Use of music and play in pediatric nursing care in the hospital context

Objective. To identify and analyze scientific publications on the use of music and play in pediatric nursing care in the hospital context. Method. In this bibliographic study, papers were sought that were published in Portuguese or English between 2004 and 2009 and included the descriptors: hospitalized child, childhood, child recreation, nursing team, nursing, pediatric nursing, alternatives therapies, music, music therapy, play and playthings, play therapy, playing. For the review, the bibliographic databases used were MEDLINE, SciELO and LILACS. Results. Seventeen publications were obtained, among which: 59% adopted a quantitative method; mainly nursing developed the activities (88%); per type of article, reviews on the theme and assessments of clinical changes associated with the use of music and play were frequent (59% and 18%, respectively); and the utility of this kind of therapies in nursing care is acknowledged (94%). Conclusion. Play and music are useful therapies that can be used in nursing care for pediatric patients.

Key words: play and playthings; music; therapeutics; music therapy.
Introduction

Childhood is a phase of life in which phantasy and freedom rule, when the child is considered a miniature adult. It corresponds to a period in human life and the word child, in turn, indicates a psychological reality related to individuals. As for its etymological origin, the term “childhood” originates in the Latin word in-fans, which means without language, no having thoughts, knowledge, skills and rationality. In this sense, it focuses on the child as a under-aged being. In the Child and Adolescent Statute, then, child is defined as a person of up to 12 years of age. Hence, different discussions and sociological reflections exist on the child and childhood.

As opposed to the original Latin definition, children demonstrate their interaction and evolution in the environment, where they increasingly and steadfastly express actions and reactions to the reality they are exposed to. Rethinking childhood and children is relevant to contextualize their inclusion in other environments, in situations different from normal patterns. Brazil’s concern with children and adolescents comes with a political landmark, as it was the first country to adapt its internal legislation to the principles for children and adolescents consecrated in the United Nations Convention, even before it gained legal force.

The Brazilian Child and Adolescent Statute (ECA) was established in Law 8.069, issued on July 13th 1990, which rules on the rights of children and adolescents, inspired by the guidelines established in the 1988 Federal Constitution, incorporating a range of international regulations: Declaration...
of the Rights of the Child (UN Resolution 1.386, November 20th 1959); United Nations Standard Minimum Rules for the Administration of Juvenile Justice – the Beijing Rules (UN Resolution 40/33, November 29th 1985); United Nations Guidelines for the Prevention of Juvenile Delinquency – the Riyadh Guidelines (UN – March 1st 1988 - Riyadh). The ECA, in turn, is of singular importance in Brazilian legislation, as it determines on the complete protection of children and adolescents, guaranteeing children's right to leisure, play, recreation, food, among other rights that promote and guarantee protection to children and adolescents.²

The analysis of children who are ill or experience any health need reveals the extent to which this circumstance demands a distinguished position. The disease determines a range of unpleasant physical and psycho-emotional feelings that trigger different challenging problems when children get ill and are hospitalized.⁵,⁶

Hospitalization takes place when people's health is that altered that they cannot receive treatment at home. This implies that contact with the hospital happens at a moment of intense emotional loading, conditioned by the disease and the limitations it provokes.⁶⁹

Childhood experiences, whether positive or negative, are registered in the children's memory, which is no different in the hospital environment, where children will probably experience greater difficulties than in their daily routine, due to the constraints they are exposed to. This brings about terrifying ideas, anxiety, decreased self-confidence, self-esteem, thus hampering the acceptance of hospital treatment and recovery.⁸¹⁰

When children are hospitalized, all of these problems seem to entail even greater and harder-to-solve implications, as children's reactions to disease mainly depend on their level of psychic development on the occasion of the hospitalization, on the type of illness, on the degree of family support and on the health team's attitudes.⁵¹⁰

In view of this childhood hospitalization problem, the perspective turns towards hospital institutions and how they have addressed this theme. Over time, despite rooted conceptions, some evolution took place, among which the humanization of health services stands out, which has been acknowledged in public policies, health services and the academy. In this sense, the Brazilian Ministry of Health created the National Humanization Program (PNHAH), through which humanization has been valued, as it seeks to recover respect for human life.¹¹

Considering this challenge to set up humanization programs in hospitals that are directed at the problems inherent in childhood hospitalization, various projects emerged to change the impact pediatric hospitalization causes, humanizing care and interpersonal relations at the pediatric service.⁸ In that sense, countless projects emerged that incorporate other reference framework, among which the following stand out today: “Doutores da Alegria”; “Companhia do Riso”; among others.⁸¹¹,¹²

These projects – considered as different communication methods based on dialogue, presence, professional accountability, commitment, shared experiences and the art of loving – are appointed as basic ingredients of humanization in professional experienced with human beings who get involved and are involved in the care process.¹¹,¹³

In this perspective, the Federal Nursing Council (COFEN) has determined on nursing team activities in using play as a humanized care strategy: “Article 1° - It is the responsibility of the Nurse active in pediatrics, as a member of the multiprofessional health team, to use the play/therapeutic play technique in care delivery to hospitalized children and their families”.¹⁴

This reveals that COFEN is concerned with valuing these aspects in pediatrics, and with the curricular changes that have taken place in undergraduate nursing programs in the last decade.¹⁵ In view of these considerations, play emerges as a strategy to facilitate the team's inter-relations with the child. In the holistic perspective of hospital treatment, the therapeutic proposal based on playful activities in the pediatric hospitalization context provides children with a sustainable
means for acceptance, creation and learning between this new and terrifying environment and its peculiarities, besides permitting articulations between their internal and external world.\textsuperscript{10}

The use of play benefits not only the children, helping to respond to what is happening, releasing fears, tensions and anxiety, but also nursing professionals and hospitals. For professionals, it facilitates communication and the accomplishment of procedures and, for hospitals, it cooperates towards the humanization of care delivery, rescuing the healthy dimension of the child.\textsuperscript{13,15} It is important to highlight that the people children play with are the same people they turn to when they are frightened. In view of the establishment of this bond of trust, it can be considered that playing has a potentially therapeutic dimension.\textsuperscript{16,17}

Playing is the most important activity in children's lives and is crucial to their development: motor, emotional, mental, social, linguistic and cognitive. It is the way children communicate with the context they live in and actively express their feelings. By playing, they symbolically express their phantasies desires and life experiences.\textsuperscript{18-21} In this perspective, the government has demonstrated its interest in facilitating playful activities, so as to make these possible at any health institution. Thus, in March 2005, the Brazilian National Congress approved Law 11.104, which obliges health establishments that offer pediatric hospitalization to install playrooms, with the presence of a specialized educator.\textsuperscript{22}

In view of the above, another way to explore the playful is through music which, like therapeutic play, can offer essential contributions to minimize the trauma of hospitalization in children, thus exerting important influence on children's psychological and psychosocial development.\textsuperscript{23,24}

The use of music to get patients well has been practiced since ancient times. Millennia ago, the shamans (primitive doctors in society) already used sounds to treat body and soul. Primitive societies found magical chants more important than medicinal herbs.\textsuperscript{24,25} The proposal to work with music for therapeutic effects, influencing health and human behavior, is as ancient as the authors Aristotle and Plato.\textsuperscript{26}

Hence, music has been used therapeutically for centuries, and there are countless examples of its curative and preventive powers, present in diverse historical documents from different cultures.\textsuperscript{26-28}

It is known that music covers the following human dimensions: biological, mental, emotional and spiritual. Many of the ways through which this takes place are still quite unknown though.\textsuperscript{29,30} Music is a combination of rhythms, harmonies and melodies, and many peoples throughout history believe in its medicinal powers. Music therapy is the systematic intervention process in which the therapist helps the patient to promote health by using music experiences.\textsuperscript{26}

Political concerns with the inclusion of music are also observed. On August 18\textsuperscript{th} 2008, the Brazilian president Luiz Inácio Lula da Silva sanctioned Law 11.769, which determines on music teaching in primary and secondary education. It is highlighted that “the project is in line with the constitutional principles related to education, family, child and adolescent”.\textsuperscript{31} Thus, after this explanation, it is understood that both play and music positively influence the children. Therefore, in view of the above, we decided to review scientific papers on this use, with a view to verifying what effects of music and play have been discovered and registered, in order to show the extent to which and at which units it has been used in hospitals. This study aimed to identify and analyze scientific publications on the use of music and play in hospital care.

\section*{Methodology}

A literature review was developed, considering material available in the bibliographic databases International Literature on Health Sciences (Medline), Scientific Electronic Library Online (Scielo) and Latin American and Caribbean Literature on Health Sciences (Lilacs). The study
departs from the question: what effects of music and play have been discovered and published?

The following descriptors were considered: hospitalized child, child, child recreation, nursing team, nursing, pediatric nursing, alternative therapies, music, music therapy, intensive care, play and playthings, play therapy, toy. The literature review was developed in 2009, considering the period from 2004 to 2009, in Portuguese and English.

To analyze and synthesize the data, the following procedures were observed: a) informative or exploratory reading, which involved reading the abstracts to confirm whether the selected papers actually addressed the research problem; b) reading of full articles, followed by analysis and discussion according to the results; c) data synthesis, focusing on the researchers' aims, methods and results; d) division of the papers in groups according to similarity (music or play); e) conclusion of reading and discussion of the articles.

### Results

As a result of the search in the computerized databases, 25 publications were selected, eight (32%) of which were excluded because they did not comply with the criteria established for this review. Hence, the total sample comprised 17 publications. In response to the proposed study aim, the analysis of the selected publications revealed that most of the scientific production on the study theme happened between 2006 and 2008, totaling 12 (70.5%) publications.

The databases International Literature on Health Sciences (Medline) and Scientific Electronic Library Online (Scielo) provided most studies (76.5%), and the remainder (23.5%) came from Latin American and Caribbean Literature on Health Sciences (Lilacs).

The analysis of the professional category showed that most of the selected publications were developed by nursing professionals (88%), followed by physicians (6%) and nutritionists (6%).

The analyzed studies adopted a quantitative method in (58.8%) of cases, followed by the qualitative method (41.2%).

Most of the publications addressed health professionals and companions' perceptions\textsuperscript{9,10,32-36} and literature reviews on music and play\textsuperscript{12,15,25,35,36} (58.8%), followed by the clinical changes play and music bring about\textsuperscript{17,26,37} (17.7%); the remainder (23.5%) was divided between teaching, care delivery to child victims of violence, children's feelings and applicability of play and music\textsuperscript{18,38-40}.

Most of the articles analyzed applied or studied the use of music/music therapy and play/therapeutic play exclusively in Pediatrics in six papers,\textsuperscript{9,10,17,32,33,39} or in combination with other units, like the Outpatient service (1);\textsuperscript{37} Oncology and Surgery Room (1);\textsuperscript{15} Oncology, Obstetrics and Adult General Clinical Unit (1);\textsuperscript{35} Urgency and Emergency, Oncology, Neonatal Intensive Care Unit and Pregnant Women.\textsuperscript{12} Studies that did not include the Pediatric unit were developed in the following locations: parishes, music laboratory, primary health care unit (PHCU), Family Health Program (FHP), Outpatient clinic and homes (1);\textsuperscript{34} General hospital (1),\textsuperscript{34} Shelters (1),\textsuperscript{18} Meeting room (1),\textsuperscript{38} Outpatient clinic (1),\textsuperscript{40} Psychiatry (1),\textsuperscript{36} Surgery room (1).\textsuperscript{26}

Treatment humanization was present in almost all studies, as only one research\textsuperscript{26} did not focus on nursing care. The remainder\textsuperscript{9,10,12,15,17,18,25,32-40} discussed the use of play and music to facilitate nursing care.

Studies also showed nursing professionals' concern with addressing this theme (play and music) as a care instrument. In most publications, however, their applicability is perceived as entertainment, help with communication and relationships and as a facilitator for procedures, reducing children's stress level with the help of these means.

### Discussion

To analyze and discuss the results and respond to the specific objectives set forth in this study, the
17 publications were grouped per theme area on a qualitative base, considering the following groups of research: the use of music and therapeutic play in search of humanized care; research about knowledge on alternative therapies in care; and physiological and psychological effects of music and therapeutic play.

The use of music and therapeutic play in search of humanized care. This group joins publications on therapeutic play and music as care resources, in view of a humanized care proposal. These publications total 47.05% of papers in the review. In these articles, the child serves as the research subject and, in this perspective, 50% of the studies focus on play and music as therapeutic in children, 20% highlight humanized care to companions or relatives and 30% emphasize the team, using therapeutic play and music as study problems and care resources. One of the papers addressed the pediatric clinical nursing team’s perceived advantages and disadvantages of using music in humanized care. The result was satisfactory, as the professionals’ perceptions about using music entailed good results for the children, including: calmness, relaxation and help with team/child interaction. Another study in this group focused on music as a care resource, besides humanized care delivery, qualifying care and establishing its physiological and psychological benefits. In the same study, although studies involving adults were presented, the main focus was on child infirmaries.

In another research, the body-music dynamics was used to sensitize nurses to the use of music in their care-teaching practice; resulting in a resource that is considered important to balance and humanize the educative process.

The paper focusing on the nursing team’s experience with the activities of the “Doutores da Alegria” at a pediatric unit described the nursing team’s knowledge on the “Doutores da Alegria’s” activities and analyzed the team’s related experiences. Based on countless testimonies, this study verified the benefits for hospitalized children, including behavioral changes during hospitalization and socialization with other children. Also, the influence on nursing care was evidence, granting accompanying mothers moments of leisure and relaxation.

One paper used therapeutic play as a benefit nurses experienced in care practice for children and families. As a result, it was presented that therapeutic play (TP) can transform the environment and further care delivery to children in a supportive atmosphere, in which their needs are acknowledged, turning care into a game. For the professionals, play represents a significant tool that enhances comprehensive care and communication. Another study emphasized companions’ opinion on play as a therapeutic instrument and verified the companions’ acceptance of voluntary activities directed at children hospitalized at the pediatric ward. According to the researchers, the activities promoted a satisfactory clinical evolution, reducing stress levels and furthering children’s acceptance of procedures and the relation with the team/family. In another paper, the health team’s view on play as a therapeutic instrument was revealed, observing their acceptance level and the efficacy of this activity. The results showed the acceptance of using toys as a therapeutic object, allowing professionals to understand the children’s activities, feelings and fear. In this process, the children’s development was verified, reducing stress levels and enhancing their acceptance of procedures.

And, finally, one study also used music in care delivery to hospitalized patients through a systematic literature review, identifying and analyzing publications that address the use of music in hospitals. As a result, the review presented 13 articles that used music in the following contexts: as entertainment; coping with the disease in search of humanized care; physiological effects; knowledge on this kind of alternative therapy to prepare for procedures and palliative care. These studies evidenced greater application in the pediatric public, which is why it was considered interesting to discuss them. The latter study covered the three subdivided themes. We chose to maintain it in the first theme, however, because of its greater focus on humanization.

Research about knowledge on alternative therapies in care. In this theme, publications were
considered that looked at clients’ acceptance and professionals (music therapists and nursing team) and undergraduate nursing students’ knowledge on alternative therapies, including music and play. In that sense, one study verified the credibility and effects of music as a therapeutic modality in health, with a view to getting to know music therapists’ perception on the credibility and acceptance of their work among public health service users. As a result, it was presented that most professionals perceive that their clients believe in the ability of music to transmit pleasant feelings and act effectively in the cure process of some illnesses. Another study observed what Brazilian nurses are studying about the use of toys in care delivery to children in hospital care, in stricto sensu graduate programs. Fifteen publications were found, 14 of which included in this study, which appear after the start of the graduate programs around 1990. In the last five years, nurses have focused on this theme. Hence, the studies underline the positive results of toy use in the hospital context.

Through a bibliographic review, one study demonstrated music in nursing care, with a view to characterizing Brazilian studies on music use in nursing care between 1993 and 2006. The main results appointed that most studies indicated that music is effective in nursing care, with only one negative result, as the music was applied during venipuncture and the child was tense. In that case, few studies about music were evidenced. Finally, one study characterized teaching about play/therapeutic play in undergraduate nursing programs in São Paulo State, analyzing related facilities and difficulties. That study found that, at most institutions studied, play/therapeutic play has actually been discussed in theoretical and practical teaching in the last ten years. Therapeutic play itself, however, is practiced in only 14.5% of the institutions.

Theme related to physiological and psychological effects of music and therapeutic play. The publications considered in this category explore the physiological and psychological effects of music and therapeutic play. One study verified the effect of music on BP (blood pressure), HR (heart rate), Temperature, MBP (mean blood pressure), RF (respiratory frequency) and O₂ (oxygen) saturation in the immediate postoperative phase after childhood heart surgery and subjectively assessed the action of music in pain control, in combination with conventionally used therapeutic actions. As a result, decreased HR and RF were found after the application of therapy in comparison with the control group, and positive changes when pain was analyzed on a decreasing scale. Thus, the study showed that the use of music is beneficial for children in the post-operative phase after cardiac surgery.

Another study was aimed at identifying studies that described non-traditional therapeutic modalities psychiatric nurses use in their practice. It was verified that using music in psychiatric patients has reduced anxiety, irritability, increased self-esteem, social reintegration, besides facilitating the relation with the client, starting the integration between nurse and patient.

Another study compared the reactions children manifest during wound dressing before and after emotional preparation using institutional therapeutic play (ITP). The study sample consisted of 34 children hospitalized for surgery at a pediatric hospital. Behavior and pain assessment were considered during wound dressing at two moments, before and after the ITP. Results included children’s greater adaptation to and acceptance of the procedure, which became more frequent after the ITP. Pain scores also decreased after therapeutic play. Yet another study discussed therapeutic play as a form of nursing care through a bibliographic review, but in institutionalized children who were victims of violence. The research demonstrated that nurses have used therapeutic play to prepare children for procedures and mitigate anxiety, as a facilitator for the nurse to interact with the child and identify the deficits in care.

Finally, one study aimed to understand the meaning of the interactions children experienced before the postoperative phase after circumcision. The study focused on the feelings these children experienced during the surgical procedure. Thus, the fear, anguish, physical pain and other feelings were demonstrated through the dramatization.
of play, revealing the extent to which children felt aggressed, visualizing the entire team as the aggressor. This research concluded that it is essential for the entire team working in care delivery to children submitted to surgical procedures to be prepared for this purpose.

**Conclusion.** The relaxing potential of music and play is very useful, in the hospitalization and cure process as well as in the ability to express feelings and in communication among people. Music and play promote improvements in different situation, highlighting: reduction of stress and anguish; improvement in pain; normalization of vital signs; bond of trust among team, child and companion; facilitator of communication and invasive procedures; promotion of entertainment, among others. Thus, as alternative therapies that are considered powerful remedies, music and play showed to be very important mediators in the disease and hospitalization process.

We hope this review has shown the potential of play and music therapy, suggesting that the use of this alternative therapy should not be restricted to clinical areas with potentially stable children or in elective procedures, but could also be used in critical units that need often immediate benefits, like intensive care units. Nursing professionals need to further appropriate themselves of this practice, using it as an alternative therapy in nursing care, in their care process.

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