COMPETITIVE ON HOSPITAL CARE and CHILD LIFE COUNCIL

KEY WORDS
child life, play, patient- and family-centered care, preparation, psychological preparation, therapeutic play

ABBREVIATIONS
CCLS—certified child life specialist
ED—emergency department

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abstract
Child life programs are an important component of pediatric hospital–based care to address the psychosocial concerns that accompany hospitalization and other health care experiences. Child life specialists focus on the optimal development and well-being of infants, children, adolescents, and young adults while promoting coping skills and minimizing the adverse effects of hospitalization, health care, and/or other potentially stressful experiences. Using therapeutic play, expressive modalities, and psychological preparation as primary tools, in collaboration with the entire health care team and family, child life interventions facilitate coping and adjustment at times and under circumstances that might otherwise prove overwhelming for the child. Play and developmentally appropriate communication are used to: (1) promote optimal development; (2) educate children and families about health conditions; (3) prepare children and families for medical events or procedures; (4) plan and rehearse useful coping and pain management strategies; (5) help children work through feelings about past or impending experiences; and (6) establish therapeutic relationships with patients, siblings, and parents to support family involvement in each child’s care.

CHILD LIFE PROGRAMS

During the 1920s and 1930s, early hospital play programs were initiated at several children’s hospitals, including Mott Children’s Hospital, Babies and Children’s Hospital of Columbia Presbyterian, and Montreal Children’s Hospital. In 1955, Emma Plank, under the direction of Dr Frederick C. Robbins (Nobel Laureate), developed the first Child Life and Education division at Cleveland City Hospital. Plank is considered a founding “mother” of the profession, and her landmark publication, Working With Children in Hospitals, served to educate many about the unique needs of children in the health care setting.

Today, hospitals specializing in pediatric care routinely include child life programs, with more than 400 programs in operation in North America. Child life services are recommended and offered to varying degrees in community hospitals with pediatric units, ambulatory clinics, emergency departments (EDs), hospice and palliative care programs, camps for children with chronic illness, rehabilitation settings, and some dental and physician offices. In cases of hospitalized or ill adults, certified child life specialists (CCLSs) may be consulted to work with children of adult patients, particularly in end-of-life cases, trauma, and critical care. Child life programs are not
The provision of child life services is a quality benchmark of an integrated patient- and family-centered health care system, a recommended component of medical education, and an indicator of excellence in pediatric care.\textsuperscript{5–10} An experimental evaluation of 1 child life program model showed that child life interventions resulted in less emotional distress, better overall coping during the hospital stay, a clearer understanding of procedures, and a more positive physical recovery as well as posthospital adjustment for children enrolled.\textsuperscript{11} Patients spent less time on narcotics, the length of stay was slightly reduced, and parents were more satisfied. Other studies have found that child life interventions play a major role in calming children's fears and result in higher parent satisfaction ratings of the entire care experience.\textsuperscript{12,13} There are a number of variables to consider in identifying adequate child life staff-to-patient ratios. Although a ratio of 1 full-time CCLS to 15 inpatients\textsuperscript{14} is useful as a guideline, a number of factors should influence specific staffing allocations. Generally speaking, child life services should be available to meet identified patient or family needs 7 days a week. In hospitals with very small pediatric units and low outpatient volume, 1 CCLS may provide services in both the inpatient and outpatient areas, including consultation services to the ED. In hospitals with high-volume pediatric emergency services, more than 1 CCLS is generally required to enable 7-day coverage of the ED. In larger hospitals, 1 or more CCLSs are typically assigned to each inpatient unit or outpatient area, including standing and/or rotating schedules to provide weekday, evening, and weekend coverage. In any case, staffing plans should be sufficient to meet fluctuations in anticipated and unanticipated staff absences, seasonal swings in patient census, and nonclinical community activities (eg, increased visits and in-kind donations during the holiday season, variations in individual patient and family needs).

Child variables (temperament, coping style, and cognitive abilities), family variables (parental anxiety, presence, and involvement), and diagnosis/treatment variables (the number of invasive procedures) are known to affect psychosocial vulnerability and thus influence the child's particular child life intervention needs.\textsuperscript{15} A combination of psychosocial risk assessment, medical/treatment variables (eg, the proportion of patients with isolation precautions, the volume of patient/family teaching needs), and the time requirements associated with particular interventions directly affect operational staff-to-patient ratios in both inpatient and outpatient settings.\textsuperscript{16,17} Table 1 lists variables that typically require child life interventions of greater frequency, duration, or complexity, thus influencing effective CCLS-to-patient ratios.

The credentials of a CCLS currently include the minimum of a bachelor's degree in child life, child development, or a closely related field; the successful completion of a 480- to 600-hour child life internship under the supervision of a CCLS; and passing a standardized certification examination.\textsuperscript{18,19} Advanced degrees in child life are also available, and CCLSs often develop particular areas of expertise related to the patient populations they serve.

In some settings, child life services are augmented by child life assistants (or activity coordinators or child life technicians). Child life assistants are typically required to have core college coursework, such as an associate's degree in child development, and experience with children in group settings. They generally focus on the “normalization” of the health care experience, providing play activities, coordinating special events (eg, community visitors, holiday celebrations), and maintaining the playroom environment. Both CCLSs and child life assistants actively participate in the orientation, training, and supervision of volunteers, thereby contributing to volunteer effectiveness, satisfaction, and retention. This collaboration enables the CCLS to conduct an assessment and delegate as appropriate, allowing patients with varying degrees of psychosocial vulnerability and activity levels to be supported by the team member whose skills and knowledge are most closely aligned with patient/family needs. Although volunteers are a valuable supplement, they can never be considered an adequate replacement for trained/certified professionals.

CCLSs are part of an interdisciplinary, patient- and family-centered model of care, collaborating with the family, physicians, advance practice providers, nurses, social workers, and

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<th>TABLE 1 Factors Necessitating or Supporting a Lower Ratio of Patients to CCLSs</th>
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<td>• High volume of patient-family teaching needs (eg, surgeries and other medical procedures), especially when combined with high patient turnover rate</td>
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<td>• High proportion of patients requiring 1-on-1 interventions (eg, isolation rooms, ventilator-dependent patients, examination/treatment room interventions, critical care units)</td>
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<td>• Multiple simultaneous needs (eg, ED during peak hours)</td>
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<td>• Frequent time-consuming demands (eg, support during lengthy medical procedures, end-of-life support)</td>
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<td>• Significant nonclinical demands, such as supervision of child life students, representing child life on hospital committees, public relations and marketing activities, and other administrative duties</td>
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other members of the health care team to develop a comprehensive plan of care. Child life contributions to this plan are based on the patient’s and family’s psychosocial needs, cultural heritage, and responses to the health care experience. For example, child life specialists can participate in the care plan by teaching a child coping strategies for adjusting to a life-changing injury, promoting coping with examinations for alleged abuse, assisting families in talking to their children about death, facilitating nonpharmacologic pain management techniques, and communicating the child’s developmental and individual needs and perspective to others. These interventions are most effective when delivered in collaboration with the entire health care team.

THE THERAPEUTIC VALUE OF PLAY

Play is an essential component of a child life program and of the child life professional’s role. In addition to play’s developmentally supportive benefits and as a normalizing activity for children and youth of all ages, it is particularly valuable for children who are anxious or struggling to cope with stressful circumstances.20 Erikson writes, “To play out is the most natural auto-therapeutic measure childhood affords. Whatever other roles play may have in the child’s development . . . the child uses it to make up for defeats, sufferings, and frustrations.”21

Play in the health care setting is adapted to address unique needs based on developmental level, self-directed interests, medical condition and physical abilities, psychosocial vulnerabilities, and setting (eg, bedside, playroom, clinic). Play as a therapeutic modality, including health care play or “medical play,” has been found to reduce children’s emotional distress and help them cope with medical experiences.22 Research has shown that physiologic responses, such as palm sweating, excessive body movement, tachycardia, and hypertension, can be reduced with therapeutic play interventions.23

Play can be adapted to address the developmental and psychosocial needs of patients in every pediatric age group. For example, infants and toddlers benefit from exploratory and sensorimotor play, and preschool-aged children enjoy fantasy play and creative art activities.24 Opportunities for parents to engage in play activities with their young children are beneficial to both patient and family, alleviating some feelings of helplessness in parents and assisting in the child’s hospital adjustment.25 School-aged children and adolescents seek play that contributes to feelings of mastery and achievement, which is one reason video games are so popular with this age group.26 Patients in this age group also benefit from activities that allow them to maintain relationships with peers and establish new connections through, for example, online networking and the availability of teen activity rooms in the hospital setting.27

Auxiliary programs, such as animal-assisted therapy, infant massage instruction, use of therapeutic clowns, performing arts, and artist-in-residence programs, often used in conjunction with child life services, provide additional outlets for patients of all ages and their families.28,29 Live, interactive programming, such as hospital bingo or patient-produced videos (broadcast over a closed-circuit television system), can be a particularly effective way to engage patients restricted to their rooms for infection control or medical reasons. Expressive therapies, such as those provided by distinctively certified play therapists, music therapists, and art therapists, can be offered to complement child life programs and to provide support for particularly vulnerable patients.30,31

PSYCHOLOGICAL PREPARATION

Preparing children for hospitalization, clinic visits, surgeries, and diagnostic/therapeutic procedures is another important element of a child life program. It is estimated that 50% to 75% of children develop significant fear and anxiety before surgery, with recognized risk factors such as age, temperament, baseline anxiety, past medical encounters, and parents’ level of anxiety.32 Children’s anxiety in the perioperative environment is associated with impaired postoperative behavioral and clinical recovery, including increased analgesic requirements and delayed discharge from the recovery room.33 More than 50 years of research and experience support 3 key elements of the preparation process: (1) the provision of developmentally appropriate information; (2) the encouragement of questions and emotional expression; and (3) the formation of a trusting relationship with a health care professional.34 A recent systematic review of preparation effectiveness evidence concluded that children who were psychologically prepared for surgery experienced fewer negative symptoms than did children who did not receive formal preparation. In addition to reducing anxiety and providing a more positive experience for the patient and family, research demonstrates that preparation and coping facilitation interventions decrease the need for sedation in procedures such as MRIs, resulting in lower risks for the child and cost savings in personnel, anesthesia, and throughput-related expenses.35–37

Preparation techniques, materials, and language must be adapted to the developmental level, personality, and unique experiences of the child and his or her family. Learning is enhanced with “hands-on” methods versus exclusively verbal explanations. Photographs, diagrams, tours of surgical or
treatment areas, actual and pretend medical equipment, and various models (eg, dolls, puppets) are used to reinforce learning and actively engage the child.32,38 Interpreter services are used as appropriate to ensure understanding in patients or families who do not speak English or for whom English is a second language. Most parents have a strong desire for comprehensive information about their child’s care and should be included in the preparation process. In cases in which children demonstrate avoidant preferences or when preparation before the event is not possible, the CCLS’s focus may change from that of imparting information to other supportive strategies, such as teaching behavioral coping skills and preparing parents to support their child during a medical procedure.

**PAIN MANAGEMENT AND COPING STRATEGIES**

When combined with preparation and appropriate pharmacologic interventions, nonpharmacologic strategies for pain and distress management have proven successful in terms of patient/family experience, staff experience, and cost-effectiveness.15,39–40 Strategies such as swaddling, oral sucrose, vibratory stimulation, breathing techniques, distraction, and visual imagery have been shown to decrease behavioral distress and pain experience in children during invasive medical procedures.41–45 In addition to advocating for the appropriate use of analgesics, CCLSs are often directly involved in the utilization of nonpharmacologic pain management techniques and coaching or supporting patients and families before and/or during distressing medical procedures.44,45 They can also provide valuable education and training to nursing, medical, and other personnel and students, thus supporting health care team member competencies in the provision of developmentally appropriate, psychosocially sound care.46,47 Multifaceted institution-wide protocols such as the “Ouchless Place” and other similar programs incorporate the standard utilization of both pharmacologic and nonpharmacologic techniques, preparation of patient and family, environmental considerations, and training of all health care team members.48,49 Research has demonstrated that children are less fearful and distressed when positioned for medical procedures in a sitting position, rather than supine.50 CCLSs are often involved in facilitating the use of “comfort holds”: techniques for positioning children in a parent/caregiver’s lap or other comforting position. In addition to reducing the child’s distress and gaining his or her cooperation, these techniques generally require fewer staff to be present in the room, facilitate safe and effective accomplishment of the medical procedure, decrease parent anxiety, and increase parent satisfaction.51–53 With a goal to limit the use of popoose boards and alleviate the practice of multiple staff members holding a child down, these techniques provide a viable and more humane alternative in most cases. CCLSs may also develop “comfort kits” for use in treatment areas to include age-appropriate distraction items such as bubbles, pop-up and sound books, light-up toys, and other visual or auditory tools.54 There is emerging evidence that mobile devices can be effective in minimizing patient perceptions of pain and anxiety during distressing medical procedures.55 CCLSs can also advocate for a more welcoming environment in treatment and examination rooms on pediatric units as well as outpatient settings. Their background and training are helpful in designing settings that are appropriately stimulating, nonthreatening, and interactive.

**FAMILY SUPPORT**

The presence and participation of family members is a fundamental component of patient- and family-centered care and has a significant positive effect on a child’s adjustment to the health care experience.56 When parents or other family members are highly anxious about the child’s illness or diagnostic and treatment regimens, such anxiety is easily transmitted to the patient.57 CCLSs help facilitate the family’s adjustment to the child’s illness and health care experience. They can help family members understand their child’s response to treatment and support caregiving roles by promoting parent/child play sessions and sharing strategies for comforting or coaching the child during medical procedures.

Siblings of pediatric patients present with their own unique anxieties and psychosocial needs, needs that are often not assessed or addressed. Siblings, much like children of adult patients, can be helped to comprehend a family member’s illness via therapeutic play and educational interventions or by offering support during hospital visits, including critical care and end-of-life situations.58 CCLSs are often involved in providing grief support or legacy activities, such as hand molds or memory boxes for siblings and other family members in the event of the death of pediatric or adult patients.

**RECENT DEVELOPMENTS IN CHILD LIFE SERVICES**

The scope of child life programs has developed beyond pediatric inpatient medical–surgical settings to include outpatient and other areas in which child life expertise can be effectively applied to support children and families in stressful situations. The provision or expansion of dedicated child life programming in areas such as emergency services, surgery, imaging, specialty care clinics, dialysis centers,
palliative care, and neonatal intensive care has become more prevalent. The increase in patients diagnosed with autism spectrum disorders has presented opportunities for child life specialization in supporting this population in the medical setting. Over the past several years, child life programs have adapted to the great variety of patients and illnesses seen in pediatrics. Younger, less mobile patients who have more complex medical conditions may need greater individualization of care from the CCLS, for example, when group interaction is not possible. Activities that enable social interaction, such as Internet connectivity and closed-circuit television programming, are particularly helpful for patients who are isolated for infection control or confined for monitoring reasons. Given the increasing survival rate of patients with cystic fibrosis, cardiac conditions, and other chronic illnesses, more teenagers and young adults face the challenging transition to adult health care. Acknowledging team goals to normalize the transition process and address patient and family anxieties or questions, CCLSs can assist in this transition by providing education and helping patients to communicate their needs, fears, hopes, and expectations.

Although evidence supports the value of child life programs, financial pressures in many health care settings have threatened the growth and sustainability of this essential service. Recent literature has demonstrated the benefits of child life interventions in reducing sedation-related costs, and additional research is underway to further evaluate the cost-effectiveness of child life services.

Child life programs are recognized as contributing to a culture of patient- and family-centered care as well as to customer satisfaction measures, increasingly important from an incentive-based reimbursement and accreditation standpoint as well as marketing and public reporting of outcomes. Child life and ancillary services, such as creative arts therapy, often attract a segment of the population that may otherwise not be inclined to provide philanthropic support to a hospital. Child life leaders are regularly involved in community outreach, public relations, and funding of development activities.

ADDITIONAL CONSIDERATIONS

Child life services contribute to an organization’s efforts to meet the standards set forth by The Joint Commission with regard to effective communication, patient- and family-centered care, age-specific competencies, and cultural competence. The CCLSs’ psychosocial and developmental expertise and their keen awareness of the benefits of patient- and family-centered care provide a useful perspective at the systems level. Child life representation is often incorporated into hospital committees, such as ethics, patient/family satisfaction, safety, environmental design, and bereavement. In many cases, child life professionals provide leadership for activities such as patient and/or family advisory councils and hospital-wide staff education.

Child life expertise has applications beyond conventional hospital care. Interventions can help children transition back to their home, school, community, and medical home.*

CCLSs often collaborate with local school districts to arrange hospital or homebound education, and hospital-based teachers may be incorporated into child life program administration. For hospitals or other health care settings considering the initiation or expansion of child life services, the Child Life Council offers a consultation service to support existing program review and development, new program start-up, interdisciplinary education, and written standards of care. In community hospital settings with few pediatric beds and minimal pediatric outpatient or ED visits, the provision of full-time child life services may not be financially feasible. In such cases, it is recommended that part-time or consultative services of a CCLS be obtained to assist in the ongoing education of staff, students, and volunteers as well as to advise on a psychosocially sound, developmentally appropriate, patient- and family-centered approach to care.

CONCLUSIONS

Child life services improve quality and outcomes in pediatric care as well as the patient and family experience. Although more research is needed, there is evidence that child life services help to contain costs by reducing the length of stay and decreasing the need for sedation and analgesics. Patient/family satisfaction data and interdisciplinary team member feedback further confirm the positive effects of child life programs on children, families, and staff. It remains essential for child life services to adapt and grow with the changing health care delivery system in support of the highest possible quality of care for children and their families.

RECOMMENDATIONS

1. Child life services should be delivered as part of an integrated patient- and family-centered model of
care and included as a quality indicator in the delivery of services for children and families in health care settings.

2. Child life services should be provided directly by certified child life specialists in pediatric inpatient units, emergency departments, chronic care centers, and other diagnostic/treatment areas to the extent appropriate for the population served. In hospitals with a small number of inpatient or outpatient pediatric visits, ongoing consultation with a certified child life specialist is recommended to educate health care team members and support developmentally appropriate, patient- and family-centered practice.

3. Child life services staffing should be individualized to address the needs of specific inpatient and outpatient areas. Child life specialist-to-patient ratios should be adjusted as needed for the medical complexity of patients served, including psychosocial and developmental vulnerability as well as family needs and preferences.

4. Child life services should be included in the hospital operating budget as an essential part of hospital-based pediatric care. Advocacy for financing of child life services should occur at the facility, community, state, and federal levels.

5. Additional research should be conducted to evaluate the effects of child life services on patient care outcomes, including patient and family experience/satisfaction, staffing ratios, throughput, and cost-effectiveness.

**REFERENCES**


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DOI: 10.1542/peds.2014-0556

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COMMITTEE ON HOSPITAL CARE and CHILD LIFE COUNCIL
Pediatrics 2014;133:e1471; originally published online April 28, 2014;
DOI: 10.1542/peds.2014-0556

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