Child Life
PROFESSIONAL DATA CENTER (CLPDC)

ASSOCIATION OF Child Life Professionals

Staffing Calculator

Educational Materials & Resources

ASSOCIATION OF Child Life Professionals

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Development of the Child Life Professional Data Center

Child life program leaders need an objective way to compare any number of program variables to make decisions that drive staffing and services, which positively affect the psychosocial outcomes for the patients and families we serve.

The need for a method to benchmark within the child life profession has always existed. In 2010, the Child Life Council formed the Patient Ratio Task Force, made up of representatives from a variety child life programs and hospital demographics.

Between 2010 – 2016, the Task Force worked tirelessly with other healthcare professions to understand what data is necessary to create a valid benchmarking process. The Task Force learned invaluable lessons from studying the Children's Hospital Association's Clinical Productivity and Staffing Program (CPSP), a fee-based service designed for nursing departments. The task force members spent significant time discussing and selecting the demographic variables detailing hospital type, medical services, and child life program specifics.

The two most important discussion topics were 1) what measurement would accurately demonstrate the impact of child life services on patients and families each day and 2) how to account for the differences among child life programs. To create a database that effectively compares one program to another, the comparison groups must be equal. To that end, the data points in the Child Life Professional Data Center represent the "lowest common denominator", ensuring that programs can now create a comparison group based upon defined data points.

In the fall of 2013, The Task Force lead a pilot project with 45 child life leaders from various-sized child life programs from across the country, including for profit and not-for-profit organizations. Utilizing data collection sheets developed by the Task Force, their efforts demonstrated several pertinent points: 1) developing a database is complex and requires support from experts in the field of benchmarking and analysis, 2) it is possible for the child life profession to work together to collect data, and 3) ACLP needed to address the lack of access to industry-wide data for child life programs.

In 2016, ACLP engaged the firm Dynamic Benchmarking to use the information complied by many child life professionals and the ACLP office to develop the Child Life Professional Data Center. The first data points were entered in the spring of 2017, and the first reports were available in the summer of 2017. The platform collects hospital and child life program demographic data as well as the productivity measure, the Capacity for Patient-Family Impact (CPFI).

The development of the CPFI was informed by a systematic review that evaluated the evidence on the effectiveness of psychosocial interventions for children undergoing medical procedures (Chrisler et al., 2021). The CPFI captures the impact a child life specialist (or whole child life program) can have in a given day or in a given hour. The CPFI measures the number of patient and family encounters that a child life specialist

(or team of child life specialists) completes in a particular area on a given day and divides that total by the number of hours in the shift. This creates a picture of the staff you have. Over time, even though there is variation in the number of patients and families seen by a child life specialist day to day, there is still an overall regularity to the number of encounters seen over a longer period of time. The data center currently measures the CPFI in the following areas as these had demonstrated efficacy of psychosocial services: acute inpatient units, critical care units (PICU, NICU, CICU, etc.), radiology, emergency department, ambulatory outpatient clinics, and pre-surgery.

The future of the database as a powerful tool to inform decision-making for child life programs and healthcare organizations is 100% in the hands of each child life leader. With the support and involvement of the entire child life community, the data center can support the operations and help program leaders advocate for growth of their child life programs, and in turn, positively impact the psychosocial care of patients and families everywhere. Increasing the amount of data from varying healthcare organizations will in turn allow the CLPDC to provide more thorough and detailed reporting and benchmarking for child life leaders.

The CLPDC provides data and evidence to support child life services in the greater healthcare arena. For example, the American Academy of Pediatrics (AAP) has a policy statement on the importance of child life and recommendations for services within healthcare (Romito et al., 2021). The AAP required that the patient to specialist ratio of 15:1 that has been part of the statement historically be replaced with actual data in order to make a compelling and factual statement about the impact of our work. With the next statement revision, the CPFI and other CLPDC data was incorporated to further strengthen this validating testimony from the AAP.

Creating the Staffing Calculator

In 2019, Child Life leaders, ACLP staff, and other interdisciplinary representatives from Finance, Nursing, and Safety & Quality from nine children's hospitals came together in an effort to identify and/or develop a standardized productivity metric across varying patient care areas that integrates child life and financial perspectives to better inform staffing and budgetary levels. There were three objectives outlined for the two-day meeting, 1) to increase understanding of what the CLPDC entails and identify possible ways in which it can be enhanced, 2) to increase awareness of financial and productivity metrics, tools, and staffing models across various institutions, and 3) to determine if one versus multiple child life productivity metrics should be identified by service area (e.g. inpatient acute, ICU, radiology).

After extensive discussion, the team collectively agreed that a staffing metric tool should: 1) be standardized to account for differences across all specialty areas, 2) be a balanced metric that highlights the holistic value of Child Life 3) consider emotional acuity, and 4) include language that matches Hospital Operations and Finance. By the conclusion of the meeting, a proposed staffing formula was designed to meet all of the previously listed criteria. Additionally, the staffing formula could be utilized for variable or fixed cost centers and support a five versus seven-day coverage model.

The ACLP Staffing Analytics Task Force (SATF) was established to continue with the work. Membership included child life leaders from the nine participating hospitals, as well as other Finance and Business employees and an ACLP staff member. The Task Force charge was "to research and develop guidelines which outline a staffing analytics model that can be used to inform number of child life Full-Time Equivalents (FTE) required to meet the emotional acuity needs of identified patients. This metric should have the potential for utilization across varying patient care areas and integrates child life practice standards and financial perspectives so to inform staffing levels and budgetary resources."

An important component to the CLPDC Staffing Calculator is determining the percent of patients in need of child life services. A validated and reliable screening tool did not exist to meet this need, so the Pediatric Emotional Safety Screening (PESS) tool was developed to help programs predict which patients need child life services to successfully cope with their healthcare visit. Children's Hospital Colorado conducted a research study to evaluate the reliability and validity of the PESS tool. The findings of that study are outlined in *Justifying the Pediatric Emotional Safety Screener*. The screening tool is filled out by parents. Several hospitals of the SATF are administering the PESS throughout the 6 identified patient care areas to determine the percentage of patients predicted to need child life services by area. This multi-site project will evaluate if a common metric for each service area can be established for the percentage of patients identified as needing child life support. When inputting the percentage of patients in need of child life services into the CLPDC Staffing Calculator child life programs have three options.

Child Life Programs can:

1. Use their own data to calculate the percentage of patients needing child life.
2. Administer the PESS at their hospital and use the data to establish the percentage of patients needing child life services in each service area at their hospital.
3. Use the metrics established in the Pediatric Emotional Safety Screener study at Children's Hospital Colorado (Figure 1). Should a common metric be established in the future this will be shared with child life leaders.

Figure 1

Percentage of Patients Screened Positive on PESS at Children's Hospital Colorado by Service Area

Service Area	Percent Screened Positive
Critical Care	64%
Emergency Department	57%
Acute Inpatient	51%
Pre-Surgery	48%
Ambulatory Clinics	45%
Radiology	43%

The CLPDC Staffing Calculator combines the percent screened positive with other essential metrics including data generated from the CLPDC and data specific to your healthcare organization (see details below). This formula is an essential component in the development of quality child life services. Access to this tool, or calculator, is in the CLPDC, Quarterly Metrics section.

What Data Do I Need to Use the Staffing Calculator?

The data elements needed for the formula include:

1) Average number of operating days per week
   a. The typical answer for this cell is 5 or 7 days per week.
2) Total quarterly encounters by child life specialist(s)
   a. This displays the total quarterly encounters reported to the CLPDC Quarterly Productivity section or can be entered manually. The data is entered per the 6 areas of service.
3) Average daily census
   a. This displays the combined average daily census for the specific area of service for the period of 12 months. This information can be obtained from Administration, Finance or the Department of Nursing.
4) Percent of patients who screened positive (percent of patients identified who need for child life services)
   a. This displays the percentage of patients screened positive for emotional need in a service area. If you have your own emotional acuity percentage, overwrite this value.
5) Non-productive Replacement Factor

a. This metric accounts for non-productive time such as staff paid time off, and orientation or conference time. The value of 0.11 is common in healthcare. Overwrite this value if your hospital Finance or HR department can provide your hospitals non-productive/replacement factor.

6) Capacity for Patient Family Impact (CPFI)
   a. This displays the auto-calculated capacity for patient/family impact for the specific service area shown in the CLPDC Quarterly Productivity section and cannot be entered manually. This calculation by service area is the total patient encounters divided by the total scheduled hours entered into the CLPDC quarterly.
7) Hours per Patient Encounter (HPPE)
   a. This is an auto-calculated number representing the average time spent per patient encounter for the specific service area shown in the CLPDC Quarterly Productivity section and cannot be entered manually. This calculation is the inverse of CPFI; the total scheduled hours divided by total patient encounters.

Accessing the Staffing Calculator

Purchasing a Subscription

The Staffing Calculator is available through two subscription levels to the CLPDC with pricing based on child life FTEs.

- CLPDC Premium Access:
  - Access to all free and premium comparisons and reports
  - Access to all free and premium filters to customize comparisons and reports
  - Access to the premium disaggregated report
  - Access to the staffing calculator
  - **Pricing**
    - 1-2 FTEs: $245/year
    - 3-9 FTEs: $495/year
    - 10+ FTES: $945/year

- CLPDC Staffing Calculator:
  - Access to free comparisons and reports
  - Access to free filters to customize comparisons and reports
  - Access to the staffing calculator
  - **Pricing**
    - 1-2 FTEs: $95/year
    - 3-9 FTEs: $245/year
    - 10+ FTES: $445/year

- CLPDC Basic Access:
  - Access to free comparisons and reports
  - Access to free filters to customize comparisons and reports
  - **Pricing** - Free

Introducing the Multi-Hospital System Discount

Healthcare systems with multiple hospitals/child life programs can obtain staffing calculator or premium CLPDC access on one invoice and at a discount rate. Please specify you are seeking a multi-hospital rate when purchasing.

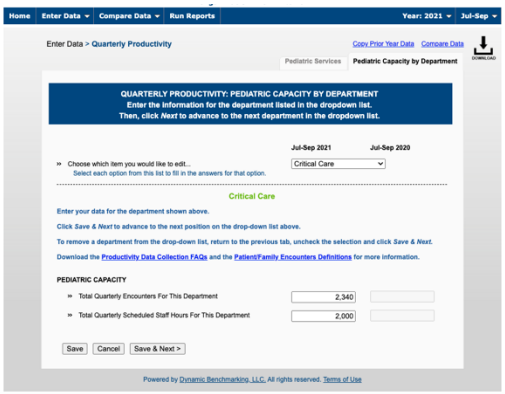
- Largest hospital: 100% of rate
- 2nd largest hospital: 80% of rate
- Remaining hospitals: 60% of rate

To Purchase Staffing Calculator or Premium CLPDC Access: Call 571-483-4500 or email datacenter@childlife.org.

Accessing the Staffing Calculator in the CLPDC

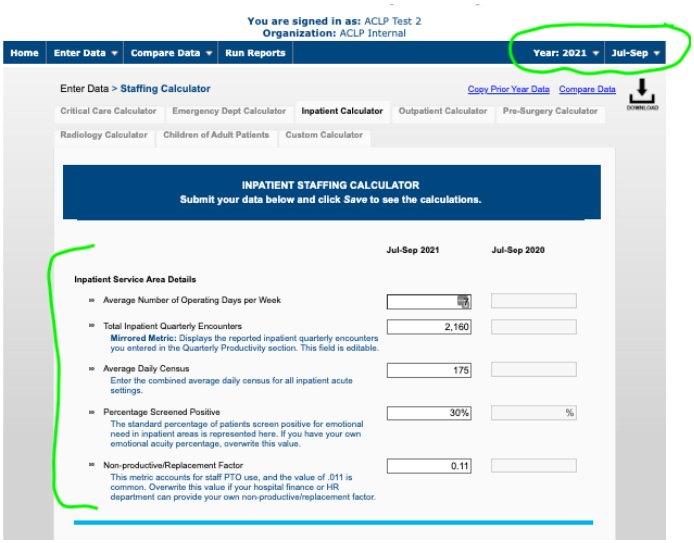
Once you've purchased a subscription including staffing calculator access and our staff has processed your order, log into the CLDPC as you normally would. You will see an additional set up links in the Quarterly Data section.

Click the service area you would like to calculate. When the calculator opens, choose the year and quarter for the quarterly data the calculator will utilize.



NOTE: ***You must have key quarterly data entered for the service area to utilize the staffing calculator.*** *At minimum, you need to enter total quarterly encounters and total quarterly scheduled staff hours for each service area you wish to use the staffing calculator. If you need assistance with quarterly data, please contact us at datacenter@childlife.org.*

Then enter the following data in the open text fields:



- Average Number of Operating Days Per Week – should be a whole number value between 1 and 7
- Total Inpatient Quarterly Encounters – this is mirrored from your quarterly data entry. You can overwrite it but we recommend using the value pulled from your reported quarterly data.
- Average Daily Census
- Percentage Screened Positive – You can utilize the percent screened positive for emotional need from Children's Colorado, calculate the percent screened positive for your institution using the Pediatric Emotional Safety Screener, or use your own programmatic data on the percent of patients in need of child life services
- Non-productive/Replacement Factor – 0.11 is a common value for this but we recommend checking what your hospital uses with HR or finance staff.

Once this data is entered, scroll down the bottom of the page, and click save. When the page refreshes, the calculator will provide the FTEs needed to meet the needs of your patients screening positive for emotional need in that service area.

What Number Should I Use for "Percent Patients Screened Positive"?

Option 1 – Lowest Lift Using Children's Hospital Colorado Percentages

Service Area	Percent Screened Positive
Critical Care	64%
Emergency Department	57%
Acute Inpatient	51%
Pre-Surgery	48%
Ambulatory Clinics	45%
Radiology	43%

Option 2 – Use Emotional Acuity Percentages Your Hospital Has Already Established

If you feel the Children's Colorado data is not representative of the units in your setting and you have alternate emotional acuity percentages available from another screening or assessment tool, you can plug that percentage into the calculator.

Option 3 – Use the Pediatric Emotional Safety Screener to Establish Percentages for Your Units

Click here for step-by-step instructions to utilizing the screener and calculating your own percentage.

Resources to Use with Your Child Life Team

Talking Points to Create Team Buy-In

Goal: To collectively create a metric that will utilize a department's hours per patient encounter, and the number of patient's screened *at risk for developing elevated distress during their healthcare encounter.* The staffing calculator can inform a leader with data to advocate for child life specialist FTEs required to adequately address the emotional needs of identified patients within the hospital setting.

- Metrics are captured in six service areas: Ambulatory, Critical Care, Emergency Department/Center, Inpatient Acute, Pre-surgery, Radiology
- A Pediatric Emotional Safety Screener (PESS) is used to pre-identify patients 'at risk' of emotional distress and poor behavioral compliance during health-care encounters, allowing targeted interventions to reduce distress, which would enhance staff productivity and increase the quality of the patient and family's health-care experience.
    - Screening patients 'at risk' of emotional distress can help establish a metric for determining the child life specialist staffing needs in a particular service area.

- The screening tool serves to provide the data that is inputted into the staffing calculator to provide an emotional acuity score for a specific service area.

NOTE: *The PESS was adapted from Psychosocial Risk Assessment in Pediatrics (PRAP). The PESS does not consider situational priorities (trauma, new diagnosis, invasiveness of the procedure).*

The formula components are defined below:

Formula component	**Component definition**
Average seen per day	average number of patients seen by all CCLS in area
Average daily volume/census	quarterly average volume for area
Total operating days	number of days business is open
Total volume	average volume per day multiplied by the number of business days
% Screened positive	percent screened positive based off PESS
Number of patients screened positive per day	average daily volume multiplied by the percent of screened positive pts.
Unmet need	number of patients screened positive per day minus average pts seen per day
Total estimate of screened positive	total population that screened positive multiplied by the total operating days
Annual average Hour Per Patient Encounter (HPPE)	HPPE: The median amount of time one patient encounter takes for that area. *May vary by acuity, patient characteristics, or typical services provided in area. Provided by Child Life Professional Data Center.*
Worked hours per year needed	HPPE multiplied by the total estimate of screened positive
Annual optimal worked FTE	Worked hours per year needed/ (2080 = 1.0 FTE Replacement Factor)
Nonproductive/ replacement factor	% of yearly worked hours that are not productive, unique to each organization expressed as a decimal – talk to hospital finance or HR to determine what this is your facility. Common percentages are 10% or 11% (enter 0.1 or 0.11 in calculator).
Annual optimal total FTE	worked FTE plus non-productive %

Impact on the team/program
Leader note: when reviewing with staff, awareness of the benefit and impact on them, as well as the program, are essential.

Key talking points to include in this conversation are:

- The 15 to 1 staffing ratio that has been historically used in the past was not evidence-based, validated, or based on a reliable metric to support an actual staffing ratio
- In order for Child Life departments/programs to increase staffing, they need to be able to 'speak' the language of Finance and Administration, which means utilizing the identified CLPDC Staffing Calculator in a way that demonstrates staffing needs
- This work establishes child life services based on Emotional Acuity which specifically addresses Emotional Safety principles for which there is now a body of work to support
- Focus on the importance and value to program data being uploaded into the CLPDC in order to accurately utilize the Staffing Calculator
- When using data to determine HPPE, it honors the actual time a child life specialist needs to adequately support patients/families

Justification for the Pediatric Emotional Safety Screener (PESS)

What is the Pediatric Emotional Safety Screener (PESS)?
The PESS is a screening tool used to identify which patients are most at risk for experiencing negative psychological sequalae during their healthcare visit and therefore would be high priority for child life services. Parents respond yes or no to three questions about their child. The questions used in the screener were adapted from the Psychosocial Risk Assessment in Pediatrics (PRAP) and target the child's anxiety in the healthcare setting, the child's temperament, and whether the child is likely to find any aspect of the visit upsetting (Staab et al., 2014). These three questions were targeted as they are well supported in the literature as factors associated with patients who experience elevated distress during their healthcare visit and in the PRAP study they were the most highly correlated to procedural distress. If a parent responds yes to one or more of the questions, the screener is considered positive and further evaluation from a certified child life specialist is warranted (CCLS).

Validation of the PESS

Study Design
The psychometric properties of the PESS were evaluated in an IRB approved research study at Children's Hospital Colorado. Staff in each of the following service areas: Critical Care, Acute Inpatient, Radiology, Pre-Surgery, Emergency Department, and Ambulatory Clinics were trained to complete the PESS with caregivers. CCLS in each of the six service areas completed a Child Life Validation of Need for each patient they saw during the study. For the Child Life Validation of Need the child life specialists indicated whether in their judgement the patient would be a low or high priority for child life services and recorded the PRAP score for the patient. Each of the 6 service areas completed a minimum of 100 PESS with matching Child Life Validation of Need.

Data Analysis
1643 patients who had participated in PESS study were included in analysis. The internal consistency of the PESS was tested using Cronbach's Alpha. Multiple logistic regression models were used to test the association between PESS and PRAP and CCLS's judgement of need for child life service. Patient's age, race, ethnicity, developmental delay, and hospital visit area unit were included as covariates in the models.

Results
The raw Cronbach's Alpha for the PESS indicated a good and acceptable internal consistency for the PESS ($\alpha = .72$). PESS variables were positively correlated with PRAP and CCLS's clinical judgement of need for child life services ($p < .0001$). Patients who screened positive on any of the three variables on the PESS were 3.12 times more likely to be validated by the CCLS as a high priority for child life support service compare to the patients who had negative PESS screening ($C = .72$, $P < .0001$). Patients with any positive screening on PESS were 1.37 times more likely to score higher than 8 on the PRAP, indicating moderate to high risk for experiencing elevated distress during their healthcare visit, compared to patients without any positive

screening on PESS after adjusting for patient's age, service area unit and development delay (C = .80, p < .0001). The more questions the patient screened positive on, the higher the PRAP score and the more likely the CCLS was to identify the patient as a high priority for child life services. Patients who screened positive on all three questions on PESS were almost 5 times more likely to be validated by the CCLS as a high priority for child life services (C= .73, P < .003) and 4.3 times more likely to score 8 or higher on the PRAP compared to the patients who had negative PESS screening (C = .80, p < .0001).

Relevance to Child Life Practice

The PESS study offers preliminary support for the reliability and validity of PESS as a tool for identifying the patients who need child life services to mitigate the emotional harm patients experience during their healthcare visit. While the findings suggest the PESS is a promising tool for determining the need for child life services, further use of the tool in practice and continued evaluation of the validity and reliability of the tool is warranted. Any screening tool must be simple and easy to implement, but with that goal in mind the PESS has limitations as it does not account for all potential risk factors that could be important to consider. The percentage of patients who screened positive on the PESS can be used as a component of the CLPDC Staffing Calculator as the percentage of patients who screen positive for needing child life services. The formula helps leaders determine the number of child life specialist FTEs required to adequately address the emotional needs of patients within the hospital setting.

Strategic Use of Data to Enhance Your Story

Society has endowed the concept of “intuition” with a great deal of importance. According to one study, more than 50% of Americans rely on their “gut” to decide what to believe, even if they are confronted with information that demonstrates conflicting evidence (Garrett & Weeks, 2017). Intuition can be a helpful tool to begin to guide you, but it's only through data that you can reliably evaluate, quantify, and validate information to inform you strategically.

The health care industry has a prerogative to do more with less. This can make it harder to advocate for resources and positions that don’t overtly generate revenue for the hospital. That is where the importance of data becomes crucial. Data-driven decision-making is the process of using data to inform your decision-making process and validate a course of action. Healthcare organizations use data to manage the resources that patients need, such as the number of beds needed for each level of care and the specific resources and staffing needed to take care of patients. If you want to expand programming for your child life program you will need data to help inform your decisions and make the case for the resources, you need. The benefits of becoming data driven are numerous. Data helps you be more confident in your decision making, a better steward of your resources, and more proactive and strategic.

Consider what data you already collect that you could be leveraging. Do you track how many patients you see? Do you track time spent? Number of referrals? What data sources could be used? Do you document in the electronic medical record? Perhaps that data is reportable? Could you build a quick and easy survey to collect the data? No matter how you collect your data, data is the key to bringing relevancy and credibility to your decisions, justification to your proposals, and authenticity to your strategic planning.

This is where the Child Life Professional Datacenter (CLPDC) and the Staffing Calculator can be a valuable resource. Entering in your programs data can help you tell your story to justify staffing and growth. Successful position justification relies on the careful curation of your data story. It is not just about gathering data but extracting insights from the data and translating those insights into a compelling story. To be a good data storyteller you must first identify what the data is telling you so you can synthesize the data into a clear and compelling narrative. This is where the CLPDC and Staffing Calculator can help child life professionals make sense of the data they collect. It adds concrete insight and direction for your data story by providing information on missed child life needs, what service areas have the highest “emotional acuity” (patients at risk for emotional distress/harm) and the ideal staffing needed to successfully support the psychosocial and emotional needs of patients and their families at your healthcare organization.

As a leader of child life programs, we all have anecdotes of how child life work prevents emotional harm. We are closer than ever to demonstrating that more comprehensively by threading the story we have known to be true for decades with supporting data. This

comes at a time in history when many children's hospitals are also part of the Solutions for Patient Safety Initiatives (https://www.solutionsforpatientsafety.org/). Tying child life services to already established patient safety metrics and advocating for the inclusion of emotional safety as part of patient safety is a critical step for highlighting the profound impact of child life work and increasing the credibility and visibility of the child life field.

As a child life leader, you probably have many reasons to advocate for improved staffing, but it can be hard to know where to begin or where to focus. It can be helpful to break it down to three primary areas of focus: staff, patient, and fiscal impact.

Staff Impact

You know the toll it takes on staff when they are not able to meet all the needs. That in turn leads to issues with team morale, burnout, and retention challenges (Hoelscher& Ravert, 2021). Staff burnout and resiliency are among the top challenges facing healthcare institutions today (Shanafelt et al., 2015). Research demonstrates that burnout among healthcare staff is associated with increases in mental health conditions among professionals (Bridgeman et al., 2018), more safety events (Hall et al., 2017) and poorer patient satisfaction (Moss et al., 2016). Staff attrition can cost a healthcare institution an overwhelming amount of money (Halter et al., 2017). Direct overhead costs include paying for temporary coverage and cost for interviewing and onboarding.

Patient Impact

There is clear evidence to articulate that an unmet child life need has the potential to cause significant and long-term harm to a patient (Gordon, 2021; Rennick et al., 2004; Rennick & Rashotte, 2009). Painful and traumatic healthcare experiences in childhood can lead to increased medical fear, pain, and avoidance of medical care during adulthood (Pate et al., 1996). Given the negative and long-term psychosocial outcomes associated with negative healthcare visits, it is imperative children's risk for experiencing elevated distress is identified while in the healthcare setting to provide targeted support to promote healthy physical, emotional, and psychological wellbeing. The American Academy of Pediatrics issued a statement recommending that children's hospitals invest in child life services (Romito et al., 2021). Offering child life services to pediatric patients such as those offered by a CCLS can impact important outcomes for patients such as decreased anxiety, fear, distress, pain, and visit satisfaction (Chrisler et al., 2021; Sanchez et al., 2018).

Fiscal Impact

Child life services have been associated with significant savings for a healthcare organization including reduction in anesthesia, sedation use, repeated tests/procedures due to coping difficulties, pain medications, readmission rates, and overall length of stay (Boles et al., 2020). Connecting child life services to a cost-benefit for your healthcare administration is key to continued growth. While child life services do not provide bottom line savings for a hospital, they do have tremendous potential for increasing the

capacity to treat additional patients. Although capacity creation does not generate bottom-line savings, it does create an opportunity to admit another patient and collect additional revenue. Health care costs are fairly fixed and do not change much at the margin, but the cost of admitting a new patient is remarkably low, making volume growth a highly profitable strategy. Volume growth also can give the appearance of reducing costs, since the cost per case decreases when the high fixed costs are spread over a larger number of patients.

The most effective position justifications will highlight the impact staffing growth will have on the three primary outcomes outlined above including staff retention and morale, patient and family experience, and relevant fiscal outcomes. Data is only useful in as much as it can provide actionable insight that can enhance decision making. It is up to you as a child life leader to gather the data and be the storyteller.

As a child life leader, you now have tools available to you to address your staffing concerns with your hospital's administration and finance teams.

- **CLPDC Staffing Calculator**: Once you have entered necessary information (such as volumes based on average daily census) into the formula, you have the ability to determine the staffing needed to meet the patient needs of a particular service area (Add Link).
- **Child Life Professional Data Center**: This will help you capture further information to put into the Staffing Calculator and to provide you with benchmarking metrics with comparable organizations to yours (Add Link).
- **Literature Review**: Details the current evidence regarding the efficacy of psychosocial interventions for children undergoing medical procedures (Crisler et al, 2021).
- **Emotional Safety White Paper**: Outlines the potential trauma caused by receiving and delivering care that causes emotional harm, shares the lifelong health impacts associated with receiving emotionally safe care as a child, and promotes specific strategies and tactics for reforming the pediatric setting to be more emotionally safe (Gordon, 2021).
- **The Value of Certified Child Life Specialists: Direct and Downstream Optimization of Pediatric Patient and Family Outcomes Report**: Details the evidence-based outcomes associated with child life intervention within a framework for healthcare administration (Boles et al., 2020).
- **American Academy of Pediatrics Statement on Child Life Services:** Provides recommendations for how child life services can adapt and grow with the changing health care delivery system (Romito et al., 2021).

Case Studies Using the CLPDC Staffing Calculator

Case Study 1: Inpatient Hematology Position Justification

Historically, our hematology patients only sporadically received child life services because we did not have a dedicated FTE. As of 2018, there has been a full-time child life specialist dedicated to this area and we have seen great success in the role. This position was previously paid for by a position lease however they are unable to continue paying for it as it does not meet their grant funding requirements for funding, therefore the request is for the 1.0 to paid by hospital operations.

We have collected data over time to establish that on an average day our inpatient child life specialist can see approximately eight patients a day. On a typical day there are eleven patients per day that fall under the Hematology service line and 51% of those patients will screen positive for needing child life support according to the Pediatric Emotional Safety Screener (PESS). Based on the child life CLPDC Staffing Calculator developed by the Association for Child Life Professionals we project that hematology requires at least a 1.0 FTE child life specialist to provide the necessary patient support described as part of the hospital's mission (Table 1).

Table 1: Staffing Calculator for Hematology CCLS Position

Formula Component	Hematology Position
Average seen per day	8
Average daily volume	11
% screened positive	0.51
Number of patients screened positive per day	6
Unmet need	2
Total estimate of screened positive	2,048
Annual average HPPE	1.00
Annual optimal total FTE	1.23

Case Study 2: Cardiac Intensive Care Unit/ Cardiac Progressive Care Unit Justification

Currently we have 1.0 child life specialist dedicated for the CICU/CPCU. We are requesting an additional 1.0 child life specialist position and a 1.0 child life assistant position to meet the increased needs we are seeing with the expansion. We have conducted a thorough needs assessment to evaluate the average daily volume, emotional acuity, and need for child life services for the CICU/CPCU. The average daily volumes in CPCU and CICU have increased 20% in the past year with an average daily census of 35 patients. A program evaluation was conducted by the child life department this winter to get a better sense of the hospital wide need for child life services. A screening tool (Pediatric Emotional Safety Screener) was implemented in each service area including CICU/CPCU.

Based on child life's Pediatric Emotional Safety Screener, 64% of the total patients seen in the CICU/CPCU need child life support to successfully navigate their healthcare experience and decrease their risk of experiencing elevated distress and emotional harm. That equates to an average of 22 patients needing support per day in the CICU/CPCU. The daily capacity of our child life specialist who covers the CICU/CPCU is supporting 8 patients per day, spending and average of 53 minutes with each patient needing support. With the current staffing we would miss an average of 14 patients who need support per day. To successfully mitigate these risks, we are asking for additional child life staffing. We used the emotional acuity and volumes data we collected and entered them into the Association for S Staffing Calculator developed by the Association of Child Life Professionals to evaluate the staffing needs for the CICU/CPCU. Based on the Staffing Calculator we need 4.0 additional child life specialist FTE to support the CICU/CPCU (Table 1). We know patients who are not supported for the invasive or stressful healthcare encounters are more at-risk for acute distress symptoms[1], post-traumatic stress symptoms[2], noncompliance[3], and greater pain[4]. We would like to prioritize adding a child life specialist and a child life assistant position at this time, as we believe this would be a significant improvement to the care and support of our patients.

Table 1: Staffing Calculator for CICU/CPCU Position

Formula component	CICU/CPCU
Average seen per day	8
Average daily volume	35
% screened positive	0.64
Number of patients screened positive per day	22
Unmet need	14

Annual average HPPE	.88
Annual optimal total FTE	4.31

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Using the Pediatric Emotional Safety Screener

Overview
The PESS is filled out by parents/caregivers of patients who are seen in the following service areas: Critical Care, Emergency Department, Acute Inpatient, Pre-Surgery, Ambulatory Clinic, and Radiology. Parents are asked three yes or no questions regarding their child's anxiety, temperament, and whether the parent feels the visit will be hard or upsetting for their child. If a parent answers yes to any of the three questions this is considered a positive screen and follow up and further assessment from a child life specialist is warranted. The screening tool can be handed out in paper form, built into the electronic medical record, or built into a secure database so the screener can be accessed through a QR code or survey link. Two versions of the PESS are available. One collects protected health information such as name and medical record number in addition the PESS. The second version of the PESS does not include any protected health information. If your administration is concerned about the risk of protected health information being visible, lost, or misplaced, the latter option is ideal to use.

Steps to Implement:

1. Parents/caregivers seen in each of the service areas should be asked to fill out the screener at the start of their visit or admission by a staff member. Refer to *Script for Introducing Pediatric Emotional Safety Screener* for guidance on language to use when handing out the screener to parents.
2. After the screener is completed by the parent, the staff member will fill out the bottom portion of the screener to identify the service area. If using the paper form, place the screener in a private and secure, designated area to be collected by child life staff later. Alternatively, the screener can be loaded on an I-Pad to complete and/or a QR code can be created that links to the PESS. Caregivers who verbally decline participation will not be given the screener.

- For inpatient settings all patients aged 2 years old and up in the service area should be screened the first day the screener is implemented. After the initial first day, all new admits will be screened daily. Screener should be completed 24 to 48 hours upon admission.
- For outpatient areas, each patient aged 2 years old and up will be screened using the PESS.
- Care should be made to avoid bias during the screening process. Therefore, it is best practice to screen all patients in all service areas when the screening tool is implemented.
- A minimum of 100 screeners should be collected in each service area. The more data you collect the more reliable the findings.

Analyzing the Data:

- Count the number of PESS that were completed for each service area.
- Count up the number of PESS that screened positive for each service area.
- Divide the number of positive screens by the total number of completed PESS to get the percent that screened positive on the PESS for each service area.

- Use these percentages in the *% Screened Positive* field in the CLPDC Staffing Calculator. Percentage should be inputted as a decimal (see examples above).

Pediatric Emotional Safety Screener with Protected Health Information

Pediatric Emotional Safety Screener

Parents/Caregivers can provide valuable information about their child's ability to cope with health care visits. Your responses to the questions below will help us better understand the emotional support needs of our patients. Your response is informational and will not impact or change how we care for your child today. No identifying information will be stored or shared outside of this institution. We hope to use this information to inform future staffing. Thank you for taking the time to provide us with this valuable information.

Please answer the following questions as well as you can. First, fill out your child's information. Then, check "Yes" or "No" to the following three questions. Your answer should reflect how your child usually responds to each situation. Please select either "Yes" or "No". Responses that check both "Yes" or "No" or write in an answer will not be used.

Patient Name: **Patient MRN:**

Patient Date of Birth: **Patient Age:**

Does Patient have a Developmental Delay: ☐ Yes ☐ No

Patient Gender: ☐ Male ☐ Female ☐ Transgender ☐ Non-conforming ☐ Other ☐ Prefer not to answer

Patient Ethnicity: ☐ Asian ☐ Black/African ☐ Caucasian ☐ Hispanic/Latino ☐ Native American ☐ Pacific Islander ☐ Mixed Race ☐ Other

Patient Primary Diagnosis:

1. Does your child usually get upset or anxious during visits to the doctor or hospital?

   Yes ☐ **No** ☐

2. Does your child have a hard time dealing with change or need a lot of time before settling into new situations?

   Yes ☐ **No** ☐

3. Do you think this healthcare visit will be hard or upsetting for your child for any reason?

   Yes ☐ **No** ☐

Staff Complete

Unit/Area: Inpatient Ambulatory Critical Care Emergency Radiology Surgery

Pediatric Emotional Safety Screener without Protected Health Information

Pediatric Emotional Safety Screener

Parents/Caregivers can provide valuable information about their child's ability to cope with health care visits. Your responses to the questions below will help us better understand the emotional support needs of our patients. Your response is informational and will not impact or change how we care for your child today. No identifying information will be stored or shared outside of this institution. We hope to use this information to inform future staffing. Thank you for taking the time to provide us with this valuable information.

Please answer the following questions as well as you can. First, fill out your child's information. Then, check "Yes" or "No" to the following three questions. Your answer should reflect how your child usually responds to each situation. Please select either "Yes" or "No". Responses that check both "Yes" or "No" or write in an answer will not be used.

Patient Age:

Does Patient have a Developmental Delay: ☐ Yes ☐ No

Patient Gender: ☐ Male ☐ Female ☐ Transgender ☐ Non-conforming ☐ Other ☐ Prefer not to answer

Patient Ethnicity: ☐ Asian ☐ Black/African ☐ Caucasian ☐ Hispanic/Latino ☐ Native American ☐ Pacific Islander ☐ Mixed Race ☐ Other

Patient Primary Diagnosis:

1. Does your child usually get upset or anxious during visits to the doctor or hospital?

   Yes ☐ **No** ☐

2. Does your child have a hard time dealing with change or need a lot of time before settling into new situations?

   Yes ☐ **No** ☐

3. Do you think this healthcare visit will be hard or upsetting for your child for any reason?

   Yes ☐ **No** ☐

Staff Complete

Unit/Area: Inpatient Ambulatory Critical Care Emergency Radiology Surgery

Script for Introducing the Pediatric Emotional Safety Screener

We have a short screening tool we are looking for parents and caregivers to fill out so that we can learn more about how best to support patients during their visit. Your responses will help us better understand the emotional support needs of our patients. Please look over the survey which will provide you with more details and fill out the survey.

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More Information & Contacts

General CLPDC Information: https://www.childlife.org/resources/for-child-life-specialists/child-life-professional-data-center
CLPDC Subscriptions: https://www.childlife.org/resources/for-child-life-specialists/child-life-professional-data-center/clpdc-subscriptions
CLPDC Resources: https://www.childlife.org/resources/for-child-life-specialists/child-life-professional-data-center/clpdc-resources
Staffing Calculator Information: https://www.childlife.org/resources/for-child-life-specialists/child-life-professional-data-center/staffing-calculator

For inquiries related to the CLPDC and Staffing Calculator:

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