

Use of therapeutic play in preparing preschool children for outpatient chemotherapy*

Uso do brinquedo terapêutico no preparo de crianças pré-escolares para quimioterapia ambulatorial

Uso del juguete terapéutico en la preparación de niños pre-escolares para quimioterapia ambulatoria

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ABSTRACT

Objectives: To describe the use of therapeutic play (BT) in preparing preschool children for the experience of chemotherapy on an outpatient basis and to identify their manifested reactions during the session of BT, in relation to the procedures performed in outpatient chemotherapy session. **Methods:** A descriptive exploratory, quantitative approach, conducted with 30 preschool children, receiving outpatient chemotherapy treatment. Data were collected through observation of children and interviews with the individuals accompanying them. **Results:** After the preparation with BT, children demonstrated more positive behaviors, cooperating with the procedures, and working with professionals (93.3%), with relaxed posture (93.3%), establishing a bond of trust with the professional (76.6%) and smiling while playing (70%). **Conclusion:** The use of BT presents great value for facilitating more effective interaction between the adult and child, fostering understanding of pre-school, making his stay at the clinic more pleasant and relaxed.

Keywords: Play and playthings; Child; Neoplasms/drug therapy; Pediatric nursing; Oncologic nursing

RESUMO

Objetivos: Descrever o uso do brinquedo terapêutico (BT) no preparo de crianças pré-escolares para realização da quimioterapia em ambulatório e identificar suas reações manifestadas durante a sessão de BT em relação aos procedimentos realizados na sessão de quimioterapia ambulatorial. Métodos: Pesquisa descritiva exploratória, de abordagem quantitativa, realizada com 30 crianças pré-escolares, submetidas ao tratamento de quimioterapia ambulatorial. Os dados foram coletados por meio da observação das crianças e entrevistas com os acompanhantes. Resultados: Após o preparo com o BT, as crianças demonstraram comportamentos mais positivos, cooperando com os procedimentos e colaborando com os profissionais (93,3%), apresentando postura relaxada (93,3%), estabelecendo um vínculo de confiança com o profissional (76,6%) e sorrindo durante as brincadeiras (70%). Conclusão: O uso do BT apresenta grande valor como facilitador de uma interação mais efetiva do adulto com a criança, favorecendo a compreensão do pré-escolar, tornando sua permanência no ambulatório mais agradável e descontraída

Descritores: Brinquedos e jogos; Criança; Neoplasias/quimioterapia; Enfermagem pediátrica; Enfermagem oncológica

RESUMEN

Objetivos: Describir el uso del juguete terapéutico (JT) en la preparación de niños pre-escolares para la realización de la quimioterapia en consulta externa e identificar sus reacciones manifestadas durante la sesión de JT en relación a los procedimientos realizados en la sesión de quimioterapia ambulatoria. Métodos: Investigación descriptiva exploratoria, de abordaje cuantitativa, realizada con 30 niños pre-escolares, sometidos al tratamiento de quimioterapia ambulatoria. Los datos fueron recolectados por medio de la observación de los niños y entrevistas a los acompañantes. Resultados: Después de la preparación con el JT, los niños demostraron comportamientos más positivos, cooperando con los procedimientos y colaborando con los profesionales (93,3%), presentando una postura relajada (93,3%), estableciendo un vínculo de confianza con el profesional (76,6%) y sonrriendo durante los juegos (70%). Conclusión: El uso del JT presenta gran valor como facilitador de una interacción más efectiva del adulto con el niño, favoreciendo la comprensión del pre-escolar, convirtiendo su permanencia en la consulta externa más agradable y desinhibida.

Descriptores: Juego e implementos de juegos; Niño; Neoplasias/quimioterapia; Enfermería pediátrica; Enfermería oncológica

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INTRODUCTION

Children's cancer represents between 0.5% and 3% of all neoplasia in most population. It is the second leading cause of death of children and teenagers under 15 years of age in the United States, and has an estimated incidence of seven thousand new cases yearly⁽¹⁾.

As part of a group of several diseases that has in common the uncontrollable proliferation of abnormal cells, cancer in infants may occur in any part of the body. From clinical point of view tumors in children present lower latency periods, usually grow rapidly and are more invasive, however, show a better response to treatment and are considered of good prognosis⁽¹⁻²⁾.

Cancer treatment starts after diagnosis confirmation and it involves three main modalities: the chemotherapy, the surgery and the radiotherapy. These interventions are done depend on type of the tumor and its extension. Surgery and radiotherapy consist in local treatment. Chemotherapy is the use of combined or isolated chemical substances with the purpose to produce local or systemic effects⁽³⁾.

Children's cancer treatment may interfere significantly in development of preschool's children because it usually required hospital admission. Frequent absences from daily activities such as school, practice of exercises, among others; and physical changes for example hair loss, and the inability to comprehend their life situations make social life and acceptance of body changes harder⁽⁴⁻⁵⁾.

During hospital stay preschool's children may suffer because they could not deal with the abstract side of the disease, with level of separation from all people who have emotional involvement with them; to lack the opportunity to make new relationships; stay at unfamiliar environment; and to be exposed to myriad uncommon and the threat experiences, like painful and discomfort procedures. The hospital stay of a child may cause suffering, disturbance and sequelae in long term when no prior preparation is given for hospital admission and to the treatment to be done⁽⁴⁻⁸⁾.

The possibility to do outpatient treatment brings some benefits for the child. It reduces the chance of infection, decreases costs, and narrowing agents that cause stress during hospital stay, and above all, avoid the separation from family. The use of toys, specially for children who have limited contact with hospital, is fundamental for them to understand better the procedures, and also to make their stay more pleasant, relaxed and relief their anxiety⁽⁹⁻¹⁰⁾.

Despite outpatient therapy brings several benefits for children, it does not exclude the need of puncture, which is an invasive and painful procedure, that is difficult to be tolerated by preschooler who felt it as something harmful to their body. It is important to highlight that intravenous administration of chemical agents is commonly used in such service, which yield fear and stress for children^(5-7,11-12).

Use of toys can be efficient to help preschooler to comprehend what is going on when facing such situations^(6-7,12-13).

In children's life playing constitute a very important and fundamental activity for development of mobility, emotions, intellectual and social skills. Child explores by sensory-motor play his/her body movements and develops coordinative activities. Kids social contact start with mother, however is toward toy that their learn to establish social relationship with other children and to solve problems it could brings⁽¹³⁾.

Games develop child's intellect, broader language skills, give them a wide comprehension of the world, and also aid to learn to distinguish fantasy from real life⁽¹⁴⁾.

The emotions expressed via play release tension and stress, decrease anxiety to express feelings and conflicts present in daily routine, like chemotherapy and hospital stay, if children have cancer. When child repeats in toys the situations that generated stress, his or her gained control over external objects and also counterbalance pressures suffered in daily life^(12,14-17).

Therapeutic play (TP) is of the types of play that allowing to release tension and relieve stress. Structured toy enables child to relieve anxiety generated by uncommon experiences to his/her age that are often threaten and require more than recreation to solve their anxiety^(10,14).

Several authors proved that TP helps to relieve pain, to develop child ability in relationship with caregivers, to allow them to expose their feeling regarded to procedures and surrounding environment (dramatic or cathartic TP). Toys are extremely important for children's preparation to procedures, to promote cooperation, adhesion to the treatment, and to acquire new skills (instructional TP)^(8,18-23).

Considering several benefits noted in the literature about use of TP for inpatient children, we decided to explore the use of therapeutic play in care of children with cancer at an outpatient department. Many studies explored the use of toys during hospital stay. So far, however, there has been little discussion about use of toys at outpatient department environmental.

The importance of play must be highlighted even when child stays at the health institution for a short period of time, which happens in the outpatient unit. Moreover, for preschoolers who playing means much more than fun, play is as a powerful strategy for communication between children and health professional.

A study developed by nurses on the use of TP with children submitted to chemotherapy at an outpatient department proved, among other benefits, that to include play favored children relaxing during procedure. These authors also found that over these activities, children were able to keep certain control to face this situation⁽¹⁸⁾.

Based on results presented above and in other researches found in the literature, our study proposes to approach nurse experience using TP in the preparation of children submitted to chemotherapy at an outpatient department. We also aim to highlight the role of playing as a strategy that favors children to express their feeling to be understood by adults.

OBJECTIVE

To describe use of therapeutic play(TP) in the preparation of preschool's children undergoing chemotherapy at outpatient department, and to identify manifestation during TP session in procedures done during chemotherapy at outpatient department.

METHODS

It is an exploratory descriptive study, of quantitative approach carried out at the oncology outpatient department from Hospital Infantil Darcy Vargas located in the city of São Paulo, Brazil.

A total of 30 children constituted the sample with age raging from three to six years, and who were submitted to chemotherapy and assisted in the outpatient department during the second semester of 2008. The sampling was intentional and children were selected during the days and time set to data collection by the investigators. We excluded children refusing to participate in TP session and those who legal responsible did not agreed on their participation.

Data was collected toward observation of child during individual TP session, and over interviews of accompanist to obtain information on diagnosis, treatment as well as to know previous experiences of the child with TP. Data was registered using a form with information about child, his/her treatment, previous experiences in preparation for chemotherapy and behavior manifested during play sessions. In the form, behaviors were numbered based on studies in the literature with children submitted to different hospital procedures^(4,8,11,22).

Data was gathered in the second semester of 2008[suprimir, se o trecho for retirado da versão em portugues] after project approbation by the Comitê de Ética em Pesquisa (Research Ethical Committee) from the Hospital Israelita Albert Einstein (CAAE nr. 0009.0.350.028-08), and authorization of the institution where the study was applied.

In the first meet with children and legal responsible we explained the research goals and what is going to happen during sessions, and whether they agreed to participate, the legal responsible signed the term of free and cleared consent.

Before underwent chemotherapy the child was invited to play with the materials used during TP session, as recommend by the literature^(14,24-26). We used a doll and other materials during chemotherapy such as: intravenous device, cotton, syringe, needle, tourniquet, infusion pump, adhesive tape, gauze, among other. The procedures done during chemotherapy administration were showed with the toys, and in the meantime the investigator was telling a story about a child who had undergone chemotherapy. In the end of the story, the child was invited to repeat the story by him- or herself.

Data was assessed using descriptive statistical technique and results presented in absolute and relative numbers.

RESULTS

Most of children were boys (53.3%) with age raging from three to four years (56.6%). To diagnosis the highest incidence was acute leukemia lymphoma (60%), followed by non-Hodgkin lymphoma (13.3%) and rhabdomyosarcoma (6.6%).

The half of preschoolers (50%) were submitted to chemotherapy and 12 (40%) underwent chemotherapy and surgery. Two preschoolers (6.6%) were submitted to chemotherapy associated to radiotherapy and surgery, and one (3.3%) received chemotherapy associated to radiotherapy.

The length of outpatient treatment for one third of children (33.3%) did not reach more than six months. Most of them (76.6%) had historical of at least one or two hospital admission.

Nor children who were participating had experienced a TP session before in preparation to undergo chemotherapy.

We observed at first those behaviors presented during TP that were related to child interaction with adults. Most of children collaborated passively in play session and responded to the requests of professional during dramatization of the procedures (93.3%). They also whished to help, expressed will to control the situation (80%), observed carefully the dramatization (80%), made question and talked with the professional or accompanist (70%), as well as verbalized their feeling when submitted to procedure in real situation (70%) (Table 1).

Some behaviors of less interaction with investigator were also observed: to ask for the presence of mother or accompanist during play session (30%); to avoid making eye contact with professional and with toys or asked to stop it when a dramatization of puncture was done (10%); also demonstrate indifference or do not respond to the requests of the investigator (6.6%).

In assessing behaviors during play sessions we

Behavior related to interaction with the professional	nr.	%
Collaborated passively responding to requests of the Professional	28	93.3
Helped spontaneously the professional, expressing will to control the situation	24	80.0
Observed carefully the profession does the dramatization of the procedure	24	80.0
Made question or talked with professional, mother or accompanist	21	70.0
Verbalized feelings (pain, fear)	17	56.6
A sked for presence of mother or accompanist during play session	9	30.0
Answered questions monosyllabically (Yes/No)	9	30.0
Avoid making eye contact with professional and with toys when a dramatization of puncture was done	3	10.0
Asked to stop the procedure	3	10.0
Did not respond to stimulus and requests of adults	2	6.6

Table 1 – Behavior of child during TP session related to interaction with adults. São Paulo, 2008

verified some expressions made by children such as relaxing and pleasure. We noted it by a relaxed face and body (93.3%) and smile during session (70%). In general, these children start to assume a more active role during play, after dramatization of the procedure and in the end of the story (Table 2).

Behaviors indicating fear, anxiety, anger were less frequent, and also muscle tension, fear face and whimpering (6.6%), to stay quiet, to scream or to offend (3.3%). To kick, to punch, to pinch, to bite and to wrestle, which are more aggressive behavior, as well as to cry for a long time, indication of intense fear, were not observed.

In the end of the dramatization almost all children (96.6%) were involved with the toys and kept playing alone. We also observed that after awhile other children came around, and start playing together with toys used in TP session until lose interest, and then find out other activities offered in the toy library of the outpatient department (76.6%).

Only one child (3.3%) refused to keep playing, and asked for the mother or accompanist to leave the outpatient unit. We highlight that most of children kept interested to participate of the ludic activities at outpatient department after chemotherapy, refusing to leave.

Table 2 – Behavior of children during TP sessions related to expression of their feelings. São Paulo, 2008.

Behavior related to expressing of feelings	nr.	%
Relaxed posture	28	93.3
Relaxed face	28	93.3
Smile	21	70.0
Mus de tension	2	6.6
Fear face	2	6.6
Whimpering	2	6.6
Agitated	1	3.3
To scream and/or to offend	1	3.3

DISCUSSION

treatment constitutes a stress factor to the child, requiring deep adaptation of several changes that happen in his/ her daily routine. However, this situation could be lighter when some condition guaranteed, for example: the presence of family, the affective availability of heath professionals, the property information on what is going to happen with his/her, the explanation about the ludic activity including recreational as well as therapeutic in preparation for TP⁽⁹⁾.

Observations of more positive behavior manifested during play sessions by most of children of this study strengthen what was stated above. More importantly were their interactions with adults, given emphasis that toy enables the interaction and favors to form a bond. It is interesting to say that the meaning of the word play in Portuguese, which is brincar and comes from the latin word brinco, means bond, linkage or tie(14,24,26-27).

Many studies reported that the use of guided and dramatic TP favors to raise a more positive behavior among children, particularly because it enables learning, and reduces stress when facing new and traumatic experiences. In addition, it contributes to improve children's humor and stimulates creativity among other benefits(5,8-9,12-13,16,18)

A qualitative study with schooling children with cancer assisted at an oncology outpatient department presented results that corroborate with those found in our study and those in previously cited studies (5,8-9,12-13,16,18).

Children reported how pleasant was to have the opportunity to play during TP session and they demonstrated to feel comfortable and relieve because of play, besides that they pretended to assume control of the situation and to do the role of a health professional⁽²⁸⁾.

Other study with the purpose to prepare schooling children to undergo surgery also resembles results regarding to manifestation of positive behavior during play session. In our study the same positive behavior was perceived, children were happy, satisfied and interact a lot with professional, wishing to express control of At oncology outpatient department the long term play, moreover to repeat it several times, specially to

handle the hospital materials⁽²⁹⁾.

That same study⁽²⁹⁾ showed similar results to those obtained in our study regarding more negative behavior that also were less frequent between schoolings, such as: to express fear when see or handle hospital materials, the lack of interest during dramatization of the procedures, less verbalization answering only with head movement or staying quiet whereas play with the toys.

Because the sample of that study⁽²⁹⁾ resembled our study, 30 children, we perceived that negative behaviors were reported with more emphasis than ours. In addition, we think that hospital admission for surgery is more fearful and intense, so it constitutes a significant variable to cause more negative behaviors.

Another research with preschool's children to prepare them for cardiac surgery also found similar results with predominant positive behavior during TP session. Some highlights were: children repeated play several times, showed more creativity, expressed wish to control play, kept carefully attention during dramatization of procedures, get involved in play, showed high satisfaction, and usually were resistance to leave the session⁽²⁵⁾.

This study⁽²⁵⁾ emphasized the importance of child to trust in the environment that is an essential condition for them to be able to play and to express creative. It also depends on create a bond of trust with mother in beginning of his/her life. The lack of interest to playing observed in children in our study was related to the absence of trust in the environment and in people surrounding them. Once play is almost the time pleasant for child, apart from situation of intense stress.

In stressful situation children have problems to concentrate that limit them to explore some toys, and soon lose the interest to play⁽²⁵⁾. In our study, this behavior was observed in three children (10%), whom asked to stop the play, and avoided to handle toys during dramatization of puncture.

Venous puncture is one of most traumatic procedure for child during hospital stay, which yields discomfort and tension^(28,30).

Literature shows that presence of mother or accompanist in play session is important if children are unfamiliar to the procedures, mainly because child seeks safety and approbation to actions his/her does or when the stress generated by the situation is so intense that do not allow them to relax and play freely^(17,25). The results of this study reinforce such thinks, mainly because one third of children (30%) asked for the presence of their mother during TP session.

These results confirmed that use of toys during child and family assistance is fundamental when it comes to improve the quality of services delivered in healthcare institutions. According to one of current trends of pediatric nursing care, TP consists in a strategy that is part of care for trauma or non-trauma care that aim to eradicate or reduce physical and psychological discomfort experimented by children and their family members^(7,24).

The use of therapeutic play contributes to make a more humanized hospital environment. In Brazil, the Política Nacional de Humanização (National Humanization Policy) from Ministério da Saúde (Minister of Health) recommends such strategy⁽²⁴⁾.

Considering that this study was descriptive and exploratory, further studies comparing behavior of children who were prepared for procedures using TP with those who did not have such preparation are therefore recommended to broader the understands of professionals on preschoolers reactions at outpatient care.

CONCLUSION

Children who participated in our study did not experienced preparation to chemotherapy with TP in prior situations. Behaviors during play that showed higher interaction with professional were observed in most of children, whom showed more collaboration, over interaction with adults and cooperation to the procedures, wishing to take control in play and observing carefully the investigator show the dramatization of the procedure, verbalizing their feelings.

Behaviors related to expressing feelings were higher in those who expressed a relaxed posture and face, and in children who smiled during play session.

Almost all children get involved with toys after the end of TP session and continued to play alone or interacted with other, just one child refused to keep playing.

Finally, we conclude that TP has a great value to promote a more efficient interaction between adults and children, which comes out in a less scared procedure, enabling child to comprehend the reality and to make their stay at outpatient department more pleasant and relaxed. Playing changes the outpatient environment and get close to child's daily routine.

Our results reinforce the importance of such interventions to be put into action at outpatient department. Being this resource developed by nurses.

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