THE USE OF COMICS IN THE CARE OF CHILDREN IN THE PEDIATRIC INTENSIVE CARE UNIT

HIGHLIGHTS
1. The comic encourages participation in care.
2. Comics are a tool for extended assessment.
3. A resource that facilitates and qualifies nursing care.
4. A useful tool in the Pediatric Intensive Care Unit.

ABSTRACT
Objective: To learn about children’s participation in nursing care through a playful intervention in the Pediatric Intensive Care Unit. Method: Qualitative study carried out between October 2022 and February 2023 in the Pediatric Intensive Care Unit with ten children between five and 11 years old in Maranhão, Brazil. A comic book about hospitalized children was used. Minayo’s Thematic Analysis was used to analyze the data. Results: The child’s participation in the care took place through freedom of expression and encouragement to learn about the clinical situation in a way that was appropriate for their age. Comics proved to be a technology for playing, educating, and caring, combining playful and educational elements capable of intervening in these three dimensions. Conclusion: The child’s participation in care involved sensitive listening, age-appropriate communication, an inclusive approach, and allowing them to be a child while learning about themselves and their environment.

KEYWORDS: Humanization of care; Comic Book; Play and Playthings; Intensive Care Units, Pediatric; Technology.

HOW TO REFERENCE THIS ARTICLE:
INTRODUCTION

The child’s participation in care must be considered in all health spaces\(^1\). This is a right advocated by Conanda Resolution No. 41/95 for hospitalized children and adolescents, whose aim is to meet the specific needs of this public and offer comprehensive and humanized care\(^2\).

In the context of intensive care, where hard health technology is often overvalued to the detriment of the subjective aspects of care, it is thought that reading therapy can offer positive experiences through books suited to the child’s needs\(^3\).

This type of intervention can contribute to the child’s recovery in the Pediatric Intensive Care Unit (PICU) since it allows using other approaches that integrate individuals’ perceptions and emotional support, such as welcoming, bonding, qualified listening, and scientific knowledge\(^4\).

The relevance of this type of strategy is shown by the interference of recreation in children’s development, capable of shaping perceptions and behaviors and generating positive impacts, especially when the context involves difficult experiences. Playful techniques can transform hospital daily life and help overcome critical events\(^5\).

Regulated by the Federal Nursing Council according to Resolution No. 546/2017, play is presented as a mediator of interventions in the nursing care process\(^6\); associated with the use of books and storytelling, it has shown favorable results in child care by allowing communication, exchange of information and a better understanding of the health-disease process, since this audience has peculiar ways of understanding and representing their own reality\(^7\).

Developed in a planned and structured way, using comics as an instrument of care for nurses can give new meaning to difficult experiences during hospitalization, train children in self-care, and provide fun instruction for invasive procedures and treatments\(^8\). However, it is rarely used in child care, especially in the PICU. Only in recent research has there been scientific production on storytelling\(^8\).

A child’s health condition should not be considered a barrier to using play resources. Even in intensive care with physical restrictions and significant dysfunctions, planning interventions according to the child’s uniqueness can facilitate interaction with the nursing professional through books adapted to the child’s needs and the use of technology and electronic equipment\(^9\).

Comics, whose narrative combines text and visual attributes with humor and seriousness, can convey information and represent the emotional and social aspects of the health-disease process in a way that favors welcoming children and their families into the PICU, strengthening relationships, humanizing care, and enabling autonomy and participation in therapy\(^10\).

This study sought to determine how children participate in the therapeutic process using a care story (CS) in a PICU. The aim is to learn about children’s participation in nursing care through a playful intervention in the Pediatric Intensive Care Unit.

METHOD

This exploratory, descriptive, qualitative study derived from a matrix study entitled “Nursing in Educating, Playing and Caring during Children’s Hospitalization”.
The participants were ten children of both sexes, aged between five and 11, hospitalized in the PICU of the University Hospital of the Federal University of Maranhão.

The children included were awake and able to verbalize and express their opinions while reading and listening to the CS. Those with cognitive or neurological impairment that could compromise expression and verbalization during the intervention and those severely debilitated or in pain - assessed using a visual analog scale - were not included.

Data collection took place between October 2022 and February 2023. The person responsible was approached and, after agreeing, signed the Informed Consent Form (ICF). The next step was to get to know the child, ask about participating in the study, and sign the consent form.

The intervention began with the following question: “Will you read a book or listen to a fun story about two children living on Planet Bipe with me?” After acceptance, the book “Kaká e Joaninha no Planeta Bipe” briefly described the CS’s content (Figure 1).

The CS was built for this study. It presents the experiences and discoveries of two children hospitalized in the PICU and approaches the environment as an unknown planet full of care. The graphic material is double-sided and consists of 62 illustrated and colored pages. It has a simple and direct language. The content was created and organized using the free online graphic design tool Canva (Figure 1).

During the reading, the participants were encouraged to identify objects, characters, and experiences during hospitalization. The children had the autonomy to listen to the story or read simultaneously with the researcher and start, finish, or continue reading after each chapter. The intervention was evaluated at the end of the reading through conversations, drawings, and paintings about the CS. The printed book was then given to the child. The entire intervention was audio-recorded and carried out in the presence of the person in charge. The researcher’s perceptions were recorded in a field diary. The collection was closed at the saturation criteria. The average intervention time was 50 minutes, depending on the clinical condition and rotation of the PICU.

Thematic Analysis was used for data analysis, consisting of three stages: pre-analysis, exploration of the material, and treatment of the results obtained and interpretation.
The study was approved by the Ethics and Research Committee of the Hospital, where the study was carried out under the Consistent Opinion of the matrix project number 5.163.022. To guarantee the anonymity of the participants, they were identified by children’s characters chosen by the children.

RESULTS

Of the 10 participants in the study, nine lived in the interior of Maranhão, and only one lived in the capital. All the participants had a longer stay of more than 24 hours, the average being 48 hours; only one had a longer stay of more than 20 days. The most common cause of hospitalization was the postoperative period of major surgery.

In-depth reading of the interviews and field diaries enabled the organization of thematic nuclei and interpretation. This led to the subcategories, categories, and themes (Figure 2).

Figure 2 - Diagram: theme, categories, and subcategories. São Luís, MA, Brazil, 2023
Source: The authors (2023).

The theme, the child’s participation in the therapeutic process through a care story, shows that the child’s involvement in care was mainly due to freedom of expression, sensitive listening by the professional, and encouragement to learn about the situation experienced in a way that was appropriate for their age and clinical condition.

The first category, contributions of comics to interactive and cognitive stimulation, points out how comics captivate the child during the intervention, being an instrument capable of modifying the participant’s private environment in the PICU, and highlights the main contributions of reading to care, to favor behavior change, recovery, and child autonomy.

The subcategory recreation and well-being shows that the literary genre and
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The organization of the book stimulated the participants’ senses. The narrative sequence of the facts, the character’s facial expressions, and images of objects present in the context of the hospitalization provided interest and interaction with the researcher when reading or listening to the story, even though the child was not literate:

(Can you read?) **No. But I like listening to stories and watching cartoons.** (Cascão)

(What did you think of reading a story in the PICU?) **I liked it, but I think we need to play more with the children.** (Frozen)

Storytelling is a simple way to create opportunities to get closer to children and produce positive experiences, even in serious situations. A playful intervention opens important communication channels between professionals and children and allows them to express their needs. Play is a necessity for children, and it is often left for later in an intensive care environment. Storytelling provided access to this dimension with the necessary lightness and care.

Another contribution was the promotion of comfort, which leads to changes in mood, such as feeling excited, relaxed, and cheerful:

(Throughout the reading, he has a much more relaxed face, and between the characters’ speeches, the child laughs and talks to his mother). (Mermaid Ariel). (Field diary)

(What did you feel after reading the story?) **I felt happy. [...] To be happy is to smile when reading.** (Cascão)

Reading promotes relaxation and well-being. This interaction shows the child’s satisfaction during the intervention and provides a change in mood, even with significant limitations due to illness.

In the cognitive and motor stimulation subcategory, using CS helped implement playful interventions in the PICU. Illness was not a limiting factor in this strategy for children with serious conditions. There was stimulation and learning, and children who had undergone major surgery or long periods of invasive ventilation were able to benefit from storytelling and reading, have fun with the characters, and work on their motor skills, which, due to their health problems, were weakened:

(What was it like reading the story?) **Now I’ll know a lot of things when I leave.** (Iron Man)

( [...] his fine motor skills on the left were impaired; he held the pencil with difficulty, and he was slow to form the circles around the drawings). (Batman)

The invasive and necessary interventions carried out in the PICU, in addition to the illness, can interfere with children’s development and produce transitory or definitive situations in the children’s condition. Careful and respectful assessment of these abilities and circumstances is crucial in nursing, as is caring to improve these conditions and awaken the will to continue treatment. The CS in question brought together different stimuli during supervised play, making the child feel comfortable interacting.

In the subcategory autonomy, the use of comics in the PICU contributed to participation and the exercise of autonomy in the intervention:

(He brought us paints and colored pencils). **Where is it? I want to play now, can you?** (Mermaid Ariel)

(Would you like to continue reading?) **Then I got a bit tired and wanted to sleep.** (Wonder Woman)

(You can choose another chapter from the book). **Tia, I want to continue later.** (Magali)
The interaction showed respect for the participants’ preferences so they could choose which chapter of the book to read and were asked whether they wanted to continue or finish reading. As noted, one participant preferred to draw before reading, while others preferred to pause the reading and finish at another time.

The second category, contributions of comics to children’s expressiveness, presents the participants’ perspectives on the health and illness process. It brings up reading as a therapeutic resource that favors identification, creativity, and expression of thoughts and feelings.

In the subcategory of expressing thoughts, experiences, and feelings, the use of reading in the PICU provided an opportunity to talk about experiences during hospitalization, with participants verbalizing traumas and concerns:

(What do you think of staying here?) I think it’s good, but there’s a downside, which is hemodialysis. [...] Hemodialysis is like taking off a bandage, so I don’t like it. (Cascão)

Hey, Auntie, I remember that room I went into and slept (CCI) [...] I went upstairs to sleep, and he (the doctor) opened it here (heart) and bandaged it, and now it’s healing. When I grow up, will it appear? (Sky)

Expressing preferences and concerns shows that CS is a strategy for getting to know children and their perceptions of treatment. This creates an opportunity for nurses to intervene in a humanized and individualized way.

Similarly, some participants were able to express negative feelings such as fear, shame during dressing, and dissatisfaction with dietary restrictions:

[...] I’m afraid, I think I’m afraid (to do the dressing). [...] Sometimes I don’t want to because it hurts. I feel ashamed because sometimes I cry to do it. (Iron Man)

[...] the bacteria will also appear if I eat chocolate, so I can’t eat chocolate or snacks. Once she (mother) let me eat at home, like a chocolate, a pizza. [...] I like it, but sometimes she won’t let me. (Cascão)

The CS made it possible to express fears and feelings through animated figures and a characteristic storyline about the routine of hospitalized patients; it is clear that promoting dialogue is made possible by developing a relationship of trust between the child and the professional.

The subcategory identification and creativity show the participants’ identification with the narrative of the characters in the story. The comics encouraged representations of experiences and feelings:

[...] Does she have a catheter too? Does she dress the catheter? (happy expression). Mommy Ladybug has a catheter in the book; I liked it (laughs). [...] it’s just like mine. (Cascão)

She had the same surgery as me, and I also had heart surgery. (Frozen)

Representativeness made a big difference to the participants’ routine. The excitement of visualizing and listening to the characters’ life experiences with catheter use and the need for dressings led to the identification and the demonstration of positive feelings, as evidenced by their enthusiasm and joy. The children became more involved and were able to try out new coping options.

Creativity was also present during the reading of the story. The participants dramatized difficult situations and imagined fictional plots for the characters, exposing behaviors, expectations, and emotions:

I’ll be able to do everything there (another planet), eat, pee, and walk. [...] I’ll be able to do
everything. Ladybug says she can bathe in the shower. (Sky)

[...I think Ladybird is crying here. She’s embarrassed to take the bandage off. I’m not ashamed; I cry but let myself be bandaged. [...] because I’m afraid of taking the bandage off too. But if Ladybird cries too, I cry too. (Cascão)

Reading about hospital discharge meant freedom and hope because the restrictions imposed in the PICU could be overcome in another environment. What’s more, the posts are full of enthusiasm and creativity.

On the other hand, the negative feelings in the character allowed the child to express himself. Fear and shame were exposed, and the child was encouraged to face the challenges through the example of the character who was welcomed, respected, and collaborated in the procedure.

The subcategory self-perception of the health-disease process addresses the child’s view of health, illness, and hospitalization. It describes the participants’ understanding and perceptions of the PICU environment, routine, and care:

[...] I know I’m here because I came for surgery; they opened and treated it. (Sky)

[...] they (nurses) give baths like this to children who can’t walk or move. (Iron Man)

[What do the nurses do here?] They wash our hearts. (Frozen)

The participants verbalized their understanding of the conditions and situations surrounding the hospital environment. Therefore, knowing the children’s perception of what they are experiencing and the team’s work is fundamental for care. Allowing children to talk about themselves and the situation means valuing their knowledge and letting them work out complex feelings.

DISCUSSION

Based on this experience, it can be seen that using playful activities and children’s language establishes a connection and closeness between the child and the nurse, an important aspect for pediatric intensive care professionals, whose work environment is not very attractive to patients. Regarding the humanization of care, there is evidence of play changing mood, reducing fear and anxiety, and making the hospital environment more cheerful and pleasant. This strategy helps with uncomfortable procedures and significantly reduces stress by promoting relaxation and well-being during play. Therefore, promoting recreation in the hospital is a necessary therapeutic action that ensures the right to be a child and to experience childhood.

Playful interventions by nurses offer children a form of communication because, through play, children talk about themselves about the activity and gradually transform reality. Using instruments that interfere with the treatment experience, such as play and reading, to provide information, entertain, and develop bonds and trust in professionals qualifies the nurse’s assistance. It contributes to the humanization of care and the child’s participation in treatment.

Reading therapy applied in a planned way by Nursing is relevant for vulnerable patients because it involves different realities and acts on both motor and perceptual stimuli. It is useful because it offers pleasant experiences and contributes to biopsychosocial development.

Using comics through stories and characters can influence decisions and build new perspectives on getting sick. Stimulating with the help of storytelling positively impacts
knowledge and gives patients ownership over their health condition\textsuperscript{10}. In this research, the
CS made it possible to assess the child, understand their limitations, and work on learning
and impaired skills playfully.

About autonomy, giving the child a say and making decisions in the PICU is not
a common practice; invasive procedures in emergencies and controlled medications are
constantly carried out without the child being able to choose the best time to do them.
However, awake and clinically stable patients can be advised about the therapy and asked
about their preferences during hospitalization\textsuperscript{15}.

Autonomy is related to information and freedom of decision. For patients to
understand the treatment, they must first be exposed to the concepts and options regarding
the therapy. In pediatrics, these concepts must be aligned with the child's needs, respecting
individualities and cognitive maturity\textsuperscript{16}. For nurses' care to be transformed, this right must
be guaranteed and the child's choices respected.

This happens to the extent that the child and guardian are integrated more fully
into the discussions, allowing them to play a leading role with space to speak, learning
opportunities, and respect as a social person who participates and interferes in decision-
making during therapy\textsuperscript{1,17}.

This research included the participant in the treatment and considered their decisions
about the intervention, respecting their considerations, including their right to say no. This is emphasized when we advocate the inclusion of children as an integral part of the
health team, capable of understanding their condition, and it is important to allow them to
develop the skills to act autonomously\textsuperscript{14}.

Therefore, we need to make room for children to communicate and represent reality. As a tool that mediates and facilitates this process, play is portrayed as an appropriate
instrument for the age and maturity of the child\textsuperscript{4-5,12}.

The CS in the PICU allowed us to listen to the child and reflect on the suffering they were
experiencing. These contributions validate structured play as an important ludic strategy
with benefits for expressiveness and coping with the disease. Comics allow children to talk
about themselves without embarrassment by basing their expectations and life experiences
on the characters since it's a great way to express discontent during hospitalization\textsuperscript{10}. For nurses, it's a useful form of assistance, as it helps children to accept their health condition
and adapt to a new reality\textsuperscript{15}.

Using approaches like this makes hospitalization more meaningful to the patient
and care comprehensive, as it contributes to treatment without disregarding child
development\textsuperscript{7,18}. Nurses can even take advantage of the potential of CS as a playful and
educational resource to teach children about the process of becoming ill, making them feel
calmer and more collaborative in the procedures\textsuperscript{17-18}.

CS are textual and visual resources facilitating the viewer's understanding of a subject. In the context of the medical sciences, they have been used to convey complex concepts
about the health-disease process\textsuperscript{19}. The combination of the playful and the scientific in
pediatrics influences the understanding of patients' expectations and favors identification
by crossing their life stories with the characters' storylines\textsuperscript{20}.

The relevance of comics in pediatrics is based on the simulation of care situations that
allow children to represent feelings in the characters, adapt to the challenges imposed by
getting sick, and overcome traumatic events\textsuperscript{18-19}. Inserting play as a therapy stimulates the
imagination and creativity; it makes it possible to see hospitalization as something simpler
and less frightening\textsuperscript{12,21} For the participants, it acted as a mediator of internal conflicts, who
 dramatized difficult situations through imaginary stimulation.

Exposing emotions impacts treatment so much that it can help professionals
understand the child’s suffering. This dynamic can help better deal with the biopsychosocial aspects of the health-disease process. Considering that the child tends to be more isolated in the PICU, reading is a great strategy to ease feelings of loneliness. Even younger children can practice reading by creatively interpreting the comics to understand and explain experiences in the hospital.

Involving the child in the care involves elucidating difficult concepts in a didactic way. If the hospital can be strange at first glance, the PICU is likely even more frightening and sometimes traumatic. Talking to children about all these things makes them the protagonists of the environment; there is a change in behavior and active participation when they are provoked to expose their understandings, opinions and learning.

Exchanging knowledge with the child puts the professional on an equal footing; both get closer, and the child is willing to share their interpretations of life. This is portrayed as essential to promote participation in therapy. Therefore, it is important to know how to communicate with this audience, to provide opportunities for questioning and reflection on experiences, routines, and the illness itself, as well as to incorporate strategies based on their needs, considering the negative biopsicobiological burden that illness can develop in children.

Limitations include the short time that the children were in a position to carry out the intervention and the high turnover of beds. More studies are needed to understand play through storytelling in the PICU.

**FINAL CONSIDERATIONS**

Using a CS as a nursing intervention allowed the child to participate in care through listening, playful communication, and an inclusive approach to being a child while learning about themselves and their environment. It addressed common situations in the PICU, such as the context of admission and hospitalization, dressing changes, probes, bed baths, playing in the hospital, and discharge from the PICU in a simple and real way. In addition, at the end of each chapter, games and educational activities helped to process the information. This way, the children could play, draw, and discuss the health-disease process. While reading together or telling a story, the children were encouraged to express themselves and recover skills that were not being considered due to the illness or invasive interventions. Reading was useful for promoting health education and involving them in care and played an important role in recovery through stimulation and learning. Although it was challenging, there were no significant barriers to using this type of strategy. Participants with mobility impairments could read the story, learn about their limitations, and overcome the challenges related to their illness.

We believe this approach is relevant in the PICU because it allows children with delicate health conditions to participate, discuss their needs, and ask questions. It is the hospitalized child's right to know about their condition.

For nursing, the CS proved to be a technology of care, as it proved to be an instrument for an expanded assessment of the child and the development of stimulating activities. It is, therefore, feasible to use it in the PICU, as it can be left with the child to re-read, which helps them with downtime.

For the research, the intervention contributes to deepening knowledge in the intensive care field, incorporating reading therapy as a resource that facilitates and qualifies pediatric nursing care.
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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **Sousa NA, Brondani JP.** Drafting the work or revising it critically for important intellectual content - **Sousa NA, Brondani JP.** Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **Sousa NA, Brondani JP.** All authors approved the final version of the text.

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