Taibah University

Journal of Taibah University Medical Sciences



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Full Length Article

# The imperative of the child life profession in KSA in transforming the quality of pediatric healthcare



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Received 4 March 2024; revised 8 May 2024; accepted 5 June 2024; Available online 4 July 2024

الملخص

حققت المملكة العربية السعودية تطورات كبيرة في البنية التحتية للرعاية الصحية للأطفال. ومع ذلك، لا تزال هناك فجوات في معالجة السلامة العاطفية للأطفال في المستشفيات، والاحتياجات النفسية، والاجتماعية. على المستوى الدولي، تطورت مهنة "حياة الطفل" على مدى عقود من الزمن لتلبية هذه الاحتياجات على وجه التحديد من خلال تدخلات مثل اللعب العلاجي، وتثقيف المريض بلغة تناسب المرحلة العمرية، ودعم الأسرة.

تقيم هذه الورقة أهمية ادراج مهنة حياة الطفل في المملكة العربية السعودية لتعزيز جودة الرعاية الصحية للأطفال حيث يكشف تحليل الوضع الحالي عن وجود ثغرات في الرعاية النفسية للأطفال. تم إدراج هذه الفجوات المحددة كأولويات وطنية في برنامج التحول الصحي، الذي يهدف إلى تحسين جودة الرعاية الصحية وتعزيز الرفاهية.

مهنة حياة الطفل يمكن أن تساعد في تحقيق هذه الأهداف للأطفال والأسر في المملكة العربية السعودية حيث تم اقتراح استراتيجيات للتنفيذ المرحلي، تشمل مؤسسات الرعاية الصحية، والشركاء الأكاديميين، والشركاء ذوي الصلة غير الربحين، وواضعى السياسات. تؤكد الورقة على الفوائد المتعددة الأوجه لمهنة

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حياة الطفل في تحسين تجارب المرضى، وكفاءة تقديم الرعاية الصحية، وجودة الرعاية الصحية للأطفال، والرفاه للأطفال والأسر.

الكلمات المفتاحية: الصحة النفسية؛ الدعم النفسي والاجتماعي؛ حياة الطفل؛ الطفل المريض؛ جودة الحياة

### Abstract

Saudi Arabia has made substantial advancements in its pediatric healthcare infrastructure. However, substantial gaps persist in addressing hospitalized children's emotional safety, and psychosocial and developmental needs. Internationally, the child life profession has evolved over decades to specifically address these needs, through interventions such as therapeutic play, ageappropriate patient education, and family support.

This article evaluates the imperative for integrating the child life profession into healthcare services in Saudi Arabia to transform the quality of pediatric healthcare. An analysis of the current landscape revealed gaps in pediatric psychosocial care. These gaps are listed as national priorities in the health transformation program aimed at improving healthcare quality and enhancing well-being. Integrating the child life profession can help achieve these objectives for children and families in Saudi Arabia.

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This article highlights the multifaceted benefits of the child life profession in improving patient experiences, healthcare delivery efficiency, pediatric healthcare quality, and the overall well-being of children and families. Strategies for phased implementation, involving healthcare institutions, academic partners, relevant non-profit partners, and policymakers, are proposed.

**Keywords:** Child life profession; KSA; Mental wellness; Pediatric healthcare; Psychosocial care; Quality of life

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### Introduction

Illness, injury, and hospitalization can be confusing and frightening for children, and can potentially cause short- and long-term psychological trauma if children are not provided with appropriate support, preparation, and psychosocial interventions to reduce their stressors.<sup>1</sup> Negative healthcare experiences can induce pediatric medical traumatic stress, thereby influencing optimal healthcare outcomes for patients.<sup>1,2</sup> The child life profession has emerged to address the emotional and psychosocial needs of children and families facing challenging healthcare experiences.<sup>1-3</sup> Certified child life specialists (CCLSs) have become integral members of pediatric healthcare teams, serving as experts in assessing children's developmental needs, vulnerability to stress, and stress management capacity. Using a familycentered approach, CCLSs provide interventions including therapeutic play, psychological preparation for medical procedures, education regarding diagnoses, and nonpharmacological pain management strategies.<sup>1-3</sup> These interventions promote effective coping mechanisms and resilience in infants, children, adolescents, and their families, and mitigate the effects of adverse childhood healthcare experiences.<sup>1–3</sup>

The child life profession follows the tenet that reducing unnecessary stress and trauma associated with healthcare experiences or hospitalization contributes to both the immediate and long-term well-being of children, particularly those facing chronic health conditions.<sup>4</sup> In recent decades, an emerging body of evidence has affirmed the efficacy of the CCLS role in improving experiences, reducing trauma, and strengthening coping mechanisms of patients and their families. Boles et al. (2020) have affirmed the role of CCLSs in patient and family centered care through their Child Life Value Proposition Statement, which cites numerous references regarding the value drivers in the child life profession. They have argued that the value-based healthcare market requires hospitals, clinics, and medical professionals to provide high quality patient-and-familycentered care at sustainable costs for both patients and payers, in terms of safety, timeliness, effectiveness, efficiency, and equity.<sup>4</sup> They assert that attaining these objectives requires a multidisciplinary approach integrating the services of CCLSs in healthcare, particularly when serving infants, children, adolescents, emerging adults, and their families.<sup>4</sup>

Boles et al. have stated that CCLS services influence the following value drivers: i) institutional savings (e.g., through preparation and procedural support interventions); ii) psychosocial outcomes (e.g., through use of education in coping skills, managing pediatric pain and distress, or using comfort positioning techniques); iii) patient and family engagement (e.g., through providing education regarding diagnoses or discharge, and promoting health literacy); iv) developmental effects (e.g., through providing developmental assessment, play support, school reentry support, and transition support from pediatric to adult healthcare); and v) healthcare consumership (e.g., through minimizing the potential for pediatric medical traumatic stress and building resilience). Child life services can drive positive and effective outcomes for healthcare organizations by improving the use of available resources and reducing waste.<sup>4</sup>

A child's hospital stay, although transient, can shape perspectives and experiences that deeply influence psychosocial maturation and relationships with the healthcare system long after discharge.<sup>5</sup> Affected children typically experience regression, separation anxiety, sleep disturbances, eating problems, and post-hospital behavioral changes such as aggression and withdrawal.<sup>1</sup> Young patients' developmental vulnerability, combined with unfamiliar hospital environments, painful procedures, and separation from family in hospitals, often induces fear and trauma.<sup>1-3</sup> Pediatric healthcare encounters including negative stimuli, such as fear, pain, and separation from caregivers during vulnerable childhood stages, can have enduring consequences on children's development.<sup>3</sup> CCLSs aim to reduce children's stress and promote coping skills challenging healthcare encounters through during interventions tailored to developmental stage-specific needs.<sup>1</sup> Next, we examine specific examples of the value of child life services, such as preparing children for medical procedures, providing support for pain and anxiety management, and nurses' perceptions of the effects of the child life role on the pediatric patient experience.

Needles are a common source of fear, including the fear of needle sticks associated with intravenous (IV) cannula insertions, as well as a perceived and actual source of pain among hospitalized children.<sup>6</sup> Children in one study recalled the needle sticks as the "worst pain" they had experienced.<sup>6</sup> Behavioral approaches, such as the distraction and preparation strategies used by CCLSs, can lower children's distress during IV insertion.<sup>7</sup> In a study in 95 children observed during IV insertion at a children's hospital, the children's level of distress was rated by observers during the procedure. Child life specialists were present at random. Children receiving a child life intervention during IV insertion (n = 45) exhibited less distress than children receiving standard care (n = 50), after controlling for child age and typical distress during procedures, thus demonstrating that child life intervention was associated with lower child distress levels during IV placement.8

In an extensive prospective assessment by Tyson et al. (2014), the effect of CCLS support in a pediatric radiologic imaging department was assessed in 137 children 1-12 years old, who were recruited during an imaging procedure and randomly assigned to intervention or control groups.<sup>9</sup> Children in the intervention group received the comprehensive services of CCLSs, and 19 of 24 measurements revealed statistically significant differences between the intervention and control groups.<sup>9</sup> The child life intervention had beneficial effects on the satisfaction of parents, staff, and children, as well as on parental and staff assessments of the children's comfort and distress.<sup>9</sup> Because of concerns of potential, although uncertain, long-term neurological and cognitive adverse effects of sedation on young children, efforts continue to develop strategies to decrease the need for sedation for children undergoing MRI procedures.<sup>10</sup> Beyond technical and clinical approaches to decrease the use of sedation, such as optimization of the MRI environment, procedural noise-reduction methods, artificial intelligence, and other MRI advances, importantly, the role of child life specialists has also been described.<sup>10</sup> Durand et al. (2015) have reported that routine integration of child life specialist consultation in the management of children older than 5 years prevents the unnecessary exposure of many children to the risks, cost, and inconvenience of general anesthesia.11

Using focus groups, Drayton et al. (2019) have explored the opinions regarding the CCLS profession among 18 pediatric nurses in a 24-bed pediatric inpatient ward. CCLSs' participation enhanced nurses' perceptions of the value of the care provided by the unit and resulted in a pleasant healthcare experience for the unit's patients, families, and staff.<sup>12</sup> Next, we briefly highlight the value of play for hospitalized children.

Children must acquire various skills for their development and to cope with toxic stress. Developmentally appropriate play aids in fostering socio-emotional, cognitive, language, and self-regulation skills, along with the development of nurturing relationships with adults; when any childhood adversity is present, play becomes more important.<sup>2,13</sup> As discussed earlier, illness, injury, and hospitalization can create fear and disrupt normalcy in children.<sup>1–3</sup> To promote normalcy and reduce the anxiety associated with hospitalization and medical experiences, hospitals employ child life specialists, who regularly use normative play, medical play, and therapeutic play in their work with children in the hospital setting.<sup>14</sup>

Wong et al. (2018) have provided empirical evidence of the benefits of therapeutic play for children undergoing a cast removal procedure. In a randomized control trial in 208 children at an outpatient orthopedic clinic in Hong Kong, children were randomly assigned to an intervention group receiving therapeutic play intervention (n = 103) or a control group receiving only standard care (n = 105). Participants were assessed before, during, and after completion of the cast-removal procedure. Overall, children in the intervention group exhibited fewer negative emotional manifestations than those in the control group. Additionally, parents and technicians in the intervention group reported higher satisfaction with the procedures than those in the control group.<sup>15</sup>

Potasz et al. (2013) have studied an unstructured play intervention to help hospitalized children cope with stress. In a randomized clinical trial in 53 patients with respiratory illnesses, children 7–11 years old showed lower cortisol levels

after participation in play activities,<sup>16</sup> whereas less cortisol lowering was observed in younger children 4-7 years of age. Overall, the study suggested that, when considering variation in children's age ranges for planning appropriate interventions, play can reduce children's stress in high stress hospital experiences. These examples do not provide an exhaustive overview of current evidence-based interventions regarding the value of play for hospitalized children, and are intended only to demonstrate the value of the role of CCLSs in providing play.

CCLSs are educated through coursework in child development, family systems, therapeutic play, loss, grief, bereavement, research, and evidence-based child life practices.<sup>3,4</sup> The academic degree majors for CCLSs can span disciplines including child development, human development and family science, child life, early childhood education, psychology, and counseling. CCLSs use a strengths-based approach to meet the holistic needs of patients and family members, and help build their resilience.<sup>2,3</sup> The job title of health play specialist is used in the United Kingdom for professionals engaged in roles similar to child life specialists. Many countries in Europe and elsewhere, including Australia, New Zealand, Japan, Kuwait, and Qatar, have used the health play specialist model, or a hybrid of child life and health play services, across their pediatric psychosocial care programs.<sup>17</sup> The viability and benefits of the child life profession have led to its integration into healthcare many countries. Whereas child life services are most established in children's hospitals in the United States, Canada, and Japan, pediatric psychosocial care programs and initiatives have gained greater awareness, growth, and recognition in many countries, including Kuwait and Qatar in the Middle East.<sup>4,17,18</sup> Emerging efforts are aimed at developing the child life profession in KSA.

### Pediatric healthcare in KSA

KSA has substantially invested in advancing its healthcare infrastructure over the past few decades, thus improving pediatric care across sectors. Pediatrics is one of the earliest established medical specialties. Over the past 20 years, this field has rapidly evolved into a prominent specialty within the Kingdom and branched into numerous subspecialties. As of 2020, the country had approximately 465 hospitals, of which 15 are dedicated government children's hospitals, 12 are maternal and children's hospitals, and 37 are general hospitals with pediatric units and departments.<sup>19</sup> These pediatric facilities offer advanced medical and surgical services meeting global standards. For instance, the King Faisal Specialist Hospital & Research Centre provides highly specialized tertiary treatments for children with complex medical conditions referred from across the Kingdom and overseas.<sup>20</sup> Modern children's hospitals, such as King Abdullah Specialized Children's Hospital (KASCH) in Riyadh, have top-tier neonatal intensive care units, pediatric intensive care units, and medical/surgical departments staffed by leading pediatric subspecialists.<sup>21</sup> KASCH also houses the Gulf region's largest pediatric oncology department, which serves more than 700 newly diagnosed patients annually.<sup>21</sup>

However, variability in quality persists across geographic regions. Whereas Riyadh and other major cities have adequate specialty services, rural hospitals frequently struggle with understaffing and limited capacity. Discrepancies in the concentration of pediatric healthcare services result in accessibility barriers for children in remote areas. In a 2022 study in Saudi pediatric physicians, participants expressed reservations regarding the quality of care for children with developmental challenges and behavioral problems.<sup>22</sup>

Prior studies have focused predominantly on clinical aspects of pediatric care. Recent studies have reported a high prevalence of developmental disorders, such as autism spectrum disorders, among children in KSA.<sup>23</sup> Whereas child psychologists and social workers may be employed in major hospitals, standardized psychological support services are often lacking in many healthcare facilities, particularly those in smaller regional centers. Furthermore, interventions including therapeutic play, pediatric medical traumatic stress prevention and management, and dedicated child life services have not been widely instituted. However, advancements in the medical infrastructure have provided a strong foundation to raise psychosocial care standards.<sup>24</sup>

# Contextual considerations for Gulf Cooperation Council countries

Whereas the efforts and scope of provided child life services vary widely, awareness of the need to provide psychosocial care for hospitalized children and their families in more countries worldwide has slowly but consistently increased.<sup>17</sup> Gulf Cooperation Council (GCC) countries have made considerable progress in improving children's physical health, as evidenced by indicators such as reduced mortality among infants and children under 5 years of age; literacy outcomes, evidenced by increased enrollment and performance in school; and improved overall life skills.<sup>25</sup> However, gaps and limitations remain in addressing the behavioral, psychological, social, and aspects of child wellbeing.<sup>25</sup>

The child life profession can play an essential role in filling these gaps and enhancing the holistic well-being of children and families in GCC countries. Some benefits of integrating this profession into healthcare services include promoting positive coping skills, reducing anxiety and pain, increasing cooperation and compliance with medical procedures, facilitating family involvement and empowerment, improving communication and collaboration among healthcare providers, and supporting bereavement and palliative care.<sup>1–3</sup>

Examples of establishing and promoting the child life profession in GCC countries have been encouraging. The first playroom dedicated to hospital play services was established by the Kuwait Association for the Care of Children in Hospital (KACCH) and was inaugurated in 1989.<sup>26</sup> KACCH was the first organization to implement child life services in the GCC.<sup>17,26</sup> Bayt Abdullah Children's Hospice (BACCH), established in 2012, provides pediatric palliative and psychosocial care to children and their families.<sup>26</sup> KACCH and BACCH currently manage child life programs in eight governmental hospitals across Kuwait, and provide psychosocial and pediatric palliative care in partnership with children and their families in hospitals, at home, and in Bayt Abdullah Children's Hospice.<sup>26</sup>

The child life program at Sidra Medicine officially began with program planning and training in April 2013; this program is found throughout government hospitals in Qatar and the Sidra outpatient center. Oatar launched its child life program at Sidra Medicine in 2018.<sup>27</sup> The child life program provides comprehensive care for children and their families across various clinical areas, such as surgery, radiology, emergency, intensive care, oncology, and rehabilitation. The team, consisting of CCLSs, registered health play specialists, and child life assistants, offers children opportunities to engage in play and other therapeutic activities, which not only help reduce stress and anxiety, but also make the hospital setting feel more normal. Their interventions can bolster cognitive, physical, and socioemotional growth in children. Furthermore, CCLSs assist with preparation before surgeries and medical procedures, thus helping children cope with their medical procedures. They also offer non-pharmacological pain management strategies. Embracing a family-centered approach, CCLSs extend educational guidance and emotional support to both parents and siblings. When needed, Sidra's child life services team also offers grief and bereavement support to cope with the death of a child.<sup>27</sup>

Al Jalila Children's Hospital, inaugurated on November 1. 2016, is the United Arab Emirates' first hospital exclusively for children.<sup>28</sup> The institution is designed to be childfriendly, providing a positive environment to comfort its young patients. Environmental features such as glow-in-thedark wallpapers and screens depicting cartoon characters on the ceilings are used to provide a serene, stress-minimized ambiance during procedures such as scans and X-rays.<sup>28</sup> CCLSs working under the Mental Health Centre of Excellence umbrella at Al Jalila Children's Hospital. Child life services use various play-based methods to assist, evaluate, and rehabilitate children and their families throughout hospital stay.<sup>28</sup> Engaging in a cooperative, the multidisciplinary team approach, CCLSs focus on catering to the complete wellness of all patients by offering specialized and comprehensive services.

Abdulrahman's Oasis, the Child Life Foundation, was established in KSA in 2023.<sup>29</sup> This newly formed organization is committed to enhancing psychosocial care for infants, children, adolescents, and young adults undergoing healthcare encounters requiring hospitalization, in partnership with various strategic stakeholders. The foundation is promoting awareness of the important roles of child life in supporting psychosocial care, integrating child life specialties in children's hospitals, partnering with universities in postgraduate child life academic programs, affiliating with international hospitals for field training as needed, and launching a specific program to fulfill the wishes of sick children.<sup>29</sup> In January 2023, Abdulrahman's Oasis signed an agreement to launch the first child life program in the KSA in partnership with King Fahd Medical City (KFMC) Children's Specialized Hospital and Sanad Charity Association. Moreover, in 2024, a diploma and a master's degree program in child life commenced, in partnership with AlFaisal University.<sup>29</sup> At the time of writing, eleven candidates with clinical psychology credentials are enrolled in the child life academic program with AlFaisal University, and several core child life services have been initiated at KFMC. In January 2024, an

Country	Organization	Year	Program Goals
Kuwait	Kuwait Association for the Care of Children in Hospitals (KACCH) <sup>26</sup>	1989	Provides psychosocial and child life support for children undergoing hospitalization or healthcare experiences. KAACH manages child life programs in eight government hospitals across Kuwait.
Kuwait	Kuwait University <sup>26</sup>	1995; 2008	Kuwait University (KU) initiated a certificate program in Child Life in 1995, with its first graduating class in 1996. KU also started a diploma program in Child Life that ran for two years from 2008-2009 and 2011- 2012. The conversion of the diploma program into a Master of Child Life program has been approved and plans to reinitiate the academic program are ongoing.
Kuwait	Bayt Abdullah Children's Hospice (BACCH) <sup>26</sup>	2012	Bayt Abdullah Children's Hospice provides multi-professional, specialist, pediatric palliative medical and psychosocial care, and support to children and their families with life-limiting or life- threatening illnesses, who are residents of Kuwait.
Qatar	Child Life Program at Sidra Medicine <sup>27</sup>	2018	Provides comprehensive care for children and families across various clinical areas, such as surgery, radiology, emergency, intensive care, oncology, and rehabilitation, and advocates for the emotional safety of children in the pediatric care environment.
KSA	Abdulrahman Oasis, the Child Life Association <sup>29</sup>	2023	Aims include enhancing psychosocial care for young patients by raising awareness of the profession, integrating child life practices into children's hospitals, collaborating with local universities to offer graduate programs in child life, partnering with international individuals and entities to enhance child life practical training, and helping establish child-friendly healthcare facilities.
KSA	Diploma and master's degree program in Child Life at AlFaisal University <sup>29</sup>		The diploma and master's degree program aims to train and graduate qualified child life professionals. Both programs were launched in January 2024.
United Arab Emirates	Al Jalila Foundation's Ta'alouf initiative <sup>28</sup>	2014	Ta'alouf (meaning harmony in Arabic) is a training programs aimed at working in unison with strategic partners, parents, educators, and the wider community to empower children with disabilities and bolster the UAE's medical treatment, education, and research capabilities.

Table 1: Summary of ongoing initatives for establishing and promoting child life in GCC countries.

agreement was signed with the Saudi National Guard Health Affairs to develop a path to incorporate child life practices into the chain of healthcare facilities across the Kingdom, starting with one of the largest pediatric hospitals in the region, KASCH, based in the capital city of Riyadh.

The effective incorporation of the child life profession in prominent GCC hospitals underscores its appropriateness and feasibility within the region's socio-cultural framework.<sup>26–28</sup> Such achievements can guide broader child life profession implementation strategies for KSA. Table 1 summarizes examples of establishing and promoting the child life profession in GCC countries.

Although the child life profession is a promising field of practice that can contribute to the well-being of infants, children, adolescents, young adults, and their families in GCC countries, further efforts are needed to overcome the challenges and barriers that hinder the growth and development of this profession in the region.<sup>30</sup>

#### Saudi pediatric healthcare and vision 2030

Pediatrics, one of the first medical specialties established in KSA, has gained recognition over time.<sup>22</sup> The Saudi Pediatric Association was founded in 1981 to enhance healthcare services for children in the country.<sup>22</sup> Pediatrics has substantially contributed to Saudi society since its inception and will continue to do so, in alignment with KSA's Vision 2030. In line with the ambitions of Saudi Vision 2030, the Health Sector Transformation Program of 2021–2025 was launched to restructure the sector into a comprehensive and effective health ecosystem.<sup>31</sup> One commitment of the Health Sector Transformation Program is centered on "providing integrated and people-centered healthcare," i.e., beneficiary-centered, integrated healthcare built on enhanced prevention quality, efficiency, and beneficiary satisfaction through outcome evaluation.<sup>31</sup>

Emerging pediatric psychosocial care research in KSA suggests a need to create more beneficiary-centered psychosocial care for hospitalized children and children living with chronic illnesses. For example, one study examining the psychological and social burdens has found that adolescents living with chronic diabetes mellitus in KSA scored lower in domains of hope and care than those without diabetes, and would benefit from psychosocial support.<sup>32</sup> Another study conducted to gather the voices of 4-10year-old children in KSA with congenital heart defects and their parents has documented a need for developing interventional programs to reduce children's behavioral and emotional issues associated with heart defect-related coping stressors.<sup>33</sup> The authors have suggested the development of advocacy-based programs including interventions for child-friendly methods to prepare children for surgeries, as well as encouraging children to ask questions-both of which are activities performed by child life specialists.<sup>33</sup>

The increasing prioritization of positive patient experiences in KSA provides an opportune environment for the integration of the child life profession into pediatric settings.<sup>34</sup> Competently provided child life services by skilled child life professionals can improve quality of life (QoL) for hospitalized children and their families by focusing on children's optimal development and well-being, providing them with emotional support, and promoting their coping skills.<sup>1</sup>

CCLSs use various tools and techniques to assess the needs of children and their families, plan appropriate interventions, evaluate outcomes, and document their work.<sup>1</sup> They also collaborate with other healthcare professionals to provide comprehensive care for children. In doing so, they can generate new knowledge and insights for improving the quality of healthcare services for children.<sup>1</sup> The child life profession can strengthen healthcare services by improving the outcomes of pediatric patients and reducing the costs of healthcare.<sup>1,4</sup> Child life interventions have been shown to reduce the need for sedation, decrease pain perception, increase cooperation, shorten length of stay, decrease re-admission rates, and improve family satisfaction. These benefits can translate into substantial cost savings for healthcare systems.<sup>1,4</sup>

The effective incorporation of the child life profession in prominent hospitals within other GCC countries has provided a valuable blueprint for KSA, particularly given the cultural and contextual parallels. Because of KSA's vast population and extensive geographical spread, tailor-made adjustments are necessary. The recent momentum from Vision 2030 to improve healthcare quality, patient satisfaction, and developmental welfare has laid groundwork for embracing the child life profession. Executing top-tier child life services for children and their families undergoing hospitalization, healthcare encounters, or other potentially stressful healthcare experiences in KSA holds exciting potential to profoundly improve QoL and psychosocial wellbeing.

The child life profession can help develop human capital by investing in the education and training of CCLSs and other healthcare professionals who work with children. CCLSs must acquire a minimum of a bachelor's degree, preferably in child development or related fields; complete ten specifically required courses; successfully complete 600 h of CCLS supervised clinical internship; and pass a certification examination.<sup>35</sup> They also must maintain their certification by engaging in continuing education activities.<sup>36</sup>

# Integration of the child life profession into healthcare in KSA

Since its inception in 2023, Abdulrahman's Oasis, The Child Life Foundation, has led initiatives to introduce child life programs in KSA.<sup>29</sup> At the launch of Abdulrahman's Oasis, a partnership was formed with Sanad, a non-profit children's cancer support association based in KSA that supports children diagnosed with cancer and their families.<sup>37</sup> Sanad's main objectives include offering psychosocial and financial support, raising awareness regarding pediatric cancer, and advocating for the rights and needs of children with cancer.<sup>37</sup> The collaboration between Sanad and Abdulrahman's Oasis has been crucial in introducing child

life services into KSA, with an aim to improve psychosocial care for children diagnosed with cancer. Abdulrahman's Oasis and Sanad launched the first child life program at King Fahad Medical City Children's Specialized Hospital in January 2023. Since then, Abdulrahman's Oasis has continued partnering with hospitals in Riyadh and is currently in discussions with other hospitals throughout the Kingdom to launch additional child life programs.

Champions of children's universal children's rights and recognizing the major role of CCLSs have suggested that a national strategy is necessary to integrate child life programs into the entirety of pediatric healthcare systems in more countries.<sup>17</sup> For KSA, education of both the public and healthcare professionals regarding the critical role of CCLSs is essential. These CCLSs are invaluable in enhancing the quality of care and support for children and their families, particularly during stressful or traumatic experiences. Additionally, forming strong medical partnerships with national and international bodies is critical to bolster the establishment and growth of child life programs in the Kingdom. The Association of Child Life Professionals (ACLP) supports the expansion of child life programs globally, offering guidance, training, mentorship, and a platform for networking.

A robust and structured educational foundation is crucial for capacity building, sustainability, and success of child life programs. Developing and executing a standardized curriculum for CCLS training in KSA in alignment with the rigorous international benchmarks set forth by the ACLP will be critical. To ensure the availability of a pool of competent CCLSs in KSA, attracting and educating potential candidates with an academic foundation in human development, child development, psychology, or health sciences is essential. Strategies such as providing scholarships, advertising fulfilling career pathways, and additional incentives can promote recruitment to build this new workforce. Furthermore, encouraging current healthcare professionals working with children to undertake specialized training or continuing education can pave the way to developing a cadre of well-trained CCLSs.

The actualization of child life programs requires tangible infrastructural support. Introducing these programs in diverse healthcare environments across Saudi Arabia-—including hospitals, clinics, rehabilitation units, and community health centers—is imperative. Ensuring sufficient resources, such as funding, workforce, space, equipment, and essential materials will also be critical. Furthermore, a truly holistic care model necessitates the integration of CCLSs into broader healthcare teams. Proposed strategies are summarized across four domains: infrastructural support; practicing evidence-based standards of care; educational foundation; and collaboration among governmental and non-governmental entities (Figure 1).

Although the prospects for introducing and integrating the child life profession into KSA's pediatric healthcare system are promising, several challenges might potentially impede successful implementation. One key obstacle is the general lack of awareness among both the public and healthcare professionals regarding the essential roles and benefits of CCLSs. This gap in understanding could result in limited demand for such services, as well as

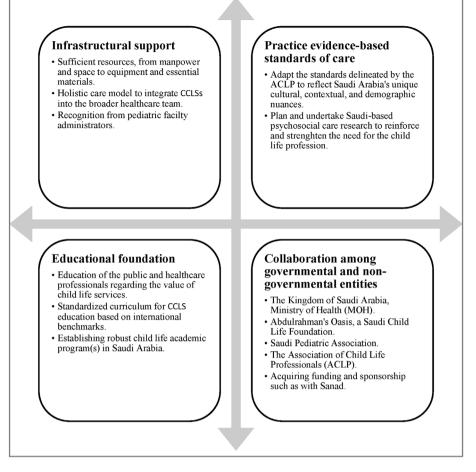


Figure 1: Summary of proposed strategies to introduce child life services into the healthcare ecosystem in KSA.

resistance to using new, beneficial psychosocial practices.<sup>1,17</sup> Furthermore, KSA currently faces a need for qualified and experienced CCLSs capable of delivering high-caliber services and mentoring newcomers to the field. This shortfall might potentially lead to inconsistent quality in service provision during the initial stages of this workforce development. Finally, limitations in resources, institutional support, and official recognition for child life programs across various healthcare settings in the country could also act as deterrents. These factors could potentially restrict the availability and effectiveness of these services, and further marginalize the roles and contributions of CCLSs.

A multi-faceted approach is necessary to overcome challenges in integrating child life services in KSA's pediatric healthcare. Comprehensive Saudi-based psychosocial care research and evaluation studies should be conducted. By highlighting the tangible positive effects of child life services on aspects including children's health, developmental progression, well-being, and overall patient satisfaction, the importance of CCLSs can be better communicated to both the public and healthcare professionals. Efficiently leveraging the roles of media and social media might help increase awareness of the child life profession among parents and professional groups. A sense of unity and mutual growth can be fostered by establishing robust networks and communities of practice specific to CCLSs within KSA. These platforms would facilitate communication, collaboration, and innovation among professionals. Such efforts would not only increase the number of qualified CCLSs in the region, but also instill a sense of identity and camaraderie, thereby enhancing overall service quality.

For a consistent and professional approach, the international standards delineated by the ACLP must be suitably adapted to achieve successful recognition and support for child life services. Although adhering to these standards ensures a global level of competence, the standards must reflect KSA's unique cultural, contextual, and demographic nuances, to ensure that the curriculum and certification process for CCLSs remains globally recognized, yet locally relevant and sustainable.

For sustained growth of child life programs, seeking funding and sponsorships is critical. Collaborations with both governmental and non-governmental bodies embracing the mission of child life services can facilitate the allocation of essential resources for trained personnel, space, and equipment. Beyond tangible resources, securing recognition and appreciation from healthcare leaders is equally crucial. Such endorsement validates and elevates the roles and contributions of CCLSs within the broader healthcare system in KSA.

# Benefits and outcomes of integrating child life services into pediatric healthcare

QoL is a multidimensional concept encompassing physical, psychological, social, and spiritual well-being. QoL is influenced by personal values, preferences, expectations, and experiences. In one study, Snaman et al. (2020) have suggested that the provision of psychosocial services, if successfully implemented, may positively influence QoL among pediatric patients receiving cancer and palliative care, and their families.<sup>38</sup> In these individuals, QoL is often compromised by factors such as pain, symptom burden, emotional distress, social isolation, financial hardship, and lack of support<sup>39,40</sup>; provision of child life services could help improve their QoL.

The child life profession follows a comprehensive approach to care, emphasizing individualized treatment while honoring each child's and family's unique cultural and personal beliefs. Introducing child life programs in KSA for all pediatric patients, including those undergoing treatment for cancer or any other health conditions, could provide numerous advantages. CCLSs have the skills to bridge communication gaps among young patients and their families, and medical staff.<sup>39</sup> Using age-appropriate language and methods, CCLSs enable children to express their emotions, concerns, and desires, while helping families articulate their anxieties and needs.<sup>1</sup>

When child life services are integrated into KSA's healthcare, and CCLSs become integral team members, the following benefits of care can be anticipated. CCLSs understand the therapeutic value of play in medical settings. Through play, children can de-stress, learn, explore their environment, and, most importantly, cope with their ongoing situation.<sup>41</sup> Play provides a comforting escape for children and helps families connect with their children, thereby fostering positive memories and recreating a sense of normalcy.<sup>40</sup> Developmentally appropriate and culturally relevant patient education is essential in medical settings. CCLSs ensure that both children and their families are informed of the illness, treatment protocols, and even sensitive topics such as end-of-life care. Being educated reduces uncertainty, and provides families and children with coping tools to better handle their situations.<sup>3</sup>

With the guidance of CCLSs, children and their families can tap into their social support networks, including peers and extended family, community resources, and other healthcare professionals.<sup>1,4</sup> Such support networks offer a range of benefits, including emotional comfort, practical help, and spiritual guidance, all of which contribute to enhancing QoL.<sup>39,40</sup> One foundational role of CCLSs is championing the social and psychosocial needs of pediatric patients and their families, by ensuring that their emotional, psychosocial, and spiritual needs are assessed and supported, and that psychosocial care is provided to minimize disruption to their lives.<sup>42</sup> These measures ensure that children's preferences and choices are respected, and that the children are actively involved in decisions concerning their own care and well-being.  $^{42}$ 

## Academic and training standards for child life

In summary, CCLSs are healthcare professionals who help children and their families cope with the emotional and psychological challenges of hospitalization and healthcare experiences. To perform their duties effectively, CCLSs must have adequate education in various areas, including child development, theoretical foundations, play, therapeutic relationships, communication, human anatomy, and medical terminology.<sup>43</sup> Children's cognitive, emotional, social, and physical abilities and challenges vary by age, thus affecting how they perceive and respond to medical situations. CCLSs require knowledge and skills to assess each child's development and vulnerability to experiencing stress, to provide appropriate interventions that match their strengths and needs.<sup>44</sup>

As described earlier, at the time of writing, CCLSs who are credentialed professionals must have a minimum of a bachelor's degree in any field, preferably in child life, human development, child development, psychology, or a closely related field; have completed ten specifically required courses; have successfully completed a 600-h child life internship under the supervision of a CCLS; and have passed a standardized child life certification examination.<sup>3</sup> The child life certification examination measures minimal entry level knowledge and skills for child life specialists seeking to obtain or maintain certification.<sup>45</sup> Child life Certification Commission's Code of Professional Ethics, which outlines professionals' ethical responsibilities to practice within the scope and areas of specialty in which they have received training.<sup>46</sup>

Several methods are available to monitor and evaluate the effectiveness of child life program implementation. A program review service is offered by the ACLP to evaluate the quality and outcomes of child life programs in healthcare settings.<sup>47</sup> The process involves a systematic self-assessment, an on-site consultation, and a final report providing an assessment of overall program strengths and opportunities for improvement. Validation of child life as an essential component of facilities' quality of care, as well as advocacy tools, additional resources, and recommendations for program development, are also available. These standards guide the development of both academic and clinical training, as well as child life services, to achieve the ambitious vision of transforming pediatric psychosocial care services for all children and families in KSA.

#### Conclusion

Introducing and integrating the child life profession into KSA's pediatric healthcare system is a transformative approach to enhancing QoL for all pediatric patients and their families. As KSA endeavors to advance its pediatric care, the holistic, child and family-centered approach championed by the child life profession, rooted in understanding children's developmental, emotional, and psychosocial needs, has emerged as an indispensable strategy. As this profession grows within KSA, continuous monitoring, evaluation, and adaptation will be essential to ensure provision of the best care and support for the nation's children and their families.

Abbreviations: CCLS, Certified child life specialist.

#### Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### **Conflict of interest**

The authors have no conflict of interest to declare.

#### Ethical approval

This review article did not involve any primary data collection or human/animal participants. Therefore, ethical approval was not required. The review was based on a comprehensive analysis and synthesis of existing literature, including published research articles, books, and other relevant sources. All references used in this review are properly cited and acknowledged.

#### Authors contributions

FM developed, designed, conceptualized, wrote, and reviewed the manuscript. PD assisted in conceptualizing the manuscript, reviewed the literature, and wrote and reviewed the manuscript. BA reviewed the literature, and wrote and reviewed the manuscript. SA conducted the review, and wrote and reviewed the manuscript. GM wrote and reviewed the manuscript. HA conducted the review, and wrote and reviewed the manuscript. CM conducted the review and reviewed the manuscript. RA conducted the review, and wrote and reviewed the manuscript. AY wrote and reviewed the manuscript. JP conducted the review, and wrote and reviewed the manuscript. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

#### Acknowledgments

Not applicable.

#### Availability of data and materials

This is a narrative review article; therefore, no datasets were used. Not applicable.

#### References

1. Thomson RH. *The Handbook of child life: a Guide for pediatric psychosocial care*. 2<sup>nd</sup> ed. Charles C. Thomas Publishers; 2018.

- Association of child life professionals position statement on child life practice in healthcare settings [Internet]. ACLP. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/docs/</u> <u>default-source/aclp-official-documents/cl-services-in-healthcare-</u> <u>settings.pdf?sfvrsn=58398c4d\_2</u>.
- Romito B, Jewell J, Jackson M. Child life services. Pediatrics 2021; 147(1):e2020040261. <u>https://doi.org/10.1542/peds.2020-040261</u>.
- Boles J, Fraser C, Bennett K, Jones M, Dunbar J, Woodburn A, et al. The value of certified child life specialists: direct and downstream optimization of pediatric patient and family outcome. 2020 [cited 2024 May 1]. Available from: <u>https://www. childlife.org/docs/default-source/aclp-official-documents/valueof-a-certified-child-life-specialist\_full-report.pdf</u>.
- Barlow JH, Ellard DR. The psychosocial well-being of children with chronic disease, their parents and siblings: an overview of the research evidence base. Child Care Health Dev 2006; 32(1): 19–31. <u>https://doi.org/10.1111/j.1365-2214.2006.00591.x</u>.
- Friedrichsdorf SJ, Postier A, Eull D, Weidner C, Foster L, Gilber M, et al. Pain outcomes in a US children's hospital: a prospective cross-sectional survey. Hosp Pediatr 2015; 5(1): 18– 26. <u>https://doi.org/10.1542/ppeds.2014-0084</u>.
- Miller K, Tan X, Hobson AD, Khan A, Ziviani J, O'Brien E, et al. A prospective randomized controlled trial of nonpharmacological pain management during intravenous cannulation in a pediatric emergency department. Pediatr Emerg Care 2016; 32(7): 444–451. <u>https://doi.org/10.1097/</u> PEC.000000000000778.
- Diener M, Lofgren A, Isabella R, Magana S, Choi C, Gourley C. Children's distress during intravenous placement: the role of child life specialists. Child Health Care 2018; 48(5): 1–17. <u>https://doi.org/10.1080/02739615.2018.1492410</u>.
- Tyson ME, Bohl DD, Blickman JG. A randomized controlled trial: child Life services in pediatric imaging. Pediatr Radiol 2014; 44(11): 1426–1432. <u>https://doi.org/10.1007/s00247-014-</u> 3005-1.
- Dong SZ, Zhu M, Bulas D. Techniques for minimizing sedation in pediatric MRI. J Magn Reson Imag 2019; 50(4): 1047–1054. https://doi.org/10.1002/jmri.26703.
- Durand DJ, Young M, Nagy P, Tekes A, Huisman TA. Mandatory child life consultation and its impact on pediatric MRI workflow in an academic medical center. J Am Coll Radiol 2015; 12(6): 594–598. <u>https://doi.org/10.1016/</u> j.jacr.2014.12.015.
- Drayton NA, Waddups S, Walker T. Exploring distraction and the impact of a child life specialist: perceptions from nurses in a pediatric setting. J Spec Pediatr Nurs (JSPN) 2019; 24(2): e12242. <u>https://doi.org/10.1111/jspn.12242</u>.
- Yogman M, Garner A, Hutchinson J, Hirsh-Pasek K, Golinkoff R. The power of play: a pediatric role in enhancing development in young children. Pediatrics 2018; 142(3): 1–15. <u>https://doi.org/10.1542/peds.2018-2058</u>.
- Burns-Nader S, Hernandez-Reif M. Facilitating play for hospitalized children through CL services. Child Health Care 2016; 45(1): 1–21. <u>https://doi.org/10.1080/02739615.2014.948161</u>.
- Wong CL, Ip WY, Kwok BMC, Choi KC, Ng BKW, Chan CWH. Effects of therapeutic play on children undergoing cast-removal procedures: a randomised controlled trial. BMJ Open 2018; 8(7):e021071. <u>https://doi.org/10.1136/bmjopen-2017-02107</u>.
- Potasz C, De Varela MJ, De Carvalho LC, Do Prado LF, Do Prado GF. Effect of play activities on hospitalized children's stress: a randomized clinical trial. Scand J Occup Ther 2013; 20(1): 71–79. https://doi.org/10.3109/11038128.2012.729087. 2013.
- Desai PP, Crowell-Petrungaro T, Moltman M, Fenn LD. Child life: a global perspective. EDS. In: Thompson RH, editor. *The*

handbook of child life: a guide for pediatric psychosocial care. Charles C. Thomas Publishers; 2018. pp. 572–609.

- CCLS Connection Newsletter April 2023. Child life certification: association of child life professionals [Internet]. child-life.org 2023 [cited 2024 May 6]. Available from: <a href="https://www.childlife.org/docs/default-source/certification/ccls-connection-newsletter/april-2023-ccls-connection-newsletter.pdf">https://www.childlife.org/docs/default-source/certification/ccls-connection-newsletter/april-2023-ccls-connection-newsletter.pdf</a>.
- Chapter 03: MOH hospitals, their specializations and No. of beds by region [Internet]. General Authority for Statistics 2019 [cited 2023 Sep 26]. Available from: <u>https://www.stats.gov.sa/en/1009</u>.
- King Faisal Specialist Hospital & Research Centre [Internet]. kfshrc.edu.sa [cited 2023 Sep 26] Available from: <u>https://www.kfshrc.edu.sa/en/home/hospitals/riyadh/pediatrics</u> 2024; 2024.
- 21. King Abdullah Specialist Children Hospital (KASCH) [Internet]. ngha.med.sa; 2015 [cited 2024 May 6]. Available from, https://www.ngha.med.sa/English/MedicalCities/kasch/ Pages/King-Abdullah-Specialist-Childrens-Hospital.aspx.
- Alnasser YS, Alabdali AF, Alshabri RI, Albatati SM. Practice of general pediatrics in Saudi Arabia: current status, challenges, and opportunities. BMC Pediatr 2022; 22(1): 621. <u>https:// doi.org/10.1186/s12887-022-03648-w</u>.
- AlBatti TH, Alsaghan LB, Alsharif MF, Alharbi JS, BinOmair AI, Alghurair HA, et al. Prevalence of autism spectrum disorder among Saudi children between 2 and 4 years old in Riyadh. Asian J Psychiatr 2022; 71: 103054. <u>https://doi.org/ 10.1016/j.ajp.2022.103054</u>.
- 24. Accelerating child health care transformation: key opportunities for improving pediatric care [Internet]. Center for Health Care Strategies 2021 [cited 2023 Sep 26]. Available from: https://www.chcs.org/resource/accelerating-child-health-caretransformation-key-opportunities-for-improving-pediatric-care.
- 25. Al Fara P.H. Child well-being in the gulf countries [Internet]. Org.qa. [cited 2023 Sep 26]. Available from: <u>https://www.difi.org.qa/wp-content/uploads/2021/05/Heba-Al-Fara-CW-Presentation.pdf.</u>
- The story of KACCH and BACCH KACCH & BACCH [Internet]. Kacch.org. [cited 2023 Sep 26]. Available from: https://www.kacch.org/about-us/our-story/.
- Child life services [Internet]. Sidra.org. [cited 2023 Sep 26]. Available from: <u>https://www.sidra.org/clinics-services/clinical-support-services/child-life-services</u>.
- Al Jalila Children's Specialty Hospital [Internet]. Who we are. [cited 2023 Sep 18]. Available from: <u>https://aljalilachildrens.ae/about-us/who-we-are.</u>
- Abdulrahman Oasis [Internet]. Abdulrahmanoasis.org. [cited 2023 Sep 18]. Available from: <u>https://www.abdulrahmanoasis.org/en.</u>
- Lansford JE, Ben Brik A, Al Fara H. A framework for child well-being in the Gulf countries. Child Ind Res 2019; 12: 1971– 1987. https://doi.org/10.1007/s12187-019-9620-5.
- 31. Health sector transformation program [Internet]. vision2030.gov.sa 2021 [cited 2023 Sep 26] Available from: https://www. vision2030.gov.sa/media/x3jbf45y/2021-2025-health-sectortransformation-program-delivery-plan-en.pdf.
- 32. Hamzah A, Alassiri MA, Al-Ghamdi AS, Al-Zahrani S, Zahid R, Alshehri W, et al. Psychosocial development in Saudi adolescents with type 1 diabetes mellitus: a descriptive comparative study. Cureus 2023; 15(7):e42270. <u>https://doi.org/</u>10.7759/cureus.42270.

- Dahlawi N, Milnes L, Swallow V. Children's behavioural and emotional reactions towards living with congenital heart disease in Saudi Arabia: a grounded theory study. Health Expect 2024; 27(2):e13959. <u>https://doi.org/10.1111/hex.13959</u>.
- Rashad M. Saudis await prince's vision of future with hope and concern. Reuters [Internet] 2016. Apr 24 [cited 2023 Sep 26]; Available from: <u>https://www.reuters.com/article/us-saudi-planidUSKCN0XL0B2</u>.
- About child life [Internet]. ACLP. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/the-child-life-profession</u>.
- Becoming certified [Internet]. ACLP. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/certification/becoming-certified</u>.
- Sanad: who we are? [Internet]. Sanad Children's Cancer Support Association. [cited 2023 Sep 26]. Available from: <u>https://sanad.org.sa</u>.
- Snaman J, McCarthy S, Wiener L, Wolfe J. Pediatric palliative care in oncology. J Clin Oncol 2020; 38(9): 954–962. <u>https://</u> doi.org/10.1200/JCO.18.02331.
- Winger A, Kvarme LG, Løyland B, Kristiansen C, Helseth S, Ravn IH. Family experiences with palliative care for children at home: a systematic literature review. BMC Palliat Care 2020; 19(1): 165. <u>https://doi.org/10.1186/s12904-020-00672-4</u>.
- Contro N, Larson J, Scofield S, Sourkes B, Cohen H. Family perspectives on the quality of pediatric palliative care. Arch Pediatr Adolesc Med 2002; 156(1): 14–19. <u>https://doi.org/</u> <u>10.1001/archpedi.156.1.14.</u>
- 41. Nijhof SL, Vinkers CH, van Geelen SM, Duijff SN, Achterberg EJ, van der Net J, et al. Healthy play, better coping: the importance of play for the development of children in health and disease. Neurosci Biobehav Rev 2018; 95: 421–429. <u>https:// doi.org/10.1016/j.neubiorev.2018.09.024</u>.
- 42. European Association for Palliative Care. European charter on palliative care for children and young people. <u>https://www.icpcn.org/wp-content/uploads/2023/01/FINAL-EAPC-CYP-Charter-1.pdf</u> **2022**. [Accessed 26 September 2023].
- 43. Eligibility requirements [Internet]. ACLP. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/certification/</u> becoming-certified/requirements-after-2019.
- Child life specialist [Internet]. US Bureau of Labor Statistics. [cited 2023 Sep 26]. Available from: <u>https://www.bls.gov/</u> careeroutlook/2018/youre-a-what/child-life-specialist.html.
- 2019 Exam Content Outline [Internet]. ACLP. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/certification/theexam/2019-exam-content-outline</u>.
- Child life Code of Ethics [Internet]. ACLP. [cited 2023 Oct 5]. Available from: <u>Child//www.childlife.org/docs/default-source/</u> certification/child-life-code-of-ethics.pdf.
- Program Review [Internet]. Default. [cited 2023 Sep 26]. Available from: <u>https://www.childlife.org/resources/for-child-life-specialists/program-review.</u>

**How to cite this article**: Munshi FM, Desai PP, Azizi B, Alabdulkarim SO, Mujlli GA, Alaskary HA, McIntire CR, Alhegelan RS, Yaqinuddin A, Izquierdo JP. The imperative of the child life profession in KSA in transforming the quality of pediatric healthcare. J Taibah Univ Med Sc 2024;19(4):790–799.