

Construction and validation of an educational gerontotechnology on frailty in elderly people

Construção e validação de gerontotecnologia educativa sobre fragilidade em idosos
Construcción y validación de gerontotecnología educativa sobre fragilidad en ancianos

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ABSTRACT

Objective: to construct and validate an educational gerontotechnology on frailty in elderly people. **Method:** a methodological study developed in three stages: educational video construction, validation by expert judges and elderly people. Validation was carried out by 22 judges and 22 elderly people. Educational Content Validation Instrument was used for judges and questions adapted from the Suitability Assessment of Materials questionnaire for elderly people. For validation, agreement criterion greater than 80% was considered, verified using Content Validation Index and binomial test. **Results:** the video addresses recommendations for elderly people at risk of frailty and health-promoting habits, using cordel literature. An agreement greater than 80% was verified in all items assessed by judges and the target audience. **Conclusion:** the video proved to be valid in terms of content and appearance by judges and elderly people, with the potential to mediate health-promoting educational practices in healthy aging.

Descriptors: Frailty; Aged; Educational Technology; Audiovisual Aids; Health Education.

RESUMO

Objetivo: construir e validar gerontotecnologia educativa sobre fragilidade em idosos. **Métodos:** estudo metodológico, desenvolvido em três etapas: construção de vídeo educativo, validação por juízes *experts* e idosos. O processo de validação foi realizado por 22 juízes e 22 idosos. Utilizaram-se Instrumento de Validação de Conteúdo Educacional para juízes e questões adaptadas do questionário *Suitability Assessment of Materials* para os idosos. Considerou-se, para a validação, o critério de concordância superior a 80%, verificados a partir do Índice de Validação de Conteúdo e teste binomial. **Resultados:** o vídeo aborda as recomendações para idosos em risco de fragilização e hábitos promotores da saúde, utilizando a literatura de cordel. Foi verificada concordância superior a 80% em todos os itens avaliados pelos juízes e pelo público-alvo. **Conclusão:** o vídeo se mostrou válido quanto ao conteúdo e aparência por juízes e pelos idosos, com potencial para mediar práticas educativas promotoras de saúde no envelhecimento saudável.

Descritores: Fragilidade; Idoso; Tecnologia Educacional; Recursos Audiovisuais; Educação em Saúde.

RESUMEN

Objetivo: construir y validar la gerontotecnología educativa sobre la fragilidad en ancianos. **Método:** estudio metodológico, desarrollado en tres etapas: construcción de un vídeo educativo, validación por jueces expertos y ancianos. El proceso de validación fue realizado por 22 jueces y 22 ancianos. Se utilizó el Instrumento de Validación de Contenido Educativo para jueces y preguntas adaptadas del cuestionario *Suitability Assessment of Materials* para ancianos. Para la validación, se consideró el criterio de concordancia mayor al 80%, verificado a partir del Índice de Validación de Contenido y prueba binomial. **Resultados:** el vídeo aborda las recomendaciones para ancianos en riesgo de fragilidad y hábitos que promueven la salud, utilizando literatura de cuerdas. Se verificó una concordancia superior al 80% en todos los ítems evaluados por los jueces y por el público objetivo. **Conclusión:** el vídeo demostró ser válido en términos de contenido y apariencia por parte de jueces y ancianos, con el potencial de mediar en prácticas educativas promotoras de la salud en el envejecimiento saludable.

Descritores: Fragilidad; Anciano; Tecnología Educacional; Recursos Audiovisuales; Educación en Salud.

INTRODUCTION

Frailty is characterized by a state of vulnerability associated with reduced homeostatic reserve and resistance to endogenous and exogenous stressors⁽¹⁾. In an enlarged and multidimensional view, it reflects the dynamic interaction between physical, psychological and social aspects, which result in an increased risk for negative health outcomes, such as falls, hospitalization and death⁽²⁾.

While frailty prevalence in elderly people in economically developed countries is approximately 10%, low- and middle-income countries have higher rates, with significant heterogeneity⁽³⁾. In Brazil, frailty prevalence is about 13.5% among elderly people aged 60 and over and 16.2% among elderly people over 65 years old, having as predictors low education, residence without a partner, low self-perception of health, comorbidities and limitations to perform Basic Activities of Daily Living (BADL)⁽⁴⁾.

Internationally indicated as responsible for increasing the use of resources and higher health costs among elderly people⁽⁵⁾, frailty directly impacts global functionality, which fosters the need to operationalize strategies for early identification and prevention through educational gerontotechnologies, which facilitate communication. They favor the empowerment of elderly people in developing their autonomy for healthy practices and reinforce self-efficacy for behavior change⁽⁶⁾.

It is important to highlight that the involvement of nurses in the conception and creation of technologies is essential to strengthen nursing praxis and guarantee products consistent with their daily practice, expanding the possibilities of approaching nursing in the teaching-learning process and implementing self-care practices. This can be a differential in optimizing quality of life and adopting positive behavioral measures⁽⁷⁾ essential for elderly people at risk of frailty.

In this context, when verifying a gap in educational technologies aimed at addressing frailty in elderly people in Brazil⁽⁸⁻⁹⁾, this study has as its object the development of soft-hard educational technology, of the video type, to promote the health of elderly people in a process of frailty.

OBJECTIVE

To build and validate educational gerontotechnology on frailty in elderly people.

METHODS

Ethical aspects

This study is part of a macroproject entitled "*Programa educativo para idosos em risco de fragilidade*", developed by researchers from the Study Group on the Multidimensionality of Aging, Health and Nursing (GEMESE - *Grupo de Estudos sobre a Multidimensionalidade do Envelhecimento, Saúde e Enfermagem*) at *Universidade Federal do Piauí* (UFPI). It was approved by the Research Ethics Committee Involving Human Beings at UFPI, following all the ethical precepts in force in Resolution 466/2012 of the Brazilian National Health Council (*Conselho Nacional de Saúde*).

Design, study site and period

Methodological study, guided by STROBE, adapted from EQUATOR and subdivided into three phases: construction of an educational video, validation by judges and evaluation by the target audience. The educational gerontotechnology produced consists of a video of social intervention, developed based on the recommendations for constructing audiovisual materials, which consists of pre-production, production, and post-production⁽¹⁰⁾.

Content validation took place from February to April 2019, while appearance validation, performed in Basic Health Units, occurred in August 2019.

Population or sample; inclusion and exclusion criteria

For judge selection, a sample calculation was performed with a formula for finite population: $n = Za \cdot P \cdot (1 - P) / e^2$ ⁽¹¹⁾, in which "Za" (confidence level) was agreed at 95%; "P" (proportion of experts who agree with the pertinence of the concepts/scenes in the video) was set at 85%; and "e" (expected difference) was 15%, making up a sample of 22 participants.

For recruiting content judges, network or snowball sampling was used, which consists of a non-probabilistic sampling technique by reference chains, in which the initial participants successively indicate new participants. The selection of experts was carried out through consultations on the *Curriculum Lattes* Platform, according to pre-established criteria⁽¹²⁾, in which each specialist should present a minimum score of five points. Health professional with experience in assistance, teaching or research, with an emphasis on health promotion in gerontology were included in this study. Professionals who did not fill out the collection instrument were excluded.

Through searches, 80 health professionals were identified and contacted by e-mail (via Google form), in which they received an invitation letter to participate in the research, Informed Consent Form (ICF), questionnaire for professional characterization, storyboard and electronic form for validation, formed by Educational Content Validation Instrument (ECVI) and questions related to alignment with the principle of self-efficacy.

As it is a technology focused on health education and promotion of healthy lifestyle habits for elderly people, video preparation was based on the construct of self-efficacy (SE), a basic principle of human motivation and a predictor of behavioral persistence, being an important mediator therapeutic changes⁽¹³⁾.

ECVI consists of a form built and validated for the evaluation of educational content, composed of 18 questions related to objective, structure, presentation and relevance⁽¹⁴⁾. In this stage, the first 22 responses from professionals were included.

Study protocol

In pre-production, the essential elements for video elaboration were defined: storyline (synopsis), script, script and storyboard. Contents were selected through a review of national and international literature, published on the subject in databases: Latin American & Caribbean Literature in Health Sciences (LILACS), consulted by the Virtual Health Library (VHL); Cumulative Index to

Nursing and Allied Health Literature (CINAHL); Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed; Web of Science, via Main Collection (Thomson Reuters Scientific), COCHRANE and Scopus, accessed through CAPES Portal. The descriptors used to carry out the search were “elderly” and “frailty”, identified in the Medical Subject Headings (MeSH), title CINAHL and in the Health Sciences Descriptors (DeCS – *Descritores em Ciências da Saúde*), being combined through Boolean operators “AND” and “OR”, with no temporary or language limit.

To build the script, we used the cordel literature strategy for popular education, aiming to bring dialogue closer together, expand discussions and enable reflection for decision-making and self-care practice. We also opted for the production of video with animations, optimizing the narrative presentation of facts and interface between the playful and the real.

After the storyboard was produced by a specialized design and communication company, under the researcher’s supervision, content validation by expert gerontology judges followed.

Subsequent to storyboard validation, adaptations were made to the script, inclusion of characters and changes in the sequence of scenes, following the video production by the company mentioned above. Each image was first constructed in pencil, then vectorized in Corel Draw, converted to an object in Photoshop and animated in After Effects.

After completing the video editing and production, educational gerontechnology was subjectively assessed by elderly people assisted by a Family Health Strategy in the city of Teresina (PI), selected for convenience. For sample calculation, the same standardization of the calculation was used for the sample of content judges, totaling 22 elderly. Robust elderly people with low to moderate risk of vulnerability were included, according to the identification protocol for vulnerable elderly (VES-13) living in the community⁽¹⁵⁾. Among the exclusion criteria, we highlight elderly people who presented low cognition based on the criteria established by the Mini Mental State Examination (MMSE)⁽¹⁶⁾ and who have not completed the complete filling of the appearance assessment instrument.

The recruitment of elderly people was carried out with the support of the Family Health teams of the selected Basic Health Unit. Elderly people were invited, in advance, to attend the meeting, at a time previously scheduled. On that occasion, the objectives of the study were explained, the Informed Consent Form was signed and the video was watched on a 100-inch projection screen, in a room booked for group activities at Basic Health Unit.

After watching the video, elderly people answered a form with questions for sociodemographic characterization (age, education level, occupation and family income), qualitative assessment of the educational material (understanding, attractiveness, SE, cultural acceptance, persuasion and motivation) and questions adapted from “Suitability Assessment of Materials” (SAM). The SAM consists of a questionnaire to assess the difficulty and convenience of educational materials. It uses a Likert scale (0=inadequate, 1=partially adequate, 2=adequate), evaluating the following attributes: content, literacy requirement (language), illustrations, layout and presentation, stimulation/motivation of learning and cultural adequacy⁽¹⁷⁾.

Analysis of results and statistics

The data were analyzed using software R, version 3.1.1. For validation analysis, the Content Validity Index (CVI) was used through the following indices: I-CVI (Item-level Content Validity Index) - number of judges who evaluate the item as relevant and very relevant and S-CVI/AVE (Scale-Level Content Validity Index, Average Calculation Method) - proportion of scale items assessed as relevant and very relevant by each judge⁽¹⁸⁾. Items that obtained agreement levels greater than or equal to 80% (0.8)⁽¹⁹⁾. The binomial test was used to verify the proportion of agreement, considering it statistically significant when equal to or greater than 0.8⁽²⁰⁾, with a significance level of 5%.

RESULTS

The educational video addresses, playfully, the reflections of an elderly person who discovers the frailty syndrome when experiencing the recognition of the new age, associated with fears, stereotypes and physiological changes typical of aging. Educational information is passed on through the figure of a nurse, who shows signs of frailty, recommendations for elderly people at risk of frailty and health-promoting habits. The final version of the educational video lasts 11 minutes and 25 seconds, as shown in Figure 1.



Caption: Perder peso – lose weight; fraco, sem força – weak, without strength; muda e viva melhor – change and live better; a prosa de um recém idoso – the prose of a new elderly.

Figure 1 - Sequence of the content of the educational video for elderly people about frailty, Teresina, Piauí, 2019

The judges who validated the content were predominantly female (86.4%, n=19), aged 42.95 ± 11.37 years. Regarding academic education, 81.7% (n=18) were nurses, 9.1% (n=2) were psychologists and 4.5% (n=1) were pharmacists and occupational therapists. 59.1% (n=13) of the judges were doctors and 40.9% (n=9) were masters, with experience in the assistance service (86.4%, n=19) and teaching (95.5%, n=21) in the field of gerontology. 86.4% (n=19) had a scientific publication in the area of elderly health and provided training in health for elderly people.

In the content validation of the video storyboard, there was a minimum agreement of 95% in all items regarding objectives, structure, presentation and relevance. The suggested adjustments were related to the reformulation of narrative phrases and the substitution of scientific terms, in order to make the information more imperative and clearer to elderly people. Although the size of the material was questioned by one of the judges (4.5%), 23.8%

(n=5) of the judges who considered the item valid suggested the inclusion of a female character in the context of frailty as a counterpoint the figure of a “frail elderly person”, in addition to adding context to the character’s story before the presentation of the main theme - frailty.

As for the item “information with correct content”, there was a request to change the image related to the position of the arm in the measurement of blood pressure and adequacy of the text regarding the indication of seeking health services only in the presence of signs and symptoms related to frailty, which was modified to seek services and professional monitoring regardless of signs and symptoms referred to the disease.

There was unanimous agreement of the judges on the items related to the approach to the theme, adequacy to teaching and learning, necessary content, ideas exposed in a logical manner, current theme and collaboration with the area of knowledge (Table 1). Furthermore, all items showed a statistic greater than 80% in the binomial test, so that they were considered valid and did not require modification. Regarding the S-CVI/AVE, a relevant proportion average of 0.96 was obtained.

Regarding the assessment of adequacy to SE construct principles, there was a minimum agreement of 90% in all items related to perception, sources of information and goal for SE. 9.1% of the judges reported disagreement regarding the presence of exemplary personal and vicarious experiences; however, they did not present suggestions for modification. In order to provide greater assistance in this regard, there was an increase in character, exemplifying positive health behaviors and an active attitude towards self-care. Statistically, all items related to SE assessment showed $p > 0.8$, being considered valid and not needing alteration.

Of elderly people who evaluated the video, 54.5% (n=12) were female, with a mean age of 67.7 ± 8.37 years, 50% (n=11) were mixed-race, married or in a stable relationship, 90.1% (n=20) were literate and 77.3% (n=17) were retired.

After watching the video, the individual care most referenced by the target audience were: healthy eating (90.9%, n=20) and physical activity (72.7%, n=16). Regarding the qualitative evaluation of the video by the target audience, there was unanimity in relation to attractiveness (“Willingness to watch the video until the end”), SE (“Confidence and motivation to adopt healthy habits”), cultural acceptance (“Inexistence of aggressive or bad information”), persuasion (“Intention to follow the guidelines to prevent frailty”) and motivation (“Think or act about your health”)

Regarding the use of video in educational activities, the recommendation force obtained a median value of 10.0 (P25: 9.75/P75: 10.0). Among elderly people, 18.2% (n=4) stated that, in group activities, the understanding of the video would be impaired, being indicated, preferably, in individual approaches. Regarding the most interesting characteristics of the educational material, 81.8% (n=18) cited regional characteristics (*forró* (a genre of Brazilian music that originated in northeastern Brazil), accent, cordel text), 59.1% (n=13) referred to information for healthy aging and 31.8% (n=7) mentioned the friendly relationship between the nurse and elderly people.

Table 1 – Judges’ agreement regarding the objectives, structure, presentation and relevance of the educational video, Teresina, Piauí, Brazil, 2019

Items	Judges’ agreement		p^{\dagger}
	n (%)	I-CVI*	
Objectives			
1. Contemplate the theme	22 (100)	1	1
2. Suitable for teaching-learning	22 (100)	1	1
3. Enables clarification of doubts	21 (95.5)	0.95	0.972
4. Favors reflection on the theme	21 (95.5)	0.95	0.972
5. Influences adoption of new behaviors	21 (95.5)	0.95	0.972
Structure and presentation			
6. Language compatible with public understanding	21 (95.5)	0.95	0.972
7. Language suitable for the type of material	21 (95.5)	0.95	0.972
8. Language verses with interaction/ involvement	21 (95.5)	0.95	0.972
9. Information with correct content	21 (95.5)	0.95	0.972
10. Exposure of objective content	21 (95.5)	0.95	0.972
11. Explanatory content display	21 (95.5)	0.95	0.972
12. Presented content is required	22(100)	1	1
13. Logically exposed ideas	22(100)	1	1
14. Theme is current	22(100)	1	1
15. Has size suitability	21 (95.5)	0.95	0.972
Relevance			
16. Encourages learning	21 (95.5)	0.95	0.972
17. Collaborates with the knowledge area	22(100)	1	1
18. Stimulates interest in the theme	21 (95.5)	0.95	0.972

Notes: *Item-level Content Validity Index; † Binomial test.

Table 2 – Elderly agreement on content, language, illustrations, layout and presentation, stimulation and motivation of learning and cultural adequacy, Teresina, Piauí, Brazil 2019

Items	Judges’ agreement		p^{\dagger}
	n (%)	I-CVI*	
Content			
1. The purpose is evident	22 (100)	1	1
2. Content addresses behaviors	22 (100)	1	1
3. Content is focused on purpose	22 (100)	1	1
4. The content highlights the main points	22 (100)	1	1
Literacy requirement			
5. Reading level	20 (90.9)	0.90	0.863
6. Uses active voice	22 (100)	1	1
7. Uses vocabulary with common words	22 (100)	1	1
8. Context comes before new information	22 (100)	1	1
9. Information is presented by topic	22 (100)	1	1
Illustration			
10. The purpose of the illustration is clear	22 (100)	1	1
11. Types of illustration	22 (100)	1	1
12. The illustrations are relevant	22 (100)	1	1
13. Subtitles help understand the illustrations	20 (90.9)	0.90	0.863
14. Sufficient number of scenes to understand the content	22 (100)	1	1
Layout and presentation			
15. Layout feature	22 (100)	1	1
16. Font size and font	20 (90.9)	0.90	0.863
17. Colors make reading possible	22 (100)	1	1
Stimulation/Motivation to learning			
18. Uses interaction	22 (100)	1	1
19. The guidelines are specific and provide examples	22 (100)	1	1
20. Motivation and self-efficacy	22 (100)	1	1

To be continued

Table 2 (concluded)

Items	Judges' agreement		p [†]
	n (%)	I-CVI*	
Cultural fit			
21. It is similar to logic, language and experience	22 (100)	1	1
22. Cultural image and examples	22 (100)	1	1

Notes: *Item-level Content Validity Index; †Binomial test.

As assessed by elderly people, the video was considered understandable and obtained a minimum agreement of 90% in the items "Reading level", "Subtitles help to understand the illustrations" and "Size and font", which were evaluated as factors that could not be tried by two judges due to illiteracy. Moreover, there was unanimous agreement on all items regarding content, stimulation/motivation for learning and cultural adequacy. Thus, the S-CVI/AVE of the video evaluation by elderly people had an average agreement of 0.99, as observed in Table 2.

DISCUSSION

The increase in the number and proportion of elderly people in Brazil drives the need for operationalization of prevention and health promotion actions and the growing development of gerontotechnologies, such as particular strategies to promote self-care, healthy aging and rehabilitation⁽²¹⁾.

When incorporating educational technologies to gerontological nursing care, the teaching-learning process gains playfulness and innovation, which favors communication and health intervention. Among the technologies validated for elderly people in the national scenario, booklets, manuals, games, video and visual materials stand out⁽²²⁻²⁵⁾. In relation to the resources used for collaborative and learning practices, the educational video presents itself as a playful and effective educational technology, combining strategies that provide the development of positive feelings and attitudes capable of influencing long-term changes in lifestyle⁽²⁶⁾. Moreover, it is a tool that stands out in relation to the technologies printed in the health education process of illiterate elderly people, since it enables learning in an interactive and motivating way, strengthening autonomy and active participation in the social context, without requiring previous literacy⁽²⁷⁾.

Specifically in the context of the health of elderly people at risk of frailty, the use of gerontotechnologies is adequate for health education actions, as it enhances the effectiveness of the teaching-learning process and the management of barriers to adherence to singular care, favoring the coping with risk factors and behaviors⁽²⁸⁾.

Concerning the objectives of the script for the video "Prosa de um recém idoso", the aim is to portray, in a playful way, the search for the main character ("Senhor José") for information about senescence, the frailty process and, consequently, coping and prevention strategies. Thus, when understanding frailty as a multidisciplinary and preventable health condition, the content covered in the video focuses on intervention strategies for preventing frailty and promoting multidimensional health, with a focus on care to maintain or restore physical skills, cognitive function, nutritional status, polypharmacy and adherence to therapeutic treatment, concerning national and international literature⁽²⁹⁾.

Regarding its structure and organization, the video presents traces of cordel literature and regionalized characteristics of northeastern Brazil, factors pointed out as differentials in the validation of content judges and evaluation of elderly people. When incorporating popular culture in educational interventions in health, barriers of acceptance and cultural approach are overcome, which favors the vehicle of dialogue and communication between the professional-patient binomial. Therefore, the use of simple words, dialects and slang favors the inclusion of concepts in health in a clear, inviting and fun way, providing understanding and transformation⁽³⁰⁾.

As for relevance, as it is a dynamic and continuous process of functional deterioration, the theme - frailty - stands out as a priority in emerging public health and an important predictor of negative health outcomes, which conditions the need for multidisciplinary interventions and technologies to early identification, management, maintenance of independence and improvement of the well-being of elderly people⁽³¹⁾, fact unanimously recognized by content judges regarding the importance for health knowledge area.

This is a longitudinal, prospective study carried out to explore the transition rates of frailty with elderly people over 65 years old with a 1-year follow-up revealed that 42.9% of the investigated non-frail elderly people progressed to a pre-frail status and 7.9% of pre-frail elderly people have become frail⁽³²⁾. Therefore, when understanding the dynamics of frailty and the bidirectional nature of its transitions, it is reinforced that the conditions related to frailty are susceptible to intervention⁽³³⁾.

Thus, by understanding that the maintenance of health-promoting behavior goes beyond information sharing, directly requiring reinforcement, motivation and resistance measures, the educational content and information in the proposed video strengthens user-professional relationship and elderly people empowerment in the development of their autonomy for healthy practices. This promotes broader interpretation, assimilation of information and coping with possible difficulties in care⁽³⁴⁾. When articulating information with the main character's sense of self-perception of health and SE, the identification of similar situations, questioning by peers and correlation with daily life is favored, which was also unanimously recognized by content judges in what refers to the perception and goal of SE⁽³⁵⁻³⁶⁾.

Developed from Albert Bandura's Social Cognitive Theory (SCT), SE construct goes beyond the objective sense of individual performance to the perception of performance capacity⁽³⁷⁾. As an essential factor in motivating change and maintaining healthy behaviors, SE is responsible for reducing by 92% the difficulty in facing pre-frailty/frailty conditions⁽³⁸⁾, favoring adherence to health promotion behaviors and healthy aging in general⁽³⁹⁾.

It is reinforced that educational information associated with the belief of SE allows the realization of a positive view of aging. By deconstructing the stereotyped view of being elderly and encouraging reflection on one's finitude, socio-cognitive determinants for behavior change and resilience are reinforced⁽⁴⁰⁻⁴¹⁾.

The results showed values of high acceptability and recommendation by the target audience, similarly to a validation study of educational technology in biosafety in primary care. Similarly, both educational videos used popular language, regional and cultural attributes and changes resulting from aging itself that favored the identification and consent of participants⁽⁴²⁾.

Study limitations

As a limitation, it is noteworthy that the research was carried out in only one Brazilian state and with elderly participants, mostly with low educational level.

Contributions to the field of nursing, health or public policy

It is well known that technological advances have influenced the work processes of several professional contexts, including nursing, bringing to light the need for essential skills for the technical production of educational materials and innovative and effective devices, such as organization, assertiveness and creativity⁽⁴³⁾. By developing educational actions in healthcare practice, nurses play an important role in the construction and use of new technologies for health promotion, supporting and strengthening health strategies that aim to promote the effectiveness, effectiveness and safety of care.

CONCLUSION

Operationalizing educational and motivational interventions for health promotion requires unique practices according to individual

needs and particularities. The construction of gerontotechnology presented here is reaffirmed as a training tool, critical reflection and identification, since it obtained agreement by judges and target audience with regard to the objectives, structure, presentation and relevance, as well as content, stimulation/motivation to learning and cultural adaptation.

From the validation of the video "Prose of a newly elderly person" to promote the health of elderly people at risk of frailty, it can be said that its use in educational health strategies can provide motivation, understanding and assistance in the face of different cognitive demands, social, psychological and behavioral. Among the characteristics pointed out as the most attractive of the educational video by the target audience, the incorporation of popular culture stands out, which transposes the verticalized transmission of information paradigm, overcomes acceptance barriers and strengthens necessary bonds in decision making and engagement therapeutic.

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