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## **Play's Continuum of Needs: Building Blocks for Deepening Play Opportunities in Medical Environments**

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## Chapter 2

# Play's Continuum of Needs: Building Blocks for Deepening Play Opportunities in Medical Environments

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### **ABSTRACT**

*Optimal healing for children in hospitals occurs when their developmental needs are considered as part of their overall treatment plan. One of the most pressing developmental needs for all children is the need to play, and this remains so even when they are confined to a hospital bed or face developmental delays or disabilities. This chapter examines the most basic components of implementing play programs in hospitals, such as the intentional creation of space for play, determining the best times for children to play, and exploring what types of play are therapeutic and possible in a hospital environment. The author presents a continuum that highlights foundational components of a therapeutic play program and explores a wide range of types of play, including examples that arise from a variety of cultures. Child life specialists and hospital play specialists are in a unique position to improve patient experiences and health outcomes by interacting with children using their primary language: the language of play.*

### **INTRODUCTION**

Ecological Systems Theory (Bronfenbrenner, 1979) describes how a child's environment, including schools, religious institutions, family, friends, and neighbors, shapes her/his lived experience. Hospitals are another microsystem that can impact a child's physical, cognitive, and psychosocial development (Lerwick, 2013). Hospitalization can threaten developmental and mental health outcomes for children. Outcomes are dependent upon many variables, such as trait anxiety, coping styles, previous trauma history, and family support and presence (de Oliveira Pinheiro de Melo et al., 2014; Delvecchio et al., 2019;). One mitigating variable for all children is whether or not they have access to developmentally appropriate play opportunities throughout their hospital stays (American Academy of Pediatrics, 2021). Play is a protective factor for children that assists them in processing and assimilating medical encounters

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(Gulyurtlu et al., 2020; Yogman et al., 2018). Hospitalized children state play as their preferred coping method at a higher rate than non-hospitalized children (Burns-Nader and Hernandez-Reif, 2016).

Just as the hospital environment affects children's coping (Burns-Nader and Hernandez-Reif, 2016), it also shapes the services provided to children. Some hospitals have thriving play programs. Others are just beginning to contemplate how play can support and enrich the healing process for pediatric patients. Some hospitals have abundant resources, many have dwindling resources, and some are severely understaffed. Some countries have laws that protect the safety and rights of children, where access to medical care may be taken for granted. Others lack adequate healthcare, basic safety, and rights for children (European Association for Children in Hospital, 1988; Unicef, 2022). "The current global instability resulting from the COVID-19 pandemic, raging armed conflicts, soaring inequities and climate crisis, threatens hard won gains in child rights" (United Nations Human Rights Office of the High Commissioner, 2022, p. 1). This chapter will show readers a pathway to instilling more opportunities for play in the medical environment, regardless of a specific hospital's challenges and resources.

## **OBJECTIVES**

This chapter will explore the value of play's role in mitigating trauma responses for children undergoing medical procedures. The literature and research demonstrate the utility of play as a positive coping mechanism for pediatric patients (Burns-Nader and Hernandez-Reif, 2016; Yogman et al., 2018; Gulyurtlu et al., 2020). Opportunities for play exist in all medical spaces, in both highly resourced and under-resourced environments. The author presents a theoretical model that enumerates the steps necessary to provide play opportunities within any healthcare setting. The model details the optimal times and places for hospital play, explores simple play activities that bridge cultural and generational divides, and recommends materials that promote healthy play. Readers will develop an appreciation for the many types of play that can be implemented in a hospital setting. The chapter concludes with recommendations for further research to test the theoretical model.

## **BACKGROUND**

Hospitalized children are at risk for exposure to potentially traumatizing experiences. They include parental separation, an unfamiliar and threatening environment, separation from the home environment, including siblings, pets, school, and peers, restricted mobility, and invasive and painful procedures and treatment. Forced powerlessness might be exacerbated by developmental stage, varying abilities, level of understanding, and previous trauma history (Staab et al., 2014; Rollins et al., 2018; Agbayani et al., 2020). Child life specialists and hospital play specialists use play as a therapeutic modality to mitigate trauma and promote development, positive coping, and self-expression for children navigating medical encounters (Koller, 2008; Thompson, 2018).

The neurobiological underpinnings of healing name supportive relationships as a key resiliency factor that supports and speeds recovery (Perry, 2016). Trust in the medical establishment is another variable that affects patient and family perceptions, as well as medical compliance (DeCosta et al., 2021). Child life specialists and hospital play specialists often serve as a bridge between the patient, family, and medical staff. When they connect with a pediatric patient through play, they are laying the cornerstones of trust, respect, and relationship (Landreth, 2012) that can ease and bolster the healing process.

Hospital play professionals are trained to value the developmental and healing qualities of play. It is their primary modality for supporting children through hospitalization and medical procedures (Perasso et al., 2021). This approach has a historical context. Since the 1930s, forerunners have been bringing unstructured play and therapeutic play to children in North American and British hospitals. Medicine, healthcare, and hospital policies have changed tremendously over the years. But there is a rich history of using play to help mitigate trauma in hospitalized children (Brown and Turner, 2014; Beickert and Mora, 2017).

## **MAIN FOCUS OF THE CHAPTER**

### **Issues, Controversies, Problems**

Play is not only universal. It is essential to cognitive, physical, social, and emotional development, and impacts the well-being of all children (American Academy of Pediatrics, 2007). However, not everyone views play in the same way (Li, 2017; Damast et al., 1996; Parmar et al., 2004). Some see it as a vital part of healthy development. Others see play as unimportant and frivolous, or equate it with laziness or immaturity. Some parents believe that a child should be resting or doing schoolwork when hospitalized, and that play is not appropriate in the medical environment. Medical staff might value play in a theoretical sense, but the medical needs of patients may supersede play.

A lack of designated play space is another challenge for some hospitals. When hospitals are constructed, play space must be a part of the architectural design. Some hospitals plan for and build such spaces, only to have them commandeered later for purposes administrators deem more important. Infection control, too, is a necessary consideration when designing play space and purchasing toys and materials. Policies differ from hospital to hospital, and guidelines often limit which toys are considered safe for patient use. A restricted budget can be another impediment to implementing a play program. Most play specialists are not billable, so hospital administration must budget for play staff and materials.

## **SOLUTIONS AND RECOMMENDATIONS**

To address some of the challenges of bringing play to hospitals, it is important to approach the issues with purposeful planning. To visualize the necessary components of a thriving play program, it helps to have a road map. To this end, the author has developed a theoretical, practice-based model, the Vilas Play Continuum of Needs in Healthcare Settings (Vilas, 2014) depicted in Table 1. Maslow's Hierarchy of Needs (1949) describes how human beings' physiological and safety needs take precedence over the needs for esteem and self-actualization. Unlike Maslow's Hierarchy (1949), where the ability to meet a given set of needs depends somewhat upon how the needs from the previous stage(s) are met, the Vilas Continuum (2014) describes multiple entry points to providing play. No matter where any given hospital exists on the continuum, there are possibilities to expand and deepen the play offered to children.

The continuum (Vilas 2014) consists of nine points of entry. Each describes a need, the meeting of which can grow and enrich the hospital play experience for children.

## Play's Continuum of Needs

Table 1. Vilas Play continuum of Needs in Healthcare Settings

Point of Entry	Need	Examples
1	Awareness	<ul style="list-style-type: none"> <li>• Children's developmental needs</li> <li>• Children's right to play</li> <li>• The value of play</li> <li>• The functions of play</li> <li>• Types of play</li> </ul>
2	A playful mindset and approach	<ul style="list-style-type: none"> <li>• Using play as a tool for building rapport with patients</li> <li>• Entering into a child's world by including the child's doll/toy in the medical interaction</li> <li>• Using gentle humor to build trust (jokes, riddles)</li> </ul>
3	Time	<ul style="list-style-type: none"> <li>• Play while waiting</li> <li>• Play before procedures</li> <li>• Play during procedures</li> <li>• Play after procedures</li> </ul>
4	Space	<ul style="list-style-type: none"> <li>• Playrooms for patients</li> <li>• Playrooms for siblings and family members</li> <li>• Playrooms for various age spans (infancy, early childhood, school-age, adolescence)</li> <li>• Medical play corners</li> <li>• Playspace in waiting areas</li> <li>• Playspace on units (radiology, surgery, emergency departments)</li> <li>• Outdoor playspace (terraces, playgrounds, gardens)</li> </ul>
5	Materials	<ul style="list-style-type: none"> <li>• Use of self</li> <li>• Loose parts</li> <li>• Toys</li> <li>• Games</li> <li>• Art materials</li> <li>• Medical items</li> </ul>
6	Play specialist staff	<ul style="list-style-type: none"> <li>• Hospital play specialist(s)</li> <li>• Child life specialist(s)</li> <li>• Recreation therapist(s)</li> </ul>
7	Training of play specialist staff	<ul style="list-style-type: none"> <li>• Theories of play</li> <li>• Facilitation of play</li> </ul>
8	Programming	<ul style="list-style-type: none"> <li>• Scheduled</li> <li>• Impromptu</li> <li>• Group activities</li> <li>• Expressive arts</li> <li>• Crafts</li> <li>• Medical play</li> <li>• Free play</li> <li>• Child-centered play</li> <li>• Policies</li> </ul>
9	Involving family & transdisciplinary staff	<ul style="list-style-type: none"> <li>• Filial play</li> <li>• Tongue depressor challenge</li> <li>• Sibling play</li> </ul>

### Need #1: Awareness

If hospital administrators and medical staff are not aware of children's developmental needs and the need to play, it is unlikely that funding, space, resources, and training will be allocated to this endeavor. History provides a foundation for such an awareness, demonstrating what children require to heal from illness and injury. Since the turn of the century, pediatricians and developmental psychologists have debated the impact of institutional care on infant development. By mid-century, several psychoanalysts in the United States and Britain had become leaders in promoting maternal presence as a requirement

for survival and healthy development (Rowold, 2019). They based their findings on observations of children in hospitals and foundling homes. Rene Spitz (1946) popularized the term “hospitalism” to describe the ill effects of maternal separation for hospitalized children. Influenced by Spitz’s work, John Bowlby (1951) studied the effects of homelessness and maternal deprivation in foundling homes. James Robertson (1952), a colleague of Bowlby’s, spent many hours observing children in institutional settings. He and his wife, Joyce, filmed their observations and produced a documentary. *A Two-Year-Old Goes to Hospital* (1952) depicted the harsh results of maternal separation. It brought the trauma of hospitalization and parental separation into stark relief and is still used as a training tool for health professionals. Bowlby and Robertson (1952) formulated a three-stage model to describe the responses of children to parental separation: protest, despair, and detachment. The observations of these two researchers supported the view that a child’s ability to survive requires more than medicine alone. Healing also depends upon human touch, parental contact and nurturance, and parental attachment. Without these, children risk multiple negative effects, and even death. Survival is the bare minimum. To stay developmentally on target and to thrive, children also require developmentally appropriate stimulation and outlets for their motor, cognitive, emotional, and social needs (Alliance for Childhood, 2011). All children need play to remain developmentally on target (Center on the Developing Child at Harvard University, 2019).

In the Child Life Council’s *Evidence-Based Practice Statement on Play*, Dr. Donna Koller states that “play is not only universal but essential to human development” (Koller, 2008, p. 4). Unfortunately, the importance of play is often overlooked, and in some cultures is seen as the opposite of academic learning. However, play is not frivolous or merely a diversion from boredom. Table 2 lists some of the functions of play that are vital components of healthy growth and development.

*Table 2. Functions of Play*

Function of Play	Examples
Physical Development	<ul style="list-style-type: none"> <li>• Provides the opportunity to practice basic fine and gross motor skills (crawling, walking, running, jumping, climbing, drawing, writing, sewing, using scissors)</li> </ul>
Promotes Cognitive Development	<ul style="list-style-type: none"> <li>• Develops verbal and intellectual skills</li> <li>• Promotes problem-solving, creativity, and higher thinking</li> <li>• Promotes mastery and control of new skills, concepts, and experiences</li> </ul>
Promotes Emotional Development	<ul style="list-style-type: none"> <li>• Offers an outlet for feelings and energy</li> <li>• Helps children self-regulate and build frustration tolerance</li> <li>• Helps children lower anxiety and cope with fears</li> <li>• Helps children find meaning in health and medical experiences</li> <li>• Builds self-esteem</li> </ul>
Promotes Social Development	<ul style="list-style-type: none"> <li>• Is an essential component in learning how to get along with others</li> <li>• Helps children learn to take turns, share, assign roles, and develop theory of mind and joint intersubjectivity</li> </ul>

Mihaly Csikszentmihalyi (1997), a Hungarian-American psychologist known for his work on happiness, creativity, and flow, describes play as a feeling rather than an activity. A child at play enters a flow, “a state of self-forgetfulness, the opposite of rumination and worry” (Hendricks, 2015, p. 18). The removal of the worry that children often carry into their medical experiences can alter compliance and treatment outcomes. According to the American Academy of Pediatrics, “Play as a therapeutic modality, includ-

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ing health care play or 'medical play,' has been found to reduce children's emotional distress and help them cope with medical experiences." Further, "[p]lay can be adapted to address the developmental and psychosocial needs of patients in every pediatric age group" (American Academy of Pediatrics, 2014).

Play serves another important function for children under stress. In writing about surviving the Holocaust, Viktor Frankl (2006) addresses the importance of each person making meaning out of their suffering. A survivor himself, he witnessed how in concentration camps and after liberation, those who could make meaning out of their suffering fared better than those who despaired. "For the meaning of life differs from man to man, from day to day, and from hour to hour. What matters, therefore, is not the meaning of life in general but rather the specific meaning of a person's life at a given moment" (Frankl, 2006). Play helps children make meaning out of their health and medical experiences (Luongo and Vilas, 2017).

## **Need #2: A Playful Mindset and Approach**

Once an awareness of the value of play exists, interdisciplinary staff can be encouraged to develop a playful mindset in their interactions with children. When staff empathize with how children think and interact, they can build a bridge of trust that will humanize the medical experience for patients, families, and medical staff (Halpern, 2001). This small and intangible variable can have a tremendous impact on patient compliance and health outcomes. Encouraging humane treatment by making room for a playful approach may seem like a simple task, but it is a challenge for medical professionals. Medical training systematically dehumanizes both medical professionals and patients (Amen and Nolen, 2021; Richardson et al, 2021). Clinicians must be able to maintain a professional demeanor while purposefully using play as a communication tool, and it requires courage to be playful in a serious and pressured hospital environment. If this asks a lot of medical personnel, it also demands much of play specialists, whose role is often misunderstood. They are regularly dismissed as babysitters, toy deliverers, and recreational diversions. Their backgrounds in child development, trauma, patient education, family systems, research, advocacy, cultural sensitivity, and bereavement support often go overlooked by medical staff who don't understand the training and expertise that play specialists bring to their work (ACLP, 2019; Cole et al., 2001). When medical personnel value play, they also value vital members of their interdisciplinary team.

Although many medical staff members fall prey to the dehumanizing demands of their profession, some clinicians take time during patient interactions to incorporate play. A staff member might use a stethoscope on a child's toy before checking the child's heart or allow the child to listen to the staff member's heart. While on a medical mission in the city of Tulkarem in the Middle East, the author brought some bubbles and string to a pediatric ward in the city hospital. The nurses spontaneously picked up the string and began to play string games, making shapes with one another and laughing. The author commented to them that "happy, playful nurses make happy, playful children." One nurse nodded in agreement and added, "And healthy!"

Bringing humor to communication builds rapport and lightens the atmosphere in tense situations. Age-appropriate riddles and jokes can be a gateway to connection. An adult's willingness to be silly and playful in interactions with children serves to break down tensions and walls of distrust.



### **Need #3: Time**

Another ingredient that makes room for play is time. This is a commodity that is in short supply in hospitals, where a medical team is always competing with the clock to fulfill its responsibilities. With ever-increasing pressure to spend less time with patients, time is a factor that is often misinterpreted by medical personnel. They believe that it is quicker and easier to forgo play when preparing a child for a painful or invasive procedure. Rather than taking time to have a play specialist prepare and support the child using play, they prefer to restrain the patient and get on with the procedure. When the use of restraint evokes a trauma response and the patient goes into fight-or-flight mode, the situation escalates to the point where the child is screaming and fighting the medical staff to escape the procedure. Not only does it take a long time for the child to calm down, but the road is paved for trauma responses and noncompliance in future medical encounters. Long-term outcomes can include treatment avoidance, phobias, and lifelong poor health outcomes from forgoing proper prevention and medical care (Hostetter and Klein, 2016). “Having a PS effectively providing tools to increase emotion and behavioral regulation in a wide range of diagnosis among pediatric patients may save hospital personnel’s time and spare doctors and nurses from physical efforts and psychological stress” (Perasso et al., 2021).

When the concept of play is seen as prevention, it becomes more of a priority for hospital personnel. Here are some examples of how a hospital can intentionally make time for play.

#### **Time While Waiting**

Patients and families spend an inordinate amount of time in hospitals waiting — waiting to see medical staff, waiting for tests and procedures, results, treatment, discharge. In the direst situations, they wait for death. Waiting is a stress point of hospitalization for children and their caregivers, a time of worry and anxiety about what is to come (Lamb, 2021). Waiting rooms in various hospital departments are the perfect places to introduce play (Forsyth, 2022). Even small spaces can incorporate simple, accessible, and easily cleaned toys. In emergency waiting rooms, electronic touch tables and wall-mounted interactive toys can provide hours of distracting play.

Some surgical units or emergency rooms have allocated play space. In these high-stress environments, play soothes and distracts. It normalizes and humanizes the intimidating medical environment. Child-friendly colors and artwork and interactive toys help normalize an institutional environment (Gjærde et al., 2021). But it is often the presence of a play specialist engaging a child in play that makes the most difference. When play specialists staff these areas, they can build rapport and trust, bridging the connection with medical staff when a child moves on to a test, procedure, or treatment (Beickert and Mora, 2017; Brown and Turner, 2014; Perasso et al., 2021).

Children’s play also provides an invaluable opportunity for assessment during waiting time. By observing a child at play, a play specialist can garner important information about a child’s developmental milestones, challenges, and strengths (Linder & Linas, 2009; Delvecchio et al., 2019). When medical play is introduced, specialists can further assess a child’s coping style and understanding of the illness and treatment. Knowing whether a child is information-seeking or -avoidant gives the specialist clues about how to prepare and support a child through a procedure. While playing with a child, the specialist can engage the caregiver(s) in conversation, further assessing family dynamics, cultural capital, parental anxiety levels, and coping preferences. When the play specialist enters the treatment room, they use this assessment to shape interventions, building upon the child’s coping preferences and family strengths. Play is the foundation of and catalyst for functional collaboration between the child, the family, and the medical team.



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Sometimes it is the simplest of interactions that can help a child better tolerate medical procedures. One hospital play specialist in Japan set up a craft table in a clinic waiting room. She encouraged the children to create and decorate simple crowns, which they would then wear into the treatment rooms. The crowns gave the children a feeling of magic and empowerment and were a playful point of conversation for the medical team.

## **Time Before Procedures**

In a children's rehabilitation hospital in Bethlehem, the author observed a child life specialist providing playful medical education and preparation the evening before one patient faced elective surgery for cleft palate repair. The patient, a school-aged girl, sat in her hospital bed, leaning against her mother, who looked on as her daughter used markers to draw facial features and clothing on a plain cloth doll. The specialist then used the doll as a model for what the girl would encounter pre- and post-surgery.

The child demonstrated mastery as she inserted an IV into the doll's arm and placed EKG stickers and a pulse oximeter on the doll. The child decorated an anesthesia mask with stickers and chose a scented lip balm to apply inside the anesthesia mask. These playful rehearsals empower children with knowledge, dispelling their fears with concrete information about what they will encounter via their five senses (Koukourikos et al., 2015; Grissom et al., 2016). While practicing what they will encounter with a doll, children also have the opportunity to practice coping skills and make choices about how they will self-soothe pre- and post-surgery. In the company of a caring play specialist, they may express their concerns, questions, or misconceptions, deepening their learning (Burns-Nader and Hernandez-Reif, 2016).

Sedated MRIs for children can be risky, costly, and time-consuming. "Longer pre-op and recovery times mean parents and kids miss more work and school. Anesthesia leaves many children feeling confused, nauseous, and irritable during the recovery period. Additionally, there's a recent concern around potential long-term risks with multiple or prolonged exposures to anesthetics in children under 3 years of age" (Children's Health, n.d.). Preparation through playful interaction with mock MRI machines, dramatic play using superhero capes, and the use of pet therapy are proven ways to lessen anxiety, promote compliance, and speed the scan process and patient flow (Weill Cornell Medicine, 2019; Jaimes et al., 2021). Play allows children to explore the experience of separation from their caregivers and of lying still for diagnostic tests in machinery that is often intimidating and overwhelming to the senses. Play as prevention lessens a child's exposure to anesthesia and its possible effects.

Play assists clinicians in approaching taboo or embarrassing topics with children. A child life specialist in Mexico sought supervision from the author prior to preparing an eleven-year-old boy for surgery to repair an undescended testicle. The specialist worried about speaking with the boy about something so intensely personal. She wanted to prepare him, but she also wanted to avoid embarrassing him and herself in the process. With encouragement from the author, the specialist used creativity and anatomical knowledge to design a teaching tool to demonstrate and explain the procedure. She took a plain cloth doll and used felt to create external testicles, sewing a marble into one and leaving the other empty. She then cut a horizontal flap across the doll's belly that could be folded down or buttoned up. Beneath the flap, she implanted felt pieces to replicate the tubes from which the testicles descended. She placed another marble in one of the tubes to represent the undescended testicle and connected the tubes to the external testicle sacks so that the marble could be manipulated back and forth between the tube and the scrotum.

The specialist presented the doll to the patient, encouraging exploration. The doll allowed for some psychological distance to assist in the child's healthy ego defenses, and the model facilitated his learning

and understanding. It gave words to the unmentionable in a straightforward, age-appropriate manner, helping the specialist build rapport and trust so that the boy could seek medical information and find relief from worry. If it is awkward to speak with children about their anatomy, it is almost unthinkable to discuss treatments that involve severe and upsetting changes to the body or functioning. Amputations are one such topic that many adults experience as unspeakable trauma. And yet children undergo amputations due to cancer diagnoses, accidents, and infections. The idea of them waking up after surgery without prior knowledge of their losses is unthinkable. Play can provide the entryway for children to process such losses, and time before surgery is a vital opportunity to begin the process.

Acute medical situations such as those that occur in emergency departments are more time-sensitive than elective surgery. A child requires an IV, and the medical team feels pressure to complete the insertion rapidly. Proceeding immediately to restrain a child without providing an explanation or coping choices can escalate a child's fight-or-flight trauma response. Calling in a play specialist for ten minutes of playful preparation can set up a win-win situation for the child, the family, and the medical team. Children who are prepared and feel some ability to play and make choices during a procedure are more able to self-regulate and be an active part of their treatment (Li et al., 2016).

## Time During Procedures

The child who receives procedural preparation can also play during the procedure. Playing during procedures increases medical compliance, self-regulation, and coping (Gill, 2010; Taddio and McMurtry, 2015). Children can choose to blow bubbles, play a game on a tablet, or find hidden items in a book of illustrations. They can play with a fidget toy, watch a movie on a tablet, join the play specialist in a guided imagery trip to the beach, or use virtual reality goggles to step into another world. When a two-year-old child arrived in a pediatric emergency room in the U.S. with a leg laceration, one child life specialist invited the child's mother to sit propped up on the gurney. The child sat in a position for comfort, leaning against her mother's lap with her legs extended in front of her. The specialist pulled two IV poles to opposite sides of the bed and rigged a sheet between them, blocking the child's view of her legs. She then supplied the child with finger paint, shaving cream, and craft materials to use on the sheet. The child was so busy interacting with these sensory art materials that she paid no mind to the doctor suturing her leg.

In a surgical unit in Bethlehem, the author engaged an eight-month-old patient with a toy rattle. The child took to the toy immediately, shaking it and enjoying the sound it made while his mother bounced him in her arms. As the surgical nurse took the child from his mother and carried the infant to the operating room, the baby shook the rattle on the way to the operating theater, while he lay down, and while the doctor administered the anesthesia mask. The child let go of the rattle only upon falling asleep! The rattle helped everyone with the transition, including the parent, who saw her son having fun rather than crying on his way to surgery.

*High levels of perioperative anxiety have been associated with a multitude of negative outcomes, including prolonged induction of anesthesia, increased incidence of postoperative delirium, new-onset negative postoperative behavior changes related to anxiety, increased postoperative pain, and increased use of analgesics. Targeting and developing successful coping behaviors in both children and parents contributes to better perioperative outcomes. (Agbayani, Fortier, & Kain, 2020, p. 424)*

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There are many ways to ease the anxiety associated with surgery. In some hospitals, toy vehicles are available for children to drive to the operating room. Riding a tricycle or driving a toy car helps them feel confident and empowered as they navigate their way to the medical procedure. In other hospitals, pet therapy dogs or hospital clowns can escort a child to surgery. Playful connection, distraction, and humor are powerful antidotes to the separation anxiety and fear of the unknown that surgical patients and their families encounter when heading to the operating theater. The way a patient enters into the process of anesthesia induction can affect how one wakes up and subsequent healing. (Agbayani et al., 2020).

Few injuries or procedures surpass the pain involved in burns and burn care (Moore et al., 2015). Studies show that strong pain medication doesn't always succeed in lessening the high anxiety levels and the agony of debridement and the dressing changes required. But one nonpharmacological method has shown efficacy: the use of virtual reality, which takes the patient into a digital landscape so that the patient can play during the invasive and excruciating dressing changes and wound care (Schwartz et al., 2020). Play of this sort can effectively disrupt the brain's signals of threat and pain. It is strong medicine.

## **Time After Procedures**

Time after procedures provides children with opportunities for processing their experiences, making meaning, and achieving a sense of competence and mastery (Luongo and Vilas, 2017). They have the chance to play through their emotions and concerns, processing their experiences in their primary language: play. Play specialists can assess a child's understanding and interpretation of events, clarify misconceptions, and answer questions the child may have (Ullan and Belver, 2019). The protective aspects of imaginary play and metaphor allow the child's ego some distance from big feelings that may threaten to overwhelm the child. When it is about the doll rather than about the child, the flow of play allows for all manner of feelings to be expressed and processed. Confidence, relief, pride, confusion, anger, aggression, sadness, anxiety, fear, guilt, and shame are just some of the many emotions a child might feel after a procedure, surgery, treatment, or medical test.

"Doctors are never afraid!" A solemn four-year-old boy made this statement as he donned surgical gloves and expertly gave his doll an injection. He channeled the power of a healer as a counterbalance to the terror he faced daily as an oncology patient. The child's emphatic statement and determined demeanor as he sat bent over his pretend patient are perfect examples of the therapeutic and empowering benefits of play.

## **Need #4: Space**

Playrooms are ubiquitous in many children's hospitals throughout the world. In North America, the numbers have increased from six play programs in 1940 to 120 in the 1970s to more than 464 today. Of these, 181 programs participated in a survey on the state of play in North America (Vilas, 2014). They range in size, and some have outside space. Playroom space is often a consideration in the design process of pediatric hospitals. However, space is always a commodity in all hospital environments, and advocacy may be a necessary part of ensuring that pressing clinical needs for space do not encroach on play space that has been designed and set aside for children.

Where there is only one hospital play specialist, there may be only one playroom, whereas a large program in a children's hospital with more than 20 staff might have 12 playrooms. Where there is limited medical care available, with poor physician-to-patient ratios and high rates of poverty, playrooms might not be available at all. If there is no space for a playroom, play specialists can create portable pop-up

play spaces in small corners and waiting spaces. One child life specialist created an ad hoc play space in a pre-op unit in Senegal. Floor mats, toys, and art materials transformed an anxiety-provoking space into a welcoming space that promoted relaxation and coping.

Square footage is not the only consideration when designing play spaces. Child life specialists are uniquely qualified to determine the interior design and contents of a playroom. “[T]he value of biophilia in child life play spaces, specifically windows, light, and nature themes . . . the playrooms rated most favorably were those that contain pleasing color and décor and plenty of open space. Playrooms that promote sensory-motor play and pretend play were also preferred” (Weinberger et al., 2021, p.71). The Vilas Playroom Assessment Rubric (VIPAR) (Vilas, 2018) lists optimal standards for playroom design, including specifications regarding room size, universal design accessibility, developmental appropriateness of furniture and play materials, hours and staffing, staff training, family-centered care, diversity and inclusion, gender sensitivity, policies regarding safe space around medical interventions during play, access to technology, and toy cleaning.

If space is available, it is optimal to have distinct areas/rooms that address various developmental stages (infant, toddler, preschooler, school-age, adolescent) or populations (inpatients, outpatients, siblings). An infant/toddler area should have floor mats for tummy time play; mirrors at ground level; safe structures such as padded bolsters that allow for climbing, sliding, and exploration; and accessible toys on low shelves. Mirrors support visual and language development and keep babies entertained during tummy time, giving them more time to develop their muscles and physical abilities (Puglisi, 2019). The organization of a play space should demonstrate applied insight into children’s developmental needs for gross and fine motor activity, which is particularly important for toddlers and preschoolers. Furniture sized to fit the physical needs of both children and their caregivers and accommodate small groups of children, reachable sinks, electrical outlets for IV pumps, locked storage space, and space for wheelchairs to manipulate freely are some of the requirements for a successful playroom design.

Designated areas for medical play are an essential part of meeting children’s need to process their medical experiences. If children do not see medical materials readily available, they will not know to ask for them. Adults might worry that children are frightened by seeing medical equipment in a playroom. However, children are drawn to playing with these items, through which they can normalize their medical encounters and feel masterful in the context of medical treatment that is not within their control. Medical play is offered in 88% of playrooms, and medical play groups are offered in 85% of playrooms in North America (Vilas, 2014). A well-stocked medical play area includes items that offer a wide range of medical and dramatic play opportunities. These include a doll bed, dolls representing various skin colors, real and pretend medical equipment (stethoscope, blood pressure cuff, thermometer, reflex hammer, otoscope, bandages in varied skin tones, medical tape, gauze, safely deactivated syringes, tubing, alcohol wipes, X-ray photographs, IV pump and pole, pencils, clipboard, paper, pretend phone, toy microscope).

Multisensory rooms offer additional opportunities for sensory play and a temporary escape from medical stress. They are designed to help children of varying ages and developmental abilities, and are particularly helpful for children who struggle with sensory dysregulation (Leigh, 2014). These rooms might include soft mats and interactive multisensory stations that consist of fiber optic lights, bubble towers, and projectors ([www.specialneedstoys.com](http://www.specialneedstoys.com), n.d.).

A playroom can be spacious and well-designed from a developmental standpoint, but other, more subtle factors affect whether or not children and families feel welcome when they enter the space. If children don’t see themselves depicted in the visual layout of the room, in the personnel, and in the art and toys contained therein, they will find it harder to relax and feel a true sense of belonging. When children enter

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a play space, toys should be accessible without adult assistance. Children should see themselves and their cultures represented in the language (labeling of toys and materials), décor, toys, natural objects, books, and art materials. There should be familiar items representing children and their communities. In New Zealand playrooms, welcome signs in several languages are the first thing a child sees upon entering. In an optimal setting, children will encounter a staff member or volunteer who looks like them and speaks their language. Training in cultural responsiveness and the concepts of intersectionality and cultural wealth prepare clinicians to meet play needs from the standpoint of diversity, equity, and inclusion.

### **Need #5: Materials**

#### **Use of Self**

The next point of entry on the continuum involves the use of materials to engage children in play. In this age of technology devices such as tablets and video games, clinicians sometimes forget the most basic tools of the trade. In *Pips of Child Life* (2014), authors Brown and Turner describe the use of self as the first order of play in the very first play programs. Since toys shared among children presented an infection control issue, a play specialist's inner repertoire was often the best, least expensive, and most accessible "toy." A few examples of the use of self in play include peekaboo, hand games, storytelling, finger play, songs, and riddles.

One of the first games with which parents engage their babies is the game of peekaboo. The reciprocal interactions of these earliest games have many developmental benefits for children and their caregivers. Peekaboo promotes attachment, the development of object permanence, language, self-regulation, and turn-taking and activates mirror neurons, the building blocks of empathy. It can be a wonderful rapport builder for children who are experiencing stranger anxiety. Many doctors and nurses know the feeling of having a young patient burst into tears upon their entrance into the patient's room. Peeking at a young patient from behind one's hands can be the antidote.

Every culture has its treasure trove of hand games and finger play stories. A child life specialist who conducts play training around the world has seen variations of finger play stories in every country (*What's Cool in Japan*, 2003). When clinicians share their cultural wealth with patients and invite patients to do the same, they are laying the foundations of trust and humanity that are vital components of healing.

#### **Loose Parts**

Another way to think about materials is through the lens of loose parts (Belinda, 2009; Luongo and Vilas, 2017). Loose parts are open-ended, unstructured items from home, the child's natural outdoor environment, and the hospital — anything that can be used in artistic and creative ways. These are the opposite of prefabricated, factory-made toys. Loose parts include empty milk containers, newspapers, plastic bottles, or anything from a recycling bin. In Haiti, a child life specialist provided scaffolding for children to build a puppet theater and puppets, all constructed with loose parts such as cardboard, brown paper, pictures cut from magazines, glue, tongue depressors, and construction paper. The project provided many hours of play in both its creation and its utilization. Loose parts are not costly and are largely flexible.

## Toys

Toys are prefabricated items manufactured or created for children to interact with. They might be unstructured and open-ended, such as dress-up clothes and dolls. They may be close-ended, like board games, puzzles, and craft kits. Open-ended toys can be used in many ways, according to the dictates of a child's imagination. Close-ended toys are more circumscribed and don't offer as many choices. Toys vary in developmental appropriateness for various ages, alignment with infection control standards, and whether they are best offered in a playroom setting or at the bedside. They can be as simple and inexpensive as a circular length of string that can be used for string games, or as elaborate and expensive as a lifelike MRI machine. Toys can consist of what a hospital is fortunate enough to receive in donations, or they may be budgeted for and part of a planned curriculum.

Where there is the ability to purchase resources, care can be given to ensure that toys are culturally representative of the child's community and lived experience. It is recommended that play specialists avoid gender stereotyping in toys, a difficult challenge given how toys are marketed to boys or girls. Children should feel that their toy choices are not being judged by supervising adults. Although some cultures have firm categories of what they deem acceptable play for boys or girls, dolls can be effective in helping boys play out nurturing and medical themes, and trucks and construction toys are likely to promote constructive and transitional play and problem-solving in girls. Having all toys available without regard to gender encourages healthy exploration of many types of play.

There should be an abundance of open-ended, developmentally appropriate toys that encourage symbolic and expressive play. Table 3 lists some examples of appropriate toys categorized by developmental age.

## Cultural Connections

Toys and games that represent a child's culture create a sense of belonging. They might include dolls with diverse skin colors and cultural attire, crayons that include a variety of possible skin tones, toy animals that are native to a child's home environment, and arts and crafts materials that are common in a child's community. Board games that are language-independent, not requiring much spoken language to play them, can also break down language barriers and connect children from diverse backgrounds. The website *My Kind of Meeple* reviews Eurogame board games for school-aged children and teens who speak different languages at varying levels of fluency. "A common trait of Eurogames is that the same game can be used all around Europe by only reprinting the rule book. To achieve this, game components rely on images, symbols, and numbers rather than text to communicate what they do" (*Mykindofmeeple.com*, n.d., para 5). They include *Forbidden Island*, *Tokaido*, *Patchwork*, *Kaurba*, *Celestia*, *Flick 'em Up!*, *Sushi Go!*, *Animal Upon Animal*, *Tsuro: Of the Seas*, *Magic Maze*, and *Camel Up!* In the United States, games that are somewhat language-independent are *Yahtzee*, *Uno*, *Trouble*, *Jenga*, *Pick-Up Sticks*, *Don't Break the Ice*, *Connect Four*, *Sorry*, *Spot It!*, and *Knock Hockey*. If children or a group of players speak different languages, games that require a lot of talking or cultural references should be avoided.

## **Need #6: Play Specialist Staff**

A well-resourced hospital might have beautiful space, equipment, and toys. But play specialists are the key to bringing deep therapeutic, developmentally supportive, and expressive play opportunities to children (Perasso et al., 2021). These professionals may be referred to as Healthcare Play Specialists,

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*Table 3. Toys and Materials*

Developmental Stage	Toys & Materials	Toys to Avoid
Infants	<ul style="list-style-type: none"> <li>• Mobiles</li> <li>• Playmats for tummy time</li> <li>• Mirrors at eye level, close to the floor</li> <li>• Rattles</li> <li>• Crinkle toys</li> <li>• Play gyms</li> <li>• Push toys</li> <li>• Water</li> </ul>	<ul style="list-style-type: none"> <li>• Toys with small parts</li> <li>• Toys with electronic components</li> <li>• Tablets</li> <li>• Television</li> </ul>
Toddlers	<ul style="list-style-type: none"> <li>• Noisemakers</li> <li>• Musical instruments</li> <li>• Soft blocks</li> <li>• Nesting cups</li> <li>• Large pop-beads</li> <li>• Cause &amp; effect toys such as pop-up boxes</li> <li>• Bubbles</li> <li>• Dolls &amp; puppets</li> <li>• Play medical kit</li> </ul>	<ul style="list-style-type: none"> <li>• Toys with small parts</li> <li>• Toys with electronic components</li> <li>• Tablets</li> <li>• Television</li> </ul>
Preschoolers	<ul style="list-style-type: none"> <li>• Musical instruments</li> <li>• Dress-up materials and accessories</li> <li>• Kitchen equipment and play food</li> <li>• Blocks</li> <li>• Water and sand tables</li> <li>• Dolls &amp; puppets</li> <li>• Playhouse materials</li> <li>• Miniatures (action figures)</li> <li>• Animals</li> <li>• Rescue toys</li> <li>• Vehicles</li> <li>• Open-ended art materials</li> <li>• Medical play materials</li> <li>• Bubbles</li> <li>• Playdough</li> <li>• Play medical kit</li> <li>• Loose parts</li> </ul>	<ul style="list-style-type: none"> <li>• Toys with small parts</li> <li>• Toys with electronic components</li> <li>• Tablets</li> </ul>
School-aged	<ul style="list-style-type: none"> <li>• Modeling clay</li> <li>• Open-ended art materials</li> <li>• Table games</li> <li>• Board games</li> <li>• Card games</li> <li>• Puzzles</li> <li>• Craft kits</li> <li>• Real and pretend medical equipment (stethoscope, blood pressure cuff, thermometer, reflex hammer, otoscope, bandages in varied skin tones, medical tape, gauze, safely deactivated syringes, tubing, alcohol wipes, X-ray photographs, IV pump and pole, pencils, clipboard, paper, pretend phone, toy microscope)</li> <li>• Loose parts</li> <li>• Video games</li> </ul>	
Adolescents	<ul style="list-style-type: none"> <li>• Card games</li> <li>• Board games</li> <li>• Pool table</li> <li>• Ping-pong</li> <li>• Open-ended art materials</li> <li>• Craft kits</li> <li>• Modeling clay</li> <li>• Beads &amp; lanyard</li> <li>• Air hockey</li> <li>• Video games</li> <li>• Medical play materials</li> <li>• Loose parts</li> </ul>	



Certified Child Life Specialists, Child Play Specialists, or Medic Pedagogic Healthcare workers. They are distinct from play therapists in training and method, as play therapy is a counseling technique used in psychoanalytic psychotherapy (Perasso et al., 2021). A dedicated staff is required to facilitate play and provide a safe and accepting space for the many emotional and developmental needs of patients and their families. Play specialists manage playrooms and provide play in treatment and waiting areas and at the bedside. Since a portion of every pediatric population is relegated to isolation due to infection protocols, play specialists are often the sole means of introducing therapeutic play to children at the bedside.

In trying to reduce costs, hospital administrators may be tempted to designate volunteers to purvey toys and oversee playroom management. However, volunteers will not have been trained in child development, therapeutic modalities, or medical aspects of a child's hospitalization.

## **Need #7: Training of Play Specialist Staff**

### **Theoretical Training**

Play specialists present with a variety of educational backgrounds and methodologies. "The lack of international guidelines for the PS practice leads these professionals to theoretical and operative fragmentation, challenges, and issues that Covid-19 pandemic is further stressing out" (Perasso et al., 2021, p. 1). "[B]ecoming a PS requires a specific training accessible with a bachelor's degree in psychological or pedagogical sciences as a prerequisite". Child life specialists have a bachelor's degree in a related field such as education, psychology, or social work, or a master's in child life. A master's in child life entails coursework in ethics, child and lifespan development, family systems, anatomy regarding bodily systems, death and dying, diversity, equity and inclusion, racial and socioeconomic barriers to healthcare, play, research, documentation, administration, and leadership. Every child life specialist is required to complete a 600-hour clinical internship and sit for and pass a certification exam. Professional development hours are necessary to maintain professional certification (ACLP, 2019).

Even with higher education, a statistical finding in the survey of play in North American hospitals showed that only 14% of play programs felt that their entry-level staff had sufficient play training. Only 20% of play programs reported being advised by a play theorist (Vilas, 2014). Students and specialists can pursue more-theoretical training by turning to the field of psychology. Theorists such as Jean Piaget and Lev Vygotsky examined the role of play in children's cognitive, social, and emotional development in the 1930s, and Virginia Axline (1981) developed child-centered play therapy in the 1950s.

One challenge students face is that the theorists are somewhat outdated; their theories don't reflect more recent scientific findings about brain development. They are largely Eurocentric, white, and male. It is difficult to find voices that represent other cultures, genders, and viewpoints. When preparing clinicians for interacting with many populations, it is paramount that marginalized voices are brought to the academic forefront through the systematic and purposeful decolonization of curricula. All theorists are culturally bound to their eras and experiences. Indigenous peoples and theorists outside of Europe and North America are typically overlooked and silenced. Optimal healing in hospitals occurs when patients are an active part of their care. The healing process can be compromised when patients feel marginalized, unseen, misunderstood, or disrespected due to racial, ethnic, or language differences. Play specialists are in a unique position to improve patient experiences and health outcomes by interacting with children and their caregivers in ways that value and center a child's family and culture. As advocates and allies, specialists can approach children with cultural humility, seeking to understand and include their cultural

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wealth as an integral part of the coping and healing process. The study of ethics, diversity, equity and inclusion, racial consciousness, and accessibility to healthcare is part of the training necessary for culturally humane and holistic treatment of children and families (Child Life Council, 2016).

### **Skills Training**

Theoretical training of play specialists is foundational to providing the best therapeutic play interventions for children. However, theoretical training is not enough to ensure actual play facilitation skills. Students can study play development, types of play, and play theory and still not have the capability to facilitate deep and child-centered play. With this in mind, a course curriculum that imparts both theoretically informed and skills-based knowledge is recommended. At the Bank Street College of Education in New York, such a course begins with a six-week intensive focus on child-centered play skills, exploring the work of Garry Landreth (2012). Students practice and develop techniques that focus on the child as the locus of control. As the semester continues, students explore the meanings and purpose of play and how play develops as a child develops. They learn how to create the optimal environment to encourage learning, development, and healing through play in hospitals and other healthcare settings. They practice directive and non-directive therapeutic play techniques for use in playrooms, in clinical settings, and at the bedside with both individual children and groups. Play is examined through the lenses of race, gender, socioeconomic status, ability, age, and other intersectional variables (Vilas, 2006).

### **Need #8: Programming**

The eighth entry point on the continuum of play needs is programming. Where there are both space and highly trained personnel, programming is another element of an informed approach to play. Scheduled individual and group activities give children not only the normative benefits of play, but also therapeutic and social opportunities. Successful programming delivers scheduled activities as well as time for free play. Programming may be impromptu or scheduled, but a successful activity or group involves good planning and thoughtful choice of materials and expected outcomes. Advertising activities with a written calendar posted on the unit, inviting children over an intercom, and going room to room with personal invitations can all make a child feel welcome. Allowing ample time for free play is as vital as scheduling activities led by a play specialist.

Another aspect of planning involves developing a set of policies that guide the play program. This is an area for much potential growth in North America. When asked “Does your child life program have a written guiding philosophical statement on the role, value, availability, and use of play?”, only 39% of programs replied in the affirmative. There are abundant toy cleaning policies, but policies regarding needle play, screentime, and the parameters of safe space disallowing medical interventions in playrooms are rare (Vilas, 2014).

### **Need #9: Involving Family and Transdisciplinary Staff**

No matter how long a child is hospitalized, the hope is that at some point they will be returning home and to school. When play specialists share knowledge about child development and coping with caregivers, it is much more likely that the child will continue to enjoy the benefits of therapeutic play once they are back in the comfort and safety of their home (Wilkins, 2017). Play specialists are excellent models for healthy play, and they can share their goals and skills transparently with family members.

Siblings can get lost when a family is experiencing a medical crisis. Healthy brothers and sisters are often left to figure things out on their own, ruminating in their imaginings, fears, and interpretations of things they don't understand. Through play activities with loose parts and open-ended materials, children can create representations of their understanding and learning. It is during this type of play that play specialists can address misconceptions, offer age-appropriate explanations, and encourage coping and self-expression.

Although play might be the expertise of hospital play specialists, specialists don't have to be the only clinicians engaging children in play. A holistic approach can translate to the entire medical team (doctors; nurses; interns; residents; social workers; psychologists; physical, occupational, and speech therapists; and nutritionists), infusing a playful attitude into their daily work with patients. In one New York hospital, a child life specialist regularly invites pediatric resident physicians rotating through the Child Life Department to participate in meaningful play with patients. "I encourage the doctors to tap into their imaginative playfulness to complete what I call the 'tongue depressor challenge.' The task is to co-construct a teaching tool alongside a patient to explain a part of the body, a particular medical condition, or [a] piece of medical hardware. The challenge for doctor and patient is to use at least one tongue depressor in their design . . . the tongue depressor represents a humble piece of medical paraphernalia with limitless creative building potential" (Luongo and Vilas, 2017, p. 309).

## **TYPES OF PLAY**

This concluding section describes many types of play that a specialist can provide in a hospital setting. The list is not exhaustive, but it gives a glimpse of the many dimensions of play that can be facilitated in healthcare settings.

- **Developmentally supportive play:** From making bracelets with adolescent patients to sensory play with a toddler — there are many ways to support typical development in hospitalized children. Play also promotes development and coping in children with developmental variations and special healthcare needs.
- **Child-centered play:** Child-centered play is based upon the theory and principles of child-centered play therapy developed by Virginia Axline (1981). Play specialists, parents and teachers can take a child-centered approach to play, but the technique differs from actual play therapy "since play therapy is a counseling technique used in psychoanalytic psychotherapy" (Perasso et al., p. 1). Child-centered play provides children with a sense of control as they explore without adult interference or judgment, putting them in the driver's seat of their own play choices. Unsupervised child-centered play, or free play, provides the most freedom and flow. But facilitation by a witnessing adult who can mirror a child's feelings, strengths, and struggles with empathy can also be part of the child-centered play. In all play interactions with children, facilitators move along the continuum of nondirective, unstructured, child-centered play to more directive techniques where they may have a therapeutic goal in mind. Regardless of how the specialist approaches play, and at any entry point along the continuum of play needs, play in and of itself is inherently developmentally supportive, empowering, and healing.
- **Sensory Play:** Sensory play with materials such as water, soap bubbles, sand, finger paint, water beads, playdough, clay, and shaving cream provides developmentally appropriate outlets for young children. They are particularly soothing and regulating for children with developmental

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variations, but even typically developing children and adolescents enjoy the soothing aspects of sensory play. Some hospitals are equipped with a sensory room devoted to a space where children can be soothed and calmed.

- **Constructive play:** There are many possible building materials such as loose parts, plastic or wooden blocks, and oversized blocks for outdoor use. Children love to build things and will spend hours involved in creating when given time, space, and materials.
- **Loose parts play:** Children can use household items, medical supplies, and items found in nature to create art, representations of their diagnoses and treatments, and scenarios for dramatic and imaginative play.
- **Imaginary and dramatic play:** Dramatic play enables children to act out scenarios with others or by themselves. Pretend doctor's kits, a homemade ambulance out of a cardboard box, or prefabricated miniature hospital models with doll figures encourage children to process their life and hospital experiences. Dramatic play is not just for preschoolers. School-aged children enjoy puppet and doctor play.
- **Therapeutic play:** This play is usually adult-directed with a therapeutic goal in mind. A play specialist might engage children in play that addresses body image, identity, coping techniques, or processing one's medical experiences through narrative storytelling. Music is a therapeutic activity that provides opportunities for choice, expression, movement, joy, and connection. Children can create their musical instruments and music.
- **Expressive play:** Expressive play can be anything that provides opportunities for symbolic expression or direct expression of feelings. Adolescents can create a plaster face mask, and follow this simple prompt. "Decorate the outside to represent how the world sees you, and the inside of the mask to reflect how you see and identify yourself." Younger children can use markers to decorate a cloth doll, providing facial features and emotional expressions for the doll. Syringe painting is a great outlet and a chance to make frightening medical implements into something familiar and more fun. Syringes can also be filled with colored frosting to decorate cupcakes or brownies.
- **Medical play:** Medical play gives children a chance to demystify medical implements and prepares them for procedures. Children can decorate an anesthesia mask with stickers, use a catheter to blow soap bubbles while bathing, or play doctor with a doll. Medical materials can be combined with loose parts to make art, which often reflects cultural aspects of a child's micro and mesosystems. Children used casting material in a hospital in Israel to make sheep figurines. This material can also be used to make finger puppets or to cast a doll's arm or leg. Medical play can occur individually or in planned group activities. Including siblings and other family members can promote understanding and coping for the extended family system.
- **Distraction play:** Distraction play helps children cope with procedures. Play specialists can supply children with choices during procedures. Books, spinning toys that light up, bubbles, and games and movies played on a tablet are commonly used. However, when a child is triggered and dysregulated, they are not always able to engage in distraction play. Preparation, empathic mirroring, and providing coping techniques and choices (sit or lie down, have an adult narrate or not, watch or don't watch, what to play with, whose hand to hold, what song to sing) are essential components to the successful use of distraction materials.
- **Gross motor play:** All children need to move their bodies for optimal physical and mental health. Providing opportunities for gross motor play is an essential component of child development. There are ways for even the most physically challenged and restricted patients to have an impact

on their environment. Motion-activated projection systems for children can allow wheelchair-bound patients to actively engage with their environments through play (SensoryOne.com, n.d.).

- **Nature play:** Playing outside on a hospital terrace, roof, or playground allows children to enjoy natural light and fresh air. Horticulture play allows children to connect with the cycle of life and to enjoy nurturing something that grows. Richard Louv (2008) coined the term *nature deficit disorder* to describe the human costs of alienation from nature. Nature is an often overlooked component of the healing process.
- **Pet therapy:** Therapy dogs are great playmates and motivators for children. They can accompany children to physical and occupational therapy treatments, encourage them to move their bodies, and play the role of a patient during dramatic medical play.
- **Group play:** Group play gives children time to socialize with peers. Peer interaction can be an antidote to feelings of isolation. It can normalize what children mistakenly believe are feelings and experiences that only they are encountering. Even two children make a group. Bridging play between roommates can provide openings for developmentally supportive peer interactions. Groups for siblings, teens, children with particular diagnoses (asthma, cancer, diabetes), and well children of ill parents, are examples of various populations that can benefit from socializing with others who share their experiences.
- **Playing for children who cannot play:** Some children need scaffolding or more assistance to play. Play specialists can also play *for* the child when the patient is immobilized but willing and needs to play. Children may not be able to hold art materials without help or in traditional ways, but they can make choices about colors and direct the specialist's actions, or hold paintbrushes in their mouths or with their toes. A skilled specialist can use hand over hand, employ assistive technology devices, or adapt play materials so that a child can interact with them more easily. One specialist used a fishing tackle box, retractable fishing line, and clips to create a medical play box to engage children with fine motor challenges in medical play. If a child dropped a medical play item, the line and the item would retract back to the box so that the item was retrievable.
- **Parallel play:** Parallel play refers to an early stage in children's play development when they play in the proximity of others but do not yet have the social skills and self-regulation to share, take turns, or follow rules. In the hospital environment, it can serve as a point of entry and rapport building for play specialists. Children may be afraid, shy, or overwhelmed by the adults who enter her room, gather around her bed, ask many questions, and perform painful procedures. Imagine being that one adult who enters the room, asks nothing of the child, sits down in a corner, and begins to play. This small act of joining can de-escalate frightened, crying toddlers and encourage shy or resistant children to engage and interact. Parallel play is a trust builder.
- **Play as a vehicle for change:** A history lesson in *The Pips of Child Life* (Brown and Turner, 2014) tells us that in the 1960s, amid the war on poverty and the civil rights movement in America, Emma Plank recognized that the hospital environment is a microcosm of the larger society. "We have seen the remarkable ability of people to change their opinions on racial integration through their hospital experiences. These unexpected and often FIRST contacts as equals between children and parents of different races have brought rewards." This quote speaks to the work of play specialists at Hadassah Children's Hospital in Israel. There, Muslim and Jewish children play side by side and learn about one another's holidays through play activities designed to teach tolerance and understanding. This is living proof that play transforms us not only at the individual level but within our family and societal structures as well. Play has the power to heal at the global level.

## **FUTURE RESEARCH DIRECTIONS**

The Vilas Play Continuum of Needs in Healthcare Settings is a theoretical model that has yet to be scientifically tested. It was initially created to demonstrate the value of hospital play to medical delegates from 46 countries at the Child Life Council International Summit on Pediatric Psychosocial Care (Child Life Council, 2014). The continuum is practice-based and built upon three decades of clinical, academic, and supervisory experience. The continuum was expanded following the observation of play programs in hospitals around the globe. The aim of the Vilas Continuum is to make the pathway to creating viable play programs clear and accessible to a wide audience of stakeholders in a variety of healthcare settings.

Future research is required to explore the validity and reliability of the theoretical model. Qualitative studies that explore the experiences of individuals and organizations seeking to implement play programs are recommended. Surveys of child life specialists and play specialists (Child Life Council, 2014) can provide data on the efficacy of the continuum. Evidence can be gathered by mining studies that explore the impact of play on medical trauma and long-term healthcare outcomes. Further research that explores the variable of play in patient satisfaction, treatment adherence, and outcomes may serve to bolster the argument for play in healthcare environments.

## **CONCLUSION**

This chapter addresses the therapeutic value of play in hospital settings, and provides an overarching guide to creating viable play programs in healthcare settings. The Vilas Play Needs Continuum in Healthcare Settings is introduced, and the nine points of entry on the continuum are defined and explored. The chapter concludes with an overview of the types of play applicable to healthcare environments and suggestions for further research.

The examples depicted in the chapter are anecdotal, yet the narrative surrounding play can serve as powerful inspiration for stakeholders seeking to improve the patient care experience. Studies that are statistically significant, reliable, and valid lend support to the arguments for hospital play programs. Yet stakeholders are often moved to action by connecting with their own humanity through a shared story that touches their heart, finding meaning in the intangibles. The aim of this chapter is to move stakeholders to action and provide practical suggestions for infusing play into their healthcare environments.

## **REFERENCES**

- Agbayani, C. G., Fortier, M. A., & Kain, Z. N. (2020). Non-pharmacological Methods of Reducing Perioperative Anxiety in Children. *BJA Education*, 20(12), 424–430. doi:10.1016/j.bjae.2020.08.003 PMID:33456927
- Alliance for Childhood. (2011). *Prescription for Play*. Retrieved December 26, 2019, from <http://www.allianceforchildhood.org/prescriptionforplay>
- Amen, T. B., & Nolen, L. (2021, November). Patient Dehumanization in Medical Education: Reflections on Mr. E. *Academic Medicine*, 96(11), 1506. doi:10.1097/ACM.0000000000004356 PMID:34380928
- Axline, V. M. (1981). *Play therapy* (3rd ed.). Ballantine Books, Inc.

- Bachelet, M. (2022, July). *74th World Assembly and OMEP International Conference – Children's Rights*. United Nations Office Of The High Commissioner For Human Rights. Retrieved From <https://www.ohchr.org/en/statements/2022/07/74th-world-assembly-and-omep-international-conference-childrens-rights>
- Beickert, K., & Mora, K. (2017). Transforming the Pediatric Experience: The Story of Child Life. *Pediatric Annals*, *46*(9), e345–e351. doi:10.3928/19382359-20170810-01 PMID:28892551
- Belinda, C. (2009). *Loose parts: What does this mean?* Penn State Better Kid Care Program. Retrieved From <https://www.kidsrkids.ca/images/stories/FILES/Resources/loosepartswhatdoesthismean.pdf>
- Bowlby, J. (1951). *Maternal Care and Mental Health*. Geneva: World Health Organization.
- Bowlby, J., & Robertson, J. (1952). A two-year-old goes to hospital. *Proceedings of the Royal Society of Medicine*, *46*(6), 425–427. doi:10.1177/003591575304600603 PMID:13074181
- Brown, C., & Turner, J. (2014). *The pips of child life: Early play programs in hospitals*. Kendall Hunt.
- Burns-Nader, S., & Hernandez-Reif, M. (2016). Facilitating play for hospitalized children through child life services. *Children's Health Care*, *45*(1), 1–21. doi:10.1080/02739615.2014.948161
- Center on the Developing Child at Harvard University. (2019). *Play in Early Childhood: The Role of Play in Any Setting*. Retrieved December 26, 2019. <https://developingchild.harvard.edu/resources/play-in-early-childhood-the-role-of-play-in-any-setting/>
- Child Life Council. (2016, June). *Child Life Competencies*. Author.
- Children's Health. (n.d.). "Kids Can" program shows that MRIs without anesthesia are possible. Retrieved from <https://www.childrens.com/research-innovation/research-library/research-details/mris-without-anesthesia-are-possible>
- Cole, W., Diener, M., Wright, C., & Gaynard, L. (2001). Health Care Professionals' Perceptions of Child Life Specialists. *Children's Health Care*, *30*(1), 1–15. doi:10.1207/S15326888CHC3001\_1
- Cook Children's Child Life Department. (2015). *Making magic with medical supplies*. Cook Children's. Retrieved from <https://www.cookchildrens.org/medical-center/recreation-retail/Pages/making-magic.aspx>
- Damast, A. M., Tamis-LeMonda, C. S., & Bornstein, M. H. (1996). Mother-child Play: Sequential Interactions and the Relation between Maternal Beliefs and Behaviors. *Child Development*, *67*(4), 1752–1766. doi:10.2307/1131729 PMID:8890505
- DeCosta, P., Skinner, T. C., & Grabowski, D. (2021). The Role of Trust in the Care of Young Children with Type 1 Diabetes. *Children (Basel, Switzerland)*, *8*(5), 383. doi:10.3390/children8050383 PMID:34066217
- Delvecchio, E., Salcuni, S., Lis, L., Germani, A., & Di Riso, D. (2019). Hospitalized Children: Anxiety, Coping Strategies, and Pretend Play. *Frontiers in Public Health*.
- Dr. Bruce Perry Born for Love — Why Empathy Is Essential and Endangered Roots of Empathy. (2016, Oct. 27). *YouTube*. <https://www.youtube.com/watch?v=5gU1wXbs5mc>
- European Association for Children in Hospital. (1988). *EACH Charter*. Available online at: <https://www.each-for-sick-children.org/each-charter>



## **Play's Continuum of Needs**

Forsyth, A. (2022, July 11). *Sarasota Memorial Hospital Adds New Pediatric Emergency Waiting Room*. Retrieved July 20, 2022, from <https://www.sarasotamagazine.com/health-and-fitness/2022/07/sarasota-memorial-hospital-pediatric-emergency-room>

Frankl, V. E. (2006). *Man's search for meaning: An introduction to logotherapy*. Simon & Schuster.

Ginsburg, K. (2007). The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-child Bonds. *Pediatrics*, *119*(1), 182–191. <https://doi.org/10.1542/peds.2006-2697>

Gjærde, L. K., Hybschmann, J., Dybdal, D., Topperzer, M. K., Schrøder, M. A., Gibson, J. L., Ramchandani, P., Ginsberg, E. I., Ottesen, B., Frandsen, T. L., & Sørensen, J. L. (2021). Play Interventions for Paediatric Patients in Hospital: A Scoping Review. *BMJ Open*, *11*(7), e051957. <https://doi.org/10.1136/bmjopen-2021-051957>

Grissom, S., Boles, J., Bailey, K., Cantrell, K., Kennedy, A., & Sykes, A. (2016). Play-based procedural preparation and support intervention for cranial radiation. *Supportive Care in Cancer*, *24*, 2421–2427. doi:10.1007/00520-015-3040-y

Gulyurtlu, S., Jacobs, N., & Evans, I. (2020). *Impact of Children's Play in Hospital*. Available online at: [https://www.starlight.org.uk/wp-content/uploads/2020/10/Starlight\\_ImpactOfPlay\\_Report\\_Oct20.pdf](https://www.starlight.org.uk/wp-content/uploads/2020/10/Starlight_ImpactOfPlay_Report_Oct20.pdf)

He, H. G., Zhu, L., Chan, S. W., Klainin-Yobas, P., & Wang, W. (2015). The Effectiveness of Therapeutic Play Intervention in Reducing Perioperative Anxiety, Negative Behaviors, and Postoperative Pain in Children Undergoing Elective Surgery: A Systematic Review. *Pain Management Nursing*, *16*(3), 425–439. doi:10.1016/j.pmn.2014.08.011

Henricks, T. F. (2015). Play as Experience. *American Journal of Play*, *8*(1), 18–49.

Jaimes, C., & Robson, C. D. (2021). Success of Nonsedated Neuroradiologic MRI in children 1–7 years old. *AJR. American Journal of Roentgenology*, *216*(5), 1370–1377.

Koller, D. (2008). *CLC Evidence-Based Practice Statement. Therapeutic Play in Pediatric Health Care: The Essence of Child Life Practice*. Child Life Council.

Koukourikos, K., Tzeha, L., Pantelidou, P., & Tsaloglidou, A. (2015). The Importance of Play During Hospitalization of Children. *Materia Socio-Medica*, *27*(6), 438–441. <https://doi.org/10.5455/msm.2015.27.438-441>

Landreth, G. (2012). *Play therapy: The art of the relationship* (3rd ed.). Brunner-Routledge.

Leigh, S. (2014, June 10). Patient Care. *University of California San Francisco*. Retrieved July 21, 2022, from <https://www.ucsf.edu/news/2014/06/115256/hospital-sanctuary-aims-soothe-or-stimulate-young-patients-senses>

Lekka, D., Richardson, C., Madoglou, A., Orlandou, K., Karamanoli, V. I., Roubi, A., Pezirkianidis, C., Arachoviti, V., Tsaraklis, A., & Stalikas, A. (2021). Dehumanization of Hospitalized Patients and Self-Dehumanization by Health Professionals and the General Population in Greece. *Cureus*, *13*(12), e20182. <https://doi.org/10.7759/cureus.20182>

Linder, T., & Linas, K. (2009 September). A Functional, Holistic Approach to Developmental Assessment through Play: The Transdisciplinary Play-Based Assessment. *Zero to Three* *30*(1), 28-33.

- Louv, R. (2008). *Last Child in the Woods: Saving our children from nature-deficit disorder updated and expanded*. Algonquin Books of Chapel Hill.
- Luongo, J., & Vilas, D. (2017). Medical makers: Therapeutic play using loose parts. In L. C. Rubin (Ed.), *Handbook of medical play therapy and child life: Interventions in medical and clinical settings* (pp. 299–313). Routledge.
- Moore, E. R., Bennett, K. L., Dietrich, M. S., & Wells, N. (2015). The effect of directed medical play on young children's pain and distress during burn wound care. *Journal of Pediatric Health Care, 29*, 265–273. doi:10.1016/j.pedhc.2014.12.006
- Mykindofmeeple.com. (n.d.). *15 Board Games for Non-English Speakers (Language Independent)*. Retrieved from <https://mykindofmeeple.com/board-games-non-english-speakers-language-independent/>
- Parmar, P., Harkness, S., & Super, C. M. (2004). Asian and Euro-American Parents' Ethnotheories of Play and Learning: Effects on Preschool Children's Home Routines and School Behavior. *International Journal of Behavioral Development, 28*(2), 97–104.
- Perasso, G., Camurati, G., Morrin, E., Dill, C., Dolidze, K., Clegg, T., Simonelli, I., Lo Hang Yin, C., Magione-Standish, A., Pansier, B., Gulyurtlu, S. C., Garone, A., & Rippen, H. (2021). Five Reasons Why Pediatric Settings Should Integrate the Play Specialist and Five Issues in Practice. *Frontiers in Psychology*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.687292>
- Percelay, J. M., Betts, J. M., Chitkara, M. B., Jewell, J. A., Preuschoff, C. K., & Rauch, D. A. American Academy of Pediatrics. (2014). Policy Statement: Child life Services. *Pediatrics, 133*(5), e1471–e1478. doi:10.1542/peds.2014-0556 PMID:24777212
- Puglisi, D. (2019). *Reflecting on babies and mirror play*. First Things First. Retrieved From <https://www.firstthingsfirst.org/first-things/reflecting-on-babies-and-mirror-play/#:~:text=It%20helps%20develop%20their%20visual,help%20them%20develop%20language%20skills>
- Robertson, J. P., & Robertson, J. P. (1952). *A two year old goes to hospital*. Robertson Films.
- Rollins, J., Bolig, R., & Mahan, C. (2018). Meeting children's psychosocial needs: Across the health-care continuum. Austin, TX: pro●ed – An International Publisher.
- Rowold, K. (2019). What Do Babies Need to Thrive? Changing Interpretations of 'Hospitalism' in an International Context, 1900-1945. *Social History of Medicine, 32*(4), 799–818. doi:10.1093/shm/hkx114
- Schwartz, H. J., Fagan, S., Craft-Coffman, B., Truelove, C. A., Jr., & Mullins, R. F. (2020). 124 Virtual Reality for Reducing Pain and Perioperative Anxiety in Pediatric Burn Patients. *Journal of Burn Care & Research, 41*(S1), S83–S84, doi:10.1093/jbcr/iraa024.127
- SensoryOne Sensory Room Specialists. (n.d.). *Motion-activated projection systems for children*. Retrieved from <https://sensoryone.com/omi-interactive-projector-child-care/>
- Spitz, R. A., & Wolf, K. M. (1946). Anaclitic Depression: An Inquiry into the Genesis of Psychiatric Conditions in Early Childhood. *The Psychoanalytic Study of the Child, 2*, 319.
- Staab, J. H., Klayman, G. J., & Lin, L. (2014). Assessing Pediatric Patients' Risk of Distress During Health-care Encounters: The Psychometric Properties of the Psychosocial Risk Assessment in Pediatrics. *Journal of Child Health Care, 18*(4), 378–387. <https://doi.org/10.1177/1367493513496671>

## **Play's Continuum of Needs**

Thompson, R. (2018). *The handbook of child life* (2nd ed.). Charles C. Thomas.

*Trusted source of sensory toys since 1982.* (n.d.). Retrieved July 20, 2022, from <https://specialneedstoys.com/>

Ullan, A. M., & Belver, M. H. (2019). Integrative pediatrics and child care play as a source of psychological well-being for hospitalized children: Study review. *Integrat. Pediatr. Child Care*, 2, 92–98. doi:10.18314/ipcc.v2i1.1613

Vandendriessche, E. (2014). Cultural and Cognitive Aspects of String Figure-making in the Trobriand Islands. *Journal de la Société des Océanistes*, 138(138-139), 209–224. <https://journals.openedition.org/jso/7182>

Vilas, D. (2001). Drawing for the child. In H. Kaduson & C. Schaefer (Eds.), 101 more favorite play therapy techniques (pp. 83-87). New York, NY: Rowman & Littlefield Publishers, Inc.

Vilas, D. (2006, June). Learning How to Play: The Development of a Course on Play Techniques for Child Life Specialists. *Play Therapy*, 1(1).

Vilas, D. (2014). *Report on Findings of Play Practices and Innovations Survey: The State of Play in North American Hospitals*. Child Life Council.

Vilas, D. (2014, May). Play in Hospitals: A Prescription for Healing. *Child Life Council International Summit on Pediatric Psychosocial Care*.

Vilas, D. (2014). Play Maps and Life Lines: New and Borrowed Techniques for Crossing Cultural and Generational Divides *Child Life Council Bulletin*, 32(1), 6-8. [https://my.bankstreet.edu/ICS/icsfs/CLCbulletinWinter2014--corrected\\_final-2.pdf?target=01233886-f506-4979-ad6c-94f64b018731](https://my.bankstreet.edu/ICS/icsfs/CLCbulletinWinter2014--corrected_final-2.pdf?target=01233886-f506-4979-ad6c-94f64b018731)

Vilas, D. (2015). *NEWSFLASH! VIPAR Playroom Assessment Rubric now in fillable form*. Retrieved from <https://pediplay.com/2015/08/22/newsflash-vipar-playroom-assessment-rubric-now-in-fillable-form/>

Weill Cornell Medicine. (2019) *Superhero program calms children in preparation for MRIs*. Retrieved From <https://news.weill.cornell.edu/news/2019/09/superhero-program-calms-children-in-preparation-for-mris>

Weinberger, N., Butler, A., Mcgee, B., Schumacher, P. A., & Brown, R. L. (2021). Child Life Specialists' Evaluation of Hospital Playroom Design: A Mixed Method Inquiry. *Applied Psychology Journal*. <https://digitalcommons.bryant.edu/apjou/54>

What's cool in Japan. (2003). *Hand games*. Retrieved from <https://web-japan.org/kidsweb/archives/cool/03-10/handgames.html>

Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., & Golinkoff, R. M. (2018). The Power of Play: A Pediatric Role in Enhancing Development in Young Children. *Pediatrics*, 142(3), 1–17, doi:10.1542/peds.2018-2058

Zengin, M., Yayan, E. H., & Düken, M. E. (2021). The Effects of a Therapeutic Play/Play Therapy Program on the Fear and Anxiety Levels of Hospitalized Children After Liver Transplantation. *Journal of Perianesthesia Nursing*, 36(1), 81–85. doi:10.1016/j.jopan.2020.07.006

## ADDITIONAL READING

Boyd Webb, N. (2009). *Helping children and adolescents with chronic and serious medical conditions: A strengths-based approach*. John Wiley & Sons.

Carr, N., Clark-Davis, D., Burks, T., Dore, J., Trussell, A., & Hillyard, B. (2012) *Making magic with medical supplies*. Cook Children's. <https://www.cookchildrens.org/medical-center/recreation-retail/Pages/making-magic.aspx>

Child Life Council. (1998). *Child life council activity recipe book*. Child Life Council.

Hart, R., Mather, P., Slack, J., & Powell, M. (1992). *Therapeutic play activities for hospitalized children*. Mosby-Year Book.

Hart, R., & Rollins, J. (2011). *Therapeutic activities for children and teens coping with health issues*. John Wiley & Sons, Inc.

Howard, J., & McInnes, K. (2013). *The essence of play. A practice companion for professionals working with children and young people*. Routledge. doi:10.4324/9780203075104

Rubin, L. C. (Ed.). (2017). *Handbook of medical play therapy and child life: Interventions in medical and clinical settings*. Routledge. doi:10.4324/9781315527857

## KEY TERMS AND DEFINITIONS

**Child Life Specialist:** A professional trained in the psychosocial care of children in hospitals. The term was coined in North America.

**Child-Centered Play:** A type of play that allows the child to choose the content and method of play, with very few limits placed upon the child.

**Close-Ended Play:** Play that has a predictable and specific purpose and end. Games with rules, board games, and puzzles are examples of close-ended toys.

**Distraction Play:** This type of play is used during procedures to calm children and shift their attention away from fear and pain.

**Filial Play:** Play between parents and their children.

**Hospital Play Specialist:** A professional trained in the use of play as a healing modality in hospitals. These professionals often have backgrounds in education or nursing.

**Loose Parts:** Open-ended materials that can be used in many ways to design, build, and play. Examples of loose parts include boxes, string, paper, water, and stones.

**Medical Play:** Play that involves medical materials. It often has elements of dramatic play, but it can also involve the use of medical materials for artistic expression or functional play.

**Open-Ended Play:** Play that encourages choice, multiple outcomes, imagination, exploration, and creativity.

**Sensory Play:** Play that involves the senses, either serving to stimulate or to calm the child. Examples of sensory materials include sand and water, finger paint, shaving cream, toys that light up or vibrate, and musical instruments.