

## RESEARCH PAPER

# Complementary feeding for infants: adaptation and assessment of support technology for portuguese blind parents

Alimentação complementar do latente: adaptação e avaliação de tecnologia de apoio para pais cegos portugueses

Alimentación complementaria del lactante: adaptación y evaluación de tecnología de apoyo para padres ciegos portugueses

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## Abstract

**Theoretical framework:** Given the difficulties of blind parents in the introduction of complementary feeding for their children, a content was developed in Brazil on this topic, observing the characteristics of online assistive technology.

**Aim:** To describe the adaptation and assessment of the assistive technology to the Portuguese culture.

**Methodology:** A methodological study was developed in Porto in 2012. It was translated into European Portuguese. Its content and design (online mode) were adapted to the Portuguese culture and assessed by specialist nurses in Child Health and Paediatrics and blind parents.

**Results:** In the cultural adaptation of the assistive technology, the nurses suggested (and it was accepted) that the infant should be fed sitting in a chair, guidance on frozen food should be provided and Portuguese food should be introduced. No formal language was used. As for the aspects related to the online structure and presentation, the technology was considered appropriate by both nurses and blind parents.

**Conclusion:** Assistive technology was found to be a reliable health promotion strategy for different realities.

**Keywords:** infant nutrition; disabled persons; nursing.

## Resumo

**Enquadramento:** Face às dificuldades dos pais cegos na introdução da alimentação complementar dos seus filhos, no Brasil desenvolveu-se um conteúdo sobre este assunto, respeitando as características da tecnologia de apoio na modalidade online.

**Objetivos:** Descrever adaptação e avaliação da tecnologia de apoio para a cultura portuguesa.

**Metodologia:** Estudo metodológico, desenvolvido em 2012 no Porto. Realizou-se a tradução do conteúdo para o português utilizado em Portugal. Conteúdo e aparência (modalidade online) adaptado para a cultura portuguesa foram avaliados por enfermeiras especialistas em Saúde Infantil e Pediatria e, pais cegos.

**Resultados:** Na adaptação cultural da tecnologia de apoio, as enfermeiras sugeriram, e foi acatado, posicionar o lactente numa cadeira ao ofertar alimento, orientar o congelamento de alimentos, inserção de alimentos portugueses; não se acatou linguagem mais formal. Nos aspetos de estrutura e apresentação online a tecnologia foi considerada apropriada pelas enfermeiras e pais cegos.

**Conclusão:** Verificou-se que a tecnologia de apoio é uma estratégia de promoção da saúde viável para distintas realidades.

**Palavras-chave:** nutrição infantil; pessoas com deficiência; Enfermagem.

## Resumen

**Marco contextual:** Dadas las dificultades de los padres ciegos en relación a la introducción de la alimentación complementaria de sus hijos, en Brasil, se ha elaborado material sobre este tema, de acuerdo con las características de la tecnología de apoyo en línea.

**Objetivos:** Describir la adaptación y la evaluación de la tecnología de apoyo para la cultura portuguesa.

**Metodología:** Estudio metodológico, desarrollado en 2012 en Oporto. Se realizó una traducción del contenido al portugués utilizado en Portugal. El contenido y la apariencia (modalidad en línea) adaptados a la cultura portuguesa fueron evaluados por el personal de enfermería especializado en Salud Infantil y Pediatría, y padres ciegos.

**Resultados:** En la adaptación cultural de la tecnología de apoyo, los enfermeros sugirieron, y se aceptó, colocar al lactante en una silla infantil al darle la comida, orientar sobre la congelación de alimentos, introducir alimentos portugueses; no se aplicó un lenguaje más formal. En cuanto a los aspectos de la estructura y la presentación en línea, los enfermeros y padres ciegos consideraron apropiada la tecnología.

**Conclusión:** Se comprobó que la tecnología de apoyo es una estrategia de promoción de la salud viable para distintas realidades.

**Palabras clave:** nutrición del lactante; personas con discapacidad; Enfermería.

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## Introduction

Moving from exclusive breastfeeding to the introduction of complementary foods to the infant is a phase that worries parents, who seek information together with friends and family in books, websites and among other sources (Ministério da Saúde, 2010; Silva, Venâncio, & Marchioni, 2010).

Blind parents have difficulties in taking care of their children, particularly small children, regarding the preparation of medication, body hygiene and feeding, especially the introduction of new foods. Studies carried out with blind parents from the northeast region of Brazil showed that the provision of new foods at the age of six months represented a moment of anxiety, with parents recognizing that they did not have the necessary skills to prepare and introduce new foods (Pagliuca, Uchôa, & Machado, 2009).

As for the provision of nursing care to blind people, an important tool is support technology, also known as Assistive Technology (AT). It is an adaptive strategy and material aimed to promote the independence, autonomy and inclusion of disabled people in all phases of the life cycle (Hersh, 2010).

Bearing in mind these difficulties and taking into account the multiple health promotion strategies available to nurses, a remote access assistive technology was designed to provide information on the care related to infants' complementary feeding. The technology, called *Cuidando da alimentação do bebê* (Caring for the baby's feeding), is composed of dialogical texts and an area in which blind parents can clarify their doubts. This technology is described on the website [www.labcomsaude.ufc.br](http://www.labcomsaude.ufc.br) of the research group of the Health Communication Laboratory of the Nursing Department at the Federal University of Ceará, Brazil.

After being built, this technology was assessed by nine Brazilian specialists (three from each of these areas: Child Health, Education of Blind People and Accessible Computing) and a group of ten Brazilian blind parents. Both groups stated that the technology was appropriate for health promotion and guidance of blind parents in the introduction of new foods for their children, suggesting a wide dissemination of this strategy (Cezario, Oliveira, Abreu, & Pagliuca, 2012). Thus, this study aimed to describe the cultural adaptation of the content to the Portuguese

population and assess the structure and design of the assistive technology *Cuidando da alimentação do bebê*.

## Background

The support or Assistive Technology (AT) is a reliable strategy to promote the health of the blind person. The AT, while considering the human being as a whole, is not restricted to compensating for an absence, but rather enables the performance of tasks related to the activities of daily living. To fully assist people with disabilities, AT materials and services should be prepared by professionals with different backgrounds: engineers, architects, developers, occupational therapists and nurses (Sartoretto & Bersch, 2014).

In the case of blind parents, their social network is often composed of their parents, siblings, friends and neighbours, who have difficulties in providing information on infant health care. This fact may be due to a lack of experience in communicating with a disabled person or to the fact that the information provided does not take into account the characteristics of the blind person (Nóbrega, Andrade, Pontes, Bosi, & Machado, 2012).

It also becomes clear that, in most cases, health care professionals are unable to establish an effective communication with sensory impaired people, as many of them have no adequate training (Pagliuca et al., 2009).

Given that blind parents should take care of their children in an independent and safe manner, support mechanisms should be developed. Thus, nursing professionals should establish partnerships and diversify their intervention strategies, with a view to promoting health. The use of Internet-mediated remote access for the provision of information on health-related topics is among the possibilities for intersectoral action (Carvalho, Silva, & Pagliuca, 2013).

The use of the computer as a nursing care tool has been expanding. Its use is considered to have many advantages, such as the access to information, the increase in the possibility of communication and the improvement of people's quality of life.

## Research questions

Our research question was: What is the perception of nurses and Portuguese blind parents regarding the adaptation of an online Assistive Technology on complementary feeding?

## Methodology

This is a methodological study aimed to develop, assess and improve nursing instruments and methodological strategies (Polit & Beck, 2011). This study was developed in three stages: cross-cultural adaptation of the content to the Portuguese population; content analysis by nurses and blind parents and assessment of the structure and design of the technology by specialists and Portuguese blind parents, which occurred between March and June 2012, in the city of Porto. These steps are described in detail here below.

In the first stage of the study, there was a wide search for scientific articles in databases, journals, books, manuals and Portuguese internet websites specialized on this topic. Unlike Brazil, there is no specific recommendation on complementary feeding for this age group on the webpage of the Portuguese Ministry of Health. Cultural expressions and specific foods of Portuguese cuisine for this age group were added to the contents. In this step, three specialist nurses in Child Health and Paediatrics, who develop their professional activity in this academic area or clinical practice, were invited to, as a group, consolidate the contents of the text.

In the second stage, three specialist nurses in Child Health and Paediatrics were invited to assess the adapted material. They were given a copy of the adapted content and an assessment instrument, with 24 questions regarding the objectives, structure, design and relevance of the AT and a specific area where they could make criticisms, suggestions and compliments. Each item of the instrument was assessed on a 5-point Likert-type scale, in which 1 corresponded to the lowest score and 5 to the highest score. Based on this information, there were some changes made to the contents and the technology was included on the website.

Blind parents aged 18 years or more participated in the third and final stage. For the assessment of

the technology by blind parents, the board of a Portuguese association of blind and partially sighted people was contacted and allowed the presence of the researcher at their premises to invite these parents to participate in the study. The research study was disseminated through three virtual lists of Portuguese blind people, so as to recruit more participants.

The participants were asked to access the website, analyse the online AT and assess it using an instrument which was also made available online. In the case of parents who had difficulty using a computer, the researcher scheduled meetings at the association or at their homes to help them during this assessment process.

The assessment instrument for blind parents was composed of 23 items related to content, special education and virtual accessibility. Like the specialists' assessment instrument, these items were also assessed using a Likert-type scale.

The items which scored four and five from at least two specialists were considered adequate. In the case of items with lower scores or lack of inter-rater agreement, adjustments were made to the text and a new assessment was requested. The suggestions provided were compared and included or not, according to the literature.

Data were descriptively analysed which, according to Polit and Beck (2011), allows to organise, provide structure and extract meaning from the data. It usually involves four types of intellectual processes: understanding, synthesis, theory and recontextualisation.

Concerning ethical aspects, the principles of the Declaration of Helsinki for research involving human subjects were followed.

## Results

The literature produced in Portugal on the introduction of new foods was found to be scarce. In this way, based on the few literature found and the interviews conducted with the professionals, the following changes in the technology were made: infant cereals with or without gluten should be introduced first, according to the infant's age; little emphasis on water supply; discourage the offer of juices; use only olive oil in the preparation of salty food; encourage the introduction of yoghurts between the 8th and 9th

month of life; introduction of egg yolk between the 9th and 10th month of life; family diet after the 12th month of life; introduction of red meat and offal at 12 months of age; encourage the preservation and storage of food for future meals.

They also pointed out food which are culturally used in Portugal, such as meat and fish, like turkey, lamb, rabbit and sole; vegetables, like broccoli, Galician cabbage and leek; fruits, like courgettes; and the use of cereals with and without milk as the first food to be offered to the infant.

After the introduction of feeding practices and typical Portuguese food, the content of the technology was

translated into European Portuguese and the AT called *Cuidando da alimentação do bebé*. The content was then reassessed by the specialist nurses in Child Health and Paediatrics.

Table 1 shows the assessments made to the content of the technology: the scores and the number of specialist nurses in Child Health and Paediatrics assigning them.

It was observed that there was no agreement or a score below four was obtained in the following items: *Relevant aspects on breastfeeding*, *Correct preparation* of complementary foods and *Correct dilution of infant formulas*.

Table 1

*Assessments of the content of the assistive technology: specialist nurses in Child Health and Paediatrics. N=3*

Scale items	Score/frequency				
	1	2	3	4	5
Introduction motivates content assessment	-	-	-	2	1
Includes relevant aspects on breastfeeding	-	1	1	-	1
Includes the appropriate age of introduction of complementary foods	-	-	1	1	1
Includes the proper way to introduce the various types of complementary foods	-	-	1	1	1
Distinguishes food groups based on their importance	-	-	1	1	1
Describes the correct method of food preparation	-	-	2	-	1
Addresses the correct dilution of infant formulas	-	-	2	-	1
Importance of the family in promoting the infant's health	-	-	1	1	1
Includes content that promotes dialog	-	-	-	2	1
Clarifies any doubts on the topic	-	-	-	2	1
Emphasizes the importance of the topic	-	-	-	1	2

In addition, the specialist nurses in Child Health and Paediatrics made the following suggestions: use of a more formal language, avoiding certain vocatives and colloquial expressions; inclusion of the practice of feeding the infant on a specific chair for this purpose; further recommendations on freezing food for future meals and greater clarification regarding the dilution of infant formulas; replacement with and inclusion of food relating to the Portuguese cultural universe. The only suggestion which was not accepted was the use of formal language, because the technology targets a lay audience.

They also considered the content to be accessible for blind people as it used short sentences and precise instructions, thus being considered innovative and creative, able suitable for all people with this disability. The content was also considered to be objective, clear and quite complete.

As there were some items with a negative score or which had no agreement/consensus among the experts, a new assessment was requested after the introduction of the adjustments suggested and considered relevant.

After the adjustments, two specialist nurses in Child Health and Paediatrics assigned a score of four to the item on the approach to breastfeeding, while the other items (preparation and offer of new foods and correct dilution of infant formula) received scores of four and five from two specialists. Thus, the items related to the content were considered valid.

Table 2 shows the aspects related to the structure/design and relevance of the technology. It was observed that both parts scored four and five in all items from at least two specialists.

Table 2

*Assessments of the structure/design of the assistive technology: specialist nurses in Child Health and Paediatrics (n = 3)*

Scale Items	Score/frequency				
	1	2	3	4	5
It is appropriate for mothers and fathers	-	-	-	2	1
The information is correct	-	-	-	2	1
The information is clear and the words are understandable	-	-	-	2	1
Text size is adequate	-	-	-	2	1
Content has a logical sequence	-	-	1	1	1
Addresses major topics related to infant complementary feeding	-	-	-	2	1
Language is well structured for a lay audience	-	-	-	2	1
Avoids expressions of discrimination and prejudice	-	-	-	1	2
Emphasizes the key aspect that should be reinforced	-	-	1	1	1
Allows the transfer and generalisation of learning	-	-	1	1	1
Clarifies the public's doubts	-	-	-	2	1
Encourages reflection on the topic	-	-	-	2	1
Depicts aspects needed to clarify the family	-	-	-	2	1
Is appropriate and can be used remotely	-	-	-	2	1

After the assessment by specialist nurses in Child Health and Paediatrics was completed and changes to the content of the assistive technology were made, the technology was uploaded to the webpage of the Health Communication Laboratory of the Federal University of Ceará, Brazil. In this way, after its launching, the blind parents began the process of analysis and assessment of the AT.

Regarding the assessment of the first part of the instrument - contents of the assistive technology -, most participants gave scores of four and five to all items (Table 3).

A total of 10 blind parents participated in the study: eight women and two men. Ages ranged from 30 to

68 years, with four participants aged between 50 and 59 years. Among the causes of blindness, only one participant reported being born blind. Regarding marital status, five were married, two were single, two were widowers and one did not answer. As for their level of education, four had completed primary education, two completed the 9th grade, three completed secondary education and one did not answer. Family income varied between 530 and 1,600EUR, but four parents chose not to answer this question. As for their profession, five were retired, one was an operational assistant, one was a telephone operator, one was a trainee, one was unemployed and another one did not answer.

Table 3

*Assessments of the content of the assistive technology: blind parents (n = 10)*

Scale Items	Score/frequency				
	1	2	3	4	5
Addresses the importance of the family in the infant's health	-	-	-	1	9
Content is reflective	-	-	2	3	5
Includes content that promotes dialog	-	-	-	4	6
Addresses various aspects on feeding	-	-	1	2	7
It helped to clarify a doubt	-	-	2	2	6
Theme depicts key aspects	-	-	-	4	6
Brought new knowledge on the topic	-	-	3	2	5
Addresses issues for parents with doubts	-	-	2	1	7

As for the pedagogical aspects and the remote access by people with visual impairment, the respective items

were also considered adequate by most participants (Table 4).

Table 4

*Assessments of the pedagogical aspects and the remote access to the assistive technology: blind parents (n= 10)*

Scale Items	Score/frequency				
	1	2	3	4	5
The technology is interesting for blind people	-	-	-	4	6
Encourages their independence	-	-	1	2	7
Stimulates the change in attitude and behaviour	-	-	3	2	5
Adequate time for assessment	-	-	2	2	6
Topics have a logical sequence	-	-	1	3	6
Corresponds to their level of knowledge	-	-	1	3	6
Adequate accessibility resources	-	-	-	4	6
Proper style of audio	-	-	1	4	5
Friendly and interesting tone of voice	-	-	-	5	5
It is interesting to be consulted online	-	-	-	2	8
Access to technology is practical and easy	-	-	1	1	8
Remote access contributes to the user's privacy	-	-	-	2	8
Remote access promotes the user's autonomy	-	-	2	1	7
Remote access is a viable means of health promotion	-	-	4	1	5
Website hosting the technology is accessible*	-	-	-	3	6

\*One of the participants did not answer this item

## Discussion

The introduction of new foods to the infant's diet is often experienced with anxiety by the parents, which makes the situation more difficult. The transition from breastfeeding to the introduction of formulas and processed foods should be discussed between health care professionals and parents (Brasil et al., 2012). It is natural for parents who have never taken care of children to need help from their families, health care professionals, books and media to clarify their doubts (Avery & Magnus, 2011).

The adaptation of the AT to the Portuguese population was important for the blind parents of this country to have access to this AT (Cezario et al., 2012). It is known that the use of regional food, suitable for the cultural reality of a given population, is essential for the child's development, through their nutritional gains. To this end, it is essential to identify the mothers' knowledge about child food so as to intervene by offering healthy food while respecting the family values (Gamarra Atero, Porroa Jacobo, & Quintana Salinas, 2010; Campagnolo et al., 2012).

The main differences identified between Portuguese and Brazilian practices were: in Brazil, the first new food introduced in the diet of the breastfeeding child is mashed fruit and, at the same time, water several times a day, depending on the child's age; the offer of juices, especially fruit juices rich in Vitamin C, after the infant cereals; the use of various soft seasonings to prepare the porridge, taking into account the family preferences; the introduction of yogurts should be avoided before the first year; the adoption of the family diet between the 8th and 10th months of life; gradual introduction of beef and offal between the 6th and 7th month; and discouragement of conservation of future meals (Ministério da Saúde, 2010; Silva et al, 2010). After the cultural adaptation of the assistive technology, its assessment by specialists in Child Health and Paediatrics, developing their professional practice in clinical settings, was essential. In addition to the assessment carried out by the specialists, it is important to understand the users' perception of the technology. During the process of assessing instruments and technologies, the opinion of representatives of the studied population should be



heard with a view to improving its characteristics for a given specificity (Pasquali, 2010).

As for the profile of the Portuguese participants who assessed the technology, some similarities in relation to the Brazilian evaluators of the first version of the technology stand out. A significant characteristic of Portuguese blind parents was the fact that, although there was an undifferentiated dissemination, most participants were women.

Other differences were also found, for example, regarding the level of education of most raters which in Brazil was middle school and in Portugal primary education. As for the family income and profession, Brazilian participants earned around one minimum wage (230EUR) and were service providers, while Portuguese participants earned around a minimum wage and most of them were retired due to disability. In addition, regarding the marital status, in both cases, most parents were married. Lastly, Portuguese participants were older than Brazilian ones.

In addition to these aspects, the actual assessment of the technology was quite similar between the parents from both countries. Most raters assigned scores of four and five to all items related to the AT, confirming that this is a health promotion strategy for this population (Cezario et al., 2012). Nursing must use different technologies to deliver health education consistent with the needs of the population (Nietzsche et al., 2012).

Assistive technology for people with visual impairment should consider their peculiarities of verbal and non-verbal communication. To this end, concrete objects should be verbally described and, whenever possible, associated with real objects to help create mental abstraction (Rebouças et al., 2012; Barbosa et al., 2011). In line with this, the description of the food before and after preparation allows blind people to mentally visualize what they are offering to their child.

The blind people targeted in this study have multiple possibilities of Internet access, relying on several strategies to use computers in the same way as sighted people. To contact new cultures, deepen and continue the studies, perform work-related activities, meet new people, among other possibilities, are some of the new perspectives provided to blind people by this access. It is, therefore, a means of promoting inclusion.

## Conclusion

The search for material in Portuguese databases, journals, books, manuals and websites which are specialized on baby feeding was not very significant, showing that there is no specific guidance on complementary feeding for this age group. In this scenario, the contribution of clinical and academic nurses for the cultural adaptation of the content of the AT to the Portuguese context was extremely valuable. This allowed us to include cultural expressions and specific foods of Portuguese cuisine for this age group.

At least two raters should assign a score of four or five to each assessed item, so that they could be validated. The adapted content was assessed by nurses and blind people in terms of the objectives, structure, design and relevance of the assistive technology. It should be highlighted that the content includes specific characteristics of the communication with the blind person in its description. According to blind parents, the content is important, reflective, promotes dialogue, addresses various aspects of baby feeding, clarifies doubts and addresses key aspects with new knowledge in which they had doubts.

As for its structure and design, the assistive technology was made available online. In this format, it was assessed by specialist nurses who considered that it is appropriate for both fathers and mothers; the information is correct clear and in adequate size; it has a logical sequence; addresses specific topics related to the complementary feeding of children; its language is suitable for the lay public and it encourages reflection on the topic. Blind parents considered the technology to be interesting for the blind person, to encourage independence and change of attitude, to have an adequate time, logical sequence and friendly tone, to be of practical and easy access, to favour privacy and autonomy and to promote health.

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## References

- Avery, A. B., & Magnus, J. H. (2011). Expectant father's and mother's perceptions of breastfeeding and formula feeding: A focus group study in three US cities. *Journal of Human Lactation*, 27(2), 47-54. doi: 10.1177/0890334410395753
- Barbosa, G. O. L., Wanderley, L. D., Rebouças, C. B. A., Oliveira, P. M. P., Almeida, P. C., & Pagliuca, L. M. F. (2011). Verbal and nonverbal communication of a blind mother with limited dexterity during infant feeding. *Acta Paulista de Enfermagem*, 24(5), 663-669. doi: 10.1590/S0103-21002011000500011
- Brasil, L. M. B. F., Neves, O. M. D., Amorim, C. S. C., Lopez, F. A., Árias, E. H. L., & Piani, P. P. F. (2012). Introdução de alimentos complementares em lactentes em Belém do Pará. *Revista Paraense de Medicina*, 26(1), 45-51.
- Campagnolo, P. D. B., Louzada, M. L. C., Silveira, E. L., & Vitolo, M. R. (2012). Práticas alimentares no primeiro ano de vida e fatores associados em amostra representativa da cidade de Porto Alegre, Rio Grande do Sul. *Revista de Nutrição*, 25(4), 431-439. doi: 10.1590/S1415-52732012000400001
- Carvalho, A. T., Silva, A. S. R., & Pagliuca, L. M. F. (2013). Accessibility in virtual moodle learning environment: literature review. *Revista de Enfermagem UFPE on line*, 7(esp), 969-976. Retrieved from <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewArticle/3479>
- Cezario, K. G., Oliveira, P. M. P., Abreu, M. S. N., & Pagliuca, L. M. F. (2012). Avaliação de tecnologia assistiva sobre alimentação complementar do lactente para pais cegos. In III Congresso de Investigação em Enfermagem Ibero-Americano e de Países de Língua Oficial Portuguesa. Coimbra, Portugal, 12-15 Junho 2012. Coimbra, Portugal: CIEIAPLOP.
- Gamarra Atero, R., Porroa Jacobo, M., & Quintana Salinas, M. (2010). Conocimientos, actitudes y percepciones de madres sobre la alimentación de niños menores de 3 años en una comunidad de Lima. *Anales de la Facultad de Medicina*, 71(3), 179-183.
- Hersh, M. A. (2010). The design and evaluation of assistive technology products and devices part 3: Outcomes of assistive product use. In: J. H. Stone & M. Blouin (Eds), *International encyclopedia of rehabilitation*. Retrieved from <http://cirrie.buffalo.edu/encyclopedia/en/article/312/>
- Ministério da Saúde. (2010). *Dez passos para uma alimentação saudável: Guia alimentar para crianças menores de dois anos*. Brasília, Brasil: Autor.
- Nietsche, E. A., Lima, M. G. R., Rodrigues, M. G. S., Teixeira, J. A., Oliveira, B. N. B., Motta, C. A. ... Farias, M. K. F. (2012). Tecnologias inovadoras do cuidado em enfermagem. *Revista Enfermagem UFSM*, 2(1), 182-189.
- Nóbrega, J. D., Andrade, A. B., Pontes, R. J. S., Bosi, M. L. M., & Machado, M. M. T. (2012). Identidade surda e intervenções em saúde na perspectiva de uma comunidade usuária de língua de sinais. *Ciência e Saúde Coletiva*, 17(3), 671-679. doi: 10.1590/S1413-81232012000300013
- Oliveira, P. M. P., Carvalho, A. L. R. F., & Pagliuca, L. M. F. (2014). Cultural adaptation of educative technology in health: String literature with a focus on breastfeeding. *Texto & Contexto Enfermagem*, 23(1), 134-141. doi: 10.1590/S0104-07072014000100016
- Oliveira, P. M. P., Rebouças, C. B. A., & Pagliuca, L. M. F. (2009). Construção de uma tecnologia assistiva para validação entre cegos: Enfoque na amamentação. *Revista Brasileira de Enfermagem*, 62(2), 837-843. doi: 10.1590/S0034-71672009000600006
- Pagliuca, L. M. F., Uchôa, R. S., & Machado, M. M. T. (2009). Pais cegos: Experiência sobre o cuidado dos seus filhos. *Revista Latino-Americana de Enfermagem*, 17(2), 271-264. doi: 10.1590/S0104-11692009000200021
- Pasquali, L. (2010). *Instrumentação psicológica: Fundamentos e práticas*. Porto Alegre: Brasil, Artmed.
- Polit, D. F., & Beck, C. T. (2011). *Fundamentos de pesquisa em enfermagem: Métodos, avaliação e utilização*. Porto Alegre, Brasil: Artmed.
- Rebouças, C. B. A., Pagliuca, L. M. F., Sawada, N. O., & Almeida, P. C. (2012). Validation of a non-verbal communication protocol for nursing consultations with blind people. *Revista Rene*, 13(1), 125-139.
- Sartoretto, M. L., & Bersch, R. (2014). *O que é tecnologia assistiva?* Retrieved from <http://www.assistiva.com.br/tassistiva.html>
- Silva, L. M. P., Venâncio, S. I., & Marchioni, D. M. L. (2010). Práticas de alimentação complementar no primeiro ano de vida e fatores associados. *Revista de Nutrição*, 23(6), 983-992. doi: 10.1590/S1415-52732010000600005