

Experiences of Children with Chronic Illnesses and Their Families in Song-Based Play Activities

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ABSTRACT

This study aimed to explore the experiences of children with chronic illnesses and their families participating in song-based play and its contribution to children's social development. A mixed-methods approach was employed with three groups of participants: healthcare and cultural experts, children with chronic illnesses undergoing chemotherapy and their parents or caregivers, and healthcare personnel and activity facilitators. The study was conducted in the pediatric unit of Srinagarind Hospital during the 2021–2022 academic years. Data were collected through unstructured interviews, structured observations, focus group discussions, and documentary research and were analyzed using thematic content analysis.

The findings revealed four major dimensions of experience: physical, emotional, social, and cognitive. Physical participation was influenced by children's health conditions and medical equipment, requiring activities to be adapted to individual abilities. Emotionally, children generally progressed from initial reluctance or anxiety toward greater relaxation, enjoyment, and engagement. Socially, song-based play provided opportunities for communication, cooperation, sharing, turn-taking, role-playing, and relationship building with family members and others in the pediatric ward. Cognitively, children demonstrated memory, communication, imagination, creativity, and problem-solving through repeated participation. Family members and activity facilitators played an important role in supporting participation and adapting activities to children's physical limitations.

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The study suggests that culturally familiar song-based play can provide meaningful opportunities for children with chronic illnesses to engage in social interaction and developmentally appropriate activities during hospitalization. Flexible adaptation to children's health conditions and family participation are important components of its implementation.

Keywords: children with chronic illnesses; song-based play; traditional play; family participation; social development; hospitalized children

1.Introduction

The coronavirus disease 2019 (COVID-19) pandemic substantially altered daily life and social interaction worldwide. On March 11, 2020, the World Health Organization (WHO) characterized COVID-19 as a pandemic following its rapid international spread. At that time, the number of reported cases outside China had increased approximately 13-fold within two weeks, while the number of affected countries had nearly tripled (World Health Organization [WHO], 2020). The pandemic and the measures implemented to control transmission subsequently affected opportunities for social participation and interaction across age groups, including children.

Opportunities for play and social interaction are particularly important during childhood. The United Nations Convention on the Rights of the Child recognizes individuals under the age of 18 as children and establishes their rights across multiple dimensions of life and development. In particular, Article 31 recognizes children's right to rest, leisure, play, recreational activities, and participation in cultural and artistic life (United Nations, 1989). Play should therefore be understood not simply as entertainment but as an important context in which children communicate, interact with others, explore their environment, and develop physical, emotional, cognitive, and social abilities.

For children with chronic illnesses, however, opportunities to participate in ordinary play and social activities may be substantially restricted. These children may require prolonged hospitalization, repeated medical treatment, regular follow-up, or extended periods of recovery at home. Chronic conditions may include cardiovascular, renal, hematological, oncological, and musculoskeletal diseases, among others. Moreover, children with the same diagnosis may experience different levels of disease severity and physical limitations, resulting in considerable variation in their readiness to learn and ability to participate in developmental and recreational activities.

Hospitalization itself may also disrupt children's everyday experiences. Separation from familiar environments, medical procedures, restrictions on movement, and uncertainty associated with treatment can contribute to fear, anxiety, pain, and insecurity. Consequently, recreational and therapeutic activities are increasingly regarded as components of holistic pediatric care. A systematic review by Godino-Iáñez et al. (2020) found that therapeutic play among hospitalized children was associated with beneficial outcomes, including reduced anxiety and postoperative pain and improvements in children's behavior and attitudes during hospitalization. Such findings support the use of appropriately designed play activities as a means of creating more child-centered and developmentally supportive healthcare environments.

Play provides children with a natural medium through which they can express feelings, interact with others, and make sense of their experiences. Traditional children's play is particularly relevant because it is often informal, requires relatively few materials, and can be transmitted across generations through observation and participation. In the Thai cultural context, traditional play includes a variety of individual and group activities, some of which incorporate rules, singing, rhythmic language, gestures, movement, or dance. These characteristics make traditional song-based play potentially suitable for adaptation to different environments, including healthcare settings.

Song-based play in the present study refers to play activities in which songs, chants, or rhythmic verbal elements constitute an integral part of the activity. Such activities may combine singing with physical movement, gestures, turn-taking, imitation, and interpersonal interaction. Unlike passive forms of entertainment, song-based play encourages children to participate actively and respond to other participants. It may therefore create opportunities for children with chronic illnesses to engage not only with the activity itself but also with parents, family members, caregivers, and other people in their immediate social environment.

The potential value of play is also consistent with William James's discussion of habit and human behavioral development. James (1890) emphasized the plasticity of the nervous system and proposed that repeated actions contribute to the establishment and reinforcement of habits. From this perspective, opportunities for repeated active engagement may support the development of behavioral patterns and adaptive skills. Applied cautiously to the context of the present study, repeated participation in interactive play may provide children with opportunities to practice communication, turn-taking, emotional expression, and other forms of social interaction even when illness restricts their participation in ordinary childhood activities.

The therapeutic potential of play in children with chronic health conditions has received increasing research attention. Nevertheless, the available evidence remains limited. In a systematic review examining play therapy and psychosocial outcomes among children with chronic health conditions, Hall et al. (2022) identified only six eligible studies. Although some studies reported improvements in outcomes such as depression and self-concept, variations in study design, small sample sizes, and inconsistent outcome measures prevented firm conclusions regarding effectiveness. The authors therefore emphasized the need for further research using clearly defined interventions and systematic approaches to examining children's psychosocial experiences and outcomes.

This limitation is particularly important in relation to culturally grounded forms of play. Existing research has predominantly focused on therapeutic play as a clinical intervention, while comparatively less attention has been directed toward traditional or culturally familiar song-based play involving both children with chronic illnesses and their families. Furthermore, research has often emphasized measurable outcomes rather than children's and families' experiences of participating together in play. Understanding these experiences is important because family involvement, familiarity, willingness to participate, and the social context in which play

occurs may influence how children experience and respond to an activity.

The restrictions associated with the COVID-19 pandemic further highlighted this issue. Children with chronic illnesses already experienced limitations in opportunities for peer interaction and age-appropriate play because of hospitalization and treatment. Periods of social distancing and restricted interpersonal contact could further reduce such opportunities. This context underscores the importance of identifying play activities that are accessible, enjoyable, culturally appropriate, and feasible within the physical and social constraints experienced by children receiving long-term medical care.

Accordingly, the present study, "Experiences of Children with Chronic Illnesses and Their Families in Song-Based Play," investigates song-based play as a culturally relevant form of participatory activity for children with chronic illnesses and their families. The study aims to explore the experiences of children with chronic illnesses and their families during participation in song-based play and to examine the outcomes of these activities in relation to children's social development. By focusing on both children's experiences and family participation, the study seeks to contribute to the development of accessible and family-centered approaches to supporting social interaction and developmental experiences among children living with chronic health conditions.

2.Objective

2.1 To explore the experiences of children with chronic illnesses and their families in song-based play.

3.Methodology

This study employed a mixed-methods approach integrating qualitative and quantitative methods to explore the experiences of children with chronic illnesses and their families participating in song-based play and its effects on children's social development.

The participants were purposively selected from three groups: (1) experts in

medicine, therapy, and culture; (2) children with chronic illnesses undergoing chemotherapy and their parents or caregivers; and (3) healthcare personnel and activity facilitators. The study was conducted at the pediatric unit of Srinagarind Hospital during the 2021–2022 academic years.

The research process consisted of reviewing relevant literature, conducting field observations and interviews, developing song-based play activities appropriate for children with chronic illnesses, implementing the activities with children and their families, and evaluating their experiences and responses.

Data were collected through unstructured interviews, structured observations during the activities, focus group discussions, and relevant documents. The collected data were reviewed for completeness and triangulated across participants, time, place, and data-collection methods. Qualitative data were categorized and analyzed using thematic content analysis according to the research objectives. The findings were subsequently synthesized and presented through descriptive analysis.

4. Results

4.1 Due to the COVID-19 pandemic, the study was conducted under social distancing restrictions, which limited direct interaction and play with children with chronic illnesses. Therefore, the findings were primarily based on observations of the children's participation in song-based play activities in the pediatric ward.

The experiences of children with chronic illnesses and their families during song-based play were categorized into four dimensions: **physical, emotional, social, and cognitive experiences**. These dimensions reflected the children's participation, responses, interactions, and engagement with their families throughout the activities.

The findings revealed that the experiences of children with chronic illnesses and their families during song-based play could be categorized into four dimensions: physical, emotional, social, and cognitive experiences.

Physical Experiences

Children's physical participation was influenced by their health conditions and medical equipment, particularly intravenous lines, which restricted whole-body, hand, and arm movements. Therefore, the activities were adapted to each child's physical capabilities. Games requiring limited movement, such as Sak Sao and Jam Jee, were more accessible, whereas Ree Ree Khao San and Ngu Kin Hang required greater mobility and supervision. As children became familiar with the activities, their movement and participation generally improved, particularly among those who were able to walk.

Emotional Experiences

Emotional responses varied from reluctance and anxiety at the beginning to greater relaxation and enjoyment as the activities progressed. Some children initially remained in bed or continued their previous activities rather than participating. However, several gradually became more engaged and participated throughout the session. Because participants were required to wear face masks during the COVID-19 pandemic, facial expressions were difficult to observe; consequently, emotional responses were primarily identified through eye contact, attentiveness, body movement, and participation.

Social Experiences

Song-based play encouraged interaction between children, family members, and others in the pediatric ward. The children demonstrated cooperation, sharing, turn-taking, role-playing, and adaptation to the rules of the games. They also established relationships with other children and families and demonstrated age-appropriate communication and problem-solving. Family members and facilitators played an important role in supporting children who experienced physical limitations during the activities.

Cognitive Experiences

The children demonstrated age-appropriate communication, memory, learning, imagination, and problem-solving during the activities. Repeated participation helped them remember songs, movements, and game

procedures, allowing them to participate more fluently over time. They also demonstrated creativity by adapting their movements to the requirements of the activities and to their individual physical limitations.

Participation in Song-Based Play

Initially, children's interest and participation ranged from low to moderate, with some remaining engaged with mobile phones. Participation increased among children and families who had previously experienced the activities, particularly among children who were physically able to leave their beds.

Each session lasted approximately 10–15 minutes, depending on the children's health conditions. Activities progressed from those

requiring minimal movement to those involving greater physical activity. Once engaged, most children and families participated until the end of the session. Activities were paused, modified, or discontinued when children's movements became excessive or when their physical condition required rest.

Overall, the findings suggest that song-based play provided opportunities for children with chronic illnesses to participate in enjoyable and socially interactive activities despite limitations associated with illness, medical treatment, and the COVID-19 pandemic. Adaptation of the activities to individual physical abilities and support from family members and facilitators were important factors in maintaining children's participation.

Summary of the Experiences of Children with Chronic Illnesses and Their Families in Song-Based Play		
Small Moments Big Smiles Play • Music • Family • Hope Play Heals Connects Empowers		
Dimension	Observed Experiences	Key Outcomes
 Physical Experiences Movement within medical limitations	- Physical movement was constrained by health conditions and medical equipment (e.g., IV lines). - Whole-body movements such as running or quick changes of direction were limited. - Hand and arm movements were restricted, especially using both hands together. - Finger movements and fine motor actions could often be done with one hand but remained limited. - Activities were adapted to each child's physical ability, with the IV pole often accompanying the child.	- Participation increased as children became familiar with the activities. - Children who were able to walk could join all games (e.g., Sak Sao, Jam Jee, Ree Ree Khao San, Ngu Kin Hang). - Games with minimal movement (Sak Sao, Jam Jee) were more feasible. - With appropriate adaptations and careful supervision, children could participate safely and effectively.
 Emotional Experiences From anxiety to enjoyment	- Some children initially showed reluctance, anxiety, or lack of interest. - Over time, many children became more relaxed and engaged. - Face masks and social distancing made it difficult to observe facial expressions; emotional cues were mainly seen through eye contact, body language, and participation.	- Reduced anxiety and increased relaxation. - More positive mood, interest, and willingness to participate. - Laughter and enjoyment were observed during the activities.
 Social Experiences Interaction and relationships	- Children interacted with family members, peers, and healthcare staff in the ward. - They followed rules, took turns, shared, cooperated, and helped each other. - Children adapted to the game context and showed empathy and age-appropriate communication. - Family members and facilitators played an important role in supporting participation.	- Improved social interaction and communication. - Greater cooperation, sharing, and turn-taking. - Development of relationships with peers, family, and others in the hospital. - Opportunities to practice role-playing (both child and adult roles).
 Cognitive Experiences Learning through play and music	- Children could learn and remember song lyrics, movements, and game sequences. - They used imagination, creativity, and problem-solving to adapt movements to their own limitations. - Repeated participation helped them understand the rules and improve their performance.	- Better memory, attention, and understanding of the activities. - Enhanced creativity and imagination. - Improved problem-solving and adaptive skills during play.
 Overall, song-based play provided meaningful and enjoyable opportunities for children with chronic illnesses and their families to participate, interact, and develop despite physical limitations and the challenges of the COVID-19 pandemic. Play is more than a game — it is a bridge to connection, development, and hope. Together Brighter Days		

Table 1 : Summary Results of The Study

Discussion

The findings indicate that song-based play provided children with chronic illnesses with opportunities for physical movement, emotional expression, social interaction, and cognitive engagement despite the limitations associated with hospitalization and medical treatment. Importantly, participation tended to increase as children became familiar with the activities. This suggests that the value of song-based play may lie

not only in entertainment but also in creating a familiar and supportive environment in which children can gradually engage with others.

The emotional findings are consistent with previous research on therapeutic play in hospitalized children. Godino-Iáñez et al. (2020) reported that therapeutic play can reduce anxiety and fear and improve children's behavior and attitudes during hospitalization. Similarly, the present study found that some children initially

demonstrated reluctance or anxiety but gradually became more relaxed and engaged. However, these findings should be interpreted cautiously because facial expressions were difficult to observe due to the use of face masks during the COVID-19 pandemic. Emotional changes were therefore primarily inferred from participation, eye contact, body movement, and observable engagement.

The most notable findings concerned **social development**. Children demonstrated cooperation, sharing, turn-taking, communication, role-playing, and the ability to adapt to the rules of the activities. These findings can be interpreted through Vygotsky's sociocultural theory, which views play as an important context for development because children learn through social interaction and participation with others (Vygotsky, 1978). Within song-based play, children were required to respond to other participants, follow shared rules, take different roles, and coordinate their actions with family members and peers. Thus, the activities created a social context in which developmental skills could be practiced through interaction rather than through formal instruction.

This interpretation is supported by recent evidence showing a positive relationship between play and children's social competence, particularly when play involves meaningful social roles and interaction. However, such evidence does not necessarily demonstrate that play alone causes improvements in social development. The quality of play, interaction with others, and the social environment in which play occurs are also important (Ma et al., 2024). In the present study, family members and activity facilitators frequently supported children in overcoming physical limitations and encouraged continued participation. The observed social outcomes should therefore be understood as resulting from the interaction between **play, family support, and the hospital environment**, rather than from the song-based activities alone.

The findings also revealed an important tension between children's desire to participate

and their physical limitations. Intravenous lines and restricted mobility made some forms of movement difficult, while games requiring less movement were more accessible. Consequently, traditional games could not always be implemented in their original form and had to be adapted to each child's physical condition. This finding emphasizes that therapeutic or developmentally supportive play for hospitalized children should remain flexible and responsive to individual health conditions. Previous research similarly emphasizes that play interventions in pediatric settings should be adapted to children's needs and available healthcare resources (Godino-Iáñez et al., 2020).

From a cognitive perspective, repeated participation appeared to support children's ability to remember songs, movements, rules, and sequences and to adapt their actions to different situations. This is compatible with Vygotsky's view that play provides opportunities for children to develop higher psychological processes through socially mediated activity (Vygotsky, 1978). Nevertheless, the present findings should not be interpreted as evidence of measurable cognitive improvement because the study primarily relied on behavioral observation rather than standardized cognitive assessment.

The findings are particularly relevant to children with chronic illnesses because evidence concerning play-based interventions in this population remains limited. Thomas et al. (2022), in a systematic review of play therapy for children with chronic health conditions, identified only six eligible studies and concluded that the available evidence was insufficient to establish definitive effectiveness because of methodological differences and limited sample sizes. The present study therefore contributes a culturally specific perspective by demonstrating how traditional Thai song-based play may be adapted to a pediatric hospital setting and implemented with the participation of family members.

Overall, song-based play may be understood as a **socially mediated and culturally familiar activity** rather than simply a recreational intervention. Its potential value lies

in integrating music, movement, rules, communication, role-playing, and family interaction within a single activity. Nevertheless, because the study was conducted under COVID-19 restrictions and relied substantially on observational data, the findings should be regarded as evidence of participants' experiences and observed behavioral changes rather than

definitive evidence of therapeutic effectiveness. Future studies should employ larger samples, standardized measures of social development, and pre-post or comparative designs to determine more precisely the effects of song-based play among children with chronic illnesses.

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