



# Perception of the hospitalized child about the instructional therapeutic play in intravenous therapy<sup>a</sup>

*Percepção da criança hospitalizada acerca do brinquedo terapêutico instrucional na terapia intravenosa*

*Percepción del niño hospitalizado acerca del juguete terapéutico instructivo en la terapia intravenosa*

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## ABSTRACT

**Objective:** to analyze the perception of the hospitalized child regarding the use of the instructional therapeutic play in preparation for intravenous therapy. **Method:** descriptive study, with a qualitative approach, performed in a public pediatric hospital in the city of Juazeiro do Norte - Ceará, between the months of July and September 2019. A total of 31 pre-school and school children participated in the study. The data were collected through a semi-structured interview, and later analyzed through IRAMUTEQ software. **Results:** in view of the children's perception of intravenous therapy, it was found that they understood the technique, from the use of the instructional therapeutic play. When the child has the opportunity to play and dramatize intravenous therapy, through the instructional therapeutic play, the anxiety, the pain, the anguish, the loneliness, the fear and the crying are mitigated. **Conclusion and implications for practice:** Orienting children in the performance of intravenous therapy favors their understanding of the real benefits of this technique for their health, allowing the nurse to understand the conditions that pose risks to the child, and intervene in a timely manner, through the use of strategies that favor the recovery of health and the minimization of subsequent trauma from hospitalization.

**Keywords:** Games and Toys; Clinical Procedures; Child Health; Pediatric Nursing; Hospitalized Child.

## RESUMO

**Objetivo:** analisar a percepção da criança hospitalizada quanto ao uso do brinquedo terapêutico instrucional no preparo para a terapia intravenosa. **Método:** estudo descritivo, com abordagem qualitativa, realizado em um hospital pediátrico público no município de Juazeiro do Norte - Ceará, entre os meses de julho a setembro de 2019. Participaram do estudo 31 crianças em idade pré-escolar e escolar. Os dados foram coletados por meio de uma entrevista semiestruturada e, posteriormente, analisados por meio do *software* IRAMUTEQ. **Resultados:** diante da percepção das crianças acerca da terapia intravenosa, foi averiguado que elas compreenderam a técnica a partir da utilização do brinquedo terapêutico instrucional. Quando a criança tem a oportunidade de brincar e dramatizar a terapia intravenosa, por meio do brinquedo terapêutico instrucional, a ansiedade, a dor, a angústia, a solidão, o medo e o choro são atenuados. **Conclusões e implicações para a prática:** orientar as crianças quanto à realização da terapia intravenosa favorece sua compreensão quanto aos reais benefícios desta técnica para a sua saúde, possibilitando, ainda, a compreensão do enfermeiro quanto às condições que representam riscos para a criança e intervenha em tempo hábil por meio da utilização de estratégias que favoreçam a recuperação da saúde e a minimização de traumas subsequentes advindos da hospitalização.

**Palavras-chave:** Jogos e Brinquedos; Procedimentos Clínicos; Saúde da Criança; Enfermagem Pediátrica; Criança Hospitalizada.

## RESUMEN

**Objetivo:** Analizar la percepción del niño hospitalizado cuanto al uso del juguete terapéutico instructivo en la preparación para la terapia intravenosa. **Método:** Estudio descriptivo, con enfoque cualitativo, realizado en un hospital pediátrico público de la ciudad de Juazeiro do Norte - Ceará, entre julio y septiembre de 2019. Participaron 31 niños en edad preescolar y escolar. Los datos se recogieron mediante entrevista semiestruturada, posteriormente analizados con el *software* IRAMUTEQ. **Resultados:** En vista de la percepción de los niños acerca de la terapia intravenosa, se encontró que ellos comprendieron la técnica a partir del uso del juguete terapéutico instructivo. Cuando tienen la oportunidad de jugar y dramatizar la terapia intravenosa, a través del juguete terapéutico instructivo, la ansiedad, el dolor, la angustia, la soledad, el miedo y el llanto son mitigados. **Conclusiones e implicaciones para la práctica:** Orientar a los niños sobre la realización de la terapia intravenosa favorece su comprensión sobre los beneficios reales de esta técnica para su salud, permitiendo además que la enfermera comprenda las condiciones que suponen riesgos para el niño e intervenga de forma oportuna, mediante el uso de estrategias que favorezcan la recuperación de la salud y la minimización de traumas posteriores a la hospitalización.

**Palabras clave:** Juego e Implementos de Juego; Procedimientos Clínicos; Salud del Niño; Enfermería Pediátrica; Niño Hospitalizado.

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## INTRODUCTION

Hospitalization is a complex episode in the life of any human being, being even more challenging for the child, because it can be characterized as a traumatic experience, marked by physical and emotional changes that come, commonly, from the change of environment, imposition of routines, exams and procedures.<sup>1</sup>

During the child's hospitalization, one of the most common clinical procedures is Intravenous Therapy (IVT), which includes the insertion of peripheral and/or central catheters, fixation, maintenance, intravenous medication and removal.<sup>2</sup>

This procedure is, in fact, an indispensable resource for health care in the treatment of electrolytic disturbances, blood loss, infectious processes and others. However, the use of IVT in pediatric care is characterized as a stressful event, capable of triggering, in the hospitalized child, alert senses, distrust, stress, fear, anxiety and physical pain.<sup>3-5</sup>

Despite the care during the child's hospitalization, it is up to the nurse professional to identify the signs of physical and emotional changes them, due to the IVT actions, and manage them. In this sense, play appears as an increased tool to change the inert routine of hospitalization, since it is able to reduce trauma in children, positively influence their physical and emotional recovery, and encourage them to face atypical situations.<sup>4,6,7</sup>

In this context, the Therapeutic Play (TP) aims to provide relief from the child's tensions and anxiety, and should be applied whenever they have to deal with a situation that is untimely for his or her age, such as hospitalization.<sup>8-10</sup>

The use of the TP technique by the nursing team is regulated by the Resolution nº 546/2017, from the Federal Nursing Council (COFEN), which states that "it is up to the nursing team that acts in the pediatric area, the use of the toy/therapeutic play technique, in the assistance to the hospitalized child and family", and it must contemplate the stages of the nursing process, and be duly registered in the chart, in a clear, legible, concise, dated and signed by the professional.<sup>11</sup>

The TP can be trainer, dramatic and instructional, and the Instructional TP (ITP) is the most studied and performed in the clinical practice of nurses around the world. When prepared with the ITP, children have the opportunity to deal with the painful experience before experiencing it, which allows them to feel more at ease, comfortable and safe, in the face of the realization of IVT.<sup>12,13</sup>

This study is justified by the need to understand the perception of the hospitalized child about the use of the ITP in the preparation for IVT, an action that can provide the children with peace of mind, understanding and knowledge about the procedures that will be performed with them, as well as the lack of primary scientific studies that address the child's understanding about the use of this therapeutic method.

Although ITP has been a subject of study in nursing for several years, the research published in the scientific literature addresses only the child's perception of the use of TP and/or ITP under an overview, and/or during venipuncture, while this study focuses on their perception of the use of ITP in IVT as a whole.

Thus, the objective of the study was to analyze the perception of the hospitalized child regarding the use of the instructional therapeutic play in preparation for intravenous therapy.

## METHOD

A descriptive study, with a qualitative approach, about the perception of the hospitalized child, regarding the use of the ITP in the preparation for IVT. The research was carried out in a public pediatric hospital of reference for child care in the city of Juazeiro do Norte - Ceará, between the months of July to September 2019.

The study population included children hospitalized at preschool (three to five years) and school age (six to 12 years),<sup>6</sup> who were interned in the above-mentioned institution at the time of data collection.<sup>1</sup> Pre-school and school children in the Pediatrics sector in IVT were used as inclusion criteria for the administration of medicines and/or venous hydration.

The criteria for exclusion from the research were based on the following aspects: a) children accompanied by other relatives and/or caregivers, other than the genitor; b) children unable to handle the ITP materials and/or to respond to the semi-structured interview, to the detriment of burns, severe bone or skin lesions in the upper limbs, use of plastered devices, hearing and/or visual impairments; c) children with allopsychic or autopsychic disorientation, with diagnosis of mental disorders, neurological disorders and/or syndromes, evidenced through the analysis of the child's medical records (after maternal and health institution approval), as well as through maternal reports; and d) children in isolation, to the detriment of the risk of cross contamination between the researchers and the other children in the respective unit.

During the data collection period, 58 children were admitted to pre-school and school, and after the inclusion and exclusion criteria were applied, 27 children were excluded from the study, eight of them were discharged from hospital before the end of the study, and two children were referred to another health care institution, to the detriment of worsening the clinical picture before the end of the study; Three children who were accompanied by another relative other than the genitor; five children whose mothers did not consent to participate in the study; one child who did not agree to participate in the research; two children who were in drug therapy only orally; two children who were unable to perform the intervention with ITP; two children who were unable to respond to the semi-structured interview; and two children with Autistic Spectrum Disorder. Therefore, 31 children participated in the study.

In order to achieve the objectives of the study, fragmentation of data collection in two stages was chosen: a) session with the ITP after the child's first contact with IVT and b) application of the semi-structured interview after the child's second contact with IVT.

In the first stage, the child, after being submitted to the first IVT, was asked where he or she would like to learn to "give injection in the doll" and from this, the researchers, using colored jackets, demonstrated the technical method, through the session with the ITP, and dialogued with the child about the need and

the real fundamentals of IVT, inviting him or her to reproduce the practice at the end of their demonstration. It should be noted that to perform the intervention with the ITP, the protocol was used to prepare the preschool child for venipuncture with the use of the therapeutic play.<sup>14</sup>

The intervention with the ITP was performed individually, using: cloth dolls; disposable syringes (without needle); needle peripheral catheter (with the protective cap); alcohol 70%; cotton; adhesive tape; procedure glove; protective mask and cap. The researchers explained the procedure to the child in a playful way and, soon after, allowed the same dramatization of the IVT, remaking it in the doll, with the purpose of favoring their understanding about this practice and the therapeutic method.<sup>15</sup>

At the end of the session with the ITP, after the child was submitted to the second IVT, the second stage of data collection was carried out, through the application of the semi-structured interview, in order to understand the child's experience with the procedure and with the use of the ITP within health care, directing the child from the following guiding questions: "How was the moment that the professional gave him the injection (IVT)?"; "How was it for you to play with the doll and give it injection?"; "Tell me how you did to give the injection to the doll. Did you learn how to give the injection?"; "And now you understand why you need to take the injection?"; "Did you feel less fear when you took the injection again?"; "Did you enjoy learning how to give the injection to the doll?"

Then, the lines were transcribed in full and composed the text *corpus* that was processed by the qualitative analysis software *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ). The Descending Hierarchical Classification (DHC) method was used to classify Text Segments (TS) according to their respective vocabulary, and to distribute them according to the frequency of reduced forms.<sup>16,17</sup> The data analysis was based on the central ideas of Piaget's theory, which defines stages of child development: sensory-motor, pre-schematic; concrete operations and formal operations.<sup>18</sup>

Thus, aiming at a better understanding of the results, therefore the analysis of the data, the six basic steps of a qualitative approach were observed, namely: 1. organization and preparation of the data for analysis; 2. thorough reading and evaluation of the transcribed content; 3. analysis of the codification process performed by IRAMUTEQ; 4. Use the coding process to describe the environment or individuals, and the categories or themes for analysis; 5. elucidate the peculiarities of representation of the description and the themes in the qualitative narrative, based on the current literature, after categorical analysis; and 6. Segmentation of data and presentation of results after analysis.<sup>16,17</sup>

Given the maintenance of anonymity and the confidentiality of the participants of the study, it should be noted that the choice of pseudonyms was made by the children, through the presentation, by the researchers, of a list with names of characters from children's stories.

The study obeyed all the ethical and legal aspects established in the national and international norms that regulate researches involving human beings, being the same approved by the Committee of Ethics in Research of the University Center Doctor Leão Sampaio (UNILEÃO), with the opinion consubstantiated of nº: 3.376.128 and CAAE: 11059519.5.0000.5048.

## RESULTS

The study had the participation of 31 children (ten preschoolers and 21 school children), aged between three and 11 years old, 18 male and 13 female, who were hospitalized due to the following medical diagnoses: acute abdomen; cervical abscess; dental abscess; breast abscess; mesenteric adenitis; purulent adenitis; dengue; disseminated dermatitis; bacterial infection; reactive lymphadenopathy; suppurative otitis media; community acquired pneumonia; post-operative appendectomy; nephrotic syndrome; asthma; fever and gastroenteritis.

In view of the processing of the *corpus*, the TSs presented in each class were obtained from the most recurrent words, an aspect that enables qualitative analysis. The treatment of the corpus was carried out in zero hour, zero minute and 28 seconds, from which 68 ST were classified and, of these, 52 were used, which is 76.47%. This result corroborates several studies, which, in short, indicate that a good use of the textual corpus is equivalent to 75% or more. The relationship can be visualized from the dendrogram elaborated through the CHD provided by the IRAMUTEQ software (Figure 1).

Figure 2 represents the dendrogram with the subdivisions that were made in the text *corpus* until it reached the final classes. It should be emphasized that the reading of the classes, according to the analysis of the proposed relationship between them, should be carried out from left to right, in which the divisions of the TSs present vocabulary of the words with an average frequency between them and divergent between them.

Thus, for the DHC, the text corpus was fragmented into two subcorpus constituents of the classes formed by the TSs, as expressed: subcorpus 1 - formed by classes 6 (ten TS, 19.2%) and 2 (eight TS, 15.4%) and subcorpus 2 - formed by classes 1 (eight TS, 15.4%) and 4 (eight TS, 15.4%) and by classes 5 (eight TS, 15.4%) and 3 (ten TS, 19.2%).

Following the reading of the TSs, the words that presented a  $\chi^2$  greater than 3.84, representing a  $p < 0.0001$ , in order to evidence the interaction and associative strength between them were elected as analysis criteria. It should be noted that the smaller the  $\chi^2$ , smaller is the relationship between the variables. Figure 2 presents the dendrogram generated by the IRAMUTEQ software.

As expressed in Figure 2, before the first category (composed of classes 6 and 2) which comprises 34.6% (18 TS) of the total *corpus*, it can be seen that it consists of words and radicals in the range of  $\chi^2 = 4.13$  (syringe) to  $\chi^2 = 23.23$  (scalp), in class 6, and  $\chi^2 = 2.03$  (legal) to  $\chi^2 = 25.66$  (cotton), in class 2. Whereas the second category (composed of classes 1, 4, 5 and 3), which consists of 65.4% (34 TS), the most obvious words varied between: class 1,  $\chi^2 = 2.02$  (doll) to  $\chi^2 = 16.44$  (only);

class 4,  $\chi^2 = 2.02$  (doll) to  $\chi^2 = 23.83$  (I like); class 5,  $\chi^2 = 2.02$  (good) to  $\chi^2 = 14.28$  (less); and class 3,  $\chi^2 = 2.95$  (learn) to  $\chi^2 = 9.83$  (good).

As mentioned above, based on the understanding of the TS, two categories were formed: a) "Child's perception of the instructional therapeutic play in preparation for intravenous



**Figure 1.** Dendrogram of the classes provided by the IRAMUTEQ software. Juazeiro do Norte, Ceará. Brazil. 2019. Source: Direct Research, 2019.

Perception of the hospitalized child about the instructional therapeutic play in intravenous therapy											
Child's perception of the instructional therapeutic play in preparation for intravenous therapy through practical and objective aspects					Child's perception of the instructional therapeutic play in preparation for intravenous therapy through cognitive and subjective aspects						
<b>Class 6:</b> 10 TS (19.2%)		<b>Class 2:</b> 8TS (15.4%)		<b>Class 1:</b> 8 TS (15.4%)		<b>Class 4:</b> 8 TS (15.4%)		<b>Class 5:</b> 8 TS (15.4%)		<b>Class 3:</b> 10 TS (19.2%)	
Words	$\chi^2$	Words	$\chi^2$	Words	$\chi^2$	Words	$\chi^2$	Words	$\chi^2$	Words	$\chi^2$
Scalp	23.23	Cotton	25.66	Only	16.44	I like	23.83	Less	14.28	Well	9.83
Glove	20.55	Alcohol	24.06	Serve	10.84	Crying	21.99	Legal	11.4	Understand	8.95
Mask	14.19	Needle	12.61	Not much	9.69	No	11.03	Understand	8.68	Because	5.71
Place	10.22	Pass	12.61	Clean	8.7	Yes	8.72	Feel	8.1	Stay	5.2
Cap	9.83	After	11.4	It hurts	7.69	Injection	8.1	Like	8.1	Injection	3.41
Blood	8.68	Get	7.09	Feel	4.31	Give	7.18	Fear	8.1	Very	3.33
Take	8.68	Search	6.43	Like	4.31	When	3.99	Because	6.5	Learn	2.95
Get	8.09	Thread	6.43	Fear	4.31	Want to	2.57	Very	3.63		
Vein	5.92	Plaster	3.99	Remedy	3.99	Doll	2.02	Improve	3.55		
Business	4.61	Drill	3.99	Learn	3.86			Good	2.02		
Pain	4.61	Thing	3.99	Crying	2.69						
Syringe	4.13	Arm	3.15	Want to	2.57						
		Vein	2.57	Bottom	2.06						
		Bottom	2.06	Doll	2.02						
		Place	2.06								
		Legal	2.03								

**Figure 2.** Dendrogram of the classes generated by the IRAMUTEQ software, through the Descending Hierarchical Classification. Juazeiro do Norte - Ceará, Brazil. Source: Direct Research, 2019.

therapy through practical and objective aspects”, composed of classes 6 and 2; and b) “Child’s perception of the instructional therapeutic play in preparation for intravenous therapy through cognitive and subjective aspects”, composed of classes 1, 4, 5 and 3.

The description of the classes was based on the analysis of the words in an individual way, through the inclusion of the TS and their relationship with the current literature, as well as through the observance of the assumptions of Piaget’s cognitivist theory. The excerpts from the interviews were indexed, after the cutout, as fragmented by the IRAMUTEQ software, after the processing of the data.

### **CATEGORY 01: Child’s perception of the instructional therapeutic play in preparation for intravenous therapy through practical and objective aspects**

In this category, the words highlighted were: scalp; glove; mask; put; cap; blood; take; vein; cotton; alcohol; needle; among others. They are related to the child’s perception regarding the performance of IVT, body anatomical comprehension and assimilation of the procedure performed on the doll with what is performed itself. This category concerns, therefore, the child’s perception about the therapeutic instructional play in the preparation for intravenous therapy through practical aspects and objectives.

Faced with the analysis of the child’s perception regarding the performance of IVT, it was perceived that they understood the technique of performing the procedure, through the dramatization with ITP, from which they cited the necessary steps and the materials used to perform this invasive procedure, as expressed in the following statements.

*[...]I put the glove, the mask and the cap, then I took the business with the needle (scalp) and the syringe and gave the injection in the doll (Florian, seven years old).*

*[...]I took the cap and put it on my head, I took the mask and the glove, then I gave the injection to the doll [...]* (Little Prince, three years old).

*[...]First you have to find the wrist, then you take a absorbent cotton with alcohol, then you pass over the arm to clean it, and you can remove the germs to find the wrist too, then you take the needle [...]* (King Arthur, 11 years old).

When nursing professionals provide the child with means that favor their understanding regarding the performance of IVT, such as the use of ITP, it is noticeable that besides understanding the necessary steps to perform the procedure, they are able to relate the human anatomy with IVT, based on the explanations acquired during the session with the ITP performed by the researchers, as demonstrated in the following statements:

*[...]I put on the mask, the cap and the glove, I hit the business n, in the vein, there I put the needle and nailed [...]* (Peter Pan, eight years old).

*[...]I took the hose (scalp) that had a needle and gave the injection to the doll, putting the medicine in his vein. [...]* I found it very good and learned to give the injection (Eric, three years old).

Through the use of ITP it was possible to understand the child’s perception after performing the procedure on the doll, being evident that explaining this technique to him, before performing it, favored the promotion of tranquility, and his active participation in the process of health recovery. It also provided moments of well-being, joy, relaxation and learning, as expressed in the following words:

*[...]was nice. I took the doll’s little hand and looked for her vein, then passed the cotton and put the butterfly (scalp) that punctures her arm (Ballerina, nine years old).*

*[...]It was very good, I learned a lot. I took the doll’s arm and looked for the vein, then I passed the cotton to clean on top [...]* (Finn, nine years old).

*[...]it was funny, I had to prepare things [...], then I passed the cotton on the doll’s arm and put the syringe, and put the stick (Sneezy, 11 years old).*

After the session with ITP, through the semi-structured interview applied to the children, it was possible to notice that some of them assimilated the procedure that is performed on the doll, with the IVT that was performed on them, showing care during the performance of the technique, by using, for example, small needles so as not to pierce the whole doll, and giving the injection so that the “doll” improves health:

*[...]I was going to give the vaccine to the doll, then the needle was small so as not to pierce it all, so as not to get real blood, then I put the cotton (Pocahontas, five years old).*

*[...]I liked it, because I gave the injection to the little doll to get better (Little Prince, three years old).*

*[...]I felt like a doctor [...]* (Snow White, ten years old).

This assimilation was also evidenced when the children cited the courage and strength of the “doll”, when they said that it could stand the procedure without crying, and/or that it cried when it was punctured by the needle during IVT, as quoted below:

*[...]I put the injection in his arm (doll) that not even I, and he did not cry, he held [...]* (Belle, six years old).

*[...]I gave the injection to the doll and he cried, I put the needle and pierced [...]* (Cebolinha, five years old).

**CATEGORY 02: Child's perception of the instructional therapeutic play in preparation for intravenous therapy through cognitive and subjective aspects**

The most evident words in this category were: alone; serve; little; taste; cry; no; yes; less; cool; understand; feel; good; why and others. They were obtained from the correlation of classes 1, 4, 5 and 3, which, in short, raise the child's understanding of the importance of medication for their health, the need for IVT, the reduction of pain and fear, the child's participation as an active subject of care and acceptance of the procedure by him/her. This category concerns, therefore, the child's perception of the therapeutic instructional play in preparation for intravenous therapy through cognitive and subjective aspects.

When the nursing professionals guide the hospitalized children as to the procedures to which they will be submitted, like the venous puncture, through the dramatization with the ITP, they favor that they understand the real need and objectives of IVT, from the infusion of drugs intravenously with the syringe, "injection", as a way to favor the recovery of their health, as well as the prevention of worsening of the clinical condition, as expressed in the following statements:

*I learned yes. [...] is to improve, and get good fast [...] (Sneezy, 11 years old).*

*[...] I learned. [...] is to improve health (Robin Hood, six years old).*

*[...] the injection is good for health so that I don't get sick (Cinderella, five years old).*

*[...] learned yes, so as not to get sick, because medication serves to get good [...] (Florian, seven years old).*

*[...] I learned that [...] the injection serves to cure (Dopey, five years old).*

This understanding was reaffirmed when children cited the importance of the use of medication as a means to improve the clinical symptoms of their condition, according to the statements below:

*I understand, it's so I don't scratch the person's skin, I have allergies [...] (Pocahontas, five years old).*

*[...] to always improve from the flu and diarrhea also that you always get [...] (Aladin, seven years old).*

*[...] my body has some guardians, then they get weak, then you have to give them the medicine to get strong again (King Arthur, 11 years old).*

Some children, when questioned about the need of medication for their health, expressed the empirical knowledge, acquired through their relatives and/or even the nursing professionals, when quoting the need to take medication only as a means of obtaining hospital discharge, as expressed in the following statements:

*[...]to go home [...] (Cebolinha, five years old).*

*[...] if you don't take the medicine, you don't go home, and you have to stay all night in the hospital (Dopey, five years old).*

After the ITP session with the children, when questioned they felt less fear after learning to apply the injection to the doll, when the nursing professional returned to administer the medicine through venous access, venoclysis and/or performing the venous puncture, they referred partial reduction of fear, and expressed their feelings about the pain coming from the procedure, as expressed in the statements below:

*[...]I felt less fear, it only hurt a little [...] (Snow White, ten years old).*

*[...] I felt less fear, but it still hurt a little bit more [...] (Ballerina, nine years old).*

*I felt less fear, I did not cry [...] (Pocahontas, five years old).*

During the semi-structured interview with the children, when asked if they liked to apply an injection in the doll, in the middle of their answers it was noticeable their satisfaction in dramatizing the IVT in the play, as well as the reduction of the child's fear about the procedure, being also expressed feelings of strength, joy and autonomy when handling the ITP, as mentioned in the following statements:

*[...]I liked it because we learn, and if we want to be a nurse in the future then we already know (Rapunzel, 11 years old).*

*[...] I liked it very much, [...] I was very afraid to see. (Ballerina, nine years old).*

*[...] I like to play with the doll and give her an injection. (Cinderella, five years old).*

*[...] it was very nice to give injection, I want to do it again. (Cebolinha, five years old).*

The use of ITP, in the care of the hospitalized child, can also favor the reduction of adverse feelings, such as fear and anxiety, and allow the child to see the injection, IVT, as something beneficial for their recovery and not only as something that causes fear and pain, as expressed in the following statements:

*[...]you have to let it go (medication) to get well soon [...] (Ballerina, nine years old).*

*It is good to give me a vaccine, now when the nurse puts the medicine here in my arm every day, I will not cry [...] (Pocahontas, five years old).*

*[...] when the nurse comes to give the injection I will not be afraid (Cebolinha, five years old).*

*[...] when the injection came, I was not afraid (Queen Elsa, seven years old).*

*[...] I felt a very small fear of the size of the ant [...] (Eric, three years old).*

*[...] the person never wants to take it, but always wants to give it, right (Peter Pan, eight years old).*

*[...] I created the courage to look when the nurse came to give me an injection [...] (Finn, nine years old).*

## DISCUSSION

Given the children's perception of IVT, it was found that they understood the technique, from the use of ITP. This result is in line with the objectives proposed by this instrument, which is seen as a tool capable of mitigating the suffering and trauma resulting from hospitalization, and consequently carrying out invasive procedures.<sup>13,15,19</sup>

Favoring the child's understanding of the procedures to which they will be submitted, and the real benefits of these for their health, is one of the main objectives of the ITP practice, which aims to enable the dramatization of the procedure by the child, with the purpose of reducing the levels of anxiety, fear, tension, anguish and suffering presented by these.

In addition to understanding the steps required to perform the procedure, through the use of ITP, children were able to relate human anatomy to IVT. A different result was found in a study about venipuncture in the eyes of hospitalized children, which showed that they do not fully understand what happens when "the vein is taken", at the time of venipuncture, since they were not instructed about the realization of IVT.<sup>20</sup> This fact raises the need for health professionals to prepare children for carrying out procedures through playful and structured methods, such as ITP.<sup>21</sup>

In their studies,<sup>13,15</sup> affirm that children, when prepared through ITP for IVT, feel calmer, start to deal and collaborate with the treatment, and have the opportunity to dramatize the procedure to which they will be submitted, thus reducing stress levels.

After the session with the ITP, the children are happier, better understand what happens around them, and respond more eagerly to stimuli and requests, which favors their interaction with professionals and the environment.<sup>22</sup> Therefore, ITP acts as a communication tool, through which professionals explain the procedure to the child, and solve their doubts, in order to mitigate the negative effects of hospitalization and the performance of invasive procedures.<sup>10</sup>

During the session with the ITP, when they took on the responsibility of "medicating" the play, in the role of professionals, the children transmitted to the doll the feelings, anxieties and anxieties that accompany them during hospitalization, at the time of IVT. This action made it possible for them to better assimilate the procedure, through the understanding of the technique, and the possibility of implementing it in the ITP.<sup>6</sup>

These aspects are reaffirmed by two studies,<sup>23,24</sup> who mention that using the ITP, in preparing the hospitalized child to perform the IVT, allows the expression of behaviors that conjecture fears and anxieties in the face of invasive procedures. This method favors the reduction of the child's anxiety, fear and tension levels, through the dramatization of IVT in ITP.

In view of the child's understanding of the real objectives of IVT, a similar result was found in a study on the use of ITP in the context of pediatric emergency, which showed, according to maternal reports, that the use of ITP was configured as an instrument facilitator of the child's stay in the hospital emergency unit, as well as his understanding of the need for medication to restore health and prevent diseases.<sup>22</sup>

The administration of medications intravenously is one of the most common procedures in the hospital environment, capable of causing fear, anxieties, anguish and crying in children, being understood by them as a terrifying and, in some cases, even punitive event.<sup>20,23</sup> However, through the speeches, it is clear that even in the face of all the negative expressions presented by the child before IVT, they understand that the medication works to improve the clinical symptoms of the disease.

Given the children's statements, regarding their understanding of the need for medication for their health, it is possible to verify that they relate their submission to IVT as a conditional factor for the cure, and therefore returning home, which refers to the conception misconception that they have regarding drug therapy.<sup>15</sup>

This result was similar to that obtained in the study about the use of therapeutic plays in the preparation of children of preschool age for venipuncture, who found that one of the children understood venipuncture only as a means of obtaining a cure for the disease, and return to residence, without knowing for sure how the medication works and its benefits for the improvement of your clinical condition.<sup>19,21</sup>

When the child has the opportunity to play and dramatize IVT, through ITP, the pain, loneliness, fear and crying are alleviated. Corroborating the results of contemporary studies on the use of ITP to prepare hospitalized children for IVT,<sup>5,21,23,25,26</sup> it was possible to glimpse the expression of positive responses of the child after this technique, of which we can mention: the reduction of fear; tranquility before the procedure; the relaxed posture; the cooperation of the child; the greater interaction with the health team and other children hospitalized and the reduction of tension levels.

In view of the attenuation of pain resulting from IVT, a study found that 96.9% of their total sample reported lower pain scores after intervention with the ITP, and that only one child continued to have the same pain intensity.<sup>13</sup>

When asked if they liked to learn how to give injection of the doll, through the session with the ITP, it was noticeable the children's satisfaction, as well as the reduction of fear, and the expression of strength, joy and autonomy. Feelings reaffirmed in the study,<sup>22</sup> in which the mothers of hospitalized children mentioned that the use of ITP enabled infants to better understand, accept the procedure and reduce fear, as well as providing a moment

of learning and distraction, which favored greater tranquility and security for them.

Research carried out with preschoolers,<sup>24</sup> on how they would like to be treated by nursing during hospitalization, highlighted among the main results the need to include the child in care, clarifying the procedures and offering time to express feelings and desires, an action that allows the expression of the infant's autonomy, greater acceptance of procedures, minimization of tension, and better interaction with the health team.<sup>19,27</sup>

After the session with the ITP, most children, to the detriment of the attenuation of the levels of fear, anxiety and tension, resulting from the instructional practice, were more relaxed and safe, aspects that favor their understanding and acceptance about the IVT, allowing the child to respond better to stimuli and requests, and to perceive hospitalization as less frightening.<sup>13,15,24</sup>

Thus, when the nurse professional is aware of the impact generated by hospitalization on the child's behavioral reactions, he/she understands and sensitizes him/herself to the promotion of active listening, as a means of understanding the particularities, anxieties, fears and desires of the child, as well as the need to integrate more humanized practices in the care of hospitalized children, such as ITP, storytelling, play therapy and other.

According to the stages of development proposed by Piaget, children aged two to seven years are in the pre-schematic stage, while children aged seven to 12 are in the stage of concrete operations. In the pre-schematic stage, which includes preschoolers, children tend to exhibit egocentric, magical and playful behavior, and understand the world from their own perspectives. Children at this stage benefit from ITP as it is a practical activity, in which they exercise control and can manipulate objects according to their wishes, and thus express their feelings and emotions through the most appropriate channel, the non-verbal and playful one.<sup>18</sup>

Children in the concrete operations stage exhibit more logical and coherent behavior with reality, understand phenomena from what they see and perceive around them, and are also aware of their own thoughts. Another characteristic of this stage is the curiosity about everything around it, which generates questions that can already be answered and understood from concrete terms. With that, it can be seen that cognition matures as much as the emotional aspect. At this stage, ITP continues to be a useful tool, as it provides the simulation of an event that the child does not understand, but comes to understand as it reproduces it on dolls, through dramatizing the IVT with the manipulation of materials, usually, in a way closer to the sequence used by professionals.<sup>18</sup>

The study's limitations are the fact that it assessed the child's perception of ITP only in the face of IVT, therefore, his conceptions about other clinical procedures are not considered. This being said, it is suggested that new studies be carried out to address this issue in relation to the various clinical and/or surgical procedures to which the child is submitted in the hospital environment, and that theoretical references may also be used in order to support the practice of Pediatric Nursing.

## FINAL CONSIDERATIONS

With a view to reducing the child's suffering, negative feelings and misconceptions about the hospital environment and drug therapy, the results of this study point to the use of instructional therapeutic plays as a qualitative means of assisting hospitalized children and promoting the humanization of this assistance.

Through this study it was possible to understand the children's perception regarding the use of the therapeutic play during pediatric nursing care, a fact evidenced from the conception that guiding them on the performance of intravenous therapy favors their understanding of the real benefits of this technique for your health, which promotes the reduction of anxiety, fear, anguish, affliction, tension and pain.

Whereas, the dramatization of intravenous therapy in the instructional therapeutic play, by the child, also allowed the expression of his feelings and vulnerabilities, aspects that allow the nursing professional to understand the conditions that represent risks to the child's health, and intervene in a timely manner, through the use of strategies that favor the recovery of health and the minimization of subsequent traumas, resulting from hospitalization.

When the child is oriented about the procedure to which he / she will be submitted, and has the possibility to perform this technique in the instructional therapeutic play, prior to its submission, he / she feels more relaxed and adept at the situation, in order to understand the real benefits, the need, the fundamentals, the materials used and the steps necessary to achieve the IVT.

Through the implementation, by the nurses, of the instructional therapeutic play as a Nursing intervention, it becomes possible to promote responsibility and co-responsibility for health care, still in childhood, as well as the offer of an equanimous and humanized assistance to the hospitalized child.

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### Instructional therapeutic play in intravenous therapy

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