

SYSTEMATIC REVIEW

Integration of Play Therapy in Paediatric Nursing Care: A Systematic Review

Monadel R. khateeb, Saddam S. Al-khalayleh, Saad M. Khalifah, Ziad H. Abu-Dieyeh

Al-Balqa Applied University, Zarqa University College, 13115 Zarqa, Jordan

ABSTRACT

Introduction: Hospitalisation is stressful and maybe a threatening experience of their life. Play therapy is a systematic use of the standard theoretical model by play therapists and physicians that can prevent psychosocial difficulties and attain targeted cognitive development with the assistance of paediatric nurses. Objectives: the recent study aimed to evaluate the effectiveness of integrated play intervention with paediatric nurse care to improve anxiety and negative emotions among hospitalised children. **Materials and methods:** Five electronic databases were used: PubMed, EMBASE, CINAHL, MEDLINE, and PsychINFO from January 2015 to December 2023. The Mesh keywords used such as (“Play therapy” OR “Play intervention”) AND (“paediatric nurse care” OR “Healthcare staff of paediatrics”) AND (“hospitalized children” OR “children in hospital”) to search data. **Results:** The CASP tool recognized 11 standards for quality assessment of 11 included studies. **Conclusion:** In our systematic review, findings proved that play therapy is effective in improving stress, anxiety levels, fear feelings, and negative emotional states among hospitalized children.

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Corresponding Author:

Monadel Khateeb, MSN

Email: monadel_khateeb@bau.edu.jo

Tel : +962780342152

INTRODUCTION

Hospitalisation is stressful for children and may be a threatening experience in their lives. The children's response towards hospitalisation can be uncertainty, anxiety, feelings of helplessness, and anger as they are unfamiliar with the environment, reasons for hospitalisation, and medical procedures (1). These negative responses can cause anxiety and high levels of anxiety can lead to psychological and physiological harm to children's health (2,3). High levels of anxiety also affect the outcomes of medical treatments among children and enhance their negative emotions and uncooperative behaviour toward healthcare professionals. Pain management or pain relief among children is important in paediatric care. Anxiety is another critical factor that is correlated with pain perception (4) but it has not received much attention as several researches gave importance to pain management among children (5). During hospitalization processes and medical procedures, the children feel fear and anxiety, which lead to intense emotional distress responses. The anxiety and fear of painful sensations during medical treatments worsen the pain intensities

by magnifying the sensory experiences. This may result in a generalized phobia of experiences having health issues and a later refusal to seek medical attention (6,7). Children must receive special attention corresponding to their requirements to emotionally prepare them for these occasions. It is imperative to consider children as engaged members and subjects during their hospital stay (1).

BACKGROUND

Play has been considered a major strategy to boost the growth and development of children and now several Western countries have been implicating play therapy to reduce stress caused by hospitalizations among paediatric patients. Play therapy provides the opportunity for children to develop and enhance their understanding of themselves and their environment (8,9). In other words, play therapy is considered a structured form of play activity that is designed according to the age, health condition, and cognitive development goals of hospitalized children. Play therapy is the systematic use of a standard theoretical model by play therapists and physicians to implement an interpersonal process of using therapeutic powers of play that can prevent psychosocial difficulties and attain targeted cognitive development. In play therapy, most children are under the age of 15, and mental health providers treat the children in groups (4). Play therapists use various

methods or tools to engage the children in treatment and relieve their stress related to hospitalizations. These strategies or activities include puppets (used to act out scenes), story-making, finding objects in sand trays, reading storybooks, role-playing, etc.

A play therapist is a mental health professional who has training in play therapy and can supervise play therapy in hospitals. Similarly, paediatric nurses can implement play therapy to improve anxiety and emotional state among hospitalized children (10). The proper training of nurses for the implementation of play therapy can improve children's care in paediatric wards of hospitals. The nurses can improve the function of catharsis (relief of anxiety) by using play therapy for hospitalized children. Ideal Nurse-child relationships can be built by performing play activities with the cooperation of health professionals, enhancing confidence in hospital treatment procedures (11).

In recent decades, the healthcare settings of paediatrics have undergone major changes. Currently, healthcare institutes are obligated to address all aspects of children's sufferings and facilitate the children's hospitalizations (12). Children are sensitive to their environment and their rights are to enjoy leisure time, expression of their views, and play games according to their choices. The protection of children's rights is essential as other human rights protection in society, as reported by the United Nations, in the Convention on Rights of Child (13).

Therefore, the recent literary evidence proved the significance of psycho-emotional support for hospitalized children that should be provided by trained paediatric nurses and staff. Play therapy facilitates communication and familiarity with hospital staff, as it triggers the freedom of expression and understanding of situations among children. They actively participate in their recovery process during hospitalization due to the reduction of anxiety and negative emotions (14). As active participants in the process, play serves as a conduit for them to learn about their emotions and worries and is essential to the development, maintenance, and restoration of their health (15). Several studies proved how promising is playing therapy for paediatric treatment and show how beneficial this kind of fun treatment can be in lowering pain, stress, and anxiety during different treatments as well as enhancing behaviour and the growth of social and emotional abilities (16). Thus, therapeutic play is suggested as a strategy in paediatric nursing care to enhance kids' general welfare and try to address kids' psychosocial needs while respecting and implementing children's rights in a hospital environment (7).

Although play therapy has been implemented for a long time, significant research has not been conducted on

the outcomes of play intervention applied in paediatric nurse care until the past few decades. Several studies based on meta-analysis and systematic review have been conducted to identify the effectiveness of play therapy as an intervention among children, but no study has discussed the integration of play intervention with paediatric nurse care and related outcomes.

Moreover, it is crucial to conduct a study evaluating the effectiveness of play therapy and paediatric nurse care as a combined strategy that can transform the hospitalization processes into an attractive, pleasant, and playful journey to get better outcomes from certain medical procedures. Therefore, the study aimed to evaluate the outcomes of play therapy integrated with paediatric nurse care among hospitalised children.

MATERIALS AND METHODS

The recent systematic review has been conducted by following the guidelines of "Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) statement (17). The search strategy and eligibility criteria for the selection of research articles according to the aims of the study were decided by PRISMA guidelines (18).

Search Strategy & Study Selection

The research articles related to research "integration of play therapy in paediatric nurse care among hospitalized children" have been searched through five electronic databases named PubMed, EMBASE, CINHAI, MEDLINE, and PsychINFO from January 2015 to December 2023. The MeSH keywords were used such as "Play Therapy" "Play Intervention" "Play Therapeutic Interventions" AND ("Paediatric Nurse Care" OR "Healthcare Staff of Pediatrics") AND ("Hospitalized Children" OR "Children in Hospital") to search data. Only randomized controlled trials, clinical trials, cohort studies, and pilot studies were extracted from above mentioned electronic databases to reach authentic data. All published studies and included reviews were screened to extract more information resources.

Inclusion Criteria

After a search of above mentioned electronic databases, the predefined inclusion criteria helped in the screening of research articles (19). We included only those articles in a recent systematic review, which met the following criteria: 1). Studies discussing the play intervention integrated into paediatric nurse care, the play can involve tools, toys and objects or education materials 2). Studies involved the children admitted to the paediatric ward for a certain time, 3). Studies discussing the role of nurses and healthcare assistants in paediatric care, 4) Studies discussing outcomes related to management of pain, anxiety, and negative emotions. 5) Studies

based on randomized controlled trials, clinical trials, cohort and pilot studies, 6) Studies published in English language and full text available.

The studies excluded that were discussed 1). Studies discussing other types of therapeutic interventions rather than play intervention, 2). Studies involving study populations rather than hospitalized children, 3). A meta-analysis, Observational studies, systematic reviews, literature reviews, conferences and letters, 4). Study involving self-management rather than the role of nurses or healthcare assistants, 5) Studies published in other languages (German, Arabic, Chinese and Spanish) rather than English and 6) duplicate data or non-full text papers.

Data Extraction

After the screening of research articles, the information related to authors, year of study, population of study, study aims, type of methodology, primary outcomes, and findings. We designed the PICO model according to the research mentioned above aims of the recent study to search and select the articles. The PICO question comprised four parts including population (P), intervention (I), comparison (C) among experimental and control groups and outcome (O). The PICO question of recent systematic review has been designed as follows:

P—Hospitalized children (4 to 15 years)

I—play intervention integrated with podiatric nurse care

C—Comparison of play therapy with other interventions versus control

O—Outcomes (anxiety, pain management, negative emotions control)

Definitions

Play Intervention

Play therapy is scientifically defined as a framework of activities that trigger the cognitive and psychological development of children especially those experiencing hospitalizations to improve their physical and emotional well-being.

Paediatric nurse care

Paediatric nursing is a branch of nursing that focuses on specialized care of paediatrics as they provide medical services to children, ranging in age from 0 months to 15 years old. It is a type of nursing care, which revolves around children and infants up to adolescence.

Primary Outcomes

The primary outcomes of the study were related to anxiety, negative emotional control, pain management,

the success ratio of medical procedures and the fear index about the experience of hospitalization among children for a recent systematic review. All of the study population was hospitalized children and had ages less than 15 years.

Quality Assessment

The Quality assessment of included studies has been conducted by using a critical appraisal skills program checklist (CASP) and designed overall judgment of quality. To evaluate the methodological quality of studies, the Critical Appraisal Skills Program, 2018 (CASP) for RCTs checklist was used (20). Ten studies were used to test the quality of evaluations for risk of bias and CASP to make sure the criteria were used uniformly. Since the evaluation of quality in descriptive systematic reviews is dependent and simplistic, and because the applicability and interchangeability of the results are frequently highly reliant on the setting in which they are stated, we were not excluding studies or weighting findings within the overall summary based on quality.

Data Analysis

Thematic analysis was chosen to apply in our systematic review because the study aimed to evaluate the outcomes of play therapy integrated with paediatric nurse care among hospitalised children. In thematic analysis for play therapy, identifying play themes is integral for comprehending the meaning within play therapy sessions, thereby allowing therapists to methodologically pursue therapeutic change made by play therapy on hospitalized children(21).

We designed themes and sub-themes or codes from the outcomes of the study, it progresses from the original line-by-line coding of data provided in individual assessment questions to review inquiries intended to generate suggestions for actions and investigations, to the ensuing creation of descriptive, and finally, themes of analysis. Its comprehensive process resolves concerns about openness in qualitative synthesis by upholding a distinct connection between the results of the primary research and the findings of the review. The results extracted were by induction free-coded in this investigation line-by-line by the main writer. The codes produced were arranged and classified into descriptive themes to create a framework for coding that was then reapplied to studies that were included (22).

RESULTS

Included Studies

In our current systematic review, the selection and

screening of research articles related to the study aim “Integration of play therapy with paediatric nurse care to improve anxiety and stress among hospitalized children” was conducted according to PRISMA guidelines. Approximately, 378 research articles were found from above mentioned electronic databases. Only 100 research articles were found eligible for screening by inclusion criteria and 278 were excluded. Out of those, 11 studies met the inclusion criteria and were analysed for results, as mentioned in Figure 1.

Risk Assessment

The CASP tool recognized 11 questions or standards for quality assessment of 11 included studies. Among those, 7 studies (5,6,9,23–26) were strong, 2 studies (26,27) were weak and 2 were moderate (29,30). The overall scores of included studies reflect that we have selected stronger studies for recent systematic review, as shown in Table I.

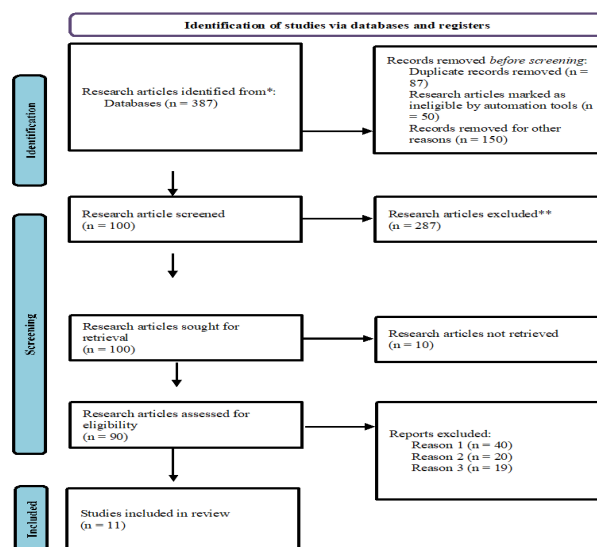


Figure 1: Screening and selection of included studies by PRISMA guidelines

Table I: Quality assessment of included studies by CASP checklist (20)there is a lack of consensus regarding how to judge the methodological quality of qualitative studies being synthesised and debates around the extent to which such assessment is possible and appropriate. The Critical Appraisal Skills Programme (CASP)

Way of selection of control group	Y	N	Y	Y	Y	N	N	Y	N	N	N
Total score	9	8	9	8	8	7	10	5	4	6	6
Result Accuracy	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y
Question of CASP checklist	Lemos et al., 2016	Davidson et al., 2017	Mohan et al., 2015	He et al., 2015	Forouzan-deh et al., 2020	Li et al., 2016	Hsu et al., 2022	Dantas et al., 2016	Al-ya-teem et al., 2016	Unver et al., 2020	Das et al., 2021
Model validation	N	Y	Y	N	Y	Y	Y	N	Y	Y	N
Fitness of results	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y
Data resources and their authenticity	N	Y	Y	N	Y	N	Y	N	Y	Y	N
Consideration of confounding factors	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Focused issue	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Clarity of results	Y	Y	N	Y	N	N	Y	N	N	Y	Y
Avoidance to Bias	Y	N	N	Y	Y	Y	Y	N	N	N	Y
Appropriate methodology for research aim	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y
Applicability Of study	Y	N	Y	Y	Y	N	Y	Y	N	N	N

Study characteristics

About 1184 hospitalized children were analysed in a recent systematic review from 11 different medical centres and hospitals to fulfil research aims. The research area of all research trials varied to produce heterogeneity results, as 2 studies were conducted in China (6,26), 2 in India (5,9), 1 in Singapore (23), 2 in Turkey (29,30), 2 in Brazil (24,27), 1 in Saudi Arabia (28) and 1 in Iran (25). The different type of play intervention rather than pharmacological intervention was obtained from eleven studies.

Primary outcomes

Overall, 11 studies in our current systematic review

evaluated the outcomes of various forms of play interventions or therapeutic play activity integrated with paediatric nurse care and the findings of all studies proved that play therapy is effective in improving stress, anxiety levels, fear feelings and negative emotional states among hospitalized children. Here, we discussed each outcome in the context of included studies as follows:

Anxiety Scores

One of the most prevalent conditions among hospitalized children is anxiety, which negatively affects the duration of stay as well as the standard of nursing care (27,28,30). About all the included studies (5,6,23,25,29) reported improvements in anxiety scores after the implementation of play intervention before and

after the medical treatment. No doubt, hospitalization processes and medical treatments enhance the anxiety and stress levels among hospitalized children, but play intervention through paediatric nurses can improve anxiety scores.

Pain management

About 4 studies out of 11 included studies discussed pain management or pain relief as a major outcome of implementing the play intervention among hospitalized children (5,23,24,30). The study outcomes revealed that play intervention integrated with paediatric nurse care proves effective in pain management and relieving pain after surgical procedures among hospitalized children.

Fear levels

The fear of medical treatment among hospitalized children delays the process of surgical treatment and recovery process. About 6 out of 11 studies discussed fear levels as a major issue faced by hospitalized children and implementation of play intervention improved the fear levels by distracting them from the hospital environment (6,9,23,26–28).

DISCUSSION

The study's objective was to determine how play therapy affected children who were in hospitals. The studies' findings suggested that it offers several advantages, including a decrease in pain and anxiety, a decrease in negative emotions in children, improved professional relationships between children and healthcare providers, and an increase in children's cooperation throughout treatments. This review addresses several types of interventions related to play activities and provides details on the use of play therapy for various paediatric diseases or hospitalization reasons (5,6,23,25,29). It also makes recommendations for future study directions that are still being reviewed, as well as what qualities play therapy approaches should have based on the analysis of the literature.

Overall results of our recent systematic review supported the various forms of play interventions to decrease the negative emotions, fears and anxiety among hospitalized children. In clinical settings of paediatrics, it is essential to realize and emphasize the implementation potential of non-pharmacological interventions such as play therapy and art therapy (31). The periodic implementation of play interventions during pre and post-clinical procedural trials among hospitalized children helps to engage them in hospitalization procedures (6,9,23,26–28). In this study, only those children were included to assess the outcomes of play activities when they were occupied in medical, surgical, and nursing procedures. Consequently, it would make sense for medical staff to be thinking about including hospital play as a regular psychological preparation for the children under their care. The majority of the kids who were interviewed

stated that they felt less anxious after participating in hospital play sessions since they learned more about their condition and became more accustomed to medical practices. The majority of children expressed satisfaction in knowing that the majority of medical treatments or nursing operations would not hurt them, or that any discomfort would be managed effectively (5,23,24,30). Above all, the children thought the activities were entertaining and fascinating, and they appreciated playing in the hospital.

Most parents have appreciated the importance of play intervention and the availability of play activities for hospitalized children to reduce pain, anxiety scores and fear scores during medical treatments. Parents were reassured as the play therapy engaged their children and established the interactions of children with healthcare staff e.g. nurses and physicians. If play is introduced into the hospital, some medical experts might be worried that more hiring along with assistance from the management of the hospital will be needed. Nonetheless, employing hospital play specialists (HPS) could be among the most effective ways to address labour scarcity (5,23,24,30). The majority of hospitals in Western nations employ HPS including the US, Australia, and other places, and they are crucial in fostering psychological treatment for children with illnesses by offering play activities. While it might necessitate additional resources in the near run, it would undoubtedly improve the provision of high-quality healthcare. Implementing play activities to lessen the difficulties of a hospitalized child's life only takes thirty minutes a day. For health organizations, the implementation of play interventions would be economically feasible to manage anxiety among hospitalized children (32). Therefore, we recommend incorporating play interventions as an integral treatment modality in health care units providing care for the paediatric population.

Play therapy is spontaneous, voluntary, feasible, and instinctive for children as they play freely just like fish swim and birds fly. This intervention relieves the fear, negative emotions, and anxiety in the minds of children and makes them familiar with the environment of the hospital and hospital staff. The findings of a recent systematic review (16) generated new evidence and knowledge about the implementation of play intervention among hospitalized children with major clinical implications. The study revealed that hospital play interventions could be applied to all children groups, regardless of their origin, type of clinical manifestations, clinical settings, and cultural backgrounds. Moreover, it is recommended that play intervention should be integrated with all paediatric nursing care systems by providing training to paediatric nurses about play intervention and its appreciated implementation in clinical settings. Based on the above-mentioned facts, we can recommend that hospital authorities should provide more space, resources, and facilities for hospitalized

children to play which can relieve their stress, fear, and anxiety about hospitalization procedures. Additionally, the integration of play therapy with paediatric nurse care should be employed to enhance the confidence of parents in the hospitalization processes (33).

In our current systematic review, there were some limitations. Firstly, the recent systematic review includes a large proportion of studies based on randomized controlled trials to evaluate the effectiveness of play interventions integrated with paediatric nurse care among hospitalized children, but the randomized controlled trial is not a feasible approach as there are high chances of involvement of other factors in the same setting and parents might be worried if they found their children to be involved in different forms of intervention in hospitals. Secondly, less number of studies were included due to eligibility criteria, which reduced the heterogeneity of results in recent systematic reviews. Thirdly, the included studies only observed the emotional responses and anxiety levels among children while during hospitalization processes the children may come across several difficulties related to the medical treatment they were receiving (15).

Our systematic review-based study may have some potential bias during the systematic review process as research on play therapy in Arab countries was limited and not fully applicable in healthcare settings so most research included was from European countries. Furthermore, the sociologist's role is not being active in most Arab countries' hospitals. The gap in the literature is that research on play therapy was not examined with children with acute diseases and who were in a short stay in hospitals in addition to how could be applied for children with infectious diseases.

CONCLUSION

Our current systematic review-based study has revealed that hospital-based play interventions integrated with paediatric nurse care are effective in reducing stress, anxiety, fear and pain among hospitalized children. Additionally, the study's findings emphasized the significance of paediatric nurses in implementing the play intervention, which helps the children familiarize themselves with the environment and medical treatments during hospitalization. The strength of our study is implied in highlighting how important to include hospital play to give comprehensive, high-quality treatment and lessen the emotional stress on hospitalized children. Additionally, it advances the knowledge and comprehension of parents as well as healthcare providers on the critical role play plays in children's lives and the necessity of play even during illness (32). To maximize the benefits of play therapy, paediatric services should provide play therapy training to their staff. Future studies should examine the more efficient play therapy and games, contrasting and

comparing sessions for children from different age groups.

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