

# Websites in Portuguese about oropharyngeal dysphagia in elderly

## Websites em português sobre disfagia orofaríngea no idoso

# Websites portugués sobre disfagia orofaríngea en el adulto mayor

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### **Abstract**

**INTRODUCTION:** Telehealth resources are important for the transmission of knowledge about oropharyngeal dysphagia in elderly. OBJECTIVE: To determine the quality and comprehensiveness of websites in Portuguese on oropharyngeal dysphagia in the elderly, aimed at the general population. **METHODS:** We used the Google search tool, with the keywords "oropharyngeal dysphagia" AND "elderly" and "orientation" AND "oropharyngeal dysphagia" AND "elderly". Inclusion criteria were: websites and blogs in Portuguese that provided information and/or guidelines on oropharyngeal dysphagia in the elderly due to aging and/or neurological or oncological diseases. The selected websites were analyzed for quality by two judges, using the Health On the Net Code (HON Code) protocol, regarding the coverage (subjects covered), use of pictures/videos and their central objective. RESULTS: Nineteen websites were selected, observing a low HON Code score for the attribution items (source of information published) (mean 0.8) and updates (information on the update dates of the subject addressed) (mean 0.6), presenting the average overall score of 7.87, in addition to observing a narrow range of subjects. Regarding the availability of illustrations, observed that 90% of the websites did not present figures and 89% did not present videos to facilitate content retention. As for the central objective of the website, dysphagia was the central theme in 6% of websites. CONCLUSION: The websites presented a partial quality according to the ethical criteria, with a restricted scope, did not present the oropharyngeal dysphagia as

#### **Authors' contributions:**

CCC was responsible for the data collection and analysis, as well as article writing and submission. DRC was responsible for the data collection and analysis, as well as writing the article. GB-F was responsible for data analysis.

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**Received:** 28/07/2017 **Accepted:** 27/01/2018



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a central theme, besides the non use of illustrations during the content. Thus, it is suggested to improve the existing websites on oropharyngeal dysphagia in the elderly.

**Keywords:** Deglutition Disorders; Aged; Health Promotion.

#### Resumo

INTRODUÇÃO: Recursos de Telessaúde são importantes para a transmissão do conhecimento sobre as disfagias orofaríngeas no idoso. **OBJETIVO**: Localizar, avaliar a qualidade e abrangência de websites em português sobre as disfagias orofaríngeas no idoso, voltados à população em geral. MÉTODOS: Foi utilizada a ferramenta de busca Google, com as palavras-chave "disfagia orofaríngea" AND "idoso" e "orientação" AND "disfagia orofaríngea" AND "idoso". Foram considerados como critérios de inclusão: sites e blogs em português que disponibilizassem informações e/ou orientações sobre disfagias orofaríngeas no idoso decorrente do envelhecimento e/ou de doenças neurológicas ou oncológicas. Os websites selecionados foram analisados quanto à qualidade por dois juízes, utilizando o protocolo Health On the Net Code (HON Code), quanto à abrangência (assuntos abordados), utilização figuras/vídeos e seu objetivo central. RESULTADOS: Dezenove websites foram selecionados, observando baixa pontuação do protocolo HON Code para os itens: atribuição (fonte das informações publicadas) (média 0,8) e atualizações (informações quanto às datas de atualização do assunto abordado) (média 0,6), apresentando a pontuação geral média de 7,87, além de observar restrita abrangência dos assuntos. Quanto à disponibilidade de ilustrações, observou que 90% dos websites não apresentaram figuras e 89% não apresentaram vídeos para facilitar a retenção do conteúdo. Quanto ao objetivo central do website, a disfagia foi o tema central em 6% dos websites. CONCLUSÃO: Os websites apresentaram uma qualidade parcial segundo os critérios éticos, com uma abrangência restrita, não apresentaram a disfagia orofaríngea como tema central, além da não utilização de ilustrações no decorrer do conteúdo. Desta forma, sugere-se o aperfeiçoamento dos websites já existentes sobre as disfagias orofaríngeas no idoso.

Palavras-chave: Transtornos de Deglutição; Idoso; Promoção da Saúde.

### Resumen

INTRODUCCIÓN: Recursos de Telessalud son importantes para la transmisión del conocimiento sobre las disfagias en el adulto mayor. OBJETIVO: Localizar y evaluar la calidad y alcance de websites en portugués sobre las disfagias orofaríngeas en adultos mayores, direccionas a la población en general. METODOS: Se utilizó la herramienta de búsqueda Google, con las palabras clave "disfagia orofaríngea" AND "adulto mayor" y "orientación" AND "disfagia orofaríngea" AND "adulto mayor". Se consideraron como criterios de inclusión: websites y blogs en portugués con informaciones y/o orientaciones sobre disfagias orofaríngeas en el adulto mayor debido al envejecimiento y/o a enfermedades neurológicas u oncológicas. Los websites seleccionados fueron analizados cuanto a la calidad, por dos jueces, utilizando el protocolo Health On the Net Code (HON Code), cuanto a la exhaustividad de los temas contemplados, al uso de figuras /videos y a su objetivo central. RESULTADOS: Se seleccionaron 19 websites con baja puntuación del HON Code para: asignación (fuente de la información publicada) (promedio 0,8) y actualizaciones (información sobre las fechas de actualización del asunto abordado) (promedio 0,6), presentando la puntuación general promedio de 7,87, además de observar restringido alcance de los asuntos. En cuanto a la disponibilidad de ilustraciones, se observó que el 90% de los websites no presentan figuras y el 89% no presentó vídeos para facilitar la retención del contenido. En cuanto al objetivo central de los website, la disfagia fue el tema central en el 6%. CONCLUSIÓN: Los websites presentaron una calidad parcial según los criterios éticos, con un alcance restringido, no presentaron la disfagia orofaríngea como tema central, además de no utilizar ilustraciones en el transcurso del contenido. De esta forma, se sugiere el perfeccionamiento de los websites ya existentes sobre las disfagias orofaríngeas en adultos mayores.

**Palabras claves:** Trastornos de Deglución; Adulto Mayor; Promoción de la Salud.



#### Introduction

The Interactive Telehealth facilitates the knowledge dissemination for the professionals' improvement, as well as for the population to learn about a particular subject aiming at the promotion of health <sup>1</sup>. Therefore, for the promotion of health through interactive Teleducation, there are several teaching resources and dynamics that allow the knowledge to reach a larger number of people from different socioeconomic levels and age groups, involving the population in its role within the Community <sup>2</sup>.

As an example of Information and Communication Technologies (ICT), are the *websites* that allow you to create an environment with greater interactivity, providing more accesses and motivation to the user. The *websites* offer a possibility of access to lots of information, which in contrast, increases the risk of a range of erroneous or incomplete information, without any scientific or appropriate updates <sup>3.4</sup>.

Analyzing the access of *websites* which bring health information, it has been seen that they show themselves being effective to empower the population in general, but their most present a restricted access, limiting the possibilities that a website presents <sup>5</sup>.

To ensure the quality of the health information offered on the internet, the Health On the Net Foundation (HON) developed the HONCode certification, free, that aim advise and encourage Internet users to be cautious in the use of medical information obtained on the network, in accordance with a set of ethical rules <sup>6</sup>.

The dysphagia is characterized by a disorder of swallowing or any food bolus transit difficulty from the mouth to the stomach <sup>7</sup>. The process of aging itself already brings changes in roles, as is the case of swallowing <sup>8,9</sup>. In addition, this aging population is susceptible to have other complications worsening the swallowing, it is necessary to educate the population <sup>10</sup>.

In this way, it is observed the importance to promote information for prevention and assistance for the elderly with possible changes in the swallowing function, and also for their caregivers, among professionals in the area of health and, especially, their family members. Provide information in these cases, would allow an early diagnosis and important guidelines for the conduct of limi-

tations. Thus, the present study aimed to locate, evaluate the quality and completeness of *websites* in Portuguese on the oropharyngeal dysphagia in the elderly available to the population in general.

#### Method

It was used the Google search tool with the keywords "oropharyngeal dysphagia", "elderly", "guidance", oropharyngeal dysphagia" and "old" consulting first 10 pages, with 10 websites each. Also attempts were made to search on Yahoo search, however, it was not considered by not bringing different results, when compared to the websites located in Google.

We adopted as inclusion criteria: websites and blogs in Brazilian Portuguese that allocate information and/or guidelines on oropharyngeal dysphagia in the elderly due to aging and/or neurological diseases or cancer and were excluded from the professional directed-only sites, scientific articles, and pages that submit information only related to childhood dysphagia.

The selected websites were analyzed regarding the quality by two researchers using the protocol *Health on the Net Code* - HON Code <sup>11</sup>, which is based on the property, purpose, author's classification, assignment, interactivity and *website* updates. Each one of these characteristics is subdivided into items that receive a score and the higher the score obtained, total of 13 points, the better the quality of the *website*. It was analyzed the average score of the two researchers for all selected sites.

The websites scope evaluation verified if there was information about what is dysphagia, their possible causes, symptoms, treatment options and dysphagia in the elderly patient specificities, where each item was judged in: covered fully; partially covered and not covered.

It was also evaluated the resources facilitators of information (videos and pictures) use, classified as: sufficient quantity, insufficient and missing.

Finally, the website was classified by its main goal: totally turned to the dysphagia; partially returned to the dysphagia; wasn't about dysphagia. This selection and analysis was performed by two researchers, being considered the result only by consensus between them, who assessed all *websites* considered.



#### Results

There were 19 selected websites, being 181 excluded, since referring to sites with scientific

profile (articles, theses, monographs, researches, and book chapters), brochures, and online courses for professionals, resumes for professionals and universities curriculum.

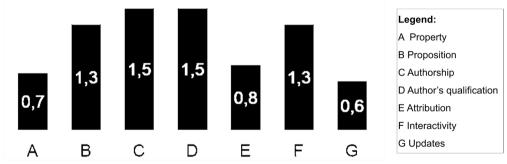


Figure 1. Websites about oropharyngeal dysphagia in the elderly included

The HON Code protocol demonstrated a low score for items: assignment, which refers to the citation of the source of information published (average 0.8) and update, which is the information regarding the addressed issues dates (average 0.6),

while the author information (about the author) (average 1.5) and qualification of the author update (information on the qualifications of the author) (average 1.5) showed higher scores. In the overall, the score obtained the average of 7.87.

**Graphic 1.** Average of each item scores in the HON Code of websites of oropharyngeal dysphagia in the elderly

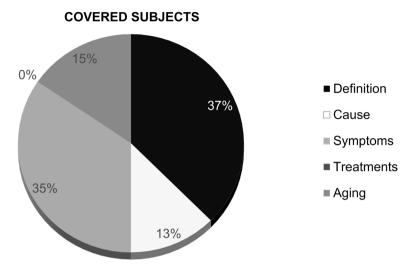


When considering the websites scope, we found out that the subjects dealt with in the most complete manner were "definition" and "symp-

toms", demonstrating a gap in information about the aging, causes and treatment.



**Graphic 2.** Percentage of subjects fully covered on average in the websites of oropharyngeal dysphagia in the elderly



As the availability of illustrations, it was observed that 90% of *websites have* not brought illustrative figures and 89% have not made videos. The *websites* that presented some illustration were so inadequate.

Finally, it was found that the main goal was the dysphagia in 6% of *websites*, 15% was partially on this goal and 79% did not have this main focus.

#### **Discussion**

The information and communication technology resources applied to health became important as knowledge amplification instruments, which may reach a greater number of people, including different socioeconomic groups and ages <sup>12.13</sup>. For dysphagia, the use of these resources is also necessary, which both are already observed Teleducation studies for health professionals and for Teleassistance <sup>14</sup>. However, investigations on the Teleducation to the population in general are still scarce.

In this study, we considered 19 websites related to the topic of oropharyngeal dysphagia in the elderly, observing a reduced amount of websites available, when compared with the literature on the topic of deleterious oral habits located 36 websites <sup>15</sup> and the theme of the orofacial functions, 35 websites <sup>16</sup>.

The deleterious oral habits theme found only 3 websites with the seal HON <sup>15</sup>, 68.75% maximum fulfilling the criteria. In another study, more specifically in the area, we found out that the *websites* on the orofacial functions (suction/breastfeeding, breathing, speech, chewing and swallowing) fulfilled half of the principles proposed by the Health on the Net Code <sup>16</sup>. In the present study, it was also verified that the *websites* met partial evaluation criteria of the HON Code.

The websites on the orofacial functions, demonstrated 49.8% on average meet the content scope<sup>16</sup>, being even lower this percentage in the present study, on average, 33.6% of coverage, considering the topics definition, causes, symptoms, treatment, and dysphagia in the elderly.

Most of the *websites* analyzed did not show a sufficient quantity of videos and pictures, this factor interferes with the ease of information understanding. According to Houts, (2006), the communications in health care could be more efficient with the use of images, as for example insert images in health education materials that already exist, to improve adherence to the health instructions<sup>17</sup>.

Even performing a specific search on oropharyngeal dysphagia in the elderly, there is a scarcity of websites with this central theme, making the good quality information location available in a language that is easy for patients, caregivers and family.



In this way, the speech pathologist, who is the professional that works directly with the oropharyngeal dysphagia cases, must guide the patient and his family about this clinical, as well as lead them to appropriate searches for new information, ensuring the validity of the content, as well as the access and their understanding ease<sup>18</sup>.

Other studies in the literature that addressed the sites assessment quality in the oropharyngeal dysphagia area were not found, which hindered the findings comparison in this study. However, validity of the theme stands out, by need to broaden the information for swallowing disorders prevention, as pointed out by the study which has developed and implemented a CD-ROM on the dysphagia in graduate students in Speech Therapy. With the use of text, graphics, audio and video it could exemplify the themes and stimulate students' learning <sup>19</sup>.

In this sense, new studies are needed to improve the quality of information provided on *websites* in the area of oropharyngeal dysphagia. It is suggested that new *websites* are planned, constructed and evaluated, on this issue, in a careful and judicious process, as is already happening in other areas of Audiology <sup>20-24</sup>.

#### Conclusion

It was verified that the *websites* met half of the criteria of the HON Code, bringing, in their majority, the definition of dysphagia and the symptomatology, but showed low utilization of facilitating resources for the understanding of the information, being that the websites did not present dysphagia as a main theme, it is important to improve the *websites* that already exist on the oropharyngeal dysphagia in the elderly.

#### References

- 1. Wang L, Wang J, Wang M, Li Y, Liang Y, Xu D. Using Internet search engines to obtain medical information: a comparative study. J Med Internet Res. 2012; 16; 14(3): e74
- Ornes CR, Miguel V, Fernández M, Páez J. Capacitación a distancia en lactancia materna. Rev Fac Med. 2002; 25(1): 100-3.
- 3. Jerrold L. Do web-site postings qualify as learned treatises? Am J Orthod Dentofacial Orthop. 2017; 151(4): 821-3.
- 4. Soobrah R, Clark SK. Your patient information website: how good is it? Colorectal Dis. 2012; 14(3): 90-4

- 5. Rogers MAM, Lemmen K, Kramer R, Mann J, Chopra V. Internet-delivered health interventions that work: systematic review of meta-analyses and evaluation of website availability. J Med Internet Res. 2017; 19(3): e90
- 6. 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 Bioética. 2010; 18(2): 483-96.
- 7. Odderson, R.; Mckenna, S. A Model for management of patients with stroke during the acute phase. Stroke. 1993; 24(2): 1823-7.
- 8. Yoshida FS, Mituuti CT, Totta T, Berretin-Felix G. A influência da função mastigatória na deglutição orofaríngea em idosos saudáveis. Audiol, Commun Res. 2015; 20(2): 161-6.
- 9. Alberico APM, Carmo MGT. Alterações nas funções do trato gastrointestinal no envelhecimento. Arq Geriatria e Gerontologia. 1998; 2: 47-51.
- 10. Silva LM. Oropharynx dysphagia after encephalic vascular accident in the elderly. Rev Bras Geriatr Gerontol. 2006; 9(2): 93-106.
- 11. Health on the Net Foundation. HONcode principles. Available at: http://www.hon.ch/. Accessed May 23, 2017.
- 12. Moretti FA, Oliveira VE, Silva EMK. Acesso a informações da saúde na internet: uma questão de saúde pública? Rev Assoc Med Bras. 2012; 58(6): 650-8.
- 13. Maftum MA, Campos JB. Capacitação pedagógica na modalidade de educação a distância: desafio para ativar processos de mudança na formação de profissionais da saúde. Cogitare Enferm. 2008; 13(1): 132-9.
- 14. Catalani B, Luccas GR, Berretin-Felix G. Tele-educação e teleatendimento em disfagia orofaríngea: revisão de literatura. Distúrb Comun. 2016; 28(4): 638-48.
- 15. Shital Kiran DP, Bargale S, Pandya P, Bhatt K, Barad N, Shah N, et al. Evaluation of Health on the Net seal label and DISCERN as content quality indicators for patients seeking information about thumb sucking habit. J Pharm Bioallied Sci. 2015; 7(2): 481-5.
- 16. Corrêa CC, Ferrari DV, Berretin-Felix G. Quality, range, and legibility in web sites related to orofacial functions. Int Arch Otorhinolaryngol. 2013; 17(4): 358-62.
- 17. Houts PS, Doak CC, Doak LG, Loscalzo MJ. The role of pictures in improving health communication: a review of research on attention, comprehension, recall, and adherence. Patient Educ Couns. 2006; 61(2): 173-90.
- 18. Bastos BG, Ferrari DV. Internet e educação ao paciente. Int Arch Otorhinolaryngol. 2011; 15(4): 515-22.
- 19. Scholten I, Russel A. Learning about the dynamic swallowing process using on interactive multimedia program. Dysphagia. 2000; 15(1): 10-6.
- 20. Corrêa CC, Pauleto AR, 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.
- 21. 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.



- 22. Martinelli VLC, Martinelli RLC, Marchesan IQ, Berretin-Felix G, Souza SRS. Elaboração e desenvolvimento de um website sobre o teste da linguinha. Rev CEFAC. 2017; 19(2): 260-4.
- 23. Carvalho R, Munhoz G, Lopes A. Elaboração de um Website sobre Saúde Auditiva para Músicos. Revista Portuguesa de Saúde Ocupacional on line. 2016; 1: 1-8.
- 24. Bastos BG, Ferrari DV. Portal dos bebês seção aparelho auditivo: avaliação por pais de crianças deficientes auditivas. Rev CEFAC. 2014; 16: 72-82.