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Original Article

Contribution of family members in the idealization of an educational booklet on child care after hospital discharge

Contribuição de familiares na idealização de cartilha educativa sobre cuidados à criança após alta hospitalar

Contribución de los familiares en la creación de un folleto educativo sobre el cuidado del niño tras el alta hospitalaria

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Abstract

Objective: to describe the contributions of family members in the creation of an educational booklet on home care provided to children after hospital discharge. **Method**: qualitative research, developed in a public hospital in the countryside of the state of Rio de Janeiro, through a semi-structured script with 30 family members of hospitalized children, whose data were processed in the IRAMUTEQ Software. **Results:** the grouping into classes allowed the list of topics to be addressed in the educational booklet, namely: care for the child, home environment, clothing, bath, medication, pet, carpets, and curtains, identification of respiratory conditions, symptoms and allergy to milk protein. In addition, family members seek to be welcomed by health professionals and the booklet should present simplified, playful and inviting information. **Conclusion**: the testimonies of family members contribute to the construction of an educational health technology based on the needs of the target population, facilitating the continuity of care at home after hospital discharge.

Descriptors: Child Health; Educational Technology; Patient Discharge; Family; Nursing

Resumo

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Objetivo: descrever as contribuições de familiares na idealização de cartilha educativa sobre cuidados domiciliares prestados à criança após a alta hospitalar. **Método**: pesquisa qualitativa, desenvolvida em hospital público no interior do estado do Rio de Janeiro, por meio de roteiro semiestruturado com 30 familiares de crianças hospitalizadas, cujos dados foram processados no *Software* IRAMUTEQ. **Resultados:**

o agrupamento em classes permitiu o elenco de tópicos a serem abordados na cartilha educativa, a saber: cuidado com a criança em si, ambiente domiciliar, roupa, banho, medicação, animal de estimação, tapetes, cortinas, identificação de quadros respiratórios, sintomas e da alergia à proteína do leite. Ademais, familiares almejam ser acolhidos pelos profissionais de saúde e a cartilha deve apresentar informações simplificadas, lúdicas e convidativas. **Conclusão**: os depoimentos dos familiares contribuem para construção de uma tecnologia educacional em saúde pautada nas necessidades da população-alvo, facilitando a continuidade do cuidado no domicílio após a alta hospitalar.

Descritores: Saúde da Criança; Tecnologia Educacional; Alta do Paciente; Família; Enfermagem

Resumen

Objetivo: describir las contribuciones de los familiares en la creación de un folleto educativo sobre los cuidados domiciliarios brindados a los niños después del alta hospitalaria. **Método:** investigación cualitativa, desarrollada en un hospital público del interior del estado de Río de Janeiro, mediante un guión semiestructurado con 30 familiares de niños hospitalizados, cuyos datos fueron procesados mediante el software IRAMUTEQ. **Resultados:** la agrupación en clases permitió abordar la lista de temas a tratar en el folleto educativo, a saber: cuidado del niño en si, ambiente del hogar, vestimenta, baño, medicamentos, mascota, alfombras, cortinas, identificación de afecciones respiratorias, síntomas y alergia a la proteína de la leche. Además, los familiares quieren ser bien recibidos por los profesionales de la salud y el folleto debe presentar información simplificada, divertida y atractiva. **Conclusión:** los testimonios de los familiares contribuyen para la construcción de una tecnología educativa en salud basada en las necesidades de la población objetivo, facilitando la continuidad de la atención en el domicilio después del alta hospitalaria. **Descriptores:** Salud infantil; Tecnología Educacional; Alta del Paciente; Familia; Enfermería

Introduction

The hospital discharge process presents a challenge for the family, as they often feel unprepared to take care of the child at home. This unpreparedness is usually due to the way it is inserted in care during hospitalization, since family involvement in the care plan is still incipient and demonstrates that conflicts result from insufficient information, lack of dialogue, lack of empathy and difficult interpersonal interactions that can influence, above all, understanding and learning, impairing the formation of bonds and the quality of care provided at home.¹⁻²

In this directive, all this process without adequate preparation makes it difficult to manage care at home, causing doubts in family members. This gap sometimes results in frequent readmissions of children, which usually result from gaps in the preparation and planning of discharge during the family's stay in the hospital with devaluation of its uniqueness and needs, impacting on the guarantee of continuity of care after hospital discharge.³

Considering the experience and doubts of family members in child care is essential for health professionals to plan care for this child and his/her family member after hospital discharge. The need for understanding by health professionals about the peculiarities of the coordination of the transition process to the home and the importance of the interprofessional team to develop joint actions in the planned care beyond hospitalization is identified.¹

To this end, it is necessary that family members be part of the whole process and that the preparation of hospital discharge is based on pillars such as individuality and the provision of clear, succinct and easy-to-understand support and guidance for family members.⁴ When considering that the use of educational technologies contributes to the success of health education, the feasibility of using an educational booklet aimed at accompanying the family member at home stands out, as it is an instrument that can reinforce verbal guidance, serve as a guide at home, for example, in the face of doubts in the development of care delivery and difficulties in management.⁵⁻⁷

An educational booklet can contribute to strengthening family care so that it becomes effective to mitigate the child's clinical worsening and consequently his readmission to the hospital. To this end, it is important to identify the contributions of family members in the preparation of this educational booklet to provide excellent care to the child at home after hospital discharge.

Educational technology in the form of a booklet is relevant due to the prominence that these printed materials have been achieving, as they are well accepted and used as an educational tool capable of expanding knowledge, due to their easy applicability and reading. For this reason, the educational booklet is one of the most used for several segments, such as family members, when the objective is to provide clear and succinct guidance.⁷

Therefore, the present study is justified by the importance of educational practices in view of the continuity of child care by family members at hospital discharge, in addition to the lack of publications related to the theme.⁸

In this directive, the use of the booklet stems from the need to provide written educational materials to support family members, regarding the continuity of care of the child in the face of hospital discharge, becoming relevant to this practice, preventing harm and, consequently, the readmission of the children to the hospital. In addition, the idealization of the booklet based on the contributions of family members makes it possible to meet their singularities and needs in the management of the children due to hospital discharge. Therefore, considering the gaps between knowledge and practice in the care of these children by the family member at home, the objective was to describe the contributions of family members in the idealization of an educational booklet on home care provided to the child after hospital discharge.

Method

Descriptive research, with a qualitative approach, which presents the first stage of the matrix project entitled: "Elaboration and validation of an educational booklet about the care provided to the child by the family member at home in the face of hospital discharge". To this end, it was developed in a public hospital located in the countryside of the state of Rio de Janeiro, Brazil, specifically in the pediatric hospitalization sector. For the description of the research, the Consolidated Criteria for Qualitative Research Reports (COREQ) was adopted.⁹

The study scenario was a public hospital of municipal authority, intended for care by the Unified Health System (SUS). This institution was listed due to the high turnover of patients, receiving not only the population of the municipality where it is located, but also from neighboring regions, configuring a gateway to requesting units, as it is large and has a reference maternity hospital in the region. In addition, it has a nursery, pediatric emergency and pediatric inpatient unit, which meet a wide variety of clinical diagnoses. It has two wards with three beds each and two beds intended for isolation. However, it does not have a pediatric and neonatal intensive care center, but, in these cases, it has the vacancy regulation center to refer children of greater severity.

The inclusion criteria were: family member aged 18 years or older who had a direct relationship with the child and who remained hospitalized for at least three days in the pediatric hospitalization sector (it was expected that the participant would be adapted to the scenario by checking information concerning the object under study), regardless of whether it was the child's first hospitalization. As exclusion criteria: family member who, despite having direct contact with the child, presented mental and/or cognitive disability.

Regarding the sample, the participants were selected for convenience during the data collection period, from July to September 2022, through an invitation made in person to participate in the research by the undergraduate student accompanied by the supervisor with a PhD in nursing and experience in the development of qualitative research. They introduced

themselves to the intended participant, the person in charge, explaining in detail and clearly, through colloquial language, what the research referred to and its objectives. In addition, it was explained that the interview would last a mean of 20 minutes, would be recorded in digital media and later transcribed in full.

The structured interviews were carried out in the wards at an opportune time when only the researcher, the family member and the child were present, at the time when they were comfortable, calm and serene respecting the moment of sleep.

It is noteworthy that the collection took place until the theoretical saturation of the data, respecting the minimum necessary for analysis by the *Software Interface de R pour Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ), which recommends between 20 and 30 texts.¹⁰

The face-to-face interviews followed a semi-structured script prepared by two of the researchers with a PhD in nursing and previously tested through application with two guardians, which made it possible to identify a weakness and the need for adaptation in two of the open questions, making them clearer for the understanding of the deponent. It is noteworthy that these interviews were not included. In addition, none of the participants, during data collection or after, expressed a desire to withdraw from the study.

The semi-structured script was divided into two parts, the first containing questions relating to the characterization of the sociodemographic profile of those responsible, such as: age, gender, race, degree of kinship, education, diagnosis of the hospitalized child, among others.

The second part of the script contained questions aimed at the objective of the study, namely: 1) Were you advised during hospitalization on how to care for your child after hospital discharge? If your answer is yes, what guidance did you receive? 2) If not, what would you like to be advised on before your child is discharged? 3) Without these guidelines, do you believe you will be able to care for your baby at home given medical recommendations? 4) Do you believe that a booklet with guidelines for implementing the care provided to your baby at home could help? If yes, explain how the booklet can help? 5) What guidelines would you like to see in the booklet for caring for your child at home? 6) If you could choose, how would you build the booklet so that everyone would want to read it? (What would the educational booklet look like?); 7) Is there anything you want to mention that has not yet been discussed in the interview? Do

you have any suggestions?

It was clarified to the family that its participation could generate discomfort by revisiting moments and stories experienced with the children during hospitalization. In the event of discomfort of any nature, the interview would be interrupted immediately and the person responsible would be free to decide whether or not to continue to participate in the study.

After the transcription of the interviews, they constituted the primary source of data submitted to lexicographic analysis, through the IRAMUTEQ Software and the methods of Classical Textual Statistics and Descending Hierarchical Classification (DHC).¹⁰ It should be noted that the data processing in IRAMUTEQ was carried out by two students at the same time, who were accompanied by the guiding teacher.

The content of the responses (text segments) was based on the methodological assumptions of Thematic Analysis, which consists of discovering the nuclei of meanings that make up a communication whose presence or frequency means something to the analytical object. To this end, the active forms of each class of text segments were rescued, including nouns, adjectives and unrecognized forms, with emphasis on those that obtained in the chi-square test ($\chi 2$) a value \geq 3.84 and a p <0.05 and with (p< 0.0001), which reveals the associative strength between the words in their respective class. From this rescue, we sought to reach the nucleus of understanding the participants' responses, making inferences and interpretations according to the conceptual frameworks of the study.¹¹

Ethical aspects were met in accordance with Resolution number 466 of 2012 of the National Health Council and all participants were assured of the confidentiality and anonymity of their information by accepting the Informed Consent Form. The study was submitted to the Ethics and Research Committee of Federal University Fluminense and had its Opinion approved under number 5,341,703 on April 9, 2022. In order to preserve the identity of the participants, an alphanumeric code was used as a form of identification, namely: "Part" (referring to the participant), accompanied by a sequential ordinal number (Part 01).

Results

Thirty guardians of children hospitalized in the pediatric unit participated in the study,

most of them 27 (90%) female, who declared themselves as brown 15 (50%), followed by 11 (36.6%) who declared themselves black. Regarding the degree of kinship, 26 (86.6%) were mothers of hospitalized children, aged between 18 and 38 years, followed by parents 3 (10%) fathers and 1 grandmother (3.3%). Regarding marital status, 15 (50%) were married and of the total number of participants 16 (53.3%) had completed high school. As for the diagnosis of the hospitalized child, pneumonia added up to the highest number with 16 (53.3%), followed by bronchiolitis with five (17.7%).

In view of Classical Textual Statistics, the resource with lemmatization was selected, that is, a process of reducing the word to its root.¹² The generated textual *corpus* consisted of 30 texts, with a total of 16042 occurrences/words, 1219 forms (lexical unit) and 533 (43.7%) of single occurrence (hapax).

In this descriptive statistical analysis, the Zipf diagram (Figure 1) was obtained, which presents the behavior of the frequencies of the words in the *corpus*, in a graph that illustrates on the vertical axis (y) the position of the frequencies of the words in descending order and on the horizontal axis (x) the frequencies of the forms. Thus, the (y) axis demonstrates how many times a word and its associated (derived) forms appear, while the (x) axis shows its quantity. Thus, it is possible to observe in the (y) axis that the greater the frequency of a form/word, the smaller its quantity in the text, so it presents few words that were repeated several times, while the (x) axis presents the inverse, a greater number of words that were repeated few times.

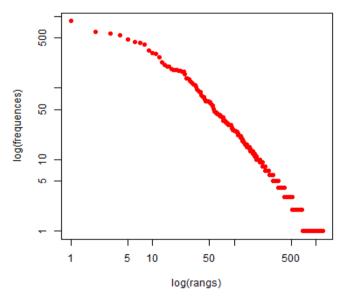


Figure 1 - *Zipf* Chart. Rio das Ostras, RJ, Brazil, 2022.

When analyzing the terms that were predominant in the set of terms analyzed, in view

of the investigated object, contributions from family members in the idealization of an educational booklet on home care provided to the child after hospital discharge, the six most active forms in order of ranking were: no (fr= 536); because (fr= 264); thing (fr=200); how (fr=183); then (fr=178) and knowing (fr=170). The adverb "no" was the most frequent term when family members reported not being advised during the child's hospitalization. Likewise, the terms "because", "thing", "how", "then" and "knowing" were reported by family members as a difficulty for the continuity of the child's care in the face of hospital discharge, because without guidance on "things" at home and "how" to "know" care at home, the risk of the child being readmitted to the hospital increases.

[...] But this is how we know how to prevent it so we don't have to go back to the hospital again [...]. (Part 01) About food too, because at home she eats, but here she eats other types of things, in relation to this they never gave me instruction. (Part 02) I would like to know if here she is getting better and when she gets home she gets worse, something they do well here and I don't do it at home. (Part 03)

Another analysis performed was the Reinert Method or Descending Hierarchical Classification (DHC). From the segmentation of the textual *corpus* by classes of text segments and their words, through DHC, the central ideas arising from the participants' answers were evidenced. Thus, the hierarchical analysis retained 476 text segments, classifying 476, thus taking advantage of 100% of these segments, forming four classes, that is, four groupings of text segments that have similar and correlated words. After analysis, the data were organized in a dendrogram (Figure 2) that presents words with associative strength confirmed by the results of the chi-square test ($Chi^2 \ge 3$, 84), which illustrates the relationships between the classes and the percentage of each of them.

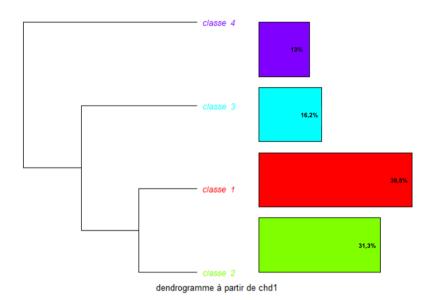
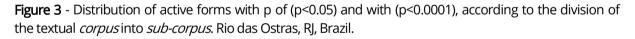


Figure 2 - Descending Hierarchical Classification Dendrogram. Rio das Ostras, RJ, Brazil, 2022.

In the dendrogram, the textual *corpus* was divided into three *sub-corpus*. The first was composed of Class 4 in purple (13%), the second by a subdivision encompassing Class 3 in blue (16.2%), which in turn subdivided and gave rise to the third *sub-corpus* composed of Class 2 in green (31.3%) and Class 1 in red (39.5%). Given the analysis of the *corpus* by the software, it is possible to understand that Classes 1, 2 and 3 are associated with each other and Class 4 opposes, in lexical terms, these classes. The text segments of each cluster were retrieved and interpreted in detail, in which each class, facing its nuclei of meaning, received a denomination, as described below. Figure 3 shows words with associative strength in each class confirmed by the results of the value of (p<0.05) and extremely significant words with (p<0.0001).

		_	-	1.1	
		corpus	(13%)	p<0,001	bath; clothing; warm; bed; cold; water; respect; animal; night; heat; mat; freezing; body; cat; beach; contribute; to drink; smell; to wash; normal
	3	First sub-corpus	Class 4 (p<0,05	to prevent; curtain; clean; coldness; different; perfume; hand; to turn; trend; Sun; practical; front; air conditioning; to lead; to understand; to increase; problem; to use; inside; campaign; life; change; immunity; hygiene; bathroom; to go out
		snd	2%)	p<0,001	pediatrician; milk; cough; sinusitis; frame; symptom; exam; allergy; to cough; weight; protein; strong; until; mite; reason; serious; to close; flu; hospitalization;
		sub-cor	Class 3 (16,2%)	P -,	to fall probably; diagnosis; to the; yesterday; to take; quiet; blood; repeat; step by
SUU		Second sub-corpus	Class	p<0,05	step; ingest; exist; food; illness; fever; treatment; right; to search for; light; to hold; vaccine; to list; to lose; dysplasia; alert; cause; to inform; antibiotic; flu; to increase; duty; month; to get; now
Sub-corpus	1	rpus	~	p<0,001	care
			Class 1 (39,5%)	p<0,05	to find; to avoid, more; guidance; to call; possible; to focus; to manipulate; also; to read; design; important; to solve; relationship; basic; quite; today; to care; to take; food; to change; woman; colorful; return; air; any less; to need; booklet; child; people; respiratory; world; book; information; ear; belly button; image; writing; to depend; to talk; complicated; to breathe; dangerous; news; dosage; color; environment; hand; Internet; thing
	4	Third sub-corpus			
		Third	3%)	p<0,001	turn; high; to teach; to know
			Class 2 (31,3%)	p<0,05	here; necessary; to look; only; doubt; really; yet; to treat, nurse; spacer; to happen; bomb; all; to use; nasal; there; fear; to finish; nebulizer; to suppose; to receive; massage; there; to ask; new; index; to sit; health; fear; chest; patience; now; to speak; to like; notion; animal; lost; to handle; to learn; time; side; situation; specific; case; to come; to go out; after; serum



First sub-corpus - environmental care at home after hospital discharge

Class four gathered a large number of words that have high significance, revealing essential topics to compose the booklet in view of the doubts of family members regarding the implementation of environmental child care at home, clothing, pets, use of carpets, curtains, bath, among others. In this class, the terms refer to the day-to-day care of the child at home in order to prevent diseases.

> If the baby can take a cold bath, if he has to take a hot bath, if he can wash his head, I have many doubts that could be clarified in this booklet. (Part 05) In the case of pneumonia, is it good to use cold water, hot water or warm water to bathe the baby? This issue of changing the weather, animals at home, these

things are important to avoid returning to the hospital. (Part 20) What are the procedures at home? What do you do with the bed linen, the bath, how do you bathe him and how do you take care of the house? Can you use curtains or carpets? How should I clean these things? (Part 15)

Second sub-corpus - identification of diseases by family members in the home context

In the same way, class three also gathered a large number of words with greater connection between them. Family members reported the importance of sharing information regarding the timely identification of respiratory conditions, such as pneumonia, in addition to information about allergy caused by milk protein, making these topics essential to compose the booklet.

> We search on the internet, but the internet is not reliable because my husband went to research the things my daughter was feeling and showed symptoms of sinusitis, and she had pneumonia. (Part 14)

> The colleague talked about the booklet to guide us, because we hardly hear about milk allergies and we don't know how serious it is; just like I didn't know. (Part 13)

> No one explained the symptoms of pneumonia to me so I could be aware. It's good to put the symptoms in the booklet, because otherwise mothers have to keep searching on Google. (Part 17)

Still in this class, it was possible to observe through the textual groupings that family

members point out that the lack of knowledge about the symptoms linked to the poor management of health care contributed negatively to the child's clinical worsening, as can be seen in the textual fragments.

> The first thing would be to include some probable symptoms for the correct diagnosis, as I only had a delay in diagnosing my baby, I went to several pediatricians and I suggested, asked: "is he not allergic to milk? (Part 13) Several times I came here and they didn't give me the right diagnosis. Why did my son reach this situation? He arrived coughing, and they said it was the flu; Now he is the way he is. (Part 17) I'll probably have to come back here or I'll have to find another pediatrician, as I need a better explanation about my daughter's exams to avoid this all again. (Part 01)

Third sub-corpus - the educational booklet in the management of child care at home

In Class 1, the term care is the main term of this class, with high significance. From the grouping of textual fragments, family members express a concern about the implementation of care itself in the face of the child's hospital discharge.

Care is important because it is a serious infection; Today I don't know how to deal with my baby's health at home; So this booklet will help, and I believe not

just me, but other mothers as well. (Part 13) I wanted to know more about care, prevention, what you can and can't do to make sure my little boy doesn't get sick. (Part 19) About being careful with medication, whether it would be continuous or only

during a crisis, the use of the nebulizer, which makes us very scared because they say it speeds up the heart. (Part 22)

Still in the care aspect, family members reported the importance of the booklet containing information in a simplified, playful and inviting way, in order to attract readers, aiming to mitigate doubts and expectations in the face of the implementation of child care at home.

> It would really be a mini booklet, it doesn't need to be anything very big, extensive, elaborate, really basic things, basic care that makes a difference, it would be more or less a booklet with some tips, anyway. (Part 11) Drawings that indicate and signal, a standard thing for everyone to understand the booklet, in addition to sentences with instructions with drawings, signaling. it would be nice. (Part 06) I think the booklet should be very clear and explanatory, do you understand? In more popular terms than medical terms, as clear as possible. (Part 16)

In class 2, the active forms that showed the greatest significance in descending order were: "time", "high", "teach" and "know". Based on the semantic content, it was possible to observe that these families expect health professionals to accept their expectations when planning hospital discharge.

After hospital discharge, the physician only advised seeking pediatric care, but did not teach anything specific about post-discharge care. (Part 30) I would really like to know and be guided about the disease, what can my little girl use? What should I do and what should I avoid? (Part 05) What was the main reason why my baby got worse and was hospitalized? I need to know so it doesn't happen again, to know about post-hospitalization care. (Part 12)

Discussion

The grouping into classes allowed the identification of different themes that contributed to the list of topics to be addressed in the construction of the educational booklet, namely: care for the child itself, the home environment, clothes, pets, carpets, curtains, bath, and medication, food, in addition to the identification of respiratory conditions, symptoms and allergy to milk protein. In addition, family members aim to be welcomed by health professionals and that the booklet presents information in a simplified, playful and inviting way. It is known that, in order to meet the demands of care, the person responsible for the child needs to be guided in order to understand how to proceed with the implementation of this care at home, being accompanied in the performance even during hospitalization. Thus, the safe, concrete and effective preparation for discharge is the result of health education actions permeated by dialogue, listening and bonding, with a view to empowering the families and favoring their autonomy in order to implement home care safely.¹³

Corroborating these findings, a research carried out in a pediatric unit of a mediumsized federal public hospital, located in Natal, Rio Grande do Norte, reported that the health team in the preparation of hospital discharge should work with the family on basic guidelines to be provided during the hospitalization period related to food, hygiene of the environment, the body, the climate and the presence of a domestic animal at home, with a view to the full restoration of health, facilitating the adherence of the child and his family to the treatment. However, in view of these needs, in health education, it is necessary to establish partnerships between these family members and professionals in the management of this process, so that adequate training strategies are developed in view of the need of each family to ensure the continuity of care in the home context.¹

In this regard, a research observed that hospital discharge planning, instead of being a collaborative action of care centered on the family and its real needs, is limited to the prescription of treatments and vertical care planning, deficient in supporting parents as managers of the care of their children at home.¹⁴

The lack of multidisciplinary planning for discharge, which would allow a prior organization of educational activities to be carried out since the beginning of hospitalization, hinders the acquisition of information by the family, which reduces the perception of doubts and does not even allow the team to assess in many cases how much these guidelines were or were not understood by family members. On the other hand, an overload of information carried out on time at the time of discharge causes parents to be unable to process it or contribute effectively to the discussions of care.²

In view of this, families today seek to somehow satisfy their needs for understanding the information offered superficially, incompletely or in the absence of such information. In this research, family members reported the use of the virtual network as a means to meet these information needs. A study points out that, by having this information, the patient and/or family

member believe they are better prepared to discuss issues related to health/disease with the health professional. In this case, there is room to question the individual with the greatest theoretical contribution on the subject in question and to participate in the counseling regarding the most appropriate treatment for the clinical condition presented by the individual.¹⁵

It is understood, therefore, that knowing the information needs of families of newborns or children in health units can help in the reorganization of professional practice, improve the care provided and insert the family as an effective part of care in these units, so that the bond with them is strengthened and hospitalization experienced in a less traumatic way as possible.¹⁵

In this directive, the creation of educational material by health professionals with family members collaborates in the process of family training and constitutes a promising strategy in the preparation of hospital discharge. This printed material, in the form of a booklet, reinforces the guidelines and also serves as a consultation tool in case of doubts when the family develops care at home, exactly as reported by the family members in the present study.¹⁶

In this regard, an integrative review on the contributions of health technologies to the promotion of breastfeeding showed that educational technologies predominated in relation to care and management and presented very valuable contributions to health promotion. In addition to highlighting the benefit of the printed format, it enhances the acquisition of information due to the lack of essential care among users at any time and place.¹⁷

Another aspect reported by family members is the lack of knowledge about signs and symptoms of some respiratory diseases that, linked to the poor conduct of health care provided and the unwelcoming and respectful approach by health professionals, are presented as barriers to the establishment of a bond, which together contributed negatively to the worsening of the child's clinical condition.

It should be noted that respiratory diseases, especially pneumonia, were the prevalent diseases in this analysis. This fact can be explained by the fact that children are more susceptible and sensitive to climatic variations, in addition to presenting immaturity of the immune system and reduced caliber of the airways, which can be more intensely repressed in the winter period, analogous to the data collection period, corroborating the construction of the booklet on these aggravations.¹⁸

Given these findings, there is a need to create a culture of support for family members in preparation for hospital discharge. It is understood the importance of the multidisciplinary team to distance itself from a mechanical and vertical action and develop strategies of education and care, sharing knowledge between professionals and the families inviting them to be active in the health-disease process of their children, understanding the disease, prevention, adequate hygiene conditions, favoring therapeutic adherence, in addition to information about the process of preparing for hospital discharge, enabling the continuity of care. Educational actions, simulation of procedures and creation of written material with an illustrative and scientific basis, when developed by health professionals guided by dialogue and interaction, strengthen the teaching-learning process of those involved with the direct care of the child in the home environment.¹⁹ However, for families and children to build this knowledge, health professionals must be available to dialogue, listen and support.²⁰

The lack of information reported by family members regarding the implementation of home care for children after hospital discharge can be minimized by health professionals, as shown by an investigation that identified strategies used to qualify the guidelines provided. It also highlights that, for an effective educational practice, it is not enough to identify the essential information, it is also necessary to qualify the methods used for this. Thus, health professionals must take into account the needs and particularities of each child and his family, with regard to the capacity and time required to understand the information, as well as the social, economic and literacy conditions of the family, adapting the recommendations to its realities.²¹ Aspects valued in the present, given the participation of family members in the idealization of the booklet, make it possible to meet the real needs and singularities through the implementation of care guidelines in the home environment.

Finally, family members highlighted as essential that the booklet shares information in a simplified, playful and attractive way. Corroborating this finding, a research identified as instruments and methods used to carry out the guidelines, playful and demonstrative practices, the use of printed materials, the repetition of information by the professional and especially by the caregiver, among others. In addition, it states that such instruments and methods corroborate the recommendations indicated to increase the quality of care and the safety of the child under treatment in the face of hospital discharge.²²

As limitations, it is understood that the idealization of this educational technology turns to respiratory conditions that tend to follow a seasonal pattern (related to climatic conditions) that often affects this population segment regarding the winter period related to data collection. Despite this bias, it was observed that even limited to this period, doubts were observed that were essential in order to point out the real needs of family members, constituting topics to be addressed in the educational booklet.

In addition, the incipient number of specific studies on the construction of an educational health booklet⁸ for the implementation of elementary care in the face of hospital discharge from the perspective of family members, but especially for its realization in a single scenario, limited the generalization of the findings. Despite having achieved the objective, it is emphasized the need for new research with different methodological design and in new scenarios aiming to expand knowledge not only about these health dangers, but as different types of diseases.

The use of simple words through a playful, interactive and attractive approach, in addition to the fruitful participation of family members, makes the construction of the alleged booklet different from other printed materials available. However, some aspects must be observed, such as the textual preparation that must be appropriate to the educational and cultural level of the intended audience, which contributes to the credibility and acceptance of educational technology²³ by the target audience.

Configuring a health education tool, the contribution of this study is ratified not only for family members, but for the clinical practice of nursing regarding the sharing of safe and qualified guidance on the implementation of care for children at home after hospital discharge.

Conclusion

From the contribution of family members, in view of the idealization of the educational booklet, it is noted the urgency of information directed, mainly, to home care with the environment, clothes, pets, carpets, curtains, bath, medication, food, in addition to the identification of respiratory conditions and allergy to milk protein, which will be topics to be addressed in the booklet under construction. It is understood, therefore, that the statements of the family members contributed to the idealization of an educational technology in health based on the needs of the target population, which favors the continuity of care for the child at home after hospital discharge.

It is also noteworthy that the innovation of this educational technology under

construction consists in the availability of information guided by the incorporation of the participants' statements, which can contribute to the management of the child at home. Therefore, the idealization of the booklet from their perspective is configured as a self-explanatory tool with the potential to stimulate reflections and the learning process of this target audience for the implementation of the therapeutic plan provided to the child at home. It is also addressed to health institutions and professionals as support material through the standardization of information in an assertive, qualified, simplified, playful and attractive way in the health education process in the face of hospital discharge.

References

1. Ramalho ELR, Nóbrega VM, Mororó DDS, Pinto JTJM, Cabral CHK, Collet N. Atuação da enfermeira no processo de alta hospitalar de criança com doença crônica. Rev Gaúcha Enferm. 2022;43:e20210182. doi: 10.1590/1983-1447.2022.20210182.en

2. Kuntz SR, Gerhardt LM, Ferreira AM, Santos MT, Ludwig MCF, Wegner W. First transition from hospital to home care for children with cancer: guidance from the multidisciplinary team. Esc Anna Nery Rev Enferm. 2021;25(2). doi: 10.1590/2177-9465-EAN-2020-0239

3. Nóbrega VM, Viera CS, Fernandes LTB, Collet N. Preparo para alta de crianças com doenças crônicas: olhar freiriano em aspectos influenciadores do cuidado no domicílio. Interface (Botucatu). 2022;26. doi: 10.1590/interface.210666

4. Palomares González L, Hernández Caravaca I, Gómez García CI, Sánchez-Solís de Querol M. A presença dos pais durante procedimentos pediátricos invasivos: depende de quê? Rev Latinoam Enferm. 2023;31:e3828. doi: 10.1590/1518-8345.6101.3829

5. Lima KF, Gomes ALA, Melo ESJ, Vasconcelos FX, Sousa JL, Martins MC, et al. Content validation of an educational booklet for asthma control and management in children. Rev Bras Enferm. 2021;74(Suppl 5). doi: 10.1590/0034-7167-2020-0353

6. Rodrigues LN, Santos AS, Gomes PPS, Silva WCP, Chaves EMC. Construction and validation of an educational booklet on care for children with gastrostomy. Rev Bras Enferm. 2020;73(3). doi: 10.1590/0034-7167-2019-0108

7. Santos AS, Rodrigues LN, Andrade KC, Santos MSN, Viana MCA, Chaves EMC, et al. Construction and validation of an educational technology for mother-child bond in the neonatal intensive care unit. Rev Bras Enferm. 2020;73(4). doi: 10.1590/0034-7167-2019-0083

8. Costa EAF. Produção de cartilha educacional acerca de cuidados com pacientes pediátricos do serviço de atenção domiciliar [dissertação]. João Pessoa: Universidade Federal da Paraíba; 2022 [acesso em 2023 set 09]. Mestrado em Saúde da Família. Disponível em: https://repositorio.ufpb.br/jspui/bitstream/123456789/27003/1/EdgarAdolfoFreitasCosta_Dissert.pdf

9. Souza VRS, Marziale MHP, Silva GTR, Nascimento PL. Translation and validation into Brazilian Portuguese and assessment of the COREQ checklist. Acta Paul Enferm. 2021;34:eAPE02631. doi: 10.37689/acta-ape/2021AO02631

10. Soares SSS, Costa CCP, Carvalho EC, Queiroz ABA, Peres PLP, Souza NVDO. Teaching Iramuteq for use in qualitative research according to YouTube videos: an exploratory-descriptive study. Rev Esc Enferm USP.

2022;56:e20210396. doi: 10.1590/1980-220X-REEUSP-2021-0396

11. Lima VMR, Amaral-Rosa MP, Ramos MG. Software-supported discursive textual analysis: IRaMuTeQ and subcorpus analysis. New Trends Qual Res. 2021;1-9. doi: 10.36367/ntqr.7.2021.1-9

12. Sousa YSO, Gondim SMG, Carias IA, Batista JS, Machado KCM. O uso do software Iramuteq na análise de dados de entrevistas. Pesqui Prát Psicossociais [Internet]. 2020 [cited 2022 Jan 11];15(2). Available from: http://www.seer.ufsj.edu.br/revista_ppp/article/view/e3283/2355

13. Delmiro ARCA, Pimenta EAG, Nóbrega VM, Fernandes LTB, Barros GC. Multi-professional team in hospital discharge of children and adolescents with chronic conditions. Sci Care Health. 2020;19. doi: 10.4025/ciencuidsaude.v19i0.50418

14. Vasconcellos RN, Souza MHN, Nóbrega VM, Collet N. A família da criança com necessidades especiais

de saúde e suas relações sociais. Rev Bras Enferm. 2022;75(Suppl 2). doi: 10.1590/0034-7167-2021-0031

15. Lima VF, Mazza VA. Information needs of families on the health/disease of preterm infants in a neonatal intensive care unit. Texto Contexto Enferm. 2019;28. doi: 10.1590/1980-265X-TCE-2017-0474

16. Rossetto V, Toso BRGO, Rodrigues RM, Viera CS, Neves ET. Development care for children with special health needs in home care at Paraná - Brazil. Esc Anna Nery Rev Enferm. 2019;23(1). doi: 10.1590/2177-9465-EAN-2018-0067

17. Silva NVN, Pontes CM, Sousa NFC, Vasconcelos MGL. Tecnologias em saúde e suas contribuições para a promoção do aleitamento materno: revisão integrativa da literatura. Ciênc Saúde Colet. 2019;24(2):589-602. doi: 10.1590/1413-81232018242.03022017

18. Xavier JMV, Silva FDS, Olinda RA, Querino LAL, Araújo PSB, Lima LFC, et al. Climate seasonality and lower respiratory tract diseases: a predictive model for pediatric hospitalizations. Rev Bras Enferm. 2022;75(2). doi: 10.1590/0034-7167-2021-0680

19. Dias CS, Mingoti SA, Ceolin APR, Dias MAS, Friche AAL, Caiaffa WT. The influence of climatic conditions on hospital admissions for asthma in children and adolescents living in Belo Horizonte, Minas Gerais, Brazil. Ciência Saúde Colet. 2020;25(5):1979-91. doi: 10.1590/1413-81232020255.04442018

20. Nornberg PKO, Gomes GC, Rodrigues A, Nobre CMG, Minasi ASA, Alvarez SQ. The itinerary of families to obtain the diagnosis of the children with special healthcare needs. Ciênc Cuid Saúde. 2022;21. doi: 10.4025/ciencuidsaude.v21i0.58689

21. Rodrigues BC, Uema RTB, Rissi GP, Felipin LCS, Higarashi IH. View of Family centered care and practice in the neonatal intensive care unit. Rev Rene. 2019:e3967. doi: 10.15253/2175-6783.20192039767

22. 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. doi: 10.1590/1983-1447.2019.20180238

23 Alves LL, Silva LF, Cursino EG, Góes FGB, Sousa ADRS, Moraes JRMM. Preparation of the discharge of relatives of children using antibiotics: contributions of nursing. Esc Anna Nery Rev Enferm. 2019;23(4). doi: 10.1590/2177-9465-EAN-2019-0108

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