

# Using Therapeutic Toys to Facilitate Venipuncture Procedure in Preschool Children

*José Ronaldo Soares da Silva, Lourdes Margareth Leite Pizzoli, Amanda Regina do Prado Amorim, Fernanda Tais Pinheiros, Giovanna Chippari Romanini, Jack Gomes da Silva, Shirley Joanete, and Silvana S.M. Alves*

**T**he unfamiliar setting of the hospital environment can be hostile to children and even adults, with strangers and procedures that can inflict pain and physical suffering, thus causing emotional suffering. Children confront numerous difficulties in the hospital, including pain, illness, submission, restrictions, the constant exploration of their bodies, and innumerable painful, unknown, and invasive procedures. Although children may know they need health care treatment, they may not comprehend what is happening, and feel small and unimportant, generating fear and insecurity.

Signs of anxiety in children vary according to stage of development, temperament, and life experiences. Especially among preschool-aged children, some primary sources of anxiety are fear of harm to the body and rejection for bad behavior, which can be aggravated by changes in the routine, strange environments, painful procedures, and the anxiety of the parents themselves, who also experience the event with anguish and suffering (Schmitz, Piccoli, & Vieira, 2003).

For children, the act of play is important for motor and intellectual development, as well as socialization, because it facilitates their understanding of the situation around them, thus working in situations of conflict, frustration, trauma, and anxiety (Azevedo, Santos, Justino, Miranda, & Simpson, 2008; Hockenberry, Wilson, & Winkelstein, 2006). In addition to being innate to children, play is essential to their mental, emotional,

Intravenous access procedures in children are considered to be one of the most stressful because it is invasive, and the use of needles generates anxiety, insecurity, and fear. Playful strategies using dolls and even the materials used for venipuncture can assist children in understanding, accepting, and coping with the procedure. Field research was developed on the applicability of the therapeutic toy in the preparation of preschool children for venipuncture procedure based on the protocol developed by Martins, Ribeiro, Borba, and Silva (2001) and Kiche and Almeida (2009). The study was done in a private hospital in Greater São Paulo, Brazil, with 10 children ages 3 to 6 years. Data were gathered through observation and questionnaires completed by the children's adult guardians. Before the activity, the children showed fearful facial expressions, used monosyllabic responses, and avoided looking at the health care professional. After the strategy of using therapeutic toy dolls and puppets, 40% of the children calmly accepted the venipuncture procedure, and 100% showed a change to their initial negative reaction, became more communicative and cooperative, and participated and interacted with researchers, even after the end of the activity and procedure. The strategy of therapeutic toys helps make an unfamiliar environment, strangers, and a procedure characterized as painful and difficult less stressful. Pediatric nurses are in a good position to use this resource to offer more humanized care to children.

and social well-being. Similar to other basic needs, the need for play does not cease when children become ill or are hospitalized (Ribeiro, 1998).

The use of structured play can alleviate the anxiety caused by unfamiliar and possibly threatening experiences. Thus, the therapeutic toy was developed, which can be used when children have difficulty comprehending or dealing with experiences of this nature, especially preschool children aged 3 to 6 years. Use of therapeutic toys can be a distraction from the hospital environment surrounding sick children, bringing them closer to what is familiar, reducing their anxiety, and facilitating their acceptance of the procedure to be performed (Leite & Shimo, 2008; Silva & Aguiar, 2006).

The use of dolls, needles, and syringes can help children understand and accept the procedure to be performed, and to control their emotions. For children 3 to 6 years of age,

trauma can be even greater due to the difficulty of understanding the experience (Martins, Ribeiro, Barba, & Silva, 2001; Ribeiro, Sabates, & Ribeiro, 2001). When handled by children, medical objects, such as a stethoscope, syringe, thermometer, and other materials, can cease to be frightening and become toys; children can "play doctor" with dolls, simulating surgeries, cures, and injections, thus expressing their fears and anticipating situations they may experience. These fantasy activities can encourage interaction with the nurse and increase understanding of the reason for the procedure, transforming the child from passive subject to inquisitive and active subject who is in control of the situation (Carmo, 2008; Martins et al., 2001; Ribeiro et al., 2001).

Despite the proven benefits of the use of therapeutic toys in various studies and programs, this technique remains little used among nurses in

**Note:** Authors' biographical statements can be found on the following page.

hospital environments in Brazil. Understanding the benefits of therapeutic toys can promote the use of this technique as part of nursing professionals' routine care of children (Azevedo et al., 2008; Maia, Ribeiro, & Borba, 2008; Martins et al., 2001; Ribeiro et al., 2001; Silva & Aguiar, 2006; Universidade Federal de São Paulo [UNIFESP], 2009).

## Venipuncture in Children

Venipuncture is one of the most stressful, invasive, diagnostic, and therapeutic procedures for children because the use of needles increases fear, anxiety, and insecurity in children, manifested in reactions such as crying, anger, and even aggression. Traumas resulting from hospital procedures to maintain or recuperate health are frequent. These procedures are loaded with ambiguity; while they often successfully provide specialized care, they also generally bring changes, interventions, and often-times, pain.

Repeated venipunctures in children can cause emotional, physical, and physiological signs, including damage to children's growth and development. Children can interpret these events as aggression, which is accompanied by fear or pain, which translates into anxiety and sobbing. Therefore, in addition to adaptation of techniques and proper, quality intravenous devices, the use of communication strategies to reduce the child's discomfort, anxiety, and fear as

much as possible is essential. Reactions to pain and physical suffering are different at each stage of child development, and the pediatric nurse's observation and identification of these behaviors is important (Antunes, Araujo, & Nascimento, 2008; Collet & Oliveira, 2002).

Gioca (2001) correctly asserts that the "child is not a miniature adult" because children have characteristics specific to their age. Even though they are subject to the diverse influences surrounding them, each child's development has its own rhythm of principles, and the child acts as a determinant of the entire process that characterizes human development. In terms of cognition, preschool children (2 to 7 years) possess intuitive thought based on perceptive indications, guided by magic and symbolism, which is essentially personal because they think only about what is immediately observable, with an initial tendency to consider only their point of view (intellectual egocentrism) (Pereira, 2010).

## Therapeutic Toy

Play is the most important activity in the life of a child, and is crucial to children's motor, emotional, mental, and social development. Play is how children communicate with their surroundings and actively express their feelings, anxieties, and frustrations, allowing them to assimilate what is unfamiliar (Martins et al., 2001).

In 1960 in Brazil, Dr. Esther Moraes, a professor of nursing at the School of Nursing of the University of São Paulo (EEUSP), introduced the toy as an intervention resource for the care of children by the nursing team. When Moraes was interviewed in 2008, she recounted that she observed dramatic toys being used in play therapy as a form of interaction between people, and intuitively began to use toys in care of children during traumatic situations. Moraes confirmed less suffering and greater cooperation when children had the opportunity to act out the procedures with dolls or converse with them; their anxiety was eased, thereby proportioning greater closeness between health care professionals and young patients, and making their care more personalized (Rodrigues, Pimentel, & Barboti, 2010).

Play is one of the most effective instruments to reduce stress because it allows children to free their capacity to create and reinvent the world, making possible the liberation of affectivity through the magic world of make-believe, exploring their limits, and finding themselves. In this way, children can explore, ask questions, and reflect about the everyday reality in which they live, assisting their psychological and social development (Furtado & Lima, 1999).

A therapeutic toy is designed to alleviate children's anxiety caused by experiences atypical for their age, which are usually threatening and require more than recreation to resolve the associated anxiety. Therapeutic toys should be used whenever children have difficulty comprehending or dealing with a difficult experience, or need to be prepared for procedures. Nurses can use therapeutic toys to help children better understand their health care needs, as well as assist in preparing children for procedures, and relieve their tension after procedures by dramatizing life experiences and handling the medical instruments or play objects used to represent the instruments. Normal toys become therapeutic when they promote the psychophysiological well-being of the child (Martins et al., 2001; Ribeiro et al., 2001).

The use of therapeutic toys by nurses is legally sustained under the Lei do Exercício Profissional [Law of Professional Practice] through Resolution 295 of the Federal Council of Nursing of Brazil (Conselho Federal

---

**José Ronaldo Soares da Silva, MS, RN**, is an Assistant Teacher, University Center Anhanguera Santo André, and Technical Supervisor of Nursing at Hospital Heliópolis, São Paulo, Brazil.

**Lourdes Margareth Leite Pizzoli, MS, RN**, is a Technical Supervisor of Nursing at Hospital Heliópolis, São Paulo, Brazil.

**Amanda Regina do Prado Amorim** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Fernanda Tais Pinheiros** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Giovanna Chippari Romanini** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Jack Gomes da Silva** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Josiane Gomes da Silva Pepi** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Shirley Joanete** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

**Silvana S.M. Alves** is a Graduate Nursing Student, University Center Anhanguera Santo André, São Paulo, Brazil.

de Enfermagem: COFEN), adopted in 2004, which states that the use of therapeutic toys in the health care of children and their families is appropriate for professionals who work in pediatrics as a member of a multiprofessional health care team (COFEN, 2004).

As a strategy for nursing care, play has always been part of the professional focus, especially in pediatric nursing, as much in its recreational modality as a therapy. Because therapeutic toys are structured to alleviate children's tensions, they can be used whenever children have to confront a situation that is atypical and threatening for their age.

Although all toys are potentially therapeutic, not all play is therapeutic. Three types of therapeutic toys can be distinguished: 1) the toy that allows emotional relief, also known as the dramatic or cathartic toy; 2) the instructional toy for preparation of a procedure; and 3) the training toy for physiological functions (Carmo, 2008; Martins et al., 2001; Ribeiro et al., 2001; UNIFESP, 2009).

### Applicability of the Therapeutic Toy

The therapeutic toy can be a valuable instrument to help children prepare for events and/or procedures because it not only allows them to release their feelings and better understand the situation, it helps the health care team better comprehend the children's needs (Carmo, 2008; Martins et al., 2001). Toys are a universal form of communication for children, and therapeutic toys can facilitate a positive response from children during painful procedures, after the demonstration of behaviors, or responses with the toy. In this way, with the use of dolls, needles, syringes, and bandages, therapeutic toys can assist in communication between the nurse and child, especially during preparation for a painful procedure, such as venipuncture, by helping the child to understand the experience of the puncture and even help the child control his or her emotions (Carmo, 2008; Martins et al., 2001). A totally efficient strategy that facilitates the collection of blood from a child does not exist; however, toys can assist in the process, especially those that stimulate the active participation of the child in the collection process, through their collaboration with the hospital material, selection of the vein, and materials with children's themes

(Almeida & Sabatés, 2008; Sociedade Brasileira de Patologia Clínica/Medicina Laboratoriária [SBPC/ML], 2009; Thielmann, Franco, Sales, & Morelli, 2010).

Children's development through play is a result of them being allowed to explore the world, develop creativity, build creativity, and enter into contact with others. This is important not only for socialization, but primarily to know themselves as a stimulus, to employ their ability in the face of difficulties, and to react in challenging moments with the ability to change them. Thus, through the use of toys and hospital materials or their imitations, health care professionals can detect incorrect understandings that the children may have about procedures and obtain information from the children about their unreal and fantastical fears, thus facilitating comprehension and communication in an effort to provide children with greater comfort, helping guarantee success of the procedure (Ferland, 2006; Ribeiro et al., 2001).

For sick children, therapeutic toys have four functions: 1) to release anger through expression; 2) to reenact painful experiences in order to understand them, thereby establishing a link between them and the treatment for understanding the procedures and changing behavior; 3) to establish a link between home and the hospital; and 4) to withdraw in order to regain control.

Play permeates childhood and brings children to reenact pleasurable as well as difficult situations, such as those imbued with pain and fear. Through play, children are able to express fears and fantasies they are unable to verbalize. Thus, it is an important form of communication often ignored by nurses and their teams (Leite & Shimo, 2008; Silva & Aguiar, 2006). In her 1998 study, Ribeiro observed that hospital personnel were unprepared in regard to the use and importance of toys as therapy for children, despite the various publications on this topic (Ribeiro et al., 2001).

Today, the use of therapeutic toys remains limited in Brazil, even though it has been integrated into the curriculum of the Undergraduate Nursing program since the 1980s, has been the topic of national and international books, and its use is recommended by COFEN, including being determined part of nursing proficiency since 2004. Their use is largely lim-

ited to distracting children or as entertainment to pass the time. According to professors of nursing, the use of therapeutic toys helps the child feel respected and better understand the processes he or she will undergo in the hospital, thereby making the child more cooperative. It is therefore of benefit to the child, his or her family, and the professional (COFEN, 2004; UNIFESP, 2009).

Especially during the preschool age, children are unable to distinguish between the real and imaginary, and believe their thoughts are powerful, making their acceptance of an invasive procedure difficult. Some children may even interpret invasive procedures as a form of rejection. The primary task of preschool children is to acquire a sense of collaboration through spontaneous urge, and when submitted to experiences that are decisive, conflicts emerge because they come to believe their attitudes and imaginations are bad, and they feel guilty (Martins et al., 2001).

According to Erikson's theory of psychosocial development, children use play to express their difficulties, and play is the most normal form of self-therapy available to preschoolers. Thus, play has many possibilities to perform many roles in children's development because children can use it to express their most obscure sufferings. That is, play is the most infantile phase of the human ability to deal with new experiences and control reality (Martins et al., 2001; Ribeiro et al., 2001).

The use of toys as therapy has significant benefits for the triad involved: the child, adult guardian, and professional. For the professional, therapeutic play can be an alternative strategy that makes it possible to understand the needs and feelings of the child and his or her guardian, assimilate new situations, and clarify erroneously interpreted concepts. Thus, therapeutic toys help professionals develop self-confidence because in addition to preparing the child for the new experience, the experience becomes less imbued with anxiety and fear (Azevedo et al., 2008).

The aim of this research was to study the efficacy of therapeutic toys during venipuncture procedures in children ages 3 to 6 years in order to minimize their negative reactions.

**Table 1.**  
**Adaptation of Texts, Illustrations, and Playful Materials According to Age Range**

| Age Range    | Story type   | Illustrations   | Materials   |
|--------------|--|---|---|
| 1 to 2 years | Short.   | One simple and attractive picture per page.   | Puppets. Books made of cloth, wood, and plastic.  |
| 2 to 3 years | Short, simple living plots, with few characters and close to children's experiences.   | Large pictures with few details.  | Puppets and music.  |
| 3 to 6 years | Experiences based on the familiar every day of the child.  | The picture predominates, absent of, or with little, text.  | Puppets or transformation of the storyteller into characters.   |
| 6 or 7 years | Figures of language with sounds of the words, short phrases and amplification of the themes inserting personalities into the collectivity, favoring socialization. | Figures with the text to encourage interest in the story. Illustrated letters with words of a unique dimension structure, exploring the images. | Poems, playing with words, syllables, and sounds and support of instruments or objects that produce sounds. Play dough, paints, and colored pencils or crayons to illustrate texts. |

**Source:** Adapted from Oliveira, 2005.

## Methodology

This descriptive, exploratory, cross-sectional, and qualitative quantitative study was conducted in a private hospital in the ABC Region (a term used to refer to an industrial region in Greater São Paulo, composed of seven smaller cities: Santo André, São Bernardo do Campo, and São Caetano do Sul) of greater São Paulo. The name of the hospitals have been omitted in order to maintain anonymity. The Ethics Committee of University Research granted approval for the study. Guardians provided written consent.

The target population was children ages 3 to 6 years undergoing venipuncture procedures in the first aid or emergency care units of the hospital selected for the research. A convenience sampling technique was used.

## Instruments

Data were gathered through observation, and questionnaires were completed by the children's adult guardians. Observation was through direct participation of researchers and the presence of the guardians of children procedure in therapeutic toys and venipuncture. Researchers have extensive training and expertise in pediatric venipuncture. The nurse who used the therapeutic toy also did the venipuncture.

The researchers developed two different questionnaires for the parent/guardian to complete, one used before the intervention and one after

the procedure. The pre-questionnaire first asked if the child had a venipuncture procedure in the past, and if so, the reason, the child's reaction (i.e., crying, aggression, fear, other), and if there had been any preparation play before, and if so, to describe. Other questions included: Does the child like to hear stories and if so, what kind does he or she prefer? Does the child like to make up stories using puppets, and if so, could you briefly describe how? Following the procedure, data were collected regarding whether or not the child had to be held to perform the procedure; whether, in the parent/guardian's opinion, the use of the toy changed the child's reaction; if the child was more cooperative and communicative interacting with the toy; and if the child refused to perform the procedure for the toy. The researcher completed a brief observation form checking off the child's expressions and behaviors before and after the procedure and noting any other observations.

## Intervention

Dolls and puppets were used to enact stories for the children according to their age (see Table 1) developed by Oliveira (2005), as well as the scripts developed by Martins et al. (2001), to construct conversations with the children during the research through the use of therapeutic toys. One script, for example, uses the character Hansel, if a boy, and Gretel, if a girl (Martins et al., 2001). The nurse

using a doll or puppet as Hansel tells the story of Hansel waking up early one morning with a fever and sore throat. His mother takes him to the doctor, who says Hansel needs to be hospitalized to take medicine. His mother takes him to be admitted to the hospital, where she stays with him. Hansel starts crying and says he is afraid. Using the Hansel toy, the nurse shows what will happen and what Hansel needs to do, demonstrating with the medical equipment on the doll. The nurse explains that after Hansel no longer needs the medicine, the needle will come out, and Hansel can go home with his mother.

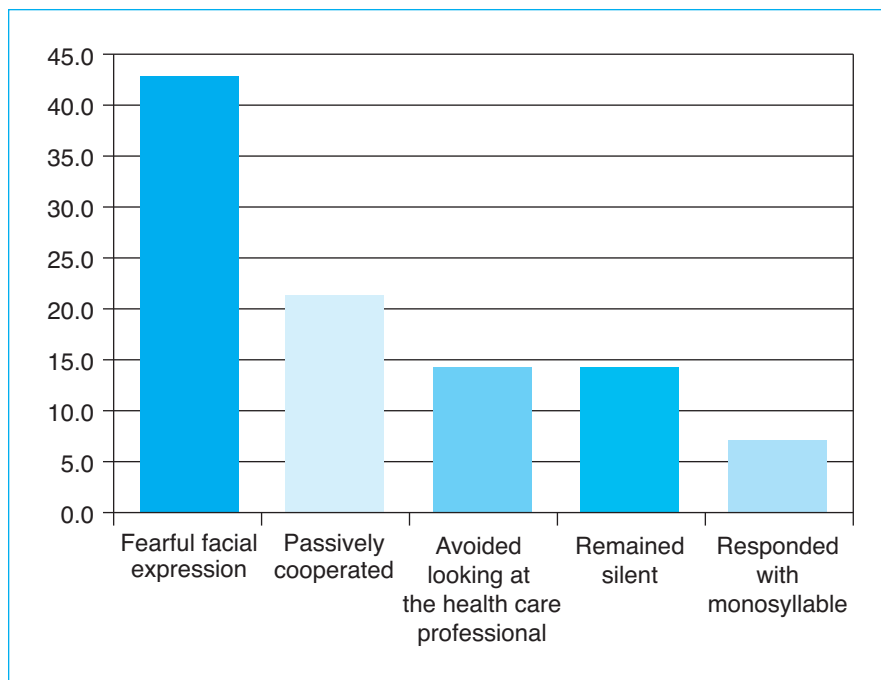
## Results and Discussion

Ten children participated in the study. Regarding age of the study subjects, 40% were 5 years old, followed by 20% each for participants aged 3, 4, and 6. Girls were 80% of the study population. In regard to reason for seeking treatment, 30% were treated for varicella, 30% for fever, 20% for pneumonia, 10% for burns, and 10% for rotavirus. All children were accompanied by a relative, most often the mother (60%), followed by the father (20%) and grandmother (20%).

## Previous Experience

In regard to previous experience with venipuncture, the adult guardians confirmed that 100% of the child study participants had previously undergone the procedure, with response percentages being crying

**Figure 1.**  
**Distribution of the Percentage of Reactions Exhibited by Child Participants, Observed by the Researcher Before the Use of the Therapeutic Toys**



(100%), fear (33.3%), and aggression (11.1%). In terms of development phase, the children at the time of previous experience were in the Symbolic Period phase (approximately 2 to 4 years old); children in this phase still do not have very efficient self-control and may exhibit aggression. In regard to crying and fear, these are not surprising responses due to the insecurity of the environment and strange people, as well as the procedure, which can cause pain and suffering (Soares & Almeida, 2010).

One hundred percent of the adult companions stated that the child participants had never experienced a strategy of play in their previous experiences with venipuncture. Studies by Maia et al. (2008) and the Federal University of São Paulo (2009) reinforce this fact and describe how play strategies are little used in hospital environments.

### Pre-Procedure

Observation findings pre-procedure are listed in Table 2 and illustrated in Figure 1. Psychogenetic research demonstrates that development of the ability to speak brings important changes in cognitive, affective, and social aspects of children. It makes

possible interindividual interactions and the capacity to work with representations with which they can attribute meanings to their realities. "So much so, that the acceleration of the ability for thought in this stage of development is largely attributed to the possibilities for interindividual contact provided by language" (Terra, 2010, p. 22).

### Post-Procedure

Following the procedure, 40% of the children – half of which were 5 years of age and half of which were 6 years of age – remained calm and did not need any intervention following preparation for the procedure with therapeutic toys. One hundred percent of the children modified their reaction during the venipuncture procedure; they allowed the venipuncture procedure after use of the therapeutic toy, and were more communicative and cooperative. On the adult questionnaire (see Figure 2 and Table 3), 100% of the adult companions stated that the use of the therapeutic toys encouraged the child to accept the venipuncture procedure.

It is important to preserve the right to play, especially in the hospital context, because the resource of play

is both a diversion and entertainment as an educational alternative. It favors social, emotional, intellectual, and particularly therapeutic development, helping to reduce stress, fear, and anxiety (Kiche & Almeida, 2009).

Another important aspect of the therapeutic toy is that it encourages interaction between the child and adult, and the person who plays with the child will be the person to whom the child turns when he or she feels frightened or needs help, thus establishing an important bond of trust in the hospital environment (Kiche & Almeida, 2009). Therapeutic toys are considered to be a resource in nursing care, not only for children, but also for their families. In addition to being a way for children to "forget" the pain or illness, the toy can reveal the "needs and feelings of the small patient, helping him to understand situations or diagnosis procedures and therapies that he will undergo, thus encouraging him to be calm, secure and to accept the treatment, in addition to facilitating harmonious relationships with health care professionals" (UNIFESP, 2009, p. 5).

Regarding other observations and findings from the questionnaires, 60% of adult companions stated that this type of activity should be applied in all sectors of all hospitals. One adult even stated that it should be applied to all age groups, including adults, in other contexts yet with the same purpose. For preschool children in particular, due to their characteristics of being incapable of dealing with the abstract and temporality of facts and relationships of cause and effect, the hospital environment appears to be a world of mystery and terror, which, through the use of playful strategies, can be minimized or even reversed (Kiche & Almeida, 2009).

Play is fundamental in the lives of children and their motor, emotional, mental, and social development. Play is the way in which preschool children communicate and actively express their worlds, lives, and feelings. With toys, preschool children promote an event that is the most concrete way to control and acquire control of the situation, using toys and the imaginary (Martins et al., 2001).

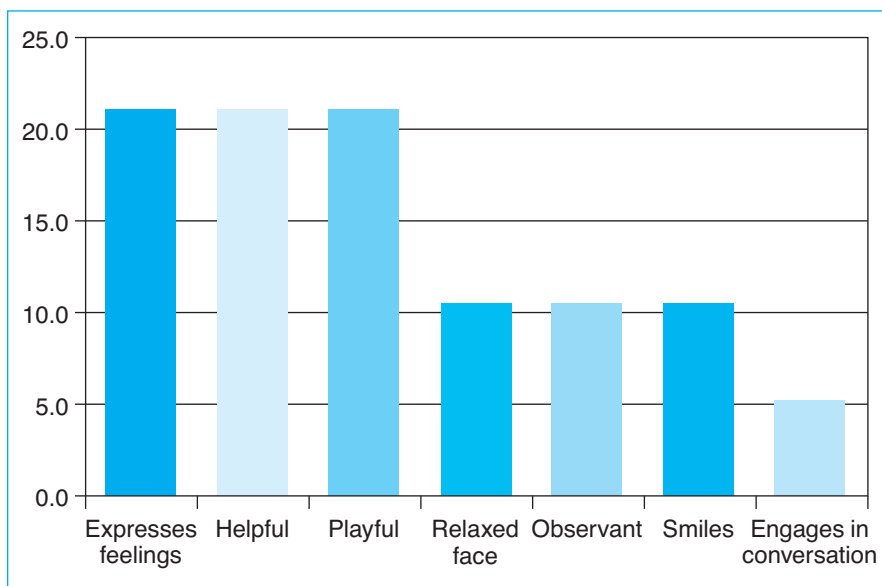
After the activity with the therapeutic toys, the researchers observed the reactions shown in Table 2 and illustrated in Figure 2. Considering that such a question allows multiple

**Table 2.**  
**Distribution of the Absolute Frequency and Percentage of Reactions Exhibited by Child Participants before Application of Therapeutic Toys during the Venipuncture Procedure by Age**

| Reactions Observed by Researcher before Use of Therapeutic Toy | Age     |      |         |      |         |      |         |      |       |       |
|--|---------|------|---------|------|---------|------|---------|------|-------|-------|
|  | 3 Years |      | 4 Years |      | 5 Years |      | 6 Years |      | TOTAL |       |
|  | AF      | %    | AF      | %    | AF      | %    | AF      | %    | AF    | %     |
| Fearful facial expression                                      | 1       | 7.1  | 1       | 7.1  | 3       | 21.4 | 1       | 7.1  | 6     | 42.9  |
| Passively cooperated   | 1       | 7.1  | 1       | 7.1  | 0       | 0.0  | 1       | 7.1  | 3     | 21.4  |
| Avoided looking at the health care professional                | 0       | 0.0  | 0       | 0.0  | 2       | 14.3 | 0       | 0.0  | 2     | 14.3  |
| Remained silent  | 1       | 7.1  | 1       | 7.1  | 0       | 0.0  | 0       | 0.0  | 2     | 14.3  |
| Responded with monosyllables                                   | 1       | 7.1  | 0       | 0.0  | 0       | 0.0  | 0       | 0.0  | 1     | 7.1   |
| Total  | 4       | 28.6 | 3       | 21.4 | 5       | 35.7 | 2       | 14.3 | 14    | 100.0 |

**Notes:** Data based on 14 responses. AF = absolute frequency.

**Figure 2.**  
**Distribution of the Percentage of Reactions Exhibited by Child Participants Observed by the Researcher after the Use of Therapeutic Toys**



alternatives, the base of data was composed of 19 responses. Other observations made by the researchers include:

- A 3-year-old child with recurring pneumonia was very shy at first, but during application of the activity with the therapeutic toy began to interact with the research team.
- The mother of another 3-year-old who suffered from a burn in the left arm stated: "He had to be restrained by four health care professionals...one on each arm and leg...yet this time, he is fine sitting in my lap."

- According to the father of a 4-year-old with recurring pneumonia: "In comparison to all of the other procedures that he went through before, he is cooperative and calm."
- A 6-year-old girl with rotavirus cooperated extraordinarily, and according to her grandmother: "She liked to participate in the games a lot."
- A 5-year-old child with varicella was resistant for a longer time than the other children, but after some insistence, allowed the procedure peacefully.

- After the procedure, another 5-year-old child remained playing happily with the research team, as though she did not have a fever any longer or remember the venipuncture procedure.

In situations in which children are primarily passive subjects, play helps to transform children into active subjects who are investigators in control of the situation through toys and the imaginary, expressing their fantasies, desires, and experiences in a symbolic manner. The way in which play indicates how children are, expressing their conflicts through toys, is considered to be the most common form of self-therapy available to them. Play can perform many roles in personal development, but without a doubt the child uses it to alleviate suffering, frustrations, and losses, further considering that play is the childish way of the human ability to deal with experience and control reality (Martins et al., 2001).

### Conclusion

When confronted with the unknown world of the hospital, where everything is unfamiliar, children find in play an organization of time and space that is useful to their need to comprehend aspects of the situation, through which they explore, orient, seek, and obtain information in the search for meaning. The routine and order established in playful activities allow the child to anticipate events, confronting the tensions and anxieties generated by the threat of an unknown future, and the presence

**Table 3.**  
**Distribution of the Absolute Frequency and Percentage of Reactions Exhibited by Child Participants Observed by the Researcher after Use of the Therapeutic Toys by Age**

| Reactions Observed by Researcher after Use of Therapeutic Toy | Age     |      |         |      |         |      |         |      |       |       |
|---|---------|------|---------|------|---------|------|---------|------|-------|-------|
|   | 3 Years |      | 4 Years |      | 5 Years |      | 6 Years |      | TOTAL |       |
|   | AF      | %    | AF      | %    | AF      | %    | AF      | %    | AF    | %     |
| Expresses feelings  | 2       | 10.5 | 0       | 0.0  | 2       | 10.5 | 0       | 0.0  | 4     | 21.1  |
| Helpful   | 0       | 0.0  | 1       | 5.3  | 1       | 5.3  | 2       | 10.5 | 4     | 21.1  |
| Playful   | 0       | 0.0  | 1       | 5.3  | 3       | 15.8 | 0       | 0.0  | 4     | 21.1  |
| Relaxed face  | 0       | 0.0  | 0       | 0.0  | 1       | 5.3  | 1       | 5.3  | 2     | 10.5  |
| Observant   | 0       | 0.0  | 2       | 10.5 | 0       | 0.0  | 0       | 0.0  | 2     | 10.5  |
| Smiles  | 0       | 0.0  | 0       | 0.0  | 2       | 10.5 | 0       | 0.0  | 2     | 10.5  |
| Engages in conversation                                       | 0       | 0.0  | 0       | 0.0  | 0       | 0.0  | 1       | 5.3  | 1     | 5.3   |
| Total   | 2       | 10.5 | 4       | 21.1 | 9       | 47.4 | 4       | 21.1 | 19    | 100.0 |

**Notes:** Data based on 19 responses. AF = absolute frequency.

of potentially damaging occurrences.

The development of anxiety that makes children insecure and fearful can be eased through the use of playful strategies according to their level of understanding. However, care or clinical treatment should not be the only focus because there are other resources that can offer more humanized care with activities that provide appropriate preparation and less suffering from procedures.

The Therapeutic toy experience was very gratifying to the researchers because despite having already verified the value of therapeutic toys in the literature, it was indescribable to observe the reactions of the children to the therapeutic toys. Children who were afraid, silent, and uncooperative changed to clearly process the changes during application of the activity. The changes to the children's behaviors and expressions, especially those who wanted to continue playing even after the procedure was over, suggested liberation of spontaneity to cooperate and better acceptance of the procedure, both of which were results of the interaction proportioned by the therapeutic toy.

We confirm that even in the face of such sophisticated technology, communication with toys and simple materials can be established. All that is needed is the development of techniques and abilities for better attention not only to children, but in health care overall, because the bonds that can be built through these resources proportion comprehensive

care. We believe that in addition to the knowledge of the technique, nursing professionals need to know the basic aspects of child development in each phase, encouraging interaction and providing greater basis in their practice of pediatric nursing assistance.

Nurses are in an excellent position to use resources that minimize or keep children from hiding their feelings during tense moments. In addition to more sensitive and humanized care for children, and gratification for the nursing professional, we should remember that play is important to the preservation of emotional health for all, independent of age. Thus, we hope that our study contributes to existing studies, and that more techniques of therapeutic communication and playful activity can be available in the health professional's training to facilitate greater participation of patients in the therapeutic process, especially children. ■■■

## References

- Almeida, F.A., & Sabatés, A.L. (2008). *Enfermagem pediátrica: A criança, o adolescente e sua família no hospital*. São Paulo, Brazil: Manole.
- Antunes, J.C.P., Araújo, M.C., & Nascimento, M.A.L. (2008). Puncão venosa pediátrica: Análise crítica de um procedimento de enfermagem. *VIII Encontro Nacional de Fundamentos dos Cuidados de Enfermagem*. UNIRIO.
- Azevedo, D.M., Santos, J.J.S., Justino, M.A.R., Miranda, A.N., & Simpson, C.A. (2008). O brincar enquanto instrumento terapêutico: Opinião dos acompanhantes. *Revista Eletrônica de Enfermagem*, 10(1), 137-144.
- Carmo, A. (2008). *A brinquedoteca hospitalar: Uma intervenção positiva para criança hospitalizada*. Centro de Referência em Distúrbios de Aprendizagem. Retrieved from <http://www.crda.com.br/tccdoc/3.pdf>
- Conselho Federal de Enfermagem (COFEN). (2004). *Resolução COFEN-295/2004*. Brazilian.
- Collet, N., & Oliveira, B.R.G. (2002). *Enfermagem pediátrica*. São Paulo, Brazil: AB EDITORA.
- Ferland, F. (2006). *O modelo lúdico: O brincar, a criança com deficiência física e a terapia ocupacional* (3rd ed.). São Paulo, Brazil: Roca.
- Furtado, M.C.C., & Lima, R.A.G. (1999). Brincar no hospital: Subsídios para o cuidado de enfermagem. *Revista da Escola de Enfermagem da USP*, 33(4), 364-369.
- Gioca, M.I. (2001). *O jogo e a aprendizagem na criança de 0 a 6 anos*. Pedagogia. UNAMA. Retrieved from [http://www.nead.unama.br/site/bibdigital/monografias/O\\_JOGO\\_E\\_A\\_APRENDIZAGEM.pdf](http://www.nead.unama.br/site/bibdigital/monografias/O_JOGO_E_A_APRENDIZAGEM.pdf)
- Hockenberry, M.J., Wilson, D., & Winkelstein, M.L. (2006). *Wong fundamentos de enfermagem pediátrica* (7th ed.). Rio de Janeiro, Brazil: Elsevier.
- Kiche, M.T., & Almeida, F.A. (2009). Brinquedo terapêutico: Estratégica para o manejo da dor e alívio de tensão durante o curativo em crianças. *Acta Paulista de Enfermagem*, 22(2), 125-130.
- Leite, T.M.C., & Shimo, A.K.K. (2008). Uso do brinquedo no hospital: O que os enfermeiros brasileiros estão estudando? *Revista da Escola de Enfermagem da USP*, 42(2), 389-395.
- Maia, E.B.S., Ribeiro, C.A., & Borba, R.I.H. (2008). Brinquedo terapêutico: Benefícios vivenciados por enfermeiras na

## Instructions For Continuing Nursing Education Contact Hours

### Using Therapeutic Toys to Facilitate Venipuncture Procedure in Preschool Children

Deadline for Submission: April 30, 2018

PED 1602

#### To Obtain CNE Contact Hours

1. To obtain CNE contact hours, you must read the article and complete the evaluation through the **Pediatric Nursing website** at [www.pediatricnursing.net/ce](http://www.pediatricnursing.net/ce)
2. Evaluations must be completed **online** by April 30, 2018. Upon completion of the evaluation, your CNE certificate for 1.4 contact hour(s) will be mailed to you.

#### Learning Outcome

After completing this learning activity, the learner will be able to summarize the benefits of using a therapeutic toy in preparation of preschool children for venipuncture procedures.

Fees — *Subscriber: FREE Regular: \$20*

The author(s), editor, editorial board, content reviewers, and education director reported no actual or potential conflict of interest in relation to this continuing nursing education article.

This educational activity is provided by Anthony J. Jannetti, Inc.

Anthony J. Jannetti, Inc. is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

Anthony J. Jannetti, Inc. is a provider approved by the California Board of Registered Nursing, provider number CEP 5387. Licensees in the state of California must retain this certificate for four years after the CNE activity is completed.

This article was reviewed and formatted for contact hour credit by Rosemarie Marmion, MSN, RN-BC, NE-BC, Anthony J. Jannetti, Inc. Education Director.

- prática assistencial à criança e família. *Revista Gaúcha de Enfermagem*, 29(1), 39-46.
- Martins, M.R., Ribeiro, C.A., Borba, R.I.H., & Silva, C.V. (2001). Protocolo de preparo da criança pré-escolar para punção venosa, com utilização do brinquedo terapêutico. *Revista Latino-Americana de Enfermagem*, 9(2), 76-85.
- Oliveira, C.M. (2005). *Livros e infância*. Graudez: Literatura infantil. Retrieved from <http://www.graudez.com.br/litinf/livros.htm>
- Pereira, R.L.O. *Aspectos do desenvolvimento infantil: Crianças de 3 a 6 anos*. Retrieved from [http://www.ibmcomunidade.com.br/kidsmart/detLeitura.asp?codigo\\_leitura=119&codigo\\_idioma=3](http://www.ibmcomunidade.com.br/kidsmart/detLeitura.asp?codigo_leitura=119&codigo_idioma=3)
- Ribeiro, C.A. (1998). O brinquedo terapêutico na assistência à criança hospitalizada: Significado da experiência para o aluno de graduação em enfermagem. *Revista da Escola de Enfermagem da USP*, 32(1), 73-79.
- Ribeiro, P.J., Sabatés, A.L., & Ribeiro, C.A. (2001). Utilização do brinquedo terapêutico, como um instrumento de intervenção de enfermagem, no preparo de crianças submetidas à coleta de sangue. *Revista da Escola de Enfermagem da USP*, 35(4): 420-428.
- Rodrigues, A.R., Pimentel, H.P., & Barboti, R.A. (2008). *Benefícios do brinquedo terapêutico no cuidado de enfermagem à criança hospitalizada*. Retrieved from <http://www.webartigos.com/artigos/beneficios-do-brinquedo-terapeutico-no-cuidado-de-enfermagem-a-crianca-hospitalizada/11412/>
- Schmitz, S.M., Piccoli, M., & Vieira, C.S. (2003). A utilização do brinquedo terapêutico na visita pré-operatória de enfermagem à criança. *Revista Eletrônica de Enfermagem*, 5(2), 14-23.
- Silva, S.A., & Aguiar, O.X. (2006). A importância do brincar na pediatria em hospital geral. *Revista Científica Eletrônica de Psicologia*, IV(7), 1-6.
- Soares, V.C., & Almeida, C.C. (2010). Etapas e desenvolvimento da criança e do adolescente. *Psicologia da criança e do adolescente*. *Insight*. Psicologia e Recursos Humanos. Retrieved from <http://www.insight.pt/fasescrescimento/3a4.htm>
- Sociedade Brasileira de Patologia Clínica/Medicina Laboratorial (SBPC/ML). (2009). *Recomendações da SBPC/ML para coleta de sangue venoso* (2nd ed.). São Paulo, Brazil: Elaborado pelo Comitê de Coleta de Sangue da SBPC/ML e BD Diagnostics – Pre-analytical Systems.
- Terra, M.R. (2010). *O desenvolvimento humano na teoria de Piaget*. Retrieved from <http://www.unicamp.br/iel/site/alunos/publicacoes/textos/d00005.htm>
- Thielmann, D.C.A., Franco, L.F., Sales, M.M., & Morelli, V.M. (2010). *Manual de Procedimentos de Coleta*. Pró-Saúde. Sociedade Beneficente de Assistência Social e Hospitalar. Retrieved from <http://webmail.diagnosticosdaamerica.com.br/DocumentosPublicos/ManuaisPublicos.nsf/MMPPPR/64D45C25E4147FFC832576510074E5F6?OpenDocument>
- Universidade Federal de São Paulo (UNIFESP). (2012). Assessoria de Imprensa. Brinquedo é recurso terapêutico na assistência de enfermagem à criança e família. *Jornal Saúde* [online]. Retrieved from [http://www.saudeemmovimento.com.br/reportagem/noticia\\_frame.asp?cod\\_noticia=2957](http://www.saudeemmovimento.com.br/reportagem/noticia_frame.asp?cod_noticia=2957)