7%, in the CLP incidence item 70%, in the etiology and professional items involved in the treatment 60%, in the items types of CLP and diagnosis 58.3%, in the item oral hygiene 50%, in the items food, hearing and speech 45.5% and in the item primary surgeries see (Chart 1).

When the changes were made to the site the suggestions of the evaluators were taken into account and the areas that underwent changes regarding the theoretical basis were: the classification of the types of CLP, period of primary surgery, diagnosis, feeding, oral hygiene, hearing and speech. The other areas, such as the appearance of the website, the definition of CLP, etiology, incidence and professionals involved in the treatment had no changes made to the theoretical content, only changes in relation to the way they were cataloged in the problem (Chart 1).

Questionnaire evaluation protocol

In the analysis of the questionnaire, the questions regarding the definition of CLP, the gestational period in which the CLP

years	
Evaluator	Experience with CLP in years
Evaluator 1	26
Evaluator 2	36
Evaluator 3	13
Evaluator 4	8
Evaluator 5	30
Evaluator 6	14
Evaluator 7	16
Evaluator 8	10
Evaluator 9	18
Evaluator 10	18
AVERAGE TOTAL	18.9

Table 1. Average experience of evaluators with cleft lip and palate in

Legend: CLP = cleft lip and palate

types occur, diagnosis, primary surgeries, food and speech had their statements and answer options changed. The statement was changed for the question regarding the etiology and the question about the CLP classifications was removed. A question about diagnosis after birth and a question about oral hygiene were added. The questions about the type of delivery, the need for a multidisciplinary team and the relevance of the study did not change (Chart 2).

Therefore, considering the suggestions of the evaluators, the design of the questionnaire was completed, resulting in an instrument with 17 questions (Appendix 1).

4th Phase - Implementation

The website was developed and is live at: www.fissuralabiopalatina.unb.br⁽¹⁸⁾

To exemplify the aforementioned steps, images of the website were detailed before and after the redesign with the support of the Information Systems Directorate of the original institution (Figure 2).

DISCUSSION

The development of the website arose from a requirement to provide general and up to date information about CLP to students and health professionals alike, because CLP is a common condition, they will come across frequently in their careers. The provision of general guidance on CLP through a website was considered highly relevant because of its ease of access, and it can assist with therapeutic management. On the other hand, it is important that the public have access to such information, because even after consultations communication failures between patients and healthcare professionals can occur, resulting in difficulties in understanding some issues addressed^(15,16).

To reinforce the purpose of this study, an investigation of 100 mothers of children with CLP found that 32 of 100 mothers felt a lack of guidance in some aspects of CLP by health care professionals who had attended their children. This emphasizes the importance of training professionals together with other means of improving their knowledge⁽⁵⁾.

Chart 1. Response of the evaluator	s on the appearanc	e and theoretical	content of the website
	3 on the appearance		

Items Evaluated	Agree (%)	Disagree (%)	Accomplishments	
Appearance of the Website	8 (80%)	2 (20%)	-University logo added to show the university and department responsible for the study.	
Definition of CLP	8 (80%)	2 (20%)	- The form of presentation was changed to emphasize that CLP is a congenital alteration that mostly affects the face.	
Etiology /causes	7 (70%)	3 (30%)	-Changed to emphasize that CLP does not have a defined cause, occurring because of multiple reasons.	
Types of CLP	6 (60%)	4 (40%)	- Captions added to the images of the different types of CLP, as well as the description of bifid uvula, muscle diastasis and bone notch on the hard palate;	
			 An image was removed that made it difficult to visualize the submucosal fissure; Added the hidden submucosal fissure. 	
Primary	5 (45.5%)	6 (54.5%)	- The title of the topic was changed from "Corrections" to "Treatments";	
Surgeries#			- The specific period for carrying out surgery was removed;	
			-emphasis that the type of surgery will depend on the protocol used.	
Incidences#	8 (72.7%)	3 (27.3%)	-It was emphasized that the incidences presented only applied to the Brazilian population and not worldwide.	
Diagnosis	6 (60%)	4 (40%)	 Added that diagnosis by ultrasound will be carried out during the prenatal period; Added diagnosis after birth of various types of CLP. 	
Professionals involved in	7 (70%)	3 (30%)	- Changed: the treatment that may be carried out by a multidisciplinary and / or interdisciplinary team;	
treatment			- Emphasis of the performance of the speech therapist, orthodontist and plastic surgeon who will work with the patient from the beginning of the treatment.	
Birth*	9 (90%)	1 (10%)	- No changes.	
Feeding	5 (50%)	5 (50%)	Was changed in relation to:	
			- Types of feeding: dependent on the type of CLP;	
			 Eating methods: if utensils are used and /or food routes that are safest for the child; 	
			 Added that a multidisciplinary team will assist in this process. 	
Oral Hygiene#	7 (58.3%)	5 (41.7%)	- Added nasal hygiene;	
			- Added an illustrative video on how to perform oronasal hygiene.	
Hearing	5 (50%)	5 (50%)	-The presentation of the information was changed;	
			- Modified to a structure in the form of topics;	
			- Emphasized that the auditory alterations can occur in the fissures that affect the palate;	
Omersels			- Added images to help visualize the auditory system.	
Speech	5 (50%)	5 (50%)	- Changes in the way the information is presented;	
			- Modified to a structure in the form of topics.	

Quantitative Measure of Agreement Percentage; *There were no changes #Evaluators sometimes responded by agreeing, sometimes disagreeing on the same item **Subtitle:** CLP = cleft lip and palate

Concerning the specific subject of CLP aimed at guiding professionals and students information is scarce, however it demonstrates the importance of raising awareness among the child population in order to create a more favorable environment for inclusion and minimizing prejudice against children and others with CLP⁽¹²⁾. A blog was developed to give guidelines for healthcare professionals, which used the Emory questionnaire as a tool to measure quality⁽³⁾. What differentiated the present study was the concern with the development of a specific instrument for further evaluation, which would make it possible to measure knowledge about CLP. Thus, in the future, after accessing the website it would be possible to compare before and after knowledge.

In addition, since it is a specific and theoretical subject, with information about CLP, the evaluation was considered important, proving its quality through the analysis and agreement⁽¹⁴⁾ of experts in the area and ensuring that the topics presented would convey a message, structured effectively and allowing the instrument to be widely used in future studies.

Ten speech-language pathologists were evaluated as potential evaluators, attributing less casuistry due to the careful admission

of evaluators to participate in this study. All the evaluators had practical experience in the care of patients with CLP, with an average of 18.9 years work experience with CLP in speech therapy, working in different institution, without any conflict of interest, in order not to positively or negatively influence the website or the questionnaire.

Another example of providing information to help caregivers of patients with CLP about the velopharyngeal function, speech and surgery to correct CLP, consisted of information being made available through multimedia in PowerPoint. After comparing the caregivers' knowledge before and after they accessed the multimedia material, it was found that 61% of answers were initially correct but afterwards they achieved on average 86% of correct answers⁽¹⁷⁾, this shows the positive effect of multimedia and how it made a positive contribution to the knowledge of the public.

After the suggestions made by the evaluators, various content areas of the website were modified including the following: FLP (60% agreement between the evaluators), forms of diagnosis before and after birth (60% agreement), period of completion of the primary surgeries (45.5% agreement),

Chart 2. Evaluation of questions for preparing the questionnaire before and after accessing the website, to measure the impact of cleft lip and	
palate information.	

Number of questions before changes	Number of questions after adjustments	Agree (%)	Disagree (%)	Changes
1*	-	9 (90%)	1 (10%)	- Question was changed to a general question of the participants, as it was intended to identify whether the CLP content had been taught during the graduation period.
2	1	8 (80%)	2 (20%)	- The question and answer options were changed. Previously, we attempted to identify which was the best definition of CLP for health professionals and students, however, after the changes, the objective was only to identify their opinions on CLP, having as options: disability, syndrome, malformation and I don't know.
3	2	7 (70%)	2 (20%)	- The answer options were changed, specifying the alternatives regarding the incidence of CLP.
4	3	7 (70%)	3 (30%)	- The question was rephrased. Previously, we tried to identify the knowledge of the evaluated individuals regarding the cause of CLP. After the modifications, we considered what they believed to be the cause of the CLP.
5	4	7 (70%)	3 (30%)	- The question and answer options were changed. The question in the new version aims to identify the public's knowledge about which stage of the gestational period CLP occurs and the alternatives were changed to weeks of life.
6	-	5 (50%)	5 (50%)	- The question was excluded.
7	5	8 (80%)	2 (20%)	- The question and answer options were changed. Initially, it was sought to identify the different types of CLP, however, due to the various forms of existing classifications, it was decided to verify which name the participants knew for CLP.
8	6	5 (50%)	5 (50%)	- The question was rephrased. In the initial questionnaire, we tried to learn which exam/procedure the diagnosis of CLP was carried out. After the suggestions, the question was split into two parts, one in relation to the possibility of the diagnosis being made in the prenatal period and the other question, related to the way the diagnosis of cleft palate is performed after birth.
	7			- The response options were changed.
9	8	8 (80%)	2 (20%)	 The number of the question was modified, being added to the statement about the existence of restrictions of the type of delivery for children with isolated CLP, since previously it was only aimed at children with cleft in general.
10 and 10.1*	9 and 9.1	9 (90%)	1 (10%)	- The number of questions was modified.
11	10	3 (30%)	7 (70%)	- The question and answer options were changed. Previously, it aimed to identify specifically, when primary surgery could be performed (cheiloplasty and palatoplasty). After the changes, we tried to identify, in general, up to what age surgery can be performed.
12	11	3 (30%)	7 (70%)	- The question and answer options were changed. Initially, the objective was to determine which feeding method is preferable to use with babies with CLP. Subsequently, it was modified to identify whether the participants are aware of whether a baby with CLP can be breastfed.
13	12	6 (60%)	4 (40%)	- The question was changed in an attempt to measure the indication of the use of a probe in babies with CLP.
14	13	7 (70%)	3 (30%)	- The question was rephrased, specifying whether babies with cleft palate are more likely to develop hearing disorders.
15	14 15	7 (70%)	3 (30%)	- A question was added to ascertain the knowledge of the target audience about the speech of children with CLP after primary surgery, as well as about the need for speech therapy for speech disorders.
16#	16	8 (88.9%)	1 (11.1%)	- The question was changed and sought to identify whether oral/nasal hygiene should be performed for individuals with CLP.
Extra Question	17	-	-	- Question added based on suggestions: "Did you consider the orientation program relevant?"

*No changes #Evaluator didn't answer

Subtitle: CLP = cleft lip and palate

food (50% agreement), hearing (50% agreement), oral hygiene (58.3% agreement) and speech (50% agreement) (Chart 1). There were other items on the site that had suggestions for changes in relation to the form of presentation, with the exception of only the delivery item, which was not changed.

Despite the changes that have already been made, there is a plan to perform further assessments, as well as other pertinent changes, in addition to constant updates, assuming that knowledge is dynamic and the need for access to information is variable over time and generations.

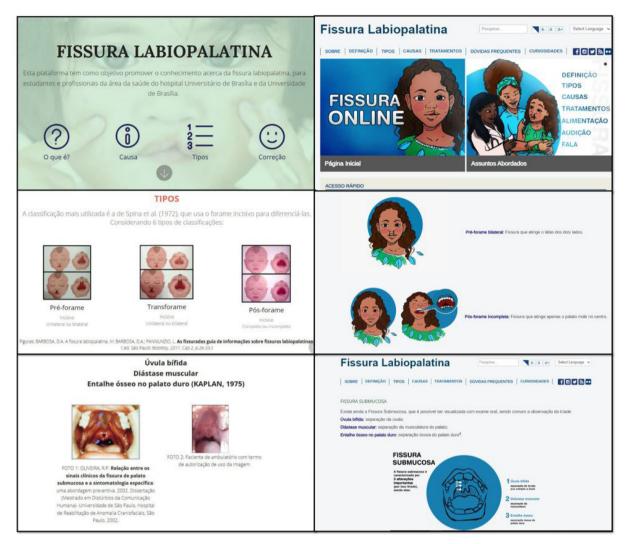


Figure 2. Prints illustrating the first format of the website on the left, and examples of how the website is after the redesign and allocation on the page of the responsible institution

As an example of evaluation and suggestions about different forms of diagnosis of cleft lip, palate or lip and palate, a twodimensional or three-dimensional ultrasound can be performed during the prenatal period. In some cases, there may not be prenatal diagnosis due to the baby's position^(19,20). For these cases, the diagnosis will be made after birth, through clinical evaluation associated with instrumental evaluation^(21,22), and concerning this aspect 60% of the evaluators agreed with what was presented on the website, which described the prenatal diagnosis. However, they recommended adding the diagnosis after birth, and, in their suggestions, two of the evaluators (20%) considered the clinical evaluation after birth to be the most accurate form of diagnosis.

Concerning the evaluation of the questionnaire, only the question regarding the treatment of patients with cleft lip and palate within a multidisciplinary team was not modified, since 90% of the evaluators were in agreement over this question. The remaining questions were modified according to the suggestions presented (Chart 2). The lowest levels of agreement were in the questions regarding primary surgery of CLP and food, both of which had a 30% agreement.

Regarding primary surgery, in the questionnaire prior to the modifications, there were options for the exact periods for performing cheiloplasty and palatoplasty procedures. After the suggestions, we attempted to define up to what age these procedures may be performed. The change in this issue was relevant, as the period for performing primary surgery will depend on the protocol adopted by each specialized center, but it is common during the first year of a baby's life^(1,23).

Concerning the question about feeding, the questionnaire presented to the evaluators had the objective of clarifying which means of feeding was chosen for babies with CLP. After the suggestions, the objective of the question was to identify whether the participants were aware of whether babies with CLP could be breastfed or not. Babies with CLP may experience difficulties in breastfeeding due to the presence of weak intraoral pressure in cases of cleft palate^(1,5), however, it is important to note that breastfeeding in many cases is possible, even when a baby has a cleft palate, and breastfeeding should be encouraged.

Based on our findings, there is a need for further studies related to the knowledge of healthcare professionals and students on CLP, as well as the importance of disseminating information on the subject to guide those who are responsible for children with CLP.

CONCLUSION

Through systematic instructional design the orientation website was designed for students and healthcare professionals alike, having been improved by the suggestions made by speechlanguage pathologists with experience in CLP. The website is available at www.fissuralabiopalatina.unb.br

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Appendix 1. Questionnaire for assessing the knowledge of students and healthcare professionals about cleft lip and palate after the evaluators' suggestions

- 1. In your opinion, what is isolated cleft lip and palate?
- a. () A Deficiency
- b. () A Syndrome
- c. () A Malformation
- d. ($% \left({{\rm{D}}} \right)$) Don't know
- 2. Do you consider that the incidence of cleft lip and palate is?
- a. () Rare (1:650.000 newborns alive)
- b. () Common (1:650 newborns alive)
- c. () Don't know
- 3. The cause of cleft lip and palate is known?
- a. () Yes
- b. () No
- 3.1 Describe in your opinion the cause of cleft lip and palate.
- 4. Cleft lip and palate occurs at which stage of the gestation period?
- a. () Up to 12 weeks
- b. () From 12 to 21 weeks
- c. () From 26 to 30 weeks
- d. () From 34 weeks
- e. () Don't know
- 5. By what name do you know cleft lip and palate:
- a. () Cleft lip and palate
- b. () Harelip
- c. () Wolf's throats
- d. () Don't know
- e. () Other
- 6. Diagnosis can be made at the prenatal stage?
- a. () Yes
- b. () No
- c. () Don't know
- 7. What is the best way to diagnose cleft palate after birth?
- b. () Two dimensional Ultrasound
- c. () Three dimensional Ultrasound
- d. () Radiography
- e. () Cephalometry
- f. () MRI
- g. () Tomography
- h. () Clinical Evaluation/intraoral
- i. () Other
- j. () Don't know

8. Are there some restrictions on the type of delivery for children with isolated cleft lip and palate?

- a. () Yes
- b. () No
- c. () Don't know

9. Do you believe that the treatment of patients with cleft lip and palate depends on a multi-professional team?

- a. () Yes
- b. () No
- c. () Don't know

9.1 Which professionals do you think should be involved in the treatment of CLP?

10. To correct cleft lip and palate, surgical procedures used are called primary surgeries. At what age do they usually begin to carry out primary surgery?

a. () In the first days of life

b. () Up to 6 months

c. () Up to one year old

d. ($% \left({{\rm{D}}} \right)$) Don't know

11. Can babies with cleft lip be breastfed?

a. () Yes

b. () No

c. () Don't know

12. Is the use of a probe at birth recommended for babies who have cleft lip and palate without other impairments:

a. () Yes

b. () No

c. () Don't know

13. Are sufferers of cleft palate more likely to develop hearing disorders?

a. () Yes

b. () No

c. () Don't know

14. Do you think that the speech abilities of a child with cleft lip can be altered after surgery?

a. () Yes

b. () No

15.Do all children with cleft lip and palate require speech therapy?

a. () Yes

b. () No

16. Should oral/nasal hygiene be performed for children with cleft lip and palate?

a. () Yes

b. () No

17. Did you consider the orientation program relevant? (Only to be answered after the program)

a. () Yes

b. () No

Suggestions / criticisms / praise for the orientation program: