

Assessment of Educational Videos on the Prevention and Management of Infant Diarrhea: Documental Study

Elizamar Regina da Rocha Mendes¹, Jardeliny Corrêa da Penha²,
Ludmila Alves do Nascimento¹, Leidiane Minervina Moraes de Sabino¹,
Emanuella Silva Joventino³, Ádria Marcela Vieira Ferreira¹,
Olinda Costa Mota Teixeira¹, Maria de Fátima Pereira de Sousa Galvão¹,
Lorena Barbosa Ximenes¹

¹Federal University of Ceará, Fortaleza, Brazil

²Federal University of Piauí, Floriano, Brazil

³University of International Integration of African-Brazilian Lusophony, Redenção, Brazil

Email: jardelinypenha@yahoo.com.br

Received 27 August 2015; accepted 25 September 2015; published 28 September 2015

Copyright © 2015 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Objective: To evaluate the suitability of educational videos produced in Brazil that addressed aspects related to prevention and/or management of infant diarrhea according to content; language; graphic illustrations; stimulation for learning/motivation and cultural fit. **Method:** Documentary study, which evaluated six educational videos from an adapted and validated tool, the Suitability Assessment of Materials. Three nurses evaluated the videos. Data were processed using the Statistical Package for the Social Sciences, version 17.0, and presented in tables and graphics. **Results:** It was found that 4 (66.6%) of the educational videos were classified as appropriate, ranging from 60% to 63.3% of full approval, and 2 (33.3%) were assessed as higher, reaching up to 83.3% to 90% approval. Considering the socioeconomic and cultural contexts of the videos to the audience, they assigned notes ranging from 6 to 9 in a rating ranging from 0, the minimum score, to 10, the highest score. **Conclusion:** The educational videos were considered adequate, with positive results about the content on the prevention and management of infant diarrhea, being appropriate for the target audience. As a result, greater credibility is ratified as the use thereof, since these resources can contribute to health promotion and prevention of diarrhea in children.

Keywords

Diarrhea, Infantile, Educational Technology, Child Health

1. Introduction

Infant diarrhea is an important epidemiological indicator for public health, being directly associated with multiple factors, including the situations of poverty and conditions of sanitation, health quality, care with food, hygienic, cultural and behavioral habits from a community [1] [2]. One can also cite maternal habits, such as illiteracy, beyond the obstacles in access to health services and quality of the received care [3].

In this way, the nurse's role is indispensable in the health education process, when it aims to promote in individuals and/or groups in the community reflective attitudes about their own health condition, making them able to identify the causes and problems of certain diseases thus favoring the implementation of preventive and health-promoting actions [4].

Therefore, it is urgent for the use of appropriate technologies to health education practices, since they can contribute to the communication process, and increase treatment adherence and autonomy of the individual in decision-making, because information reinforces the verbalized instruction [5] [6].

Among these technologies, we highlight videos or audiovisual resources, which have been increasingly used since the 1950s, as an educational tool, as they allow further exploration of the topic discussed, as well as a better viewing of the contents, making the viewer have a greater ease in learning and in the development of the critical thinking [7].

To [8], educational programs should include educational videos to enable reflective provocations and experimentation, approaching thus the reality of the target population. However, it is known that there are some videos using many written resources (lettering) and little didactic, resembling classes, lectures or recorded interviews and, consequently enabling the indifference of those who watch them.

Recent studies show that a well-designed educational material and an easy understanding of information improve knowledge and satisfaction of individuals, favoring the development of actions that influence in the health standard and in decision-making, and contribute to reducing the use of services and health costs [9]. Therefore, the use of audiovisual resources can contribute to health promotion and prevention of certain diseases, such as diarrhea, through the dissemination of knowledge and orientations on such health aggravation.

However, it is urgent that before the use of such educational materials, these should be evaluated in order to ensure that are appropriate to the target audience. In this interim, many studies have used the Suitability Assessment of Materials (SAM), instrument for evaluating educational materials such as: study that validated a flipchart for promotion of maternal self-efficacy in breastfeeding [10]; building of an educational handbook for self-care in mastectomized women [11]; adequacy of prostate cancer education materials [12]; assessment of medications advertisements in television [13] and validation of an educational video content for promotion of maternal self-efficacy in preventing infant diarrhea [14].

Given the above, the relevance of this study is noted, because when evaluating educational videos produced in Brazil that address issues related to the prevention and management of infant diarrhea, the nurse can identify both positive aspects and shortcomings both to be using these videos as for the development of new audiovisual resources.

Therefore, this paper aimed to evaluate the suitability of educational videos that addressed aspects related to prevention and/or management of infant diarrhea according to content; language; graphic illustrations; stimulation for learning/motivation and cultural adequacy.

2. Method

This was a documentary research, in which the following steps have been fulfilled: collection of available videos from the previously selected institutions, according to the availability of the catalogs of videos on the Internet; selection of material; and evaluation through the proposed instrument.

Data were obtained from reading the synopses of the twenty one videos available in the catalogs of a foundation and a public university of the country. These institutions were chosen due to the fact that both stand out in the Brazilian scenario of audiovisual production and for having available catalogs of produced videos.

It was adopted as inclusion criterion videos that address the following themes: prevention and/or management of infant diarrhea. Exclusion criteria: videos that presented recording errors, precluding its analysis, videos longer than 25 minutes and/or produced in languages other than Portuguese. Therefore, six videos were selected, as shown in **Figure 1** and **Table 1**.

The videos were evaluated by three nurses with professional experience in one or more of the following areas

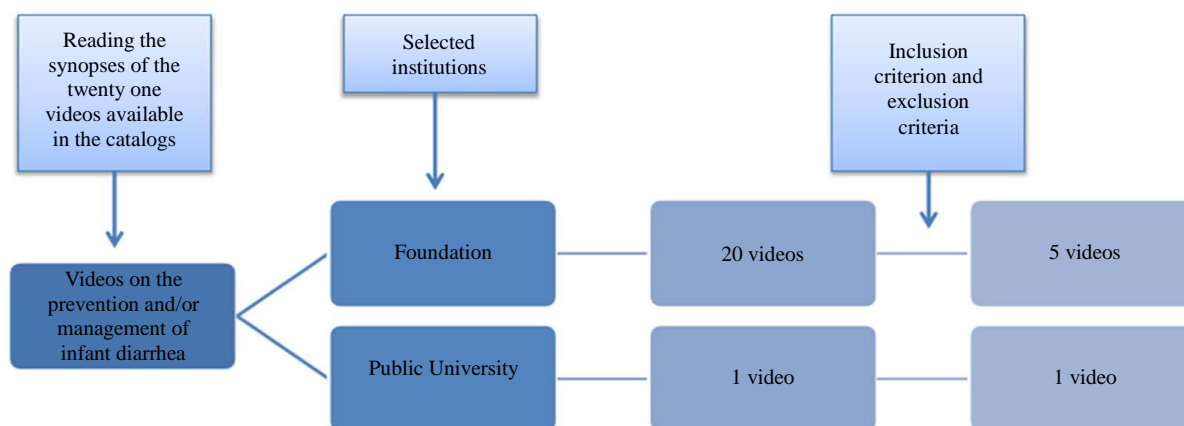


Figure 1. Flowchart of selection of videos. Brazil, 2015.

Table 1. Distribution of selected videos for evaluation. Brazil, 2015.

| No | VIDEO TITLE | YEAR | TARGET AUDIENCE | MAIN CONTENT | DURATION |
|----|---|------|------------------------------------|--|----------|
| 01 | Let's stop with diarrhea | 1996 | Community | Diarrhea concept, epidemiology, causes, symptoms, transmission, prevention and treatment of diarrhea. | 11 min |
| 02 | Diarrheal diseases: hygiene is the best form of prevention | - | Community | Diarrhea concept, classification, causes, symptoms, transmission, prevention, consequences and treatment of diarrhea. | 12 min |
| 03 | Health yes, cholera no | 1993 | Health professionals and community | Diarrhea concept, pathophysiology, classification, epidemiology, causes, symptoms, transmission, prevention, consequences and treatment of diarrhea. | 12 min |
| 04 | Diarrhea and ARI | 1997 | Health professionals | Pathophysiology, causes, symptoms, transmission and treatment of diarrhea. | 17 min |
| 05 | Health in network against outbreaks: diarrhea and other symptoms of contamination | 2010 | Health professionals | Diarrhea concept, pathophysiology, epidemiology, causes, symptoms, transmission, prevention, consequences and treatment of diarrhea. | 22 min |
| 06 | This recipe is worth a life | 1990 | Community | Diarrhea concept, causes, symptoms, transmission, prevention, consequences and treatment of diarrhea. | 21 min |

(infant diarrhea, child health, family/collective/public health, infectious and parasitic diseases). For evaluating the videos, we used the Suitability Assessment of Materials (SAM). SAM standardizes the evaluation of educational materials and it has been tested and validated with individuals from different cultural backgrounds. This instrument is built in scale shape enabling the evaluation and analysis of each of its items [15].

The SAM consists of 22 items, divided into five categories that evaluate educational materials printed, but only fifteen items were selected for this study, given that the instrument was adapted to evaluate videos. Following are the five categories, which include the areas of evaluation: Contents; Literacy/Appropriate language for the population; Graphic illustrations; Stimulation for learning and motivation; and cultural adequacy. Note also that at the end of the instrument, there was a question about the application of the videos for the target population to which each video was intended, corresponding to the community and/or health professionals, where the nurses could mark a number from 0 to 10, representing the strength of its recommendation. Therefore, the closer to 10, the higher its strength of recommendation.

The instrument has ratings ranging from “superior”, “appropriate” or “inappropriate”. To be classified as “superior”, the item should reach 2 points, to be “appropriate”, 1 point, and to be “inappropriate” the item receives no score. Thus, the video is called “superior” if it reaches between 70% - 100% approval by the nurses, “appropriate” if it gets 40% - 69% approval and “inappropriate” if the material reaches only 0% - 39% of the scores [16].

To collect the data, it was arranged a meeting of eight hours in January 2015. The initial evaluation of each video was made individually by the nurses and occurred in three stages. 1st stage: reading of the instrument and its evaluation criteria in order to minimize possible errors and doubts on the evaluation of the videos and the filling of the SAM; 2nd stage: the video was fully watched; and 3rd stage: the video was revised again in blocks (pauses). The first block was paused in 5 minutes after the beginning of the video, the second block, 5 minutes after the first break, and the third block, 5 minutes after the second break. In videos over 16 minutes in length, the third break took place after six or seven minutes due to the approaching end of the video, as instructed by [17]. During the breaks, it was marked the classification of the factors that the nurses deemed appropriate on the instrument itself.

After all the nurses have made their individual assessments of the videos, there was a meeting with them and the researchers to analyze any discrepancies and reach 100% agreement, thus ensuring the correct application of the SAM and the accuracy of the scores.

To determine the classification of the material, after having established the concordance between the nurses, we used the calculation proposed in SAM [17].

From this classification, the data were processed using the descriptive statistics, making use of the Statistical Package for the Social Sciences (SPSS) version 20.0, and were presented in tables and graphics, being analysed according to the literature.

Concerning the ethical aspects, the study was submitted for approval by the National Council of Ethics in Research (CONEP) with the protocol 106/2012.

3. Results

Below in **Table 2**, it is detailed the classification of each factor that makes up the SAM attributed by the nurses to the six evaluated videos.

Table 2. Classification of the video factors according to the Suitability Assessment of Materials. Brazil, 2015.

| FACTORS | 2 scores (Superior) n (%) | 1 score (Appropriate) n (%) | 0 score (Inappropriate) n (%) |
|---|------------------------------|--------------------------------|----------------------------------|
| 1. Content | | | |
| a) Objective is clear | 5 (83.3%) | 1 (16.7%) | - |
| b) Content covers behavior | 3 (50%) | 3 (50%) | - |
| c) The proposal is limited | 3 (50%) | 3 (50%) | - |
| d) Summary or review | 3 (50%) | 1 (16.7%) | 2 (33.3%) |
| 2. Appropriate language for the population | | | |
| a) Reading level | 5 (83.3%) | - | 1 (16.7%) |
| b) Active voice style | 2 (33.3%) | 3 (50%) | 1 (16.7%) |
| c) Vocabulary uses common words | 3 (50%) | 3 (50%) | - |
| d) Firstly the context | 2 (33.3%) | 4 (66.7%) | - |
| 3. Graphic illustrations, lists and tables | | | |
| a) Cover | 1 (16.7%) | 4 (66.7%) | 1 (16.7%) |
| b) Illustrations relevance | 4 (66.7%) | 2 (33.3%) | - |
| 4. Stimulation for learning and motivation | | | |
| a) Interaction is included in the text and/or in the images. | - | 5 (83.3%) | 1 (16.7%) |
| b) Desired behavior patterns are modeled or shown in specific terms | 3 (50%) | 3 (50%) | - |
| c) Motivation/self-efficacy | - | 6 (100%) | - |
| 5. Cultural adequacy | | | |
| a) Cultural game – logic, language and experience (LLE) | 5 (83.3%) | 1 (16.7%) | - |
| b) Cultural image and examples | 4 (66.7%) | 1 (16.7%) | 1 (16.7%) |
| Total | 43 (40.9%) | 40 (38%) | 7 (6.6%) |

Source: Prepared by author.

The first category of SAM variables relates to the content of the material evaluated, divided into four items, as shown in **Table 2**. In the item “objective is clear” five videos (83.3%) were considered superior and only 1 (16.7%), appropriate. In the items “content covers behavior” and “the proposal is limited”, 3 (50%) videos were assessed as superior and 3 (50%) appropriate. When it comes to the item “summary or review”, half of the videos, 3 (50%) were classified as superior and 2 (33.3%) of them as inappropriate.

On the appropriate language for the population, in the item reading level, 5 (83.3%) videos were considered superior and only 1 (16.7%) was rated as inappropriate. In relation to the voice style, 3 (50%) videos were considered appropriate and only 1 (16.7%) as inappropriate. In the vocabulary item 3 (50%) were classified as superior, and as appropriate the other half of the videos, 3 (50%).

On the assessment of the item “cover”, 4 (66.7%) videos were classified as appropriate; 1 (16.7%), superior; and 1 (16.7%), inappropriate. Regarding the item “illustrations relevance”, 4 (66.7%) videos were considered superior and 2 (33.3%), appropriate.

Considering the “stimulation for learning”, in the item “interaction”, were classified as appropriate 5 (83.3%) videos and only 1 (16.7%) inappropriate. Concerning the item “behavior patterns”, 3 (50%) videos were considered superior and 3 (50%) appropriate. As for the “motivation”, all 6 (100%) were assessed as appropriate videos.

Regarding the item “cultural game - logic, language and experience”, 5 (83.3%) videos were considered superior and 1 (16.7%) appropriate. As for item “cultural image”, 4 (66.7%) achieved superior classification, 1 (16.7%) was appropriate and 1 (16.7%) inappropriate.

Next, in **Table 3**, the data from the general evaluation of the nurses are presented, in other words, the total sum given to the six educational videos, according to the SAM instrument.

According to **Table 3**, it can be seen that the six educational videos, 4 (66.6%) were classified as appropriate, ranging from 60% to 63.3% of total approval and 2 (33.3%) videos were evaluated as superior, reaching between 83.3% to 90% of approval among the nurses. Thus, the videos showed excellent level of approval, given that to be considered this way they should obtain 70% to 100% of approval by the nurses.

In **Graphic 1**, the grades given by the nurses are presented, considering the socioeconomic and cultural contexts presented in the videos for the target audience, which represents its strength of recommendation.

As observed in **Graphic 1**, the videos 01 and 02 received similar grades, 6; the videos 04 and 06 reached the grade 9; and the videos 03 and 05 obtained intermediate grades when compared to the others, respectively, 7 and 8.

4. Discussion

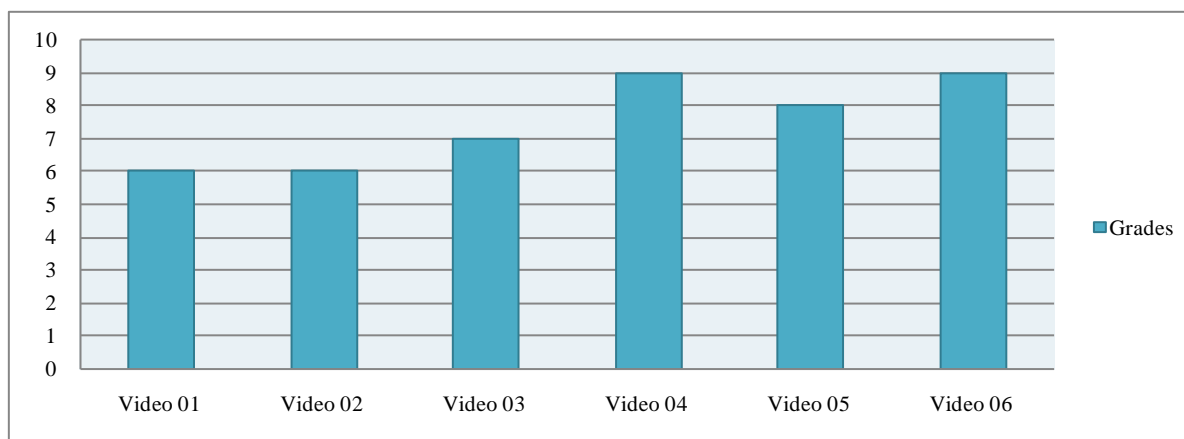
In the 90s, due to the intense mobilization to reduce infant mortality in Brazil, the efforts of the health sector were aimed at fighting infectious diseases and malnutrition. Thus, there was an incentive to the production of educational materials that addressed the diseases that most affected children, among them diarrhea. Therefore, occurred the biggest production of Brazilian videos by health institutions related to this grievance, emphasizing mainly the prevention and management [18] [19].

Prevention of infant diarrhea may be associated with aspects related to the care and health of the child. Such as exclusive breastfeeding, vaccination against rotavirus, not bottle-feeding and proper cleaning of the tools used

Table 3. Total sum of the SAM scores. Brazil, 2015.

| Videos | Content n (scores) | Appropriate language n (scores) | Graphic illustrations, lists and tables n (scores) | Stimulation for learning n (scores) | Cultural adequacy n (scores) | SAM sum n (scores) | Interpretation according to the calculation n (%) |
|--------|--------------------|---------------------------------|--|-------------------------------------|------------------------------|--------------------|---|
| 1 | 7 | 5 | 2 | 3 | 2 | 19 | 63.3% |
| 2 | 5 | 4 | 3 | 3 | 3 | 18 | 60% |
| 3 | 3 | 5 | 4 | 3 | 3 | 18 | 60% |
| 4 | 8 | 8 | 3 | 4 | 4 | 27 | 90% |
| 5 | 5 | 5 | 2 | 3 | 4 | 19 | 63.3% |
| 6 | 8 | 7 | 2 | 4 | 4 | 25 | 83.3% |

Source: Prepared by author.



Source: Prepared by author.

Graphic 1. Grades given by the nurses representing the videos' strength of recommendation for the target audience. Brazil, 2015.

in infant feeding, and therefore constitute actions taken from healthy habits that through educational activities can influence the behavior of individuals, families and community [20]-[23].

To [24], bring the reality of infant diarrhea to the spaces of health discussion through health education activities can stimulate the participation of caregivers, leading them to think that diseases bring a very large family and social weight, requiring a "task force" for their control, where each one has its active role. It is therefore important that health professionals, especially nurses, use educational materials that enable individuals and families to develop autonomy and ability to build the necessary care to prevent infant diarrhea.

As already mentioned, among these educational materials, videos are cited. Some studies show that the video duration can influence on the viewers' attention. Videos lasting less than 10 minutes do not allow the proper exploration of the subject, and the ones longer than 20 minutes can provide the distraction of students, hindering the learning process. It was found that all the videos evaluated in the study are from 11 to 20 minutes long [25] [26].

The evaluated videos can be considered ideal for their use in health education activities. Since according to a survey developed by [27], using an educational video in order to promote maternal self-efficacy to prevent infant diarrhea with duration shorter than 20 minutes, positive results have been achieved for increased knowledge and confidence of mothers in the prevention and management of diarrhea in their children.

As to the factors evaluated by the SAM instrument, regarding the content factor, the item behavior assessed the information of the videos on habits and conducts for prevention and management of infant diarrhea, so that 50% of the videos were superior and the others appropriate. On this item, study of mothers who accompanied their children hospitalized for diarrhea showed that maternal knowledge was rooted in cultural beliefs and in the symptoms that the child had. Although some reports have demonstrated basic notions of prevention and treatment of diarrhea, they were not enough to avoid the occurrence of this disease [28]. This implies that the minimum and superficial knowledge about this condition may not be able to prevent the occurrence of it.

Regarding the literacy factor/appropriate language for the population, it was observed that, considering all items, most videos received a superior or appropriate classification, only 1 (16.7%) had inappropriate reading level and one (16, 7%) in the active voice style, was considered inappropriate. This denotes that the videos received a satisfactory evaluation, since the Ministry of Health recommends that educational materials should have clear, objective and adequate language to customer's characteristics, serving thus the objectives of the target population [29].

To [17], the text must be brief, direct, with simple language and understandable to the intended clientele. Thus, the appropriate language of the videos to the target population makes the content more comprehensible, which may result in positive results in the daily lives of these families.

Regarding graphic illustrations, 4 (66.7%) were considered superior videos and 2 (33.3%), appropriate. According to [17] pictures and colors used in educational videos must be decisive factors in visual communication, having as higher aim, arouse the audience's attention and clearly portray the purpose of the material. This, in

order to present key messages visually, without unnecessary details so there is no distraction from the viewer and the video can reach its goal.

Considering the stimulation for learning and motivation, all videos have been assessed as appropriate. This factor has relations with the Theory of Self-efficacy, which states that self-efficacy is the belief that people have in transforming their actions in order to get a desired outcome [30], being contemplated by four sources, which are: experiences of personal success, vicarious experiences; verbal persuasion; and psychological and affective states [31].

Each of these sources has specific strategies that raise self-efficacy. Thus, with regard to personal experiences, it is suggested images with actions that demonstrate success during its execution, so that self-efficacy can be increased while individuals identify this source of personal strength [32].

Some videos showed scenes of mothers breastfeeding their children with diarrhea and arguing about the subject. These images can influence to promote prevention and proper management of diarrheal diseases. According to [30], this is called modeling, in other words, when using others' examples as the source for the maintenance of a self-efficacy.

Regarding the vicarious experience, this is associated with the stimulation for learning and motivation factor, for in it the individual shape his belief from watching others performing certain tasks, taking them as a model and imitating their conducts and behaviors [32]. To [17], educational materials are suitable when the readers see illustrations and graphics that are easily recognizable and that show similar examples to their culture.

In addition, strategies such as the use of educational videos improve maternal self-efficacy through verbal persuasion, given that women are influenced by third parties' and health professionals' guidance, either in person or through technological resources, and also improve psychological and affective states through images that focus on positive aspects of previous experiences [32].

Whereas educational videos had satisfactory evaluation in the stimulation for learning and motivation, it can be inferred that they can influence individuals by watching the videos, motivating the performance of responses that are similar to the images.

As for the culture adequacy, it can be seen that in the item language and experience, 5 (83.3%) videos were considered superior and 1 (16.7%) appropriate. This domain is essential for the evaluation of educational materials, being relevant the identification of the culture, since the conditions of life, work and risk of disease in the target population are linked to values, habits, beliefs and knowledge of their experience [33] [34].

According to [35] illustrations and/or pictures must be encoded from local situations with realistic examples to promote discussion and awareness through problem analysis. So, the mother who observes another person held as an example or model will tend to make the same behaviors in order to achieve positive results, feeling more confident and being able to achieve the same success in health promotion actions of their children.

Thus, the guidelines transmitted on prevention and/or management of infant diarrhea in educational videos should be in accordance with the reality experienced by the target audience, as its viewers will only follow the guidelines if they believe that they are correct and executable on their everyday.

Moreover, it is necessary that health professionals explore the various educational materials about diarrheal disease, through strategies that facilitate communication on the prevention of the disease and its proper management.

5. Conclusions

The evaluation of the educational videos showed that using the SAM tool gives opportunity to a better perception as for various aspects: suitability of content; of language; of graphic illustrations; stimulation for learning/motivation and cultural adequacy.

The evaluated educational videos were appropriate according to SAM, obtaining positive results about the content on the prevention and management of infant diarrhea, being appropriate for the target audience. Thus, it is ratified greater credibility as the use thereof, as they are facilitating tools to health professionals, especially to nurses who work in primary health care, being able to contribute for the development of skills and to promote the autonomy of individuals.

The limitation of the study was due to the fact that the videos were evaluated by only one target audience, in this case, health professionals, not being evaluated by the community, to whom some of the videos were also intended. Thus, it is recommended that educational materials should also be evaluated by the community, not

only by health professionals, to better tailor the materials to the target audience reality and thus favor behavioral changes.

Acknowledgements

We would like to thank to two institutions that provided the videos assessed in this study.

References

- [1] Queiroz, J.T.M., Heller, L. and Silva, S.R. (2009) Analysis of the Correlation of Diarrhea Disease Occurrence with Drinking-Water Quality in the City of Vitória-ES. *Saúde e Sociedade*, **18**, 479-489. <http://dx.doi.org/10.1590/S0104-12902009000300012>
- [2] Brazil (2010) Infectious and Parasitic Diseases: Pocket Guide. Ministry of Health, Secretariat of Health Surveillance, Department of Epidemiological Surveillance, Brasília.
- [3] Motta, M.E.F.A., Silva, G.A.P., Melo Jr., A.V.P., Lira, P.I.C. and Lima, M.C. (2012) Risk Factors of Higher Occurrence of Diarrheal Episodes in the First Year of Life. *Revista Médica de Minas Gerais*, **17**, 10-16.
- [4] Freitas, A.A.S. and Cabral, I.E. (2008) Caring Patient with Tracheotomy: Analyze of an Educative Leaflet. *Escola Anna Nery*, **12**, 84-89. <http://dx.doi.org/10.1590/S1414-81452008000100013>
- [5] Hoffmann, T. and Worrall, L. (2004) Designing Effective Written Health Education Materials: Considerations for Health Professionals. *Disability and Rehabilitation*, **26**, 1166-1173. <http://dx.doi.org/10.1080/09638280410001724816>
- [6] Sousa, C.S. and Turrini, R.N.T. (2012) Construct Validation of Educational Technology for Patients through the Application of the Delphi Technique. *Acta Paulista de Enfermagem*, **25**, 990-996. <http://dx.doi.org/10.1590/S0103-21002012000600026>
- [7] Bontentuit, J.J.B. and Coutinho, C.P. (2009) Development of Educational Videos with Windows Movie Maker and Youtube: An Experience in Higher Education. Lusófona University, Lisboa.
- [8] Gomes, L.F. (2008) Didactic Video: A Proposal for Analysis Criteria. *Revista Brasileira de Estudos Pedagógicos*, **89**, 477-492.
- [9] Pommier, J., Guevel, M.-R. and Jourdan, D. (2010) Evaluation of Health Promotion in Schools: A Realistic Evaluation Approach Using Mixed Methods. *BMC Public Health*, **10**, 43. <http://dx.doi.org/10.1186/1471-2458-10-43>
- [10] Rodrigues, R.P., Nascimento, L.A., Dodt, R.C.M., Oriá, M.O.B. and Ximenes, L.B. (2013) Validation of a Flipchart for Promotion of Self-Efficacy in Breastfeeding. *Acta Paulista de Enfermagem*, **26**, 586-593. <http://dx.doi.org/10.1590/S0103-21002013000600013>
- [11] Oliveira, T.C.R. and Latorre, M.R.D.O. (2010) Trends in Hospital Admission and Infant Mortality from Diarrhea: Brazil, 1995-2005. *Revista de Saúde Pública*, **44**, 102-103. <http://dx.doi.org/10.1590/S0034-89102010000100011>
- [12] Weintraub, D., Malisk, S.L., Fink, A., Choe, S. and Litwin, M.S. (2004) Suitability of Prostate Cancer Education Materials: Applying a Standardized Assessment Tool to Currently Available Materials. *Patient Education and Counseling*, **55**, 275-280. <http://dx.doi.org/10.1016/j.pec.2003.10.003>
- [13] Kaphingst, K.A., Rudd, R.E., DeJong, W. and Daltroy, L.H. (2004) Literacy Demands of Product Information Intended to Supplement Television Direct-to-Consumer Prescription Drug Advertisements. *Patient Education and Counseling*, **55**, 293-300. <http://dx.doi.org/10.1016/j.pec.2003.11.003>
- [14] Vasconcelos, I.A. (2014) Educational Video Validation for Promotion of Maternal Self-Efficacy in Preventing Childhood Diarrhea. Monograph, Federal University of Ceará, Fortaleza.
- [15] Tobar, F. and Yalour, M.R. (2001) How Do Thesis in Public Health: Advice and Ideas to Formulate Projects and Write Theses and Research Reports. FIOCRUZ, Fortaleza.
- [16] Doak, C.C., Doak, L.G. and Root, J.H. (1977) Teaching Patients with Low Literacy Skills. 2nd Edition, Lippincott, Philadelphia.
- [17] Doak, C.C., Doak, L.G. and Root, J.H. (1996) Learner Verification and Revision of Materials. In: Doak, C.C., Doak, L.G. and Root, J.H., Eds., *Teaching Patients with Low Literacy Skills*, 2nd Edition, Lippincott Company, Philadelphia, 167-188. [http://dx.doi.org/10.1016/S0140-6736\(11\)60055-X](http://dx.doi.org/10.1016/S0140-6736(11)60055-X)
- [18] Victora, C.G., Aquino, E.M.L., Leal, M.C., Monteiro, C.A., Barros, F.C. and Szwarcwald, C.L. (2011) Health of Mothers and Children in Brazil: Progress and Challenges. *The Lancet*, **377**, 2042-2053.
- [19] Brazil (2011) Administrations and Policymakers Health Care of the Child: 70 Years of History. Ministry of Health, Health Care Secretariat, Health Technical Department of Child and Breastfeeding, Brasília.
- [20] Bener, A., Ehlayel, M.S. and Abdulrahman, H.M. (2011) Exclusive Breast Feeding and Prevention of Diarrheal Dis-

- eases. A Study in Qatar. *Revista Brasileira de Saúde Materno Infantil*, **11**, 83-87.
<http://dx.doi.org/10.1590/S1519-38292011000100009>
- [21] Atencio, R., Bracho, A., Porto, L., Callejas, D., Costa, L., Monsalve, F., *et al.* (2013) Diarrheic Syndrome Due to Rotavirus in Immunized and Non-Immunized Children Under 5, in the City of Maracaibo, State of Zulia, Venezuela. *Kasmera*, **41**, 59-68.
- [22] Agustina, R., Sari, T.P., Satroamidjojo, S., Bovee-Oudenhoven, I.M.J., Feskens, E.J.M. and Kok, F.J. (2013) Association of Food-Hygiene Practices and Diarrhea Prevalence among Indonesian Young Children from Low Socioeconomic Urban Areas. *BMC Public Health*, **13**, 1-12. <http://dx.doi.org/10.1186/1471-2458-13-977>
- [23] Cervera, D.P.P., Parreira, B.D.M. and Goulart, B.F. (2011) Health Education: Perception of Primary Health Care Nurses in Uberaba, Minas Gerais State. *Ciência & Saúde Coletiva*, **16**, 1547-1554.
<http://dx.doi.org/10.1590/S1413-81232011000700090>
- [24] Nascimento, L.A., Joventino, E.S., Andrade, L.C.O., Gomes, A.L.A. and Ximenes, L.B. (2014) Evaluation of Educational Videos Produced in Brazil about Infant Diarrhea: A Documental Study. *Online Brazilian Journal of Nursing*, **13**, 311-320. <http://dx.doi.org/10.5935/1676-4285.20144702>
- [25] Moraes, A.F. (2008) Cultural Diversity in Health-Related Videos. *Interface*, **12**, 811-822.
<http://dx.doi.org/10.1590/S1414-32832008000400011>
- [26] Comodo, C.N., Prette, A.D., Prette, Z.A.P.D. and Manólio, C.L. (2011) The Bia Ride (Video): Presentation and Internal and External Validity of a Resource for the Promotion of Preschoolers Social Skills. *Psicologia: Teoria e Prática*, **3**, 34-47.
- [27] Joventino, E.S., Ximenes, L.B., Almeida, P.C. and Oria, M.O.B. (2013) The Maternal Self-Efficacy Scale for Preventing Early Childhood Diarrhea: Validity and Reliability. *Public Health Nursing*, **30**, 150-158.
<http://dx.doi.org/10.1111/j.1525-1446.2012.01042.x>
- [28] Rego, A.P., Lima, S.P., Costa, M.C.M.D.R., Santos, L.M.C., Medeiros, W.R. and Cavalcante, E.S. (2014) Knowledge of the Mothers of Hospitalized Children in a University Hospital regarding Diarrhea. *Revista da Rede de Enfermagem do Nordeste*, **15**, 29-36. <http://dx.doi.org/10.15253/2175-6783.2014000100005>
- [29] Brazil (2005) Preparation of Printed Educational Materials for Distance Learning Programs: Guidelines for Authors. Ministry of Health, Oswaldo Cruz Foundation, National School of Public Health, Brasília.
- [30] Bandura, A. (1977) Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, **84**, 191-215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- [31] Bandura, A. and Adams, N.E. (1982) Microanalysis of Action and Fear Arousal as a Function of Differential Levels of Perceived Self-Efficacy. *Journal of Personality and Social Psychology*, **43**, 5-21.
<http://dx.doi.org/10.1037/0022-3514.43.1.5>
- [32] Eidman, C.K. (2011) Enhancing Breastfeeding Self-Efficacy through Prenatal Education. Dissertation, St. Catherine University, Minnesota.
- [33] Freire, P. (1997) Pedagogy of Autonomy: Knowledge Necessary for Educational Practice. Paz e Terra, São Paulo.
- [34] Andrade, V. and Coelho, M.A.S.M. (1997) Educational Process in Promoting Health Community Actions. *Revista Brasileira de Cancerologia*, **43**, 57-63.
- [35] Freire, P. (1999) Education as the Practice of Freedom. Paz e Terra, Rio de Janeiro.