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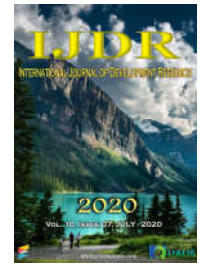
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## PLAYING WITH HOSPITALIZED CHILDREN AS A TOOL FOR HEALTH PROMOTION AND RECOVERY: AN INTEGRATIVE REVIEW

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### ABSTRACT

Playing is one of the most important aspects in the child's life, being an important tool in the process of reducing pain caused by hospitalization. Thus, the playful resource favors the child's social, emotional and intellectual development. In addition, it reduces stress, fear and anxiety caused by hospitalization. Thus, the objective of this work was to carry out an integrative literature review on playing with hospitalized children. An integrative review of articles published in Portuguese and English was carried out, available in full on the Science direct, Scielo and PubMed databases. The descriptors "children", "play", "hospital" were used. It was found that there is a modest production about playing and hospitalized children, and the act of playing promotes a playful approach, reduces negative feelings, allows greater interaction with the health team, promoting health recovery. Therefore, we conclude that playing with hospitalized children is of fundamental importance for the maintenance of the child's mental health, given that it reduces their anxiety levels, collaborating in a very efficient way towards the progress of the treatment.

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## INTRODUCTION

Hospitalization is a time when the child experiences the unexpected experience of being inserted in an environment that translates anxiety and fear, especially due to the type of physical structure where there is an absence of colors, in addition to the presence of people who are strangers, mainly caused due to the trauma of intramuscular and intravenous injections (QUEIROZ et al., 2014). Thus, the act of playing can be a way to minimize the effects of hospitalization and face the adversities of the new environment. Playing is fundamental for child development and an important resource in working with children, but it is important to consider that toys and games have been transforming and included virtual

games, which started to be used in occupational therapy services (Pelosi et al., 2019). Studies show that the use of playful tools in working with children with disabilities increases interest and motivation in carrying out rehabilitation activities through games (Reid, 2002). Several theoretical, clinical and empirical studies have demonstrated the importance of children's play for a good psychosocial development. However, the chronic exposure of children to repeated experiences of hospitalization, maltreatment, sexual abuse and neglect interfere with the development of their mental and playing ability (Terradas et al., 2020). The humanization actions of hospital care for children have been adopted worldwide aiming at improving the relationships between health professionals, reducing the trauma of hospitalization and seeking actions to rescue values such as

solidarity, collaboration, affection in relationships, respect for diversity, appreciation of complaints and the introduction of playfulness (Oliveira, 2016; Catapan *et al.*, 2019). The period of hospitalization is, by itself, a difficult time for any individual and its difficulty is expanded in relation to the admission of children. In fact, the early age of individuals hospitalized may increase substantially the difficulties for an effective therapeutic process, especially because the younger the age, the lower the ability to understand, what provides less collaboration for the treatment. Thus, based on previous researches, we intend, through a systematic review, to investigate the effectiveness of insertion of playful activities in order to improve the adaptation, cooperation, treatment process and promote the well-being of children, aiming to provide a research to encourage health professionals, class in which many people do not believe and have few knowledge about the benefits of promoting playful activities during the therapeutic process, to widely introduce this methods while taking care of the children in the most diverse hospital environments.

## MATERIALS AND METHODS

In this review, we searched for articles indexed in Web of Science, Scielo and Pubmed electronic databases, published in English or Portuguese, from 2016 to 2020. The review was restricted to articles that address playing with a hospitalized child. Articles were searched in June to 2020. Access to federated communities was made available through the CAPES journal portal to obtain the full articles. The descriptors used were: “child”, “play,” “hospital” and 582 articles were found. Review studies, the duplicity of data; titles and/or abstracts that do not meet the inclusion criteria; Lack of pertinent information were excluded, totaling 15 articles for analysis in this review. For the discussion of the data and interpretation of the research, the approach of the theme was considered; the year of publication; the article available in full. The presentation of the articles found in some included and excluded, as well as their applied distribution, is shown in the PRISMA flow (Figure 1)

## RESULTS

By searching the databases cited, the search originated 582 studies in the period, but 567 were rejected, as they did not meet the inclusion criteria. Thus, a total of 15 publications were selected on the subject on play with children in hospitals in the period highlighted in this study (Table 01), which were accessed and read for subsequent selection of the characteristics that incorporated the research.

## DISCUSSION

**Types of playfulness intervention:** Playing is a rich, complex human experience that in the process of teaching and learning anatomy promotes meaningful learning. Among these activities in anatomical teaching we use the dolls as a playful tool for students of medicine (CAMPOS *et al.*, 2019). Playfulness interventions in hospital environment has shown strong relevance in the reduction of negative feelings in children, as anxiety and fear (Epstein, 2008). Thereby, in order to attest such efficiency, William *et al.* (2016), by evaluating a group of Chinese children between 3 and 12 years old, divided

the playfulness interventions in four types: Preparation Play, Medical Play, Distraction Play and Developmental Play. In Preparation Play, the children play a simulation of a medical procedure preparation, using dolls, real or miniature instruments and procedure manuals, which causes them a better understanding of their future treatments, besides giving them the feeling of control over such treatments (William, 2008). This kind of intervention has also been used by Barroso *et al.* (2020) in pediatric patients who were subjected to a venous puncture procedure in a hospital in Rio de Janeiro, Brazil, which resulted in better professional capacitation and better receptivity of these children to the procedure. Similar to the previous one, in Medical Play, medical instruments are also given to children, including all medical clothing. However, only for them to play during hospitalization. In addition, they are encouraged to practice more expressive activities, such as singing, painting and puppets, encouraging themselves to share their feelings and, as in the previous one, to better understand the situation in which they find themselves (William, 2008). Distraction Play focuses on distraction and anxiety reduction during more invasive procedures, playing games, such as puppets, computer games and others. To conclude, in order to help the psychosocial development of hospitalized children, such as preventing their return, Developmental Games improve the activities to older children, such as board games and history books (William, 2008).

**The playfulness with children in hospital isolation:** Hospital isolation precaution measures are executed when a child has any resistant microorganism in their body or when there is confirmation or suspicion of highly transmittable disease easily spread by direct contact with other people (Siegel *et al.* 2007). Thus, a child being in hospital isolation is to be in a private room with only their companion, depriving them of significant human contact in this difficult moment. This situation stops the child from playing with their peers, which can promote a feeling of loneliness, stress and can be harmful to the infant mental health. In this context, the adoption of measures to mental health improvement of these children is necessary for the assistant health team. Thereby, the playfulness approach rises as a mean which bring results for the lessening of these negative feelings due to this situation in the hospital space, which allows them to enter in their mental space of creativity (Depianti *et al.* 2018). This study chose as an inclusion criterion specifically the children who were in hospital isolation precaution, while there are many other papers which use this as an exclusion criterion.

**Playfulness and children undergoing chemotherapy:** According to Sposito AMP *et al.* (2016) playfulness through puppets as a tool to engage children in interviews is quite satisfactory due to its easy way to express patients' feelings. It frequently results from greater security generated in the child because he / she feels represented by the puppet, instead of just answering a survey in a traditional way. Through this method, important issues such as chemotherapy, pain and side effects were addressed. When reporting their experiences, children who participated in the study affirmed playing as the best part of hospitalization, thus proving the effectiveness of the Therapeutic Toy (TT) as an important tool to help children overcome idleness and the suffering caused by treatment. Another important finding in this article is the fact that many children undergoing chemotherapy take their toys to the hospital. This can be interpreted as a way to mimic the

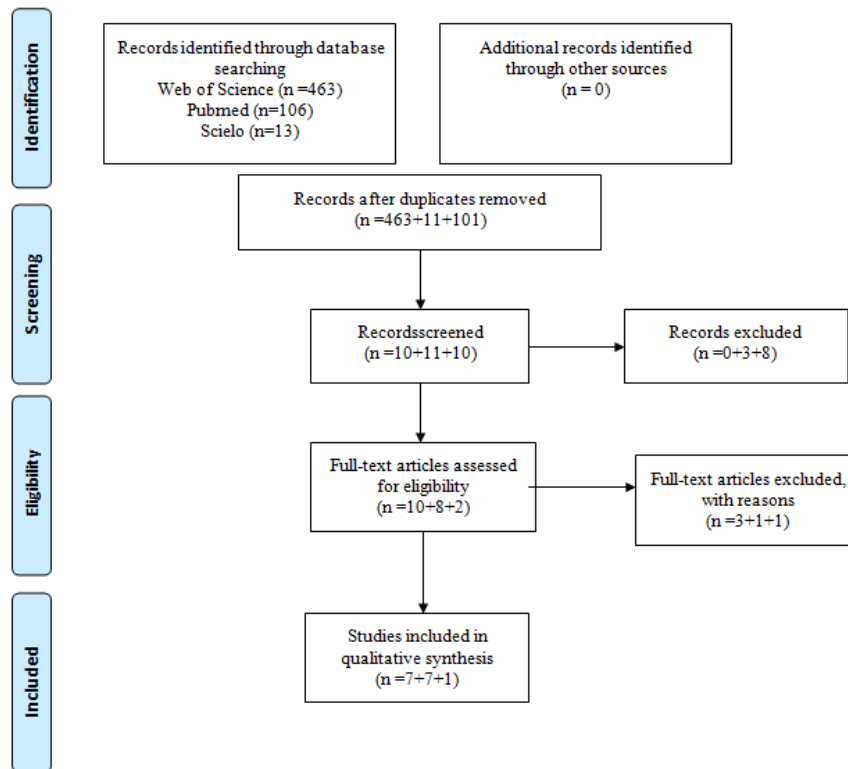


Figure 1. Prisma Flow diagram for include / exclude and data processing

Table 1. Main aspects of studies published from 2016 to 2020 on play with children in hospitals

N°	Author/year	Periodic	Objective	Outcome
1	Li et al., (2016)	BMC Pediatrics	To test the effectiveness of hospital play interventions in minimizing the anxiety levels and negative emotions of hospitalized Chinese children	The hospital play interventions minimize the anxiety levels and negative emotions of Hong Kong Chinese children who have been hospitalized. The results emphasize the significance of incorporating hospital play to ease the psychological burden of hospitalized children.
2	(TOMAJ et al., 2016)	Iran Red Crescent Med J.	This study aims to verify the effectiveness of group play therapy to increase self-concept among children ages 7 to 11 years old with thalassemia major.	The results showed that group play therapy improves self-concept in children suffering from thalassemia major.
3	(MARQUES et al., 2016)	Esc. Anna Nery	To describe the perspective of the nursing staff on the use of playful activities in health care for children and adolescents hospitalized with cancer.	Professionals reported the experience of playful activities in routine nursing practice, focusing on their benefits, difficulties and opportunities in health care.
4	(SILVA et al., 2017)	Rev. Bras Enferm	To evaluate the effects from application of Dramatic Therapeutic Play (DTP) technique on the degree of anxiety in hospitalized schoolchildren submitted to peripheral intravenous puncture.	Children submitted to DTP had the same degree of anxiety as those in the control group. Nevertheless, some important results were found, such as confirmation that the use of recreational activities and the presence of the family can benefit the child's understanding of their hospitalization.
5	(WONG et al., 2018)	BMJ Open	To examine the effectiveness of therapeutic play in reducing anxiety and negative emotional manifestations among children undergoing cast-removal procedures.	Therapeutic play effectively reduces anxiety and negative emotional manifestations among children undergoing cast-removal procedures in particular for children in younger age.
6	(DEPIANTI et al., 2018)	Esc. Anna Nery	To understand the meaning of playing for the hospitalized child under precaution..	Data showed the evolution of the interactions among toy, researcher and child; their rapid acceptance to get involved in playing; the way they explore the toys; the desire to free themselves from confinement; the relief of stress, the mastery of the situation and the protagonism enabled by the playing; the way they outline the hospital and the importance of having someone to play
7	(LIU et al., 2018)	Br J Anaesth.	To determine whether transport of a paediatric inpatient in a children's ride-on toy car has an effect on perioperative levels of anxiety compared with transport on a hospital gurney with or without oral midazolam premedication.	This study demonstrated that transport from the ward to the OR by riding in a children's toy car significantly reduced preoperative anxiety. This transporting mode showed similar anxiolytic effects at the time just before anaesthesia induction as oral midazolam.

Continue.....

8	(ABESSA et al., 2019)	BMC Pediatrics	To examining the effect of play based stimulation on the development, linear growth, and nutritional outcomes during hospital and home-based treatment of severely acutely malnourished (SAM) children under 6 years of age.	This study has shown that play-based stimulation contributes in the treatment of SAM children under six in low-income settings.
9	(HAVENGA, 2019)	Heath SA Gesundheit	Describe and reflected on the use of therapeutics play as a data generation with younger child.	The play therapeutic approaches as a data generation method, is capable of generating useful data and amplifying the children's voices in the process. However the researcher need ability to implement the specific play therapeutic approach in a safe and skilful manner
10	(BRONDANI et al., 2019)	Rev. Bras. Enferm	To identify how children's stories can be used in child care.	From the analysis of 16 selected articles, three categories emerged: The use of stories in the hospital; Specialized nursing intervention; and Stories in the educational dimension.
11	(LEITE et al., 2019)	Rev. Gaúcha Enferm	To analyze the perspective of children on their health condition and experiences related to outpatient hospital care and the use of the puppets as a playful strategy to collect data	It was possible to identify the reasons and main feelings experienced during outpatient care, as well as the children's preferences regarding the physical and structural aspects of the outpatient clinic.
12	(SPOSITO et al., 2019)	Av.enferm	Chemotherapy is frequently used in childhood cancer treatment and, although effective, it causes collateral effects and requires the restructuring of children's daily lives. The aim of this study is to understand the play as a strategy to cope with the chemotherapy treatment in children.	The children referred to the relevance of playing as a resource against idle time and highlighted the importance of a space to play, adapted to the treatment needs, within the hospital environment. The activities of the occupational therapist and of volunteers characterized as clowns was cited as differential in this context.
13	(BARROSO et al., 2019)	Acta paul. enferm	To understand children's perception of venipuncture through therapeutic toy and how therapeutic toy can contribute to the venipuncture procedure and child-nurse interaction	This study gave voice to these children as subjects of care, as there is a rupture of the technical-centered vision, favoring children protagonism. This study made it possible to emphasize the importance of incorporating the therapeutic toy in pediatric nursing care, demonstrating its potential therapeutic effect.
14	(CARRION-PLAZA et al., 2020)	Frontiers in Psychology	Assess the effectiveness of playful intervention with HabitApp, in the context of childhood cancer	The study confirms that HabitApp as an effective collaborative psychosocial intervention tool that improves the hospitalization experience in the short-term for patients and caregivers in the context of a children's cancer ward.
15	(ARANHA et al., 2020)	Rev. Gaúcha Enferm.	To understand, from the family's perspective, the meaning of admitting the child in the hospital with the use of the instructional therapeutic play.	Given the benefits to the child, the family believes that this strategy should be performed as a routine nursing care and, therefore, performed systematically during child hospitalization.

home environment and thus mitigate the emotional impacts caused by hospitalization, which is often for a long period.

**Playfulness and anxiety control:** Getting the child to regain some control is essential for them to feel more comfortable in the hospital environment, according to Li, Lopez e Lee (2007) providing this to the child through therapeutic play, using dolls through demonstration in medical procedure, it makes the child less stressed during the procedure due to understanding. According to Silva SGT et al. (2017) evaluating the children's degree of anxiety is crucial to define what procedures will be taken in order to reduce this feeling of anguish. According to the same study, the Dramatic Therapeutic Toy (DTT), whose methodology is based on catharsis through the use of puppets, is very effective in treating anxiety because it is a very pleasant activity and it is easy to apply, besides being quite accessible and low cost.

**Playful leading to the operating room (OR):** As already mentioned, anxiety is a common feeling in hospitalized children. In order to reduce this emotional burden on children, Liu et al. (2018) analyzed the transport in a ride-on toy car in preschool children with congenital heart disease undergoing surgery, instead of gurney, could result in lower levels of

anxiety compared to those transported on gurney and/or made to use an anxiolytic (midazolam). Therefore, Liu divided the children chosen for the study into three different groups, group C (ride-on car), group G (gurney) and group M (gurney and midazolam). The anxiety levels were assessed at six time points, taking the pre-anaesthesia visit the day before surgery as baseline and some points on the way that transport from the ward to the operating room as the others. In this randomised controlled prospective trial, he showed that the ride-on car has more advantages than midazolam premedication in clinical practice, mainly because it is devoid of side-effects and because its acceptance is higher.

**The ideal professional to hospital playfulness interventions:** Given the growing need of qualified professionals to work with playfulness in pediatric environments, it can be asked what would be the ideal professional profile for this task. In a qualitative study realized in the countryside of the state of São Paulo, Brazil, the children of this ward defined the dream professional as knowledge holders with high communicative skills to talk to children and fun. (Leite et al. 2019). Many Health Professionals also wonder and question that with the implementation of recreational activities, greater manpower would be necessary, thus, William et al. (2008) suggest the use



of hospital play specialists (HPS), already present in some countries, as a solution, since only half an hour of playful activities a day would already reduce the suffering of these children.

## Conclusion

Therefore, we conclude that playing with hospitalized children is of fundamental importance for the maintenance of the child's mental health, given that it reduces their anxiety levels, collaborating in a very efficient way towards the progress of the treatment. Moreover, playing improves not only the patient's behavior, but also the companion's and the hospital team's. However, despite being a simple and accessible tool, it still lacks more investment and better capacitation so that the health professionals can be able to use it fully.

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