








ORIGINAL ARTICLE

EDUCATIONAL VIDEO FOR SELF-CARE OF PATIENTS WITH INTESTINAL ELIMINATION STOMA

HIGHLIGHTS

1. Need for informed care
2. Technology was important to the individual, family, and community
3. Survey of social evidence for self-care
4. Context-based technology production

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ABSTRACT

Objective: to describe the construction of an educational technology to mediate the self-care of cancer patients with intestinal elimination stoma. **Method:** methodological research, conducted in two stages - situational diagnosis and integrative literature review, carried out in the oncology reference hospital in the city of Belém-Pará, Brazil. The collection was carried out in the period from January to November 2021, through semi-structured interviews, with 10 oncology patients with stomas and in electronic databases. They were analyzed from the perspective of content analysis of the thematic type and supported by the Iramuteq software. **Results:** from the corpus a tree of similarity emerged, in which the word "Bag" has greater centrality and strong connection with the words, "Care", "Change", "Plaque", "Colostomy" and "Stoma". Based on this context, an educational video technology was produced. **Conclusion:** the production of context-based technology favors the collection of social evidence for self-care with the peristomal skin.

DESCRIPTORS: Colorectal Neoplasms; Technology; Nursing; Self Care; Enterostomal Therapy.

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INTRODUCTION

Among the different types of cancer, colon and rectal cancer is among the five most prevalent in both sexes. According to data published by the Ministry of Health with the National Cancer Institute José Alencar Gomes da Silva (INCA), the estimate of colorectal cancer in Brazil for the year 2023 ranks third in incidence in both genders¹.

The main causes and risk factors associated with colorectal cancer are related to ethnicity, age 50 years or older, excess body weight, hereditary factors, alcohol and tobacco consumption, and inflammatory intestinal diseases, among others. On the other hand, physical activity and appropriate body weight maintenance can reduce the risk of developing it¹⁻².

In the case of intestinal ostomy, the stoma is a medical procedure that involves the resection of a portion of the intestine and the creation of an external opening through the abdominal wall, to maintain the functionality of the organ.³⁻⁴ It is observed that the process of adaptation of the patient to intestinal elimination ostomy is slow, full of doubts and fears. It is considered a period of vulnerability, due to the new changes that impose challenges on the domain of self-care. He will have to adjust to a new reality⁵.

Nursing is challenged to provide quality care to the ostomy patient, and its actions and services are highlighted. It performs an assistance with emphasis on the user's demands, which develops care with a technical-scientific base and that permeates a holistic and humanized evaluation.⁶⁻⁷

The use of educational technologies in health is essential to the teaching-learning process as facilitators and helpers of knowledge between patient-nurse, contributing to the care interventions provided in the most diverse environments and can be used in different ways⁸. Thus, the objective of this study was to describe the construction of an educational technology to mediate the self-care of cancer patients with intestinal elimination ostomy.

METHOD

This is a methodological research with a qualitative approach, developed in three stages: situational diagnosis, integrative literature review, and production of the educational technology.

The situational diagnosis was conducted in the setting of a reference hospital in oncology, neurology, and kidney transplantation in the city of Belém-Pará. The collection was carried out from January to November 2021. Those invited to the study were all patients who had undergone colostomy surgery due to cancer in this period.

Patients diagnosed with colorectal cancer, who underwent intestinal elimination ostomy, hemodynamically stable, with physical and cognitive conditions (being able to understand, speak, or write, with absence of pain or any condition that would prevent participation), patients of both genders and older than 18 years were included. Excluded were those who had unrelated neoplastic intestinal elimination ostomies. Ten patients compatible with the inclusion criteria, admitted to the hospital's surgical clinic, participated.

In the situational diagnosis phase (on-site visit) occurred the systematization of the content with the target audience (interview), in which it was possible to recognize the problem situation of this study (insufficient knowledge of patients regarding self-care with intestinal elimination ostomy) and provide the planning for the researchers to approach the participants, which resulted in the preparation of an educational video. Regarding the characterization of the target audience, aspects related to age, gender, place of birth, time

of ostomy and cause for making the stoma were identified.

The semi-structured interview script has a part directed to the characterization of the participant, besides six open questions directed to the approach to self-care with the peristomal skin, carried out during the hospital care visit of the researcher, at the bedside, in the ward. To conduct the interviews, a voice recorder was used to enable the transcription of the interview answers in full.

The RIL was conducted after the situational diagnosis, guided by the research question: what are the main difficulties in self-care for cancer patients with intestinal ostomy? The electronic databases Latin American and Caribbean Literature on Health Sciences (LILACS) and Scientific Electronic Library Online (SCIELO) were consulted in the period from 2016 to 2022. The final sample was composed of 20 studies that addressed the production of care-educational technologies aimed at the oncologic patient with intestinal elimination ostomy and that contributed to the foundation of this research.

The data analysis from the interviews and the RIL were organized in a text corpus to be analyzed based on the similarity analysis method with the support of the software Interface de R pour les Analyses Multidimensionnelles de Tests et de Questionnaires (IRAMUTEQ) 12 version 0.7 alpha 2^o. IRAMUTEQ organizes the distribution of visibly interrelated and understandable vocabulary, generating the categories used to construct the script and the subsequent development of the educational video⁹.

The production of the educational technology in video format was based on the results of both phases of the research. The video was initially organized in the Microsoft Power Point Office Program version 2019 and later referred to a professional expert video maker for the application of visual, audio, and animation resources.

The research was approved by the Research Ethics Committee of the hospital where the investigation took place, under Opinion number 4,637,693.

RESULTS

Ten patients participated in this study. It was found that six (60%) of the participants interviewed are female, with the average age of the male and female participants being around 39.5 and 59.8 years old, respectively. In addition, it was observed that all participants were born in the North Region. Regarding the data obtained through the semi-structured interview, it is evident that the defining diagnosis for the confection of intestinal elimination ostomy in the interviewed participants corresponds to three (30%) for colon cancer and seven (70%) for rectal cancer.

Still in the first stage of this study, it was noticed, during the on-site visit, that although the patients received orientation and products aimed at their self-care with intestinal ostomy, there were still gaps in their knowledge regarding the use of these products to prevent complications with the peristomal skin (dermatitis).

The consolidation of the interviews and the evidence from the literature formed the text corpus. According to the similarity analysis generated in the relationship between the terms selected in the data processing, it originated a central core with ramifications in semantic range of the most frequent words in the *corpus*, with the word "bag" as the strongest and directly related to the concerns and doubts of the participants regarding the exchange and adequate cleaning of the equipment and peristomal skin and the constant fear of not doing them effectively, that is, of performing effective self-care, fearing complications related to intestinal elimination ostomy, according to the statements:

My concern is if I am out, the colostomy bag I will use for a long time, and when I need to

go out and it bursts? If I need to change it when I am on the street, I have to have a proper environment where to change it? (P9).

My biggest doubt is if I am doing everything correctly. I always observe the aspect of the skin around the stoma and think that I am not cleaning correctly (P6).

In parallel, the central nucleus highlights as ramifications of the peripheral sets the words "exchange", "care" and "colostomy". The word "care" stands out as the strongest among the others, representing the context of this research. These words reinforce the speeches mentioned above and have a significant interrelationship, because in each respective peripheral set, the other terms that compose them revisit the issue of knowing about self-care procedures and how they will impact the life of the person with intestinal elimination ostomy, according to the speeches:

Yes, what can happen first are the lesions "isn't it"? The skin can get irritated and become infected, "isn't it"? it is something very serious and even makes care difficult (P1).

Some "little wounds" can happen from the contact of the feces with the skin. She said that is why it is important to change the plate and the bag every three to four days at the most (P2).

The branches of the weakest peripheral sets were composed of the words "explain", "understand", "stoma", "alone" and "plaque". From the analysis of each set of these, it is possible to infer that the participants have empirical knowledge about complications due to the lack of adequate self-care, as well as the initial fear of performing it, as shown in the following statements:

When I had my colostomy, the company nurse came and trained my daughter, because in fact I could not at that time, put it in, take it out, I could not at that time. When she was teaching my daughter I learned, in a short time I could take care of myself (P8).

Furthermore, the participants listed the nursing professional as the person responsible for the health education process for self-care, according to the following statements:

Who oriented me was the nurse representing the company. She did a training, explaining to me all the care that has to be taken, presented me the products and from then on I followed up with the care (P1).

It was the nurse. She explained everything I had to do, how to put the bag on and take it off without hurting it, she also explained how I had to clean the bag (P4).

Thus, the central set has a synchronization with its peripheries, showing what the participants' speeches cover about the theme in question.

Based on the results, the script was developed, and the educational video was later created. The production of technology based on the context favors the collection of social evidence for self-care with peristomal skin. Technologies based on such evidence tend to support the care provided by nurses working in onco-abdominal surgical clinics.

DISCUSSION

The findings of this study showed that the diagnosis of colorectal cancer was more present in women and young adults, which corroborates the INCA estimate that predicts 36,360 new cases of colorectal cancer in the coming years, 17,380 in men and 18,980 in women and adults at a still productive age.⁷

It was identified that the primary diagnosis most present to the confection of intestinal

elimination ostomy in the interviewed participants was rectal cancer, followed by colon cancer. The cancers that affect the intestinal tract contribute to the increase of abdominal surgical procedures, among them, the confection of intestinal elimination stomas such as colostomies and ileostomies¹⁰.

Despite the wide range of available resources aimed at helping the self-care of patients with intestinal ostomy, it is still very common and recurrent the appearance of doubts about complications related to the ostomy, such as peristomal dermatitis and ulcers, as well as the proper use of the collecting equipment and adjuvant products¹¹.

Based on the statements of users interviewed, there were reports of doubts regarding the exchange and proper cleaning of the equipment and peristomal skin and the constant fear of not doing it effectively. Thus, it is revealed that nursing is seen as a reference for providing guidance and properly performing the exchange of the bag, evaluation of the peristomal skin, conducting consultations and promotes guidance based on user demands, stimulating self-care and quality of life¹²⁻¹⁴.

In the health service, the professional nurse is the one who receives, welcomes, guides, and cares for the patient and family, being, therefore, the one who will observe and understand the needs of each patient. Moreover, due to the technical and scientific complexity of the approach to intestinal stoma care (delimitation of the stoma, hygiene, use of adjuvant products in an appropriate manner), the nurse is the professional of the nursing team who should provide the first guidance about self-care to the patient, because it is a slow and difficult process, which can lead the patient to difficulty in adhering to care and to social isolation^{12,14}.

A study carried out in a Western Regional Hospital, located in Chapecó - Santa Catarina, showed that users with ostomy perceive that the professional nurse is responsible for carrying out the care with the bag and the ostomy, besides providing care with affection, attention, and concern for the client and the assistance offered¹⁵.

According to the survey obtained in the interviews, it was observed how important is the role of nurses in the process of health education, however, the teaching of self-care has been performed only in the postoperative period, as a quick orientation for such a complex reality in which the patient now finds himself¹⁶. The preoperative period is the moment in which the professional could start the orientation to the patient who will undergo the surgical procedure to make the colostomy, when the procedure itself will be explained, the changes that will occur in his body, how it will be from then on, that is, a summary of the process for the patient to be aware of all the steps through which he will pass¹³.

It is pointed out that the nursing care to the user with intestinal ostomy must be a decentralized action, that is, performed at all stages of the operative process (pre, trans and postoperative), and not an isolated action. Orienting and enabling the adaptation of the person before a new reality, performing care with the collecting bag, with the hygiene, products to be used, feeding process and prevention of damage¹⁷.

It is perceived that the nursing team is added to an important role for the ostomy patient, that of a supporter. It is observed that the care of the team during the experience of the transition of the person by colostomy is important to guide the self-care process, the continuity of citizenship, prevention of complications related to a body regulation device and positively influences the acceptance of the current condition¹⁷.

Self-care itself is a process that the patient will experience in the postoperative period and that consists of a voluntary action, where he will begin to develop the ability to care for himself in his new reality. This moment is crucial, because now in fact the pre-guidance will be added to the practice of self-care and, again, the nurse's actions will facilitate the process of understanding, rehabilitation, and acceptance of the patient's new situation^{11,16,14}.

The development of competence for self-care of the person with a colostomy is a

necessity that directly involves nursing actions, being an important reflection to evaluate how effective such actions are being for the patient⁵. There is a lot of new information, therefore, it must be explained gradually, clearly, and objectively, and whenever the patient presents doubts, because health education is an integral part of the nursing work routine^{4,11}.

The patient with an intestinal elimination ostomy carries within himself several doubts and anxieties related to self-care that he will perform without the help of the professional nurse outside the hospital environment, affecting his quality of life, which must be carefully analyzed by the nurse to involve these needs in the care process and be worked on in teaching-learning strategies, such as the use of educational technologies^{6,18}.

Thus, from the analysis of the participants' answers, it was possible to infer that the nursing team can pass on information about ostomy care and its nuances; however, the action is still fragile, especially when observing the doubts and care used by the users in an empirical way.

Thus, it is essential that the nursing team assumes the co-responsibility of care in being the "caregiver" that elucidates the first knowledge about ostomy. It is important to supervise the technique performed by the user, to clarify doubts, guide the use of appropriate products, evaluate the presence of complications, that is, to go beyond the technical-scientific sphere, but to provide humanized, holistic care, having the individual as the center of care¹⁹.

The opportune moment for promoting health orientation to users, family, and community was discussed, and how much, in fact, the message received by her would be absorbed and able to generate change, characterizing an effective teaching-learning process. Thus, we opted for the development of an educational video aiming to promote the acquisition of knowledge so that the user could see himself as co-responsible for his care process.

In an intervention research, carried out in two hospitals in the Southern Region of Brazil, it is approached that the use of video as a facilitator in the teaching-learning process to users with colostomy is a clarifying method, which, by using images, facilitates the understanding of concepts such as the cleaning of the bag, clarifies doubts, transmits tranquility, effectively showing a new reality experienced by the individual, family and community²⁰.

The educational video produced was guided by a script, which began with the nurse character performing a hospital visit to the patient in the preoperative period for confection of a colostomy. At this moment, the professional introduces himself and explains to the patients' aspects about the colostomy, its characteristics, and the collecting devices, and is available to answer questions. The dialog between both is well represented throughout the video, to show the viewer patient that he is also the protagonist and that his speech must be heard and responded to by those who provide him with care.

The second moment of the script refers to the postoperative period, when the patient has the colostomy implanted. In this case, the professional returns to follow the guidelines for self-care (how to perform cleaning, change the bag, use the adjuvant products). At this stage, the doubts presented by the participants during the interview were contemplated in the context of the video with their clarification by the professional nurse.

The program used in the construction of the video was Character Creator and Blender 3D, and the animations were developed using the tool Unity, which allows the creation and animation of characters. The video has four interfaces (pre-operative patient in the hospital, nurse's approach to the patient, immediate post-operative period with health education, and self-care at home), with the development of interaction between the characters in each scene.

Access to the video will be through electronic devices (cell phone, computer, tablet,

pen drive, and so on), and can be downloaded via internet or sent via cell phone, depending on the availability of the audience. The goal of the video was to promote autonomy, self-care, and self-knowledge in the face of a new reality. To provide tools, to promote previous care, through the video, offering, in a didactic way, information about the context of care, contributing to the process of acceptance with independence and autonomy. In addition, the video has audio and image production, corroborating the learning process and capturing the individual's attention and memorization of the information conveyed, offering independence and confidence through the information transmitted.

In addition, one study addresses that the video should not be treated as utopia, without adding other considerations, especially the difficulties of living with a stoma. However, the video in question does not address this topic, because reality, alone, reveals the challenges and anguish in dealing with illness, and may discourage the acceptance of the disease and stimulate feelings of insecurity and fear⁷.

It is considered that nurses must develop health education activities, which represent real conditions for self-care and care for others. For this reason, using a technology, such as an educational video, can propitiate the construction of knowledge related to ostomy, interconnecting, and allowing the real acquisition of knowledge, through learning to learn²¹. Finally, it is considered that education in health is a social action that aims at the construction of a critical-reflexive thinking in people, in the perspective of understanding situations, problems and transformation of the reality in which they live and that they are authors of their actions and decisions²¹.

The methodological process used in this study is a limitation, as it did not evaluate the possible considerations of nursing professionals for making the technology, and should be complemented by other studies, with different expert perspectives, to ensure the feasibility and applicability of the video.

FINAL CONSIDERATIONS

The perceptions of cancer patients with intestination elimination ostomy indicate the need for informed care and the production of technology based on the context favored the collection of social evidence for self-care. Moreover, the strategy of using technology was important for the individual, family, and community, which acted as an adjunct in the process of health education and nursing interventions.

The words that emerged in the similarity tree supported the inference of an incipient knowledge of patients with intestinal stomas about self-care with peristomal skin. The strength of this study lies in the survey of information with patients diagnosed with colorectal cancer, with the surgical outcome of confection of intestinal elimination ostomy, which substantiated the content conveyed in the educational video.

The implications for future research are shrouded by the need to submit the technology produced to the application/usability process, to be recognized for the appropriateness of the objectives, structure and presentation, and relevance of the information.

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **Moreira BCB, Lima FC de, Silva CO da, Carvalho DS, Santana ME de, Nascimento MHM**; Drafting the work or revising it critically for important intellectual content - **Lima FC de, Simor A, Santana ME de, Nascimento MHM**; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **RMoreira BCB, Santana ME de, Nascimento MHM**. All authors approved the final version of the text.

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