## The Value of Certified Child Life Specialists: Direct and Downstream Optimization of Pediatric Patient and Family Outcomes

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Today's value-based healthcare market demands that healthcare institutions and professionals provide high quality care at sustainable costs for consumers and payers alike. Top-decile performers systematically target each dimension of the Quadruple Aim, continuously improving safety, efficiency, timeliness, effectiveness, and equity in patient-and-family-centered care. These ambitious objectives require a multidisciplinary approach, particularly when serving infants, children, adolescents and emerging adults, and their families. Certified Child Life Specialists (CCLSs) have emerged as staple constituents of pediatric healthcare teams; the psychosocial care they provide draws directly from their education and training in child development, family systems, and effective communication with children and families. Using play and education to help patients and families anticipate and cope with medical care, *CCLSs significantly reduce the financial, developmental, and psychological costs associated with stress, pain, and anxiety that can persist far beyond initial healthcare encounters.* 

Certified Child Life Specialists tailor a cost-effective experience of care that cultivates well-informed, actively engaged, and loyal consumers of healthcare services throughout the lifespan. In collaboration with multidisciplinary healthcare team members, child life professionals bring a multifocal lens to pediatric patients and their families – one that is rooted in developmental theory, centered upon the value of therapeutic relationships, and informed about the influence of present and prior trauma. These components are assessed and acted upon by CCLSs through play-based techniques since play is the vehicle by which coping skills are taught and refined, illness information is shared and revised, resilience is found and exercised, and emotional safety is created and maintained.



Figure 1. The Six Domains of Child Life Services.

As discerned by the American Academy of Pediatrics,<sup>1</sup> The Beryl Institute,<sup>2</sup> The Canadian Paediatric Society,<sup>3</sup> the Society of Critical Care Medicine,<sup>4</sup> the Walt Disney Company,<sup>5</sup> and over forty years of clinical research, CCLSs are a low-cost yet high-yield investment in the direct and downstream success of healthcare institutions. Expansive research consistently demonstrates that CCLSs:

- 1. *Drive positive and effective outcomes for healthcare organizations by optimizing the use of resources and limiting waste.* Children who receive preparation and procedural support require less sedation and anesthesia, <sup>6-15</sup> demonstrate less emergence delirium, <sup>16-18</sup> and consume less narcotic pain medication. <sup>18</sup> As a result, patient safety, access, and throughput are increased, <sup>19,20</sup> while staffing costs <sup>12,14</sup> and post-anesthesia length of stay are reduced <sup>17,18,21</sup> and significant cost savings are realized. <sup>12-15</sup>
- 2. *Generate positive behavioral, psychological, and physiological outcomes through individualized interventions with pediatric patients.* They implement an array of play-based, coping-focused techniques shown to ameliorate pain,<sup>21-24</sup> lower anxiety,<sup>25-29</sup> reduce distress,<sup>22,23,30</sup> and increase satisfaction with and loyalty to institutions of care.<sup>31-37</sup> Children demonstrate fewer behavioral disturbances during and beyond medical encounters<sup>38-40</sup> when receiving comprehensive preparation, procedural support, and coping skills education, all of which are associated with accelerated healing.<sup>41</sup>
- 3. *Empower children and families to become informed and active participants in their healthcare experiences.* By providing timely, individualized diagnosis, treatment, and discharge education for children and families, <sup>42-48</sup> Certified Child Life Specialists promote health literacy<sup>49,50</sup> and treatment adherence<sup>45,51</sup> reducing unnecessary emergency department visits, preventable hospital readmissions, unscheduled clinic visits, and use of rescue medications<sup>52-55</sup> in chronically ill populations. When education is provided in play-based, trauma-informed, and culturally responsive ways, patient-family-provider relationships and communication are strengthened, <sup>56</sup> familial distress is alleviated, <sup>57-59</sup> and illness self-management is enhanced. <sup>45,51</sup>
- 4. *Promote and sustain developmental and psychosocial growth from infancy through emerging adulthood.* They facilitate purposeful play experiences, <sup>60-63</sup> normative interactions, and transition support for patients, parents/caregivers, and family members that shape positive coping and development. Targeted, developmentally appropriate, and family-centered play-based and educational interventions <sup>46-48,57,64</sup> result in increased weight gain, abated feeding difficulties, and decreased length of stay in infancy, thus enhancing neurodevelopmental outcomes. <sup>65</sup> In children, adolescents, and emerging adults, these supports render improved emotion regulation, effective coping behaviors, adaptive peer interactions, and more appropriate use of healthcare resources. <sup>60,66-70</sup>
- 5. *Improve population health by fostering long-term patterns of healthcare consumership that reduce the risk of preventable conditions.* By maintaining and advancing a patient-and-family-centered healthcare environment, Certified Child Life Specialists mitigate pediatric medical traumatic stress<sup>71-73</sup> and improve mental health outcomes for infants, children, adolescents and emerging adults, and families.<sup>74-76</sup> They establish the foundation for positive coping and resilience

in the face of medical experiences<sup>77-79</sup> and attenuate the negative physical and psychosocial effects of stress, loss, and grief - including stroke, heart attack and high blood pressure in adulthood<sup>80,81</sup> - thereby cultivating health-promoting behaviors<sup>81</sup> throughout the lifespan.

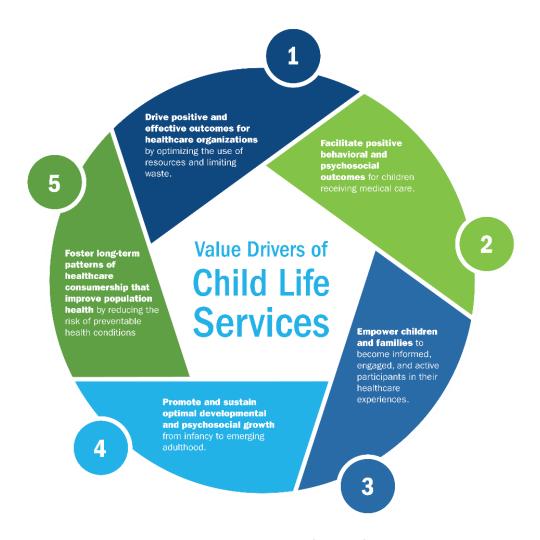


Figure 2. The Five Value Drivers of Child Life Services.

Certified Child Life Specialists drive and promote positive outcomes for institutions, patients, and families, thus approaching the Quadruple Aim and improving the healthcare industry in return. Additionally, they empower children and families of all ages and stages to become active, informed, and well-adjusted consumers in their healthcare journey, no matter where it begins or leads. Resultant reductions in anesthesia, sedation use, repeated tests/procedures due to coping difficulties, pain medications, readmission rates, and overall length of stay equate to significant savings per fiscal year scaled upon institutional programs, volumes, and performance. These impacts of child life services transcend healthcare's volume- and value-based service descriptors by increasing throughput, minimizing waste, and improving the patient experience without sacrificing quality or substantially increasing expenditures. Certified Child Life Specialists, therefore, optimize resource use in the current moment, while also cultivating a new generation of consumers that will seek and sustain a more affordable, accessible, and effective healthcare industry for all.

#### References

- 1. American Academy of Pediatrics. (2014). Child life services. Pediatrics, 133(5), e1471-e1478.
- 2. The Beryl Institute. (2018). What patient experience can learn from child life professionals. Retrieved from: <a href="https://www.theberylinstitute.org/store/ViewProduct.aspx?id=11084124">https://www.theberylinstitute.org/store/ViewProduct.aspx?id=11084124</a>.
- 3. Canadian Paediatric Society. (2019). Managing pain and distress in children undergoing brief diagnostic and therapeutic procedures: Position statement. Retrieved from <a href="https://www.cps.ca/en/documents/position/managing-pain-and-distress">https://www.cps.ca/en/documents/position/managing-pain-and-distress</a>
- 4. Frankel, L. R., Hsu, B. S., Yeh, T. S., Simone, S., Agus, M. S., Arca, M. J., ... Gayle, M. O. (2019). Criteria for critical care infants and children: PICU admission, discharge, and triage practice statement and levels of care guidance. *Pediatric Critical Care Medicine*, *20*(9), 847-887.
- The Walt Disney Company. (2018, March 7). The Walt Disney Company commits more than \$100 Million to bring comfort to children and their families in hospitals. Retrieved from:
   <a href="https://www.thewaltdisneycompany.com/walt-disney-company-commits-100-million-bring-comfort-children-families-hospitals-2/">https://www.thewaltdisneycompany.com/walt-disney-company-commits-100-million-bring-comfort-children-families-hospitals-2/</a>
- 6. Runge, S. B., Christensen, N. L., Jensen, K., & Jensen, I. E. (2018). Children centered care: Minimizing the need for anesthesia with a multi-faceted concept for MRI in children aged 4–6. *European Journal of Radiology*, 107, 183-187.
- 7. Rothman, S., Gonen, A., Vodonos, A., Novack, V., & Shelef, I. (2016). Does preparation of children before MRI reduce the need for anesthesia: Prospective randomized control trial. *Pediatric Radiology*, *46*(11), 1599-1605.
- 8. McGlashan, H. L., Dineen, R. A., Szeszak, S., Whitehouse, W. P., Chow, G., Love, A., . . . Wharrad, H. (2018). Evaluation of an internet-based animated preparatory video for children undergoing non-sedated MRI. *The British Journal of Radiology*, 1-8.
- 9. de Bie, H. M., Boersma, M., Wattjes, M. P., Adriaanse, S., Vermeulen, R. J., Oostrom, K. J., . . . Delemarre-Van de Waal, H. A. (2010). Preparing children with a mock scanner training protocol results in high quality structural and functional MRI scans. *European Journal of Pediatrics*, *169*(9), 1079-1085.
- 10. Cejda, K. R., Smeltzer, M. P., Hansbury, E. N., McCarville, M. E., Helton, K. J., & Hankins, J. S. (2012). The impact of preparation and support procedures for children with sickle cell disease undergoing MRI. *Pediatric Radiology*, *42*(10), 1223-1228.
- 11. Tyson, M. E., Bohl, D. D., & Blickman, J. G. (2014). A randomized controlled trial: Child life services in pediatric imaging. *Pediatric Radiology*, *44*(11), 1426-1432.
- 12. Mastro, K. A., Flynn, L., Millar, T. F., DiMartino, T. M., Ryan, S. M., & Stein, M. H. (2019). Reducing anesthesia use for pediatric magnetic resonance imaging: The effects of a patient-and family-centered intervention on image quality, health-care costs, and operational efficiency. *Journal of Radiology Nursing*, 38(1), 21-27.
- 13. Fraser, C., Gray, S., & Boles, J., (2019). Patient Awake While Scanned: Program to reduce the need for anesthesia in pediatric MRI. *Pediatric Nursing*, *45*(6), *283-288*.
- 14. Grissom, S., Boles, J. C., Bailey, K. C., Cantrell, K., Kennedy, A., Sykes, A., & Mandrell, B. N. (2016). Play-based procedural support and preparation intervention for cranial radiation. *Supportive Care in Cancer*, *24*(6), 241-2427.
- 15. Scott, M. T., Todd, K. E., Oakley, H., Bradley, J. A., Rotondo, R. L., Morris, C. G., . . . Indelicato, D. J. (2016). Reducing anesthesia and health care cost through utilization of child life specialists in pediatric radiation oncology. *International Journal of Radiation Oncology, Biology, Physics, 96*(2), 401-405.
- 16. Fortier, M. A., Bunzli, E., Walthall, J., Olshansky, E., Saadat, H., & Satistevan, R. (2015). Web-based tailored intervention for preparation of parents and children for outpatient surgery (WebTIPS): Formative evaluation and randomized controlled trial. *Anesthesia and Analgesia*, 120(4), 915-922.
- 17. Stewart, B., Cazzell, M. A., & Pearcy, T. (2019). Single-blinded randomized controlled study on use of interactive distraction versus oral midazolam to reduce pediatric preoperative anxiety, emergence delirium, and post-anesthesia length of stay. *Journal of Peri-Anesthesia Nursing*, 34(3), 567-575.
- 18. Kain, Z. N., Caldwell-Andrews, A. A., Mayes, L. C., Weinberg, M. E., Wang, S., MacLaren, J. E., & Blount, R. L. (2007). Family-centered preparation for surgery improves perioperative outcomes in children. *Anesthesiology*, 106(1), 65-74.

- 19. Rudder, B. S., Easley, S. J., Robinson, A. L., Noel-MacDonnell, J. R., & Nielsen, D. B. (2019). Effects of an MRI try without program on patient access. *Pediatric Radiology*, *49*(13), 1-6.
- 20. Tornqvist, E., Mansson, A., & Hallstrom, I. (2015). Children having magnetic resonance imaging: A preparatory storybook and audio/visual media are preferable to anesthesia or deep sedation. *Journal of Child Health Care*, 19(3), 359-369.
- 21. Burns-Nader, S., Joe, L., & Pinion, K. (2017). Computer tablet distraction reduces pain and anxiety in pediatric burn patients undergoing hydrotherapy: A randomized trial. *Burns*, *43*(6), 1203-1211.
- 22. Gursky, B., Kestler, L. P., & Lewis, M. (2010). Psychosocial intervention on procedure-related distress in children being treated for laceration repair. *Journal of Developmental and Behavioral Pediatrics*, 31(3), 217-222.
- 23. Sanchez Cristal, N., Staab, J., Chatham, R., Ryan, S., Mcnair, B., & Grubenhoff, J. A. (2018). Child life reduces distress and pain and improves family satisfaction in the pediatric emergency department. *Clinical Pediatrics*, *57*(13), 1567-1575.
- 24. Moore, M., & Russ, S. (2006). Pretend play as a resource for children: Implications for pediatricians and health professionals. *Journal of Developmental and Behavioral Pediatrics*, 27(3), 237-248.
- 25. Seiden, S. C., McMullan, S., Sequera-Ramos, L., De Oliveira, G. S., Roth, A., Rosenblatt, A. . . Suresh, S. (2014). Tablet-based interactive distraction (TBID) vs oral midazolam to minimize perioperative anxiety in pediatric patients: A noninferiority randomized trial. *Pediatric Anesthesia*, 24(12), 1217-1223.
- 26. Wong, C. L., Ip, W. Y., Kwok, B. M. C., Choi, K. C., Ng, B. K. W., & Chan, C. W. H. (2017). Effects of therapeutic play on children undergoing cast-removal procedures: A randomized controlled trial. *BMJ Open*, *8*(7), 1-10.
- 27. Bartik, K., & Toruner, E. K. (2017). Effectiveness of a preoperative preparation program on children's emotional states and parental anxiety. *Journal of Peri-Anesthesia Nursing*, 33(6), 972-980.
- 28. Cuzzocrea, F., Gugliandolo, M. C., Larcan, R., Romeo, C., Turiaco, N., & Dominici, T. (2013). A psychological preoperative program: Effects on anxiety and cooperative behaviors. *Pediatric Anesthesia*, 23(2), 139-143.
- 29. Ortiz, G. S., O'Connor, T., Carey, J., Vella, A., Paul, A., Rode, D., & Weinberg, A. (2019). Impact of a child life and music therapy procedural support intervention on parental perception of their child's distress during intravenous placement. *Pediatric Emergency Care*, *35*(7), 498-505.
- 30. McCarthy, A. M., Kleiber, C., Hanrahan, K., Zimmerman, M. B., Ersig, A., Westhus, N., & Allen, S. (2014). Matching doses of distraction with child risk for distress during a medical procedure. *Nursing Research*, 63(6), 397-407.
- 31. Gold, J. I., Kim, S. H., Kant, A. J., Joseph, M. H., & Rizzo, A. (2006). Effectiveness of virtual reality for pediatric pain distraction during IV placement. *CyberPsychology & Behavior*, *9*(2), 207-212.
- 32. Gold, J. I., & Mahrer, N. E. (2018). Is virtual reality ready for prime time in the medical space: A randomized control trial of pediatric virtual reality for acute procedural pain management. *Journal of Pediatric Psychology*, 43(3), 266-275.
- 33. Shahid, R., Benedict, C., Mishra, S., Mulye, M., & Guo, R. (2015). Using iPads for distraction to reduce pain during immunizations. *Clinical Pediatrics*, *54*(2), 145-148.
- 34. Li, H. C. W., & Lopez, V. (2008). Effectiveness and appropriateness of therapeutic play intervention in preparing children for surgery: A randomized controlled trial study. *Journal for Specialists in Pediatric Nursing*, 13(2), 63-73.
- 35. Li, H. C. W., Lopez, V., & Lee, T. L. I. (2006). Psychoeducational preparation of children for surgery: The importance of parental involvement. *Patient Education and Counseling*, *65*(1), 34-41.
- 36. Wolf, J. A. (2019). Consumer perspectives on patient experience 2018. Nashville, TN: Beryl Institute. Retrieved from <a href="https://www.theberylinstitute.org/page/PXCONSUMERSTUDY">https://www.theberylinstitute.org/page/PXCONSUMERSTUDY</a>
- 37. Utens, E. M. W. J., Callus, E., Levert, E. M., de Groote, K., & Casey, F. (2018). Multidisciplinary family-centered psychosocial care for patients with CHD: Consensus recommendations from the AEPC psychosocial working group. *Cardiology in the Young, 28*(2), 192-198.
- 38. Athanassiadou, E., Tsiantis, J., Christogiorgos, S., & Kolaitis, G. (2009). An evaluation of psychological preparation of children for minor surgery by puppet play and brief mother counseling. *Psychotherapy and Psychosomatics*, *78*, 62-63.
- 39. Fortier, M. A., del Rosario, A. M., Martin, S. R., & Kain, N. Z. (2010). Perioperative anxiety in children. *Pediatric Anesthesia*. 20, 318-322.
- 40. Li, H. C. M., Lopez, V., & Lee, T. L. I. (2007). Effects of preoperative therapeutic play on outcomes of school-age children undergoing day surgery. *Research in Nursing and Health*, *30*, 320-332.

- 41. Brown, N. J., David, M., Cuttle, L., Kimble, R. M., Rodger, S., & Higashi, H. (2015). Cost-effectiveness of a nonpharmacological intervention in pediatric burn care. *Value in Health, 18*, 631-637
- 42. Gursky, B. (2007). The effect of educational interventions with siblings of hospitalized children. *Journal of Developmental & Behavioral Pediatrics*, *28*(5), 392-398.
- 43. Cantrell, K., Patel, N., Mandrell, B., & Grissom, S. (2013). Pediatric HIV disclosure: A process-oriented framework. *AIDS Education and Prevention*, *25*(4), 302-314.
- 44. Gerson, A. C., Joyner, M., Fosarelli, P., Butz, A., Wissow, L., Lee, S., . . . Hutton, N. (2001). Disclosure of HIV diagnosis to children: When, where, why, and how. *Journal of Pediatric Health Care*. *15*, 161-167.
- 45. Starnes, C., Bailey, E., Calvert, C., Gusler, J., Gisler, S., Williams, F., . . . Cairns, B. (2016). Development of a pediatric educational tool: Helping burns heal . . . An adventure for kids with burns. *Journal of Pediatric Surgical Nursing*, *5*(2), 50-59.
- 46. Marcellus, S., & Cross, S. (2016). Trauma-informed care in the NICU: Implications for early childhood development. *Neonatal Network*, *35*(6), 359-366.
- 47. Tomlin, A. M., Deloian, B., & Wollesen, L. (2016). Infant/early childhood mental health and collaborative partnerships: Beyond the NICU. *Newborn & Infant Nursing Reviews*, *16*(4), 309-315.
- 48. Wheeler, R., Ludtke, M., Helmer, J., Barna, N., Wilson, K., & Oleksiak, C. (2013). Implementation of the piccolo in infant mental health practice: A case study. *Infant Mental Health Journal, 34*(4), 352-358.
- 49. Fleary, S. A., Joseph, P., & Pappagianopoulos, J. E. (2018). Adolescent health literacy and health behaviors: A systematic review. *Journal of Adolescence*, *62*, 116-127.
- 50. Biggs, J. M., Glasgow, N. E., Pradel, F., & Morgan, J. A. (2018). Assessing the understanding of pediatric-oriented medication education materials versus standard available education materials. *The Journal of Pediatric Pharmacology and Therapeutics*, 23(5), 362-365.
- 51. Hood, K. K., Iturralde, E., Rausch, J., & Weissberg-Benchell, J. (2018). Preventing diabetes distress in adolescents with type 1 diabetes: Results 1 year after participation in the STePS program. *Diabetes Care*, *41*(8), 1623-1630.
- 52. Watson, W. T., Gillespie, C., Thomas, N., Filuk, S. E., McColm, J., Piwiniuk, M. P., & Becker, A. B. (2009). Small-group, interactive education and the effect on asthma control by children and their families. *Canadian Medical Association Journal*, *181*(5), 257-263.
- 53. Boyd, M., Lasserson, T. J., McKean, M. C., Gibson, P. G., Ducharme, F. M., & Haby, M. (2009). Interventions for educating children who are at risk of asthma-related emergency department attendance. *Cochrane Database of Systematic Reviews, 15*(2). Retrieved from https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001290.pub2/epdf/full
- 54. Graham, S., Weinman, J., & Auyeung, V. (2018). Identifying potentially modifiable factors associated with treatment non-adherence in paediatric growth hormone deficiency: A systematic review. *Hormone Research in Paediatrics*, 90(4), 221–227.
- 55. Srof, B. J., Velsor-Friedrich, B., & Penckofer, S. (2012). The effects of coping skills training among teens with asthma. *Western Journal of Nursing Research*, *34*(8), 1043-1061.
- 56. Peterson-Sweeney, K., McMullen, A., Yoos, H. L., Kitzmann, H., Halterman, J. S., Arcoleo, K. S., & Anson, E. (2007). Impact of asthma education received from health care providers on parental illness representation in childhood asthma. *Research in Nursing & Health*, *30*(2), 203-212.
- 57. So, S., Rogers, A., Patterson, C., Drew, W., Maxwell, J., Darch, J., . . . Pollack-Barziv, S. (2014). Parental experiences of a developmentally focused care program for infants and children during prolonged hospitalization. *Journal of Child Health Care*, *18*(2), 156-167.
- 58. Luehmann, N. C., Staubach, M. E., Akay, B., Collier, P. J., Han, R. E., Riggs, T. W., & Novotny, N. M. (2019). Benefits of a family-centered approach to pediatric induction of anesthesia. *Journal of Pediatric Surgery*, *54*(1), 189-193.
- 59. Angstrom-Branstrom, C., Lindh, V., Mullaney, T., Wickart-Johansson, G., Svard, A., Nyholm, T., . . . Engvall, G. (2018). Parents' experiences and responses to an intervention for psychological preparation of children and families during the child's radiotherapy. *Journal of Pediatric Oncology Nursing*, 35(2), 132-148.
- 60. Rae, W., Sullivan, J., & Askins, M. (2016). Play interventions for hospitalized children. In Reddy, L., Files-Hall, T., & Schaefer, C. (Eds.), *Empirically based play interventions for children* (2nd ed., pp. 115-134). Washington, DC: American Psychological Association.

- 61. Gariepy, N., & Howe, N. (2003). The therapeutic power of play: Examining the play of young children with leukemia. *Child Care, Health, and Development, 29*(6), 523-537.
- 62. Stenman, K., Christofferson, J., Alderfer, M. A., Pierce, J., Kelly, C., Schifano, E., . . . Kazak, A. E. (2019). Integrating play in trauma-informed care: Multidisciplinary pediatric healthcare provider perspectives. *Psychological Services*, *16*(1), 7-15.
- 63. Williams, N., Ben Brik, A., Petkus, J., & Clark, H. (2019). Importance of play for young people facing illness and hospitalization: Rationale, opportunities, and a case study illustration. *Early Child Development and Care*, 1-10.
- 64. Coughlin, M. E. (2016). Trauma-informed care in the NICU: Evidenced-based practice guidelines for neonatal clinicians. New York, NY: Springer.
- 65. Peterson, J. K., & Evangelista, L. S. (2017). Developmentally supportive care in congenital heart disease: A concept analysis. *Journal of Pediatric Nursing*, *36*, 241-247.
- 66. Nijhof, S. L., Vinkers, C. H., van Geelen, S. M., Duijff, S. N., Achterberg, E. M., van der Net, J., . . . van der Brug, A. W. (2018). Healthy play, better coping: The importance of play for the development of children in health and disease. *Neuroscience & Biobehavioral Reviews*, 95, 421-429.
- 67. Bjork, M., Nordstrom, B., & Hallstrom, I. (2006). Needs of young children with cancer during their initial hospitalization: An observational study. Journal of Pediatric Oncology Nursing, 23(4), 210-219. doi:10.1177/1043454206289737
- 68. Cox, E. (2017, November 8). The power of play in children's health. *U.S. News and World Report*. Retrieved from <a href="https://health.usnews.com/health-care/for-better/articles/2017-11-08/the-power-of-play-in-childrens-health">https://health.usnews.com/health-care/for-better/articles/2017-11-08/the-power-of-play-in-childrens-health</a>
- 69. McCue, K. (1988). Medical play: An expanded perspective. Children's Health Care, 16(3), 75-85.
- 70. Koller, D. (2018). Anxiety and the hospitalized child: Best practices for guiding therapeutic play. In Drewes, A. & Schafer, C. (Eds.), Play-based interventions for childhood anxieties, fears, and phobias (pp. 15-26). New York, NY: Guilford.
- 71. Price, J., Kassam-Adams, N., Alderfer, M., Christopherson, J., & Kazak, A. (2016). Systematic review: A reevaluation and update of the integrative (trajectory) model of pediatric medical traumatic stress. *Journal of Pediatric Psychology*, *41*(1), 86-97.
- 72. Marsac, M., Kassam-Adams, N., Hildenbrand, M., Nicholls, E., Winston, F., Leff, S., & Fein, J. (2016). Implementing a trauma-informed approach in pediatric networks. *JAMA Pediatrics*, *170*(1), 70-77.
- 73. Christensen, T. (2019). Innovating the patient experience: Trends, gaps, and opportunities. Nashville, TN: Beryl Institute. Retrieved from <a href="https://www.theberylinstitute.org/store/ViewProduct.aspx?id=14080635">https://www.theberylinstitute.org/store/ViewProduct.aspx?id=14080635</a>
- 74. Hons, A., Eliott, J., Wilson, A., & Kettler, L. (2008). Understanding young peoples' experience of chronic illness: A systematic review. *Integrated Journal of Evidence Based Healthcare*, *6*(3), 321-336.
- Al-Yateem, N. S., Issa, W. B., & Rossiter, R. (2015). Childhood stress in healthcare settings: Awareness and suggested interventions. *Issues in Comprehensive Pediatrics Nursing*, 38(2), 136-153.
- 76. Butler, S. C., Huyler, K., Kaza, A., & Rachwal, C. (2017). Filling a significant gap in the cardiac ICU: Implementation of individualized developmental care. *Cardiology in the Young*, *27*(9), 1797-1806.
- 77. Hornor, G. (2017). Resilience. Journal of Pediatric Health Care, 31(3), 384-390.
- 78. Rosenberg, A. R., Baker, S., Syrjala, K. L., Back, A. L., & Wolfe, J. (2013). Promoting resilience among parents and caregivers of children with cancer. *Journal of Palliative Medicine*, *16*(6), 645-652.
- 79. Puig, J., Englund, M. M., Simpson, J. A., & Collins, W. A. (2013). Predicting adult physical illness from infant attachment: A prospective longitudinal study. *Health Psychology*, *32*(4), 409-417.
- 80. McWilliams, L. A., & Bailey, S. J. (2010). Associations between adult attachment ratings and health conditions: Evidence from the National Comorbidity Survey Replication. *Health Psychology*, 29(4), 446-453.
- 81. Huang, H. R., Chen, C. W., Chen, C. M., Yang, H. L., Su, W. J., Wang, J. K., & Tsai, P. K. (2018). A positive perspective of knowledge, attitude, and practices for health-promoting behaviors of adolescents with congenital heart disease. *European Journal of Cardiovascular Nursing*, 17(3), 217-225.

## **ACLP Vision**

ACLP advances psychosocial care and the emotional safety of children, youth, and families impacted by healthcare and significant life experiences.

### **ACLP Mission**

**ACLP** fosters child life professionals through:

- Standards and credentialing
- Connection, collaboration and community
- **■** Evidence-based practice
- **■** Professional development
- Championing the child life profession

