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ORIGINAL ARTICLE

EDUCATIONAL VIDEOS ABOUT HOME CARE TO THE CHILD USING TRACHEOSTOMY: EVALUATION BY TARGET AUDIENCE

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ABSTRACT

Objective: to evaluate the accessibility, applicability and usability of educational videos with parents/caregivers of children using tracheostomy. **Method:** qualitative study, conducted with parents/caregivers of children using tracheostomy assisted by a Home Care Service of a city in the West of Santa Catarina. Data collection was done through interviews recorded at home after the target audience watching the videos in June 2021. The analysis was thematic inductive. **Results:** seven mothers of children using tracheostomy were interviewed. The data were presented in two thematic categories: importance of videos as educational technology and organization/planning of health services for the care of children using tracheostomy and discussed considering the scientific literature on the subject. The evaluation revealed that the videos are easy to understand and that the association of speech, images and simulation facilitates understanding and learning, however, they must be available before dehospitalization. **Final thoughts:** the videos can help parents/caregivers to empower them for home care of children using tracheostomy, and also subsidize nurses in ongoing education activities with the team for hospital discharge organization and planning.

Keywords: Nursing. Child Health. Home Care Services. Educational Technology. Tracheostomy.

INTRODUCTION

Children with Special Health Needs in Brazil are called CRIANES. They coexist with diseases that limit life, are clinically fragile or dependent on technological devices, have different clinical conditions, related to neurological, neuromuscular, cardiovascular, genetic disorders, prematurity, congenital malformations, traumas and infections. CRIANES need periodic monitoring by multiprofessional and interdisciplinary teams at all care levels according to their demands and needs[1].

A study conducted with 747 children in a pediatric hospital unit of a reference complex care hospital in the South region of Brazil estimated that 80% were CRIANES. They remain hospitalized for long periods and, when going through the process of dehospitalization, will need special daily care to maintain their health, being parents/caregivers responsible for taking care of the child at home in order to avoid hospital readmissions due to complications with the child's clinical condition[2-4].

The parents/caregivers, in addition to having to deal with the clinical conditions of the child, will need to perform care with technological devices for life maintenance. Among the most used, studies highlight gastrostomy, nasoenteral probe, tracheostomy, invasive and non-invasive mechanical ventilation, oxygen therapy, intestinal stomas, ventricle-peritoneal shunt and relief vesical probe[5,6].

Corroborating, a study on CRIANES assisted by a Home Care Service revealed that 100% of them needed psychomotor and social rehabilitation, 77.7% used dietary supplements; 72.2% were dependent on home oxygen therapy, used drugs and differentiated care to feed, sanitize and dress; 66.6% used gastrostomy; 55.5% used tracheostomy; 50% used mechanical ventilation, 38.8% used nasoenteral probe and 5.5% used intestinal stomas[6].

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Regarding the use of life-sustaining devices, children are often dehospitalized using tracheostomy cannula, an essential device for maintenance of respiratory function, which requires complex and continuous care, as well as skills for their management, both from health professionals and parents/caregivers[7,8].

Nevertheless, studies highlight that the lack of planning in hospital discharge hinders the process of dehospitalization, because the family may not consider itself prepared to carry out the care of the child at home, making the training of caregivers and family members still in the hospital environment a challenge for health professionals. Despite the difficulties encountered in dehospitalization, professionals need to invest in health education for family preparation, in order to pass on clearly as much information about disease, procedures, examinations and therapy as possible[4,9].

Given the increasing dehospitalization of children dependent on technologies (CDT), it is essential to train and guide parents/caregivers, with the possibility of starting this action in the hospital and being complemented and improved by Home Care (HC) nurses. In this scenario, the nurse is the prominent professional in planning, elaboration and execution of educational actions in different scenarios of action, currently gaining notoriety in the development and use of Care-Educational Technologies (CET)[10] that subsidize their educational practices.

CET are the union of education and care. The processes of care-education and education-care in nursing are always interconnected, seeking to build relationships between those involved, with the purpose of promoting empowerment, bond, autonomy and well-being of patients, family members and professionals[10].

Among the CET, educational video stands out as a support product for didactic purposes in the mediation of the teaching-learning process in different educational contexts. The video is a didactic and technological strategy that provides knowledge and construction of knowledge related to the specific demand of each user or caregiver family, which can be used in actions for health promotion, prevention of complications, development of skills, strengthening the autonomy and confidence of patients and family[11].

The use of audiovisual technologies has increasingly been developed and used by nurses in health education activities in different scenarios and on different topics. In the process involving the development of videos, nurses have been concerned with evaluating them with the target audience, aiming to verify their applicability. An example of this is the evaluation of a video clip produced by nurses for learning the physiology of lactation through the network of family support to infants, which was evaluated by 52 participants and considered appropriate to the proposed objective[12,13].

In this sense, to develop a CET to provide information, improve knowledge and contribute to an integral, safe and quality care, it must go through several processes until being used for educational purposes. In the last stage of production of a CET, there is an evaluation that should be carried out by the target audience. The function of the target audience is to evaluate aspects related to accessibility, applicability and usability, with the objective of raising the credibility and acceptance of technology[14].

This study was conducted from the following research question: how do parents/caregivers evaluate the accessibility, applicability and usability of educational videos on the care of children using tracheostomy? It aimed to evaluate the accessibility, applicability and usability of educational videos with parents/caregivers of children using tracheostomy.

METHOD

Qualitative approach study, conducted with parents/caregivers of children using tracheostomy, with data analysis of the inductive thematic type. The data presented in this study are part of a methodological research carried out in five adapted stages[15]: situational diagnosis, construction of scripts and storyboards for video production, content validation, video production and evaluation of videos by the target audience. This manuscript describes the fifth stage - evaluation by the target audience, which was developed in a Home Care Service (HCS) of a municipality in the west of Santa Catarina, in June 2021. The service has two Multiprofessional Home Care Teams (MHCT)

and a Multiprofessional Support Team (MSUT) in operation since 2014.

The following criteria were adopted for the selection of participants: being a family member and/or caregiver of a child using tracheostomy, and being in follow-up care or having been assisted by the HCS of the municipality from 2014 to 2021. The parents and/or caregivers of children who no longer resided in the municipality, and/or who had already performed the removal of the cannula and/or who had died were excluded.

Initially, a contact was made by WhatsApp application with seven main caregivers of children using tracheostomy, eligible for the study, according to registration in the electronic network of the Unified Home Care Health System (e-SUS AD) for the researcher's presentation and study objective. After the acceptance and signature of the Consent Informed Form, the link to access the four videos was sent by WhatsApp, available on Youtube, which addressed the following subjects: home care to the child using tracheostomy, aspiration of the tracheostomy cannula of children in the household, decannulation or accidental exit of the tracheostomy cannula of children in the household and obstruction of the tracheostomy cannula of children in the household.

The deadline of seven days was agreed for parents and/or caregivers to watch the videos. After this deadline, there was another contact by WhatsApp to schedule an interview at a time that was comfortable for the participant.

The participants were seven mothers of children using tracheostomy. The literature recommends six to 20[14]. For the interviews, a questionnaire with 13 questions was used, the first seven related to the characterization of parents/caregivers, their knowledge about tracheostomy and the reason that led their child to use the device. The last six questions aimed to evaluate the accessibility, applicability and usability of videos. Each interview lasted an average of 22 minutes. They were performed at home and recorded with the voice recorder of Microsoft Windows 10, then transcribed by the researcher (interviewer).

The information was analyzed by the inductive thematic analysis[16], divided into six stages: 1) familiarity with the data: in this stage, there were the transcription of interviews and, in the sequence, readings and re-readings of empirical material; 2) generation of codes: during the reading of the empirical material marks in the text were made using the chromatic technique, that is, data with common characteristics were highlighted in the same color, allowing subsequent grouping; 3) search for themes: the grouping of relevant data occurred, previously highlighted, aiming to find the potential themes; 4) review of themes: consisted in verifying the relation between topics and data (level 1) and generating the theme for analysis (level 2), that is, there was a re-reading of the groups carried out with the objective of confirming the themes found in the empirical material; 5) definition and nomenclature of the themes: this stage involved the appointment of the themes found; 6) preparation of the report: the analysis and the discussion of the statements were performed, when themes and subtopics were listed.

To protect the identity of the participants, they were identified by letters CM (caregiver or mother), followed by an ordinal number according to the order of participation in the interview. The research followed the Resolution of the National Health Council n. 466/12, being approved by the Human Research Ethics Committee of the State University of Western Paraná, opinion n. 4.270.988 of 09/11/2020.

RESULTS

The average age of mothers was 37 years, three single, three married and one in stable union. All self-declared housekeepers, three with complete high school, two with incomplete high school, one with complete elementary school and one with incomplete elementary school. The diagnoses of children using tracheostomy were: prematurity and positive serology for Sars-CoV-2; subglottic stenosis and convulsions; prematurity and viral meningitis; prematurity, cleft lip, palatine slit and microcephaly; subglottic stenosis and Pierre Robin syndrome; prematurity and subglottic stenosis; and viral encephalitis. As for the age at which the child underwent tracheostomy, most (5) were below one year old, and the time of use of the cannula

was between one month and five years at the time of the study.

From the inductive process of data analysis, two thematic categories were constructed: 1. Importance of videos as educational technology; and 2. Organization and planning of health services for the care of children using tracheostomy. The first category generated five sub-themes and the second, three sub-themes.

Importance of videos as educational technology

This category generated five subthemes: clear language, demonstration, simulation, sound, image and access to videos; training of other caregivers and reduction in the burden of the main caregiver; use of clean technique for tracheostomy aspiration; support for parents/caregivers in case of complications; training for health professionals.

Clear language, demonstration, simulation, sound, image and access to videos

The excerpts from the mothers' answers show that the dehospitalization of a child using tracheostomy is a difficult process for the family and how much videos can help in home care by clarifying doubts about procedures such as: exchange of laces, care of tracheostomy, probes and vacuum. The positive result of the videos concerning images, language, content and recording is also highlighted.

> [...] when I came home, the first few days I just cried and asked God to help me. After I watched these four videos, I no longer have any questions or concerns. (CM1)

> I found everything perfect, very precise, how we do it and how it should be done. The care for cleaning the tracheostomy, changing the laces, hygiene of the aspirator and probes were well explained. (CM2)

> [...] you watch it several times, you see exactly what you have to do. They teach you at the hospital, but the video is much better and it would be much easier if I had access to these videos when I was in the hospital, before I came home. (CM2)

> I found it very explanatory. [...] very simple to understand, [...] the image and the doll used as the child were very good. [...] good to understand. (CM2)

> Well explained, there are details that I didn't even know and I learned [...].I think it's very good for parents, because it's a difficult, delicate thing and this explains it well. (CM4)

> I managed to learn how to tie the lace [...]In the images we can see every detail up close, I didn't have any difficulty seeing it, I saw it very clearly, [...]I was quite surprised by some of the things I learned. (CM4)

> The language and communication are perfect, it couldn't be clearer. (CM5)

> Regarding the videos, they are well made, well recorded, you can understand the speeches and explanations well. [...] I understood it perfectly, it's great. (CM7)

Training of other caregivers and reduction in the burden of the main caregiver

In this category, mothers signaled the importance of recommending videos to other parents and caregivers to complement learning and information they had not received at the hospital. They highlighted as positive the possibility of watching the videos several times and that it would have been easier to perform the care at home if they had access to them still in the hospital.

> I recommended that my family members watch the videos, because anyone who doesn't know a child with a tracheostomy, anyone who doesn't live with a child with a tracheostomy, has no idea how to care for them. (CM2)

> The first thing I did was aspiration, it took me a long time to learn the other things, I think it will help parents a lot, if they can watch the videos in the hospital, they will go home more prepared than we were. (CM4)

> I passed it on to my husband and even he learned it [...] after watching the videos I saw very clearly how to change the laces, we were able to change them and it was easier, it was really slowly. (CM4)

Use of clean technique for tracheostomy aspiration

Among the items evaluated by mothers, one of the care that presented divergences was in relation to the clean aspiration technique, which can be used in the home environment. Three mothers did not know about the reuse of probes, two performed tracheostomy aspiration using clean technique, one did not use clean technique and one did not opined. However, they expressed understanding of the care shown in the video about the reuse of probes and said that

the adoption of this technique can contribute to the economy.

> I found it perfect, [...] the care to clean the probes was well explained. (CM2)

> About the aspiration, I have never reused the probes until now, there has never been an infection in his tracheostomy, so about using that glove there {referring to the procedure glove}, I don't know, because I have never used it, I have always used the sterile glove and I have never reused the probes, I didn't even know how to reuse them. (CM3)

> I didn't know I could reuse the probe, because it uses a lot of probes [...] I need to suck a lot because it makes a cork, [...] so it's a wonderful tip, because it will save a lot of probes. (CM4)

> We also reuse the probe. At first, we didn't reuse it because when he came from the hospital, he had a lot of multiresistant bacteria, so we didn't reuse it, but now we reuse it and it's very easy.. (CM5)

> I would not recommend using the procedure glove [...] it's recommended to use sterile gloves [...] the tracheostomy tube is not reusable, the tube that is used to aspirate the nose and mouth can be reused, but with the care that is in the videos. (CM7)

Support for parents/caregivers in case of complications

As for the problems that can occur with tracheostomy, addressed in the third video about decannulation or accidental exit of the cannula and in the fourth video about the obstruction of the cannula, two mothers reported critical situations experienced at home, one related to decannulation and another to obstruction, and declared that, before an emergency, they need to intervene immediately, because taking the child to the hospital may take time. Thus, they emphasized that the care shown in the videos can help parents/caregivers in managing the problems with tracheotomy, a situation that can ensure the survival of the child.

> Regarding cannula obstruction [...]It is well explained how the person should act, this has already happened to us, we get scared because the child starts to stop breathing, sometimes we don't follow it very well, as the cannula has already come out and we don't have another cannula at the time, we put the same one in. (CM2)

> The videos explain the care very correctly [...] when in trouble, the child runs out of breath, she becomes very scared, so the adult who is taking care of her becomes even more scared, so if you have already watched this video, you already have an idea, the person becomes calmer and then acts better. (CM2)

> As soon as I got home, the tracheostomy got blocked, a plug was made and I couldn't get it out, so I changed his tracheostomy. My God, it's horrible, at first you can't be sure, but if you don't do it, sometimes you won't have time to get to the hospital. So, watching it there, we learn and it's through care that we get the practice, but with the videos we already learn. (CM3)

> Many things happen that we are not yet prepared for and there we can learn well, because sometimes the trachea can come out or need to be changed, I've seen them changing it {in the hospital}, it's not an easy thing, but sometimes in an emergency you need to do it, so every detail is very good. (CM4)

> They told me in the ICU that if it ever came out, I had to put it back in, even if it was the same cannula, because it is better to treat the infection than to lose the tracheal path. It happened in the hospital, I was alone, I pressed the doorbell, but at the same time I had already put it in and when the technician came I had already put it in. (CM5)

> During decannulation, the doctor said it was very easy to put it in there, but he is a doctor, we are not, but if it were necessary I think I would have the courage, because until we get to the hospital, we have to try something. (CM6)

Training for health professionals

Given the reports about the assistance of health professionals in the management of tracheostomy, the videos, besides helping in the learning of parents and/or caregivers, can collaborate with the planning of childcare in tracheostomy use and serve as support material for the nurse in conducting guidance and training of the health team involved in CRIANES care.

> When we are hospitalized or in the emergency room for a consultation, there are some health professionals who insert the tube as if it were an adult [...] they put the probe several centimeters into the trachea and as they are health professionals, you sometimes feel embarrassed to speak. (CM2)

> When aspirating in the emergency room, blood even comes out because they put the tube in there so much. The video shows very clearly the centimeters that they have to put in, the space between the trachea and the lung is small, I found this part where they demonstrate this very interesting. (CM2)

> These videos are very enlightening [...] I think it's very interesting for healthcare professionals to also it [...] healthcare professionals would have to have access to these videos. (CM2)

Organization and planning of health services for the care of children using tracheostomy

In this category, the data are presented in three subcategories: need for organization of health services and standardization of care; need for training of parents and/or caregivers to start in the hospital environment; information accessed on the internet.

Need for organization of health services and standardization of care

Two mothers suggested sharing the videos with health professionals who make up the Health Care Network (HCN), since they experienced situations in which they were unaware of the child's care and rights while using tracheostomy.

> When we take someone to a consultation or somewhere, the health professional thinks that we might wait a long time in line or in contact with many people and that is not possible. (CM2)

> Sometimes they ask: how long does it take to aspirate the child? As mentioned in the video, it depends on how many times the child needs it. Of course, sometimes you don't need to aspirate much, but sometimes you do. So, when necessary, we need to aspirate, especially since the child is always moving and can't wait too long because it ends up blocking the air. I go through this a lot when I take her to the doctor, sometimes we even have to wait in line at the pharmacy, because she's not a baby, she has other priorities and they don't see her. I've been through this several times at the health center [...] having to carry the vacuum cleaner and having to vacuum in the middle of the public [...] because she has no priority. (CM2)

> In the hospital, they teach us in a certain way, then I watched the videos and my God, the care was completely different, I even made some notes on paper. (CM1)

> Not everyone takes the same care, some people take different care, it's always good to learn new things, when it's time to change the shoelace, some people change it differently, some people clean it differently. (CM4)

> The serum, which is valid for 24 hours, I didn't know that either, no one told us, so the serum I have here I use all the time, I already bought a big bottle to use, to last, after I saw the video I said: my God. (CM1)

Need for training of parents and/or caregivers to start in the hospital environment

The mothers expressed doubts, difficulties and insecurities regarding the care of the child using tracheostomy and how much they would benefit if they had watched the videos while still in hospital. However, one mother who stayed longer in the hospital reported that she took over all care of her child during hospitalization and had the opportunity to perform more complex procedures such as tracheostomy cannula replacement and relief catheterization. Another mother commented that if she had only watched the videos, it would be difficult to perform care, so she considers that she needs help from health professionals in performing the care and that the videos would complete this learning.

> [...] at the hospital, they didn't tell me about this. We feel insecure, we have some doubts, I made a note there, that I was going to ask you. What is a stoma? Nobody told me what it was. (CM1)

> When I left the hospital it was very difficult and these videos will help other mothers and fathers to take care of their children. (CM2)

> When you come from the hospital, you learn a little there, but when you come home everything is new, you have to start learning, I think having a video explaining it is easier. If that happens, I do that, it teaches a lot. (CM3)

> I changed the tracheostomy while I was in the hospital, I did everything in the last few days, I did the catheterization, changed the laces, aspirated, gave baths [...] a few days before going home I changed the tracheostomy, I came home knowing everything, but there were some things that I didn't know that we learn later. (CM3)

> It would have helped a lot more if I had seen it before, I would have been well prepared when I came home. (CM4)

> At the hospital, they only teach you once, so you have to figure it out. I think it would be better to get home with a little more information so you can take care of yourself, because I actually had to learn how to take care of the tracheostomy. (CM6)

> Just with the videos, without having a technique, someone experienced there to help you, I think it would be complicated [...] but if you had already had help before and with the videos, I think it would help. (CM7)

Information accessed on the internet

Another important result is the revelation of mothers who seek help and information about

tracheostomy and its care on the internet.

> I had to research many things on the internet to learn how to take care of her. (CM1)

> As soon as the parents leave the hospital, they can already watch these videos because I searched many things on the internet and couldn't find them. (CM2)

DISCUSSION

The study revealed that the mother is the main caregiver of children with chronic conditions and dependent on the tracheostomy device to ensure respiratory function, which is vital for the maintenance of the child's life. These results reinforce the study that points out the maternal figure as the main caregiver of children with special health needs (CRIANES)[17].

In addition to assuming the role of primary caregivers and full responsibility for the child, they feel guilty when there are complications or problems with the child's health, also indicating the difficulty in requesting help from other people for care. This result reinforces studies that indicate that most mothers do not seek help from their partners, relatives or other people who make up the support network, because they believe they can control everything. As a result, they become overburdened and often neglect their own health[17,18].

Although some reported that they had the help of the child's father in home care, most exposed that, due to the need to take full-time care, they had to give up their professional life to care for the child. In relation to this situation, a study[18] describes that mothers end up giving up paid work and social life to devote themselves to the care of the child 24 hours a day, however, a large portion of them reports feeling of sadness, feel incomplete and unfulfilled because they have to leave their professional life.

Children using tracheostomy become more vulnerable and clinically fragile, requiring complex care that needs to be taken by people without training for this purpose, family caregivers, who need to be subsidized by health professionals in order to provide care according to the specific needs of each child. Therefore, it is believed that videos can be used as a CET even in the hospital environment, contributing significantly to the training of parents/caregivers.

The educational potential of videos was evidenced in a study on newborn care. After parents and family members watched a video produced and validated by health professionals, they concluded that this educational resource contributed to the improvement of learning, information acquisition and enable caregivers to feel safe in the process of caring[19].

The video, evaluated by mothers, on the aspiration of tracheostomy cannula of children in the home, addresses the reuse of suction probes, because this procedure, when performed at home, adopting care with the cleaning and packaging of the probes, can be performed in patients who require frequent aspiration[20]. Regarding this technique, only one mother disagreed, the others found it important to learn about the care for the reuse of probes, because it could greatly reduce the costs with suction probes.

A study on the reuse of suction probes was conducted in a pediatric outpatient clinic in Rio de Janeiro with eight caregivers of children using tracheostomy. The professionals declared to use the clean aspiration technique for the following reasons: they do not receive the probes from the public power, have difficulty in finding the probes in the cities where they live, do not have financial conditions for the purchase, situation that leads them to face legal proceedings to obtain the necessary materials and equipment for the care of the child using tracheostomy[21].

It should be noted that the fact that many mothers need to leave their paid jobs and do not contribute to family income has significant economic impacts on families, since the child's father assumes full financial responsibility. Moreover, the care of CRIANES increases the living cost of the family due to the need for specialized materials, equipment and care for the maintenance of life[21].

In the present study, there were no reports about the difficulty in acquiring materials for home care to children using tracheostomy. Nevertheless, a study[13] describes reports of judicialization to obtain the materials and equipment necessary for the care of children undergoing tracheostomy[21].

Considering that some families have

difficulty in acquiring the materials for the care required by CRIANES and that the clean technique can be implemented safely, provided that all the care is observed and followed, it is believed that the guidelines addressed in the second video on aspiration of tracheostomy cannula of children at home, specifically about the clean technique and its care, can help in the training of mothers who already use this technique and that are often not guided on the correct way of reusing the tracheal probe.

Among the emergencies that may occur with a tracheostomy cannula, decannulation requires immediate replacement of the cannula due to the potential risk of death by airway collapse when the device is accidentally removed. In view of this possible problem, participants from another study reported concern and anxiety about receiving discharge and taking their child home, because they did not feel prepared to act in the event of an emergency, emphasizing the need for training to start even before scheduling the child's discharge from hospital[22].

Feelings of fear and inability to care for a child using tracheostomy at home were evidenced in a training program of a reference hospital in pediatrics and reinforce the need for this training to start still in hospital environment, increasing the preparation of parents/caregivers for hospital discharge and preventing complications related to the child's device[23].

The results of these studies are in agreement with the mothers' speeches about their fears and anxieties, as well as the importance of guidance on care and complications during hospitalization so that they can clarify doubts, minimize fears and thus feel more empowered to care. These considerations are confirmed by the report of a mother who said she took care of her child for several days before discharge, while waiting for the arrival of the mechanical ventilator, having the opportunity to perform the change of tracheostomy cannula supervised by the nurse and doctor of the Intensive Care Unit (ICU). Consequently, in the mother's speech, it is observed that she returned home feeling safer and prepared for the care of her child.

Another result that draws attention in the present study is the need for organization, planning and embracement of children using tracheostomy by health services, which, according to mothers, at times, do not consider the needs and vulnerabilities of children. This result is contrary to the byelaw of the person with disabilities, which indicates initial and continuous training to professionals who assist the person with disabilities regarding the provision of health care according to the needs of each user, especially in habilitation and rehabilitation services[24].

In a study conducted in a pediatric hospital unit[25], nurses emphasized that caring for CRIANES requires scientific knowledge, knowing the child's health condition, the appropriate techniques and protocols, and indicate that the greatest difficulties faced by them are related to the approach of these children due to the lack of preparation and the absence of health services support in the care of this specific public that demands differentiated and complex care. Corroborating these considerations, the present study reinforces the need for permanent education activities to constantly update the team, aiming to better prepare these professionals and, consequently, to ensure quality care provided to CRIANES and their families/caregivers.

Therefore, there is an urgent need to organize the health services that make up the HCN for the standardization of care for children using tracheostomy, mediated by protocols built together with multiprofessional and interdisciplinary teams, because the care found on the internet is not always safe, since not all search sites are reliable and scientific, a situation that can aggravate the child's health.

Regarding the construction of protocols for care organization, a study carried out in the state of Paraná with eight HCSs was highlighted, whose objective was to develop a protocol for organizing the flow in HC services for CRIANES care. The action plan includes: scheduled hospital discharge, referral to HCS, eligibility assessment, caregiver preparation, health transport, admission roadmap, singular therapeutic project, shared care, follow-up, telephone guidance, electronic and interconnected records and specific flow in the emergency network[26].

Faced with doubts about care and the lack of guidance, mothers reveal that they seek information on the internet, as it is a quick way

to get access to answers about what and how to perform some care. With the advancement and ease of access to the internet, the search for online information has increasingly become part of people's daily lives. The search sites available on the web allow finding information in different formats, such as texts, images, videos, music, among others[27].

In a study conducted at a North Carolina children's hospital with parents/caregivers of children with indication for tracheostomy, all mentioned the internet as a research resource to understand medical terms, the health condition of the child with tracheostomy and seek resources to care for it. Health professionals who participated in the study are not confident about the quality or applicability of online information[28].

The move from hospital to home causes in family members feeling of insecurity, fear and anxiety in having to take care of sometimes complex care that lead to the need to learn new knowledge and skills. Studies[21,29] reveal that, in these situations, the nurse assumes a fundamental role in order to offer support, embracement, guidance and encourage the caregiver to face this moment of transition from hospital to home, serving as a support for the clarification of doubts with the purpose of offering a humanized care to the family, promoting the quality of life of the child with tracheostomy.

FINAL THOUGHTS

The evaluation of videos by the target audience revealed the need for access to videos before the dehospitalization of CRIANES, providing parents/caregivers with a more adequate preparation for home care, providing the opportunity to clarify doubts and provide feelings of confidence and security, and consequently, alleviating the fear of taking their child home with the tracheostomy device.

A strong point in the evaluation of the videos was their potential to provide training for other caregivers who cannot be present during the child's hospitalization. In addition, they assist nurses in organizing and planning the childcare during tracheostomy.

In the evaluation, it was evident the ease of use of videos by the target audience, being highlights the easy understanding by the association of the speeches, images and simulation, providing understanding and learning.

Regarding the implications for nursing practice, videos can be shared quickly and easily through social networks, tools that are useful for nurses in training parents and caregivers. They can also subsidize ongoing education of health professionals, contributing to the care of children in tracheostomy use.

The impossibility of evaluating videos with mothers of children still in the hospital environment and assisting in the process of dehospitalization of CRIANES is considered as a limitation. As suggestions, sending videos during hospitalization may help in training and learning early, thus contributing to adequate preparation for discharge.

VÍDEOS EDUCATIVOS SOBRE OS CUIDADOS DOMICILIARES À CRIANÇA EM USO DE TRAQUEOSTOMIA: AVALIAÇÃO PELO PÚBLICO-ALVO

RESUMO

Objetivo: avaliar a acessibilidade, aplicabilidade e usabilidade de vídeos educativos, com pais/cuidadores de crianças em uso de traqueostomia. **Método:** estudo de abordagem qualitativa, realizado com pais/cuidadores de crianças em uso de traqueostomia atendidas por um Serviço de Atenção Domiciliar de um município do Oeste de Santa Catarina. A coleta de dados ocorreu por meio de entrevistas gravadas no domicílio após a visualização dos vídeos pelo público-alvo, em junho de 2021. A análise foi temática indutiva. **Resultados:** foram entrevistadas sete mães de crianças em uso de traqueostomia. Os dados foram apresentados em duas categorias temáticas: importância dos vídeos como tecnologia educacional e organização/planejamento dos serviços de saúde para o cuidado à criança em uso de traqueostomia e discutidos considerando a literatura científica sobre o tema. A avaliação revelou que os vídeos são de fácil entendimento e que a associação de falas, imagens e simulação facilita a compreensão e o aprendizado, contudo, precisam ser disponibilizados antes da desospitalização. **Considerações finais:** os vídeos podem auxiliar no empoderamento dos pais/cuidadores para os cuidados domiciliares da criança em uso de traqueostomia, além de subsidiar o enfermeiro nas atividades de educação permanente com a equipe para organização e planejamento da alta hospitalar.

Palavras-chave: Enfermagem. Saúde da Criança. Serviços de Assistência Domiciliar. Tecnologia educacional. Traqueostomia.

VIDEOS EDUCATIVOS SOBRE EL CUIDADO DOMICILIARIO AL NIÑO EN USO DE TRAQUEOSTOMÍA: EVALUACIÓN POR EL PÚBLICO DESTINATARIO

RESUMEN

Objetivo: evaluar la accesibilidad, aplicabilidad y usabilidad de videos educativos con padres/cuidadores de niños en uso de traqueostomía. **Método**: estudio de enfoque cualitativo, realizado con padres/cuidadores de niños en uso de traqueostomía atendidos por un Servicio de Atención Domiciliaria de un municipio del Oeste de Santa Catarina/Brasil. La recolección de datos se llevó a cabo mediante entrevistas grabadas en el domicilio tras la visualización de los videos por el público destinatario, en junio de 2021. El análisis fue temático inductivo. **Resultados**: se entrevistaron a siete madres de niños en uso de traqueostomía. Los datos fueron presentados en dos categorías temáticas: importancia de los videos como tecnología educativa y organización/planificación de los servicios de salud para el cuidado del niño en uso de traqueostomía; y fueron discutidos considerando la literatura científica sobre el tema. La evaluación reveló que los videos son de fácil comprensión y que la asociación de relatos, imágenes y simulación facilita la comprensión y el aprendizaje, sin embargo, deben estar disponibles antes de la deshospitalización. **Consideraciones finales**: los videos pueden ayudar en el empoderamiento de los padres/cuidadores para los cuidados domiciliarios del niño en uso de traqueostomía, además de subsidiar al enfermero en las actividades de educación permanente con el equipo para organización y planificación del alta hospitalaria.

Palabras clave: Enfermería. Salud del Niño. Servicios de Asistencia Domiciliaria. Tecnología educativa. Traqueostomía.

REFERENCES

1. Nageswaran S, Easterling D, Ingram CW, Skaar JE, Miller-Fitzwater A, Ip EH. Randomized controlled trial evaluating a collaborative model of care for transitioning children with medical complexity from hospital to home healthcare: Study protocol. Contemporary Clinical Trials Communications. 2020; 20. Doi: https://doi.org/10.1016/j.conctc.2020.100652
2. Barreiros CF, Gomes MA, Mendes Júnior SC. Children with special needs in health: challenges of the single health system in the 21st century. Revista Brasileira de Enfermagem. 2020; 73 (4): e20190037. Doi: https://doi.org/10.1590/0034-7167-2019-0037
3. Oliveira NL, Barbosa EM, Pitombeira MG, Chaves EM, Carvalho RE. Tecnologia educativa para cuidadores de crianças e adolescentes dependentes de cuidados especiais no domicílio. Revista Eletrônica de Enfermagem. 2020; 22. 56051. Doi: https://doi.org/10.5216/ree.v22.56051
4. Klein K, Issi HB, Souza NS, Ribeiro AC, Santos EEP, Senhem GD. Desospitalização de crianças dependentes de tecnologias: perspectiva da equipe multiprofissional de saúde. Rev Gaúcha Enferm. 2021;42. Doi: https://doi. org/10.1590/1983-1447.2021.20200305
5. Dias BC, Marcon SS, Reis P, Lino IGT, Okido ACC, Ichisato SMT, Neves ET. Dinâmica familiar e rede social de famílias de crianças com necessidades especiais de cuidados complexos/contínuos. Rev Gaúcha Enferm. 2020; 41. https://seer.ufrgs.br/index.php/rgenf/article/view/99815
6. Tres DA, Martini RG, Toso BRGO, Zanatta EA. Characterization of Home Care Services and care for children with special health care needs. Rev Esc Enferm USP. 2022;56: e20220032. Doi: https://doi.org/10.1590/1980-220X-REEUSP-2022-0032en
7. Araujo OR, Azevedo RT, de Oliveira FRC, Colleti Junior J. Tracheostomy practices in children on mechanical ventilation: a systematic review and meta-analysis. J Pediatr (Rio J). 2022; 98(2):126–35. Doi: https://doi.org/10.1016/j.jped.2021.07.004
8. Volsko TA, Parker SW, Deakins K, Walsh BK, Fedor KL, Valika T, Ginier E, Strickland SL. AARC Clinical Practice Guideline: Management of Pediatric Patients With Tracheostomy in the Acute Care Setting. Respiratory Care. 2020; 66 (1): 144-155. Doi: https://doi.org/10.4187/respcare.08137
9. Silva-Rodrigues FM, Bernardo CSG, Alvarenga WA, Janzen DC, Nascimento LC. Transição de cuidados para o domicílio na perspectiva de pais de filhos com leucemia. Rev Gaúcha Enferm. 2019;40: e20180238. Doi: https://doi.org/10.1590/1983-1447.2019.20180238
10. Salbego C, Nietsche EA, Teixeira E, Girardon-Perlini NM, Wild CF, Ilha S. Care-educational technologies: an emerging concept of the praxis of nurses in a hospital context. Revista Brasileira de Enfermagem. 2018; 71(6): 2666–74. Doi: https://doi.org/10.1590/0034-7167-2017-0753
11. Capes. Produção Técnica. Brasília, DF: Ministério da Educação, 2019. Disponível em: < https://www.gov.br/capes/pt-br/centrais-de-conteudo/10062019-producao-tecnica-pdf>
12. Tonel JZ, Vieira ACG, Rodrigues AP, Bolzan GP, Padoin SMM, Paula CC. Video clip for learning the physiology of lactation: evaluation by the family support network for breastfeeding women. Texto Contexto Enferm. 2023; 32: e20230048. Doi: https://doi.org/10.1590/1980-265X-TCE-2023-0048en
13. Gorla BC, Jorge BM, Oliveira AR de, Rocha LAC, Assalin ACB, Girão FB. Cateter venoso central de curta permanência: produção de vídeos educativos para a equipe de enfermagem. Esc Anna Nery. 2022; 26: e20210392. Doi: https://doi.org/10.1590/2177-9465-EAN-2021-0392pt
14. Teixeira E, Nascimento MHM. Pesquisa metodológica: perspectivas operacionais e densidades participativas. In: Teixeira E, organizador. Desenvolvimento de tecnologias cuidativo-educacionais. Porto Alegre (RS): Moriá; 2020. v. 2, cap. 3, p. 51-61.
15. Benevides JL, Coutinho JF, Pascoal LC, Joventino ES, Martins MC, Gubert FD, Alves AM. Development and validation of educational technology for venous ulcer care. Revista da Escola de Enfermagem da USP. 2016; 50 (2): 50(2):0309–16. Doi: https://doi.org/10.1590/s0080-623420160000200018
16. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006; 3(2): 77–101. Doi: https://doi.org/10.1191/1478088706qp063oa
17. Torquato RC, Rovere GP, Pitombeira MG, Pereira AD, Santos LK. Preparation for the care of children with chronic diseases: the perception of caregivers. Rev Rene. 2020; 21: e43870. Doi: https://doi.org/10.15253/2175-6783.20202143870
18. Nobre G, Sousa GS, Lima MM, Lima YM, Ferreira MG. Everyday marks: experience of the woman-mother and caregiver of

children with special health needs. Research, Society and Development. 2020; 9 (11): e649119557. Doi: https://doi.org/10.33448/rsd-v9i11.9557

19. Sousa LB, Braga HFGM, Alencastro ASA, Silva MJN, Oliveira BSB, Santos LVF, et al. Effect of educational video on newborn care for the knowledge of pregnant and postpartum women and their families. Rev Bras Enferm. 2022; 75: e20201371. Doi: https://doi.org/10.1590/0034-7167-2020-1371

20. Brasil. Orientações para o cuidado com o paciente no ambiente domiciliar. Brasília: Ministério da Saúde, 2018. https://bvsms.saude.gov.br/bvs/publicacoes/orientacoes_cuidado_paciente_ambiente_domicili ar.pdf

21. Bossa PM, Pacheco ST, Araújo BB, Nunes MD, Silva LF, Cardoso JM. Desafios de familiares no cuidado domiciliar da criança em uso de cânula de traqueostomia. Revista Enfermagem UERJ. 2019; 27: e43335. Doi: https://doi.org/10.12957/reuerj.2019.43335

22. Viana I da S, Silva LF da, Cursino EG, Conceição DS da, Goes FGB, Moraes JRMM de. Encontro educativo da enfermagem e da família de crianças com necessidades especiais de saúde. Texto contexto - enferm. 2018;27(3): e5720016. Doi: https://doi.org/10.1590/0104-070720180005720016

23. Nascimento de Jesus, M., Siqueira, S., Jesus Fernandes, L., Costa da Cunha Ferreira, D., Silva de Jesus, V., & Laura de Camargo, C. Preparo dos pais para a desospitalização de crianças em uso de traqueostomia e gastrostomia/ Parents' preparation for the dehospitalization of children using tracheostomy and gastrostomy. Ciência, Cuidado E Saúde. 2023; 22: e58610. Doi: https://doi.org/10.4025/ciencuidsaude.v22i0.58610

24. Brasil. Lei nº 13.146, de 6 de julho de 2015. Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência. Ministério da Saúde [Internet] Brasília. 2015. https://pesquisa.bvsalud.org/portal/resource/pt/mdl-34787277

25. Oliveira JP, Silveira AD, Silva EB, Buboltz FL, Neves ET. Cuidados de enfermagem a crianças/adolescentes com necessidades especiais de saúde hospitalizadas em unidade pediátrica. Research, Society and Development. 2021; 10 (3): e15010313054. Doi: https://doi.org/10.33448/rsd-v10i3.13054

26. Rossetto V, Toso BR, Rodrigues RM. Organizational flow chart of home care for children with special health care needs. Revista Brasileira de Enfermagem. 2020; 73 (4): e20190310. Doi: https://doi.org/10.1590/0034-7167-2019-0310

27. Borges RP. Tecnologia da informação e comunicação I. Natal: IFRN, 2019. https://memoria.ifrn.edu.br/bitstream/handle/1044/1984/TIC1_un1-3.pdf?sequence=1&isAllowed=y

28. Nageswaran S, Gower W, King N, Golden S. Tracheostomy decision-making for children with medical complexity: What supports and resources do caregivers need? Palliative & Supportive Care. 2022; 24: 1-7. Doi:10.1017/S1478951522001122

29. Precce ML, Moraes JR. Educative process with relatives of children with special health needs in the hospital-home transition. Texto & Contexto - Enfermagem. 2020; 29: e20190075. Doi: https://doi.org/10.1590/1980-265x-tce-2019-0075

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