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Professionals

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PSYCHOSOCIAL THEORY AND PRACTICE

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Child Life
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Inside this Issue...

- 2 From the Executive Editor
- 4 Empirical Evolution of Child Life
Jessika Boles, PhD, CCLS
Joan Turner, PhD, CCLS
Jason D. Rights, PhD
Ruolin Lu, BA
- 15 Workplace Relationships and Professional Burnout
Among Certified Child Life Specialists
Leah R. Hoelscher, MS, CCLS
Russell D. Ravert, PhD
- 26 Exploring Child Life Role and Impact of Providing
Psychosocial Care During Short-Term Medical Missions
Priti Desai, PhD, MPH, CCLS
Emily Brock, MS, CCLS
Katharine Didericksen, PhD, LMFT
John Olsson, MD
- 42 Pediatric Medical Traumatic Stress
Tara Shea, MA, CCLS, HPS
Eleni Athanasakos, MSc, PhD
Stewart Cleeve, FRCS
Nick Croft, MBBS, PhD, FRCPCH
Deanna Gibbs, MOT, PhD
- 55 Supporting Children Experiencing a Pediatric-Sexual Assault
Forensic Examination: Preparation for and Perceptions of
the Role of the Child Life Specialist
Sherwood Burns-Nader, PhD, CCLS
Anna Schmitz, MS, CCLS
Blake Berryhill, PhD, LMFT, ECMH-E
Julie Parker, PhD, CCLS
- 67 Emotional Safety in Pediatrics: Introduction
Jenaya Gordon, MA, CCLS, NCC

From the Executive Editor

A Stage for Quality

Kathryn Cantrell, PhD, CCLS

A year has passed since we shared the first issue of *The Journal of Child Life: Psychosocial Theory and Practice (JCL)*. The road to publication was long and during those years of planning, we found ourselves worrying that *JCL* would not receive high-quality submissions. We were wrong. The launch was greeted with a substantial number of submissions, including ones that represent high-quality child life science. We see this as evidence that child life's contribution to psychosocial research is growing.

In Boles, Turner, Rights, and Lu's seminal article included in this issue's collection, results of their scoping review highlight the growth our profession has seen in the quantity of scientific contributions made over the past two decades. The authors caution, however, that the quality of these contributions is equally important. As they note, despite numerical growth, large gaps remain in our evidence base and can be seen by the number of papers that fail to feature child life-led interventions, fail to include child life specialists as authors, and fail to provide a strong description of our scope of practice. We see *JCL* as a stage for sharing the quality Boles, Tuner, Rights, and Lu describe and have been delighted by the progress we have witnessed this year. While your hard work has meant some growing pains for *JCL* and the Journal Review Board, it has undoubtedly improved child life science. Our expectations, like our readers', have been raised by the caliber of submissions we have received.

To demonstrate this quality, Volume 2, Number 1 represents a varied cross section of the current state of child life research. Some of the papers discuss ways to advocate for child life in emerging settings such as Schmitz, Burns-Nadar, Berryhill, and Parker's look at the roles of child life specialists supporting patients during pediatric sexual assault forensic exams. Other papers examine burnout and shared trauma, features of our year coping with a global pandemic. For example, Hoelscher and Ravert examine which types of

work relationships are associated with levels of professional burnout and discuss implications for relationship building. As we enter our second year of coping with the shared trauma of COVID-19, research featuring ways to adapt our work for future pandemics is crucial. As a response, ACLP is rolling out the Emotional Safety Pillars. Emotional safety emphasizes the role child life professionals play in mitigating trauma and keeping patients emotionally safe during medical care. In this issue, we include the introduction to the Emotional Safety Pillars and encourage you to follow up in future issues as we showcase each of the four pillars.

Ethically sound peer-review is tediously slow and many of the articles included in this issue weathered the growing pains we encountered during our first year. Despite hurdles, we have also experienced growth beyond our expectations. We increased the number of articles published in each issue, the Journal Review Board adapted to a new platform for reviewing, and we spent the year improving our process. You can also contribute to refining the quality of research in *JCL*. Academic dialogue allows us to think collectively and contribute to a shared knowledge that improves our work with patients and families. *JCL* accepts papers in the following formats: original qualitative and quantitative research, quality improvement projects, theoretical analyses, case studies, systematic reviews and meta-analyses, and especially important for dialogue, letters to the editor. We want to hear your thoughts about the articles you read and how they contribute to your clinical practice.

My term as Executive Editor of *JCL* comes to a close this spring. Since 2019, my role has been to help transition the long-standing peer-review structure of *Child Life Focus* into a system that can support the submissions of a stand-alone (and one day scientifically indexed) scholarly journal. Now that this stage has been built, we have been eager to turn our atten-

tion toward sharing the highest quality science. The incoming Executive Editor, Ali Chrisler, PhD, CCLS, brings a keen eye for quality and high expectations for *JCL*'s reputation. I am certain her critical thinking will ensure *JCL* continues to grow into a credible and rigorous resource for child life professionals. Along with Associate Editor Jenny Staab, MS, CCLS, and Managing Editor Keri O'Keefe, Ali will have a consci-

entious and discerning team. I look forward to seeing all the ways *JCL* will flourish under their eyes.

Many in the child life community have contributed to the success of *JCL*'s first year including former editors, reviewers, authors, ACLP staff, the ACLP Board of Directors, educators, and most importantly, our readers. *JCL* is just getting started and we thank you for contributing to its development.

Empirical Evolution of Child Life

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ABSTRACT

Certified Child Life Specialists are a well-documented component of family-centered care; however, because they typically work as members of multidisciplinary teams, it can be difficult to immediately recognize the scope of their contributions to health care research and practice. As the field continues to grow and evolve, it is even more essential that health care practitioners recognize, implement, and evaluate empirically supported child life services for patients and families across settings. Although the importance of scholarship for practice is well-recognized, there have not yet been any systematic analyses of the child life literature base. Therefore, the purpose of this study was to complete a scoping review of Certified Child Life Specialist authorship, participation, and presence in peer-reviewed journal articles published from 1996 to 2017. Results demonstrate statistically significant increases over time in research that is driven by and focused on Certified Child Life Specialists, as well as emerging trends in populations and interventions studied and the publication outlets in which these articles can be found. These findings highlight that although child life presence in research is increasing, there is more work to be done to improve academic and clinical training related to research, to expand the literature base as it stands, and to advocate for the inclusion of Certified Child Life Specialists in collaborative scholarship to improve psychosocial care for children and families.

Although health care, like any industry, is continuously evolving, a significant shift in the priorities and language of care began with Sackett and Rosenberg's (1996) description of the term "evidence-based medicine" as:

...the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available ex-

ternal clinical evidence from systematic research (p. 71).

Now more generalized to encompass a variety of medical and psychosocial fields, evidence-based practice remains a dominant philosophy that guides health care practice from the bench to the bedside. The achievements of this movement have been multifold, from increasing cure rates and decreasing medical errors to ensuring equitable, high-quality standards of practice that are accessible to patients and families of

all needs and backgrounds (Djulbegovic & Guyatt, 2017).

At the same time, the evidence-based medicine movement has presented challenges for fields that rely upon individualized care practices that are difficult to measure, evaluate, and standardize across populations. Certified Child Life Specialists (CCLS) have experienced many of these difficulties firsthand, both in advocating for the needs of patients and families and in articulating their professional scope of practice in multidisciplinary care teams. However, today's health care climate speaks the language of empirical evidence when making decisions about everything from institutional goals and initiatives to departmental staffing or budgets, right down to direct patient care (Smith et al., 2011). Therefore, to be effective clinicians and advocates for patients, families, and health care institutions, practitioners must be intimately knowledgeable not only about the evidence that supports their interventions, but also the trends and gaps that merit further investigation.

To date, a systematic evaluation of child life research has not yet been conducted. Since the establishment of the Child Life Council in 1982 (Wojtasik & White, 2018), several initiatives and training requirements have been put into place to encourage research knowledge, participation, and implementation among Certified Child Life Specialists. Some of these efforts have been broad, such as including research-related content at annual conferences, establishing research-oriented columns in the organizational publication, striking a formal research and scholarship committee to capitalize on expert knowledge and experiences in the organization, and — most recently — the addition of a research methods course to the academic requirements for child life certification (Association of Child Life Professionals, 2018). Thus, the time is ripe to evaluate the presence and progression of child life research to inform clinical practice, academic training, advocacy, and research efforts moving forward. Therefore, the purpose of this study was to complete a scoping review of CCLS authorship, participation, and presence in peer-reviewed journal articles published from 1998 to 2017.

Methods

The current review is considered a scoping review, as it focuses primarily on the extent of information available relevant to the topic of child life specialists. There is no attempt to evaluate the quality of the research included in the review. This review is useful as it allows for the exploration of publications in peer-reviewed journals for evidence of the scope of practice and evidence-based practice relevant to the child life profession over a 20-year period (1998-2017).

To assess the state of child life presence in published research, a systematic literature review was conducted using Novanet, CINAHL, PubMed, and ProQUEST databases. Specifically, a scoping review approach, which aims to “clarify working definitions and conceptual boundaries of a topic or field” (Peters et al., 2015; p. 141) was chosen as “scoping reviews are particularly useful when a body of literature has not yet been comprehensively reviewed, or exhibits a complex or heterogeneous nature not amenable to a more precise systematic review of the evidence” (p. 141). Given the variability of child life practice settings and intervention characteristics, a scoping review was most appropriate for examining this diverse and emerging literature base. Therefore, the search terms used included “child life specialist,” “child life therapist,” and “CCLS” to ensure a broad spectrum of coverage and a unifying concept for the inquiry. Articles included for review met the following eligibility criteria: 1) date of publication between January 1, 1998 and December 31, 2017; and 2) categorized as peer-reviewed, which was inclusive of empirical, theoretical, and conceptual articles. Editorial articles, editor's columns, book reviews, personal/reflective pieces, conference proceedings, and conference abstracts were excluded from review. Once duplicate and non-peer-reviewed results were eliminated, a total of 273 articles were eligible for analysis. Each article was downloaded, cataloged, read, and coded by two separate members of the research team; all analyses were conducted using Microsoft Excel and statistical support.

Novanet (<http://www.novanet.ca/>) is an advanced search engine available through a consortium of libraries in the Maritime Provinces in Canada (Nova Scotia, New Brunswick, and Prince Edward Island).

In total, there are 315 databases included in Novanet. On September 9, 2018, an initial database search was performed using the search terms “child life specialist,” “child life therapist,” and “CCLS.” Following application of the filters “search beyond my institution,” “peer-reviewed,” “and sort by date (newest to oldest),” 1,039 hits were included for the present review. The initial review of titles, abstracts, authors, and highlighted key words resulted in the inclusion of relevant articles for review. A systematic exclusion based on this review removed 860 hits that were non-English language, not peer-reviewed articles (e.g., conference proceedings, magazines or abstracts, duplicates, or not relevant to the topic at hand). The resulting body of articles identified via Novanet for coding was 179, reflecting the narrow scope of the topic of interest. (Figure 1)

Recognizing the limitations of the Novanet search, the authors followed up with a database search using CINAHL, PubMed, and ProQuest via Vanderbilt University database on September 27, 2018, using the same search terms and strategy. The CINAHL search resulted in the identification of 307 articles. Exclusion of non-relevant, non-peer-reviewed articles (n= 200) yielded an additional 42 articles to the 179 originally identified. The PubMed search resulted in the identification of one additional article for review; the ProQuest search added a further 51 articles to the sample. Therefore, the total sample for the coding procedure was 273 articles. A digital copy of each article was saved as a PDF and searched for key content; coding was documented in a shared Microsoft Excel file sorted by year of publication.

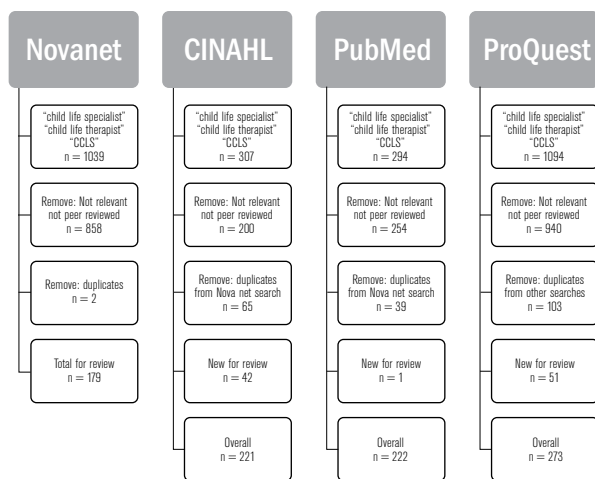


Figure 1 Database Search Strategy

Coding

Primary coding of the articles was completed by the lead author and secondary coding was completed by the secondary author, supported by graduate child life interns. Codes are presented in Table 1. Discrepancies in coding were noted, discussed, and resolved between coders to reach agreement.

Table 1 Coding Terms and Definitions

Variable	Definition	Categories
Year of publication	n/a	date
Reference to child life	Articles included in the sample with a reference to child life therapist, child life specialist, CCLS	Count by year
Child life presence	What level of presence is observed in the article?	<ul style="list-style-type: none"> • Mention only • General description of child life practice • Description of CL roles and responsibilities • None (e.g., CCLS author, acknowledgement only)
Area of child life content	What area of child life practice was featured in the article?	<ul style="list-style-type: none"> • Play • Parent support • Sibling support • Illness/treatment education • Preparation/procedural support • Assessment • Pain management • Professional collaboration • Bereavement support • Other
Authorship	What level of child life authorship was observed in the article?	<ul style="list-style-type: none"> • First author CLS • Contributing author(s) • Acknowledgement • No child life author reference
Journal discipline	What general discipline represents the focus of the journal?	<ul style="list-style-type: none"> • Nursing • Medicine • Child health & development • Psychology • Music therapy • Art therapy • Family sciences • Professional studies • Other

Analysis

For the variables “reference to child life” and for each category of the variables “child life presence,” “area of child life content,” “authorship,” and “journal discipline,” the authors examined the frequency/percentage of articles overall and the frequency/percentage of articles for each individual year across the 20-year time period. To test for significant change over time in the number of articles with reference to child life, a Poisson regression model was fit with the number of articles as the outcome, predicted by year (coded such that 0 is the initial year of 1998 and 19 the final year of 2017). To test for significant differences between categories of child life presence, area of child life content, authorship, and journal discipline, multinomial logistic regression models were fit with the category as the outcome, predicted by year (with year being mean-centered to allow interpretation of intercepts as means). All models were fit in R, using the “glm” function for the Poisson regression model and the multinom function (in the nnet package) for the multinomial logistic regression models.

Results

The aim of this study was to review published articles for content related to child life practice. In total, 273 articles were selected for review and coding. The frequency/percentage of articles per category, both overall and for each individual year, are documented below for each section. In addition, differences between categories and/or significant change over time is included.¹

Reference to Child Life

Published articles included in the study contained a reference to child life (“child life specialist,” “child life therapist,” and/or “CCLS”) and were sorted by year of publication (Figure 2). The number of articles with a reference to child life across all years ranged from three in 1998 to 32 in 2017. The mean number of articles mentioning child life across all years was 13.65.

1 Prior to conducting the multinomial regression analyses to test hypotheses, preliminary random-intercept-only multilevel multinomial logistic regression models were fit to assess author-level and journal-level dependency (as certain journals had multiple articles in the sample, as did certain authors). For each outcome, this model either did not converge, or the author-level and journal-level random intercept variances were small and nonsignificant; we thus opted to perform single-level analyses for parsimony.

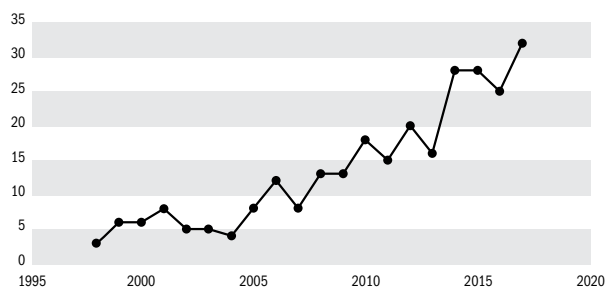


Figure 2 Frequency of Articles With a Reference to Child Life (1998-2017)

The descriptive results show that articles identified with a child life specialist reference did increase yearly. To test if this increase was statistically significant, a Poisson regression model was fit predicting the count of publications by year. As shown in Table 2, the statistically significant estimate of the slope of time (0.110) indicates that there was a significant increase in the number of publications with a child life reference per year. The descriptive data indicate that child life presence increased more in the second decade compared to the first. However, using a Poisson regression model, the rate of change between the two decades was found to be nonsignificant.

Table 2 Poisson Regression Model: Reference to Child Life

Regression coefficient	Estimate	S.E.	z	p-value
Intercept	1.373	0.163	8.405	<.001*
Year	0.110	0.012	9.371	<.001*

Alpha .05

Child Life Presence

Figure 3 displays the percentage of articles by level of child life presence across all years. Child life was only mentioned (meaning a documented use of “child life specialist” was found in the article’s body) in 207 (75.8%) articles in the sample; child life content (child life was mentioned and described in one to two sentences) was included in 39 (14.3%), and only six (2.2%) of the articles featured a child life focus (meaning the article’s main topic of focus was a child life role, responsibility, or intervention and was labeled as such). Articles in the sample coded “none” (21; 7.69%) indicate CCLS authors of articles with topics not specific to child life theory or practice.

The descriptive data indicate that child life was indeed mentioned more frequently over time, but that the frequency with which articles focused on or in-

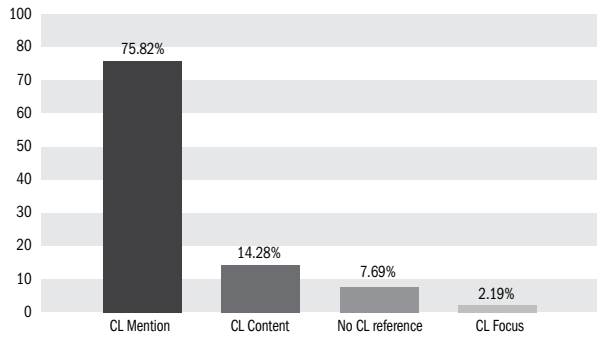


Figure 3 Percentage of Articles by Level of Child Life Presence (1998-2017)

corporated child-life specific content has, in truth, decreased. Figure 4 displays the percentage of articles by level of child life presence as a smooth function of year (LOESS curves).

To test if the observed difference in the number of articles with child life presence of none versus other types of child life presence (mention, content, focus) was significant, a multinomial logistic regression model was fit with child life presence category as the outcome and none as the reference class. To test if there was also significant change in the categories of child life presence over time, we included time as a predictor of child life presence. As shown in Table 3, the significant positive intercepts for categories mention and content indicate that these two categories were significantly more likely than none, and the significant negative intercept for focus indicates that none was significantly more likely than focus. Further, the significant and positive slope estimate for mention indicates that, over time, mention became increasingly more likely than none.

Table 3 Multinomial Logistic Regression Model: Child Life Presence

Category	Intercept estimate	S.E.	p-value	Slope of time estimate	S.E.	p-value
Mention	2.420	0.255	<.001*	0.117	0.041	.004*
Content	0.727	0.295	.014*	0.051	0.048	.285
Focus	-1.142	0.486	.019	0.144	0.097	.138

Alpha .05

In sum, over time, articles were increasingly more likely to mention child life as opposed to having no child life presence at all; however, there was no change over time in terms of the likelihood an article would focus on or incorporate child life content as opposed to having no child life presence.

Area of Child Life Content

Area of child life content codes were included to capture a range of practice areas. Preparation and procedural support had the highest frequency of occurrence (64) followed by assessment (53) and professional collaboration (47) across all years. Twenty-six articles were coded as “other” and include topics such as school re-entry, neurological development, genetic testing, the history and scope of child life services, compassion fatigue or burnout, and multidisciplinary staff education interventions. Pain management (24), play (19), bereavement support (17), illness/treatment education (10), parent support (9), and sibling support (4) made up the remaining areas of child life content. Percentages are shown in Figure 5.

Due to play, preparation, procedural support, and professional collaboration being considered foundational areas of child life practice, the percentages of

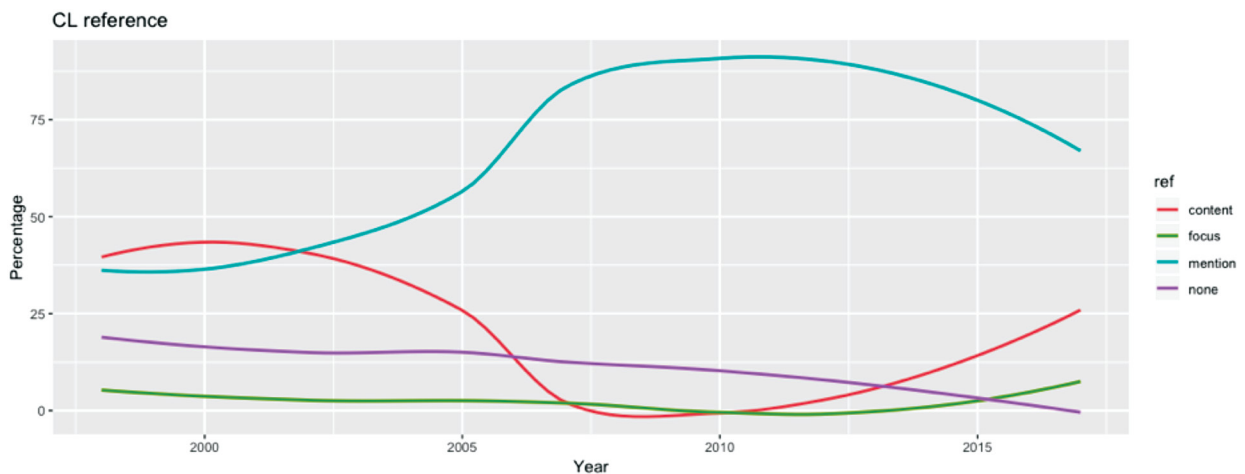


Figure 4 Percentage of Articles by Level of Child Life Presence

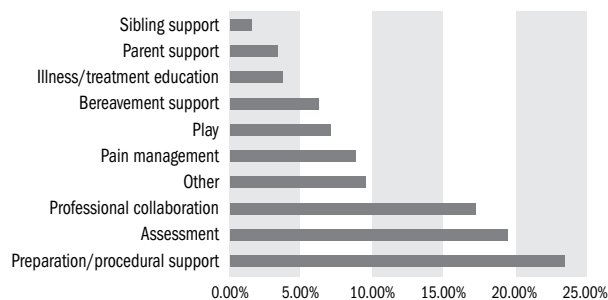


Figure 5 Percentage of Areas of Child Life Content (1998-2017)

each are presented together in Figure 6 as a smooth function of year (LOESS curves).

As observed in Figure 6, the percentage of play content reached a high in 1998. However, play content decreased between 2010 and 2017 as the percentage of content related to preparation and procedural support began to increase. Similarly, the percentage of content reflecting professional collaboration has remained steady but with content specific to preparation and procedural support surpassing it starting around 2004. Content related to play has remained lower than professional collaboration content across all years.

To test whether the differences between preparation and procedural support and all other categories was significant, a multinomial logistic regression model was fit, identical to that described in the section titled “Child Life Presence,” but with area of child life content category as the outcome and preparation and procedural support as the reference class. As shown in Table 4, the intercepts for the categories of “professional collaboration” and “assessment” indicate that

“procedural support and preparation interventions” was significantly more likely across the time period than the other categories (except for professional collaboration and assessment, which were not significant). The significant and negative slope estimates for “play,” “assessment,” and “bereavement support” indicate that, over time, these categories became increasing less likely than procedural support and preparation interventions.

Table 4. Multinomial Logistic Regression Model: Area of Child Life Content

Category	Intercept estimate	S.E.	p-value	Slope of time estimate	S.E.	p-value
Play	-1.151	0.278	<.001	-0.160	0.054	.003
Parent support	-2.006	0.417	<.001	0.020	0.094	.830
Sibling support	-2.670	0.523	<.001	-0.075	0.110	.495
Illness/Treatment education	-1.753	0.348	<.001	-0.124	0.069	.073
Assessment	-0.199	0.207	.336	-0.195	0.042	.000
Pain management	-0.883	0.250	<.001	-0.132	0.051	.010
Professional collaboration	-0.215	0.204	.292	-0.063	0.045	.161
Other	-0.825	0.247	.001	-0.046	0.055	.399
Bereavement support	-1.258	0.289	<.001	-0.157	0.056	.005

Alpha .05

Over time, child life content relating to preparation and procedural support has come to be the dominant child life content area observed in publications. Al-

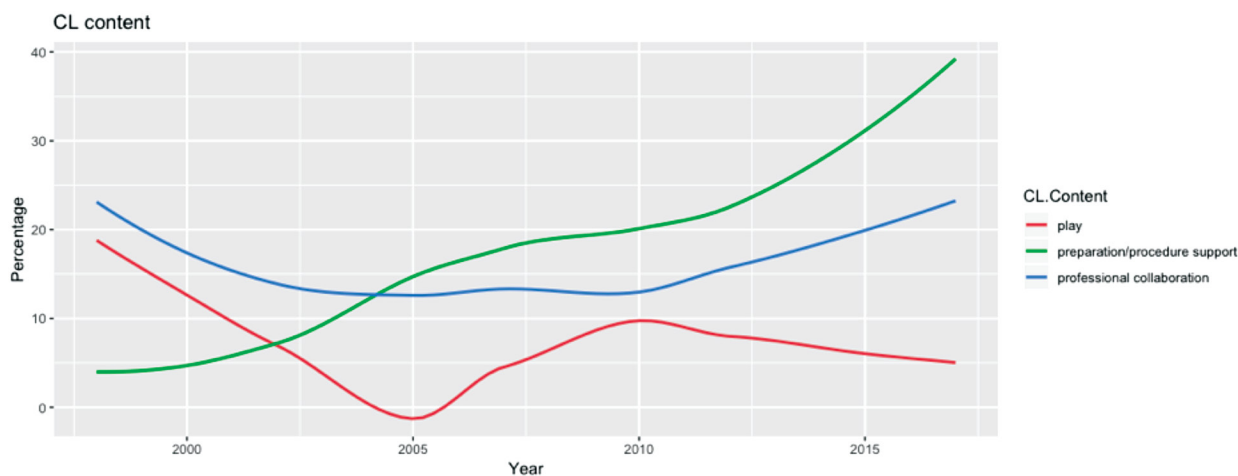


Figure 6 Percentages as a Smooth Function of Year: Play, Preparation/Procedure Support, and Professional Collaboration

though play and professional collaboration are foundational to child life practice, each is featured minimally in comparison to preparation and procedural support. In particular, the gap in articles presenting content on child life play in comparison to preparation and procedural support is at its widest in this final year of the study, 2017.

Authorship

The majority (183) of articles included in this study did not identify a child life specialist as an author. However, child life specialists were noted as the first author in 49 (17.9%) or contributing author in 37 (13.6%) of the sample articles.

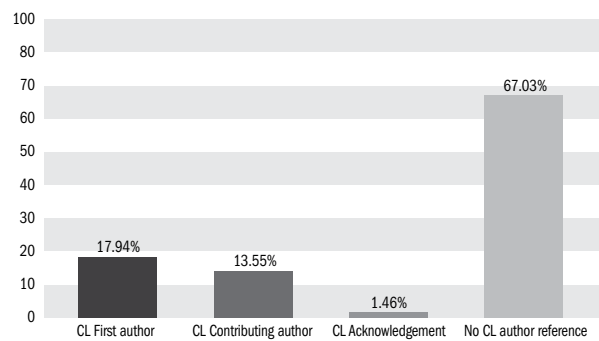


Figure 7 Percentage of Child Life Authorship Type (1998-2017)

The descriptive results above show that child life specialists indeed were not typically included as authors (Figure 7). However, child life specialists were actually more likely to be lead authors than contributing authors of publications included in the sample. Figure 8 displays the percentage of articles by level of child life authorship as a smooth function of year (LOESS curves). Figure 8 shows that the percentage of articles

with no child life author has remained steady across the 20-year period of observation relative to cases in which a child life specialist is listed as a contributing author or as a first author. However, the curve shows child life specialists as first authors has shifted relative to contributing authorship after 2008.

To test that the observed differences between categories and/or change over time was significant, a multinomial logistic regression model was fit with authorship category as the outcome and “No CL Author Reference” as the reference class. Results are shown in Table 5. The significant intercepts for all categories indicate that “No CL Author Reference” was significantly more likely than all the other categories. Slope for time is not significant for any category, indicating there was not a significant effect of time on child life authorship.

Table 5 Multinomial Logistic Regression Model: Authorship

Category	Intercept estimate	S.E.	p-value	Slope of time estimate	S.E.	p-value
1st author CLS	-1.334	0.163	<.001	0.033	0.033	.324
Contributing author(s)	-1.636	0.186	<.001	-0.054	0.033	.099
Acknowledgement	-3.826	0.507	<.001	-0.017	0.096	.855

Overall, within this sample, authors primarily came from backgrounds other than child life, such as medicine, nursing, or academia. Despite the passage of time, the prevalence of child life authorship has not increased significantly. In total, 91 unique Certified Child Life Specialist authors were identified in the

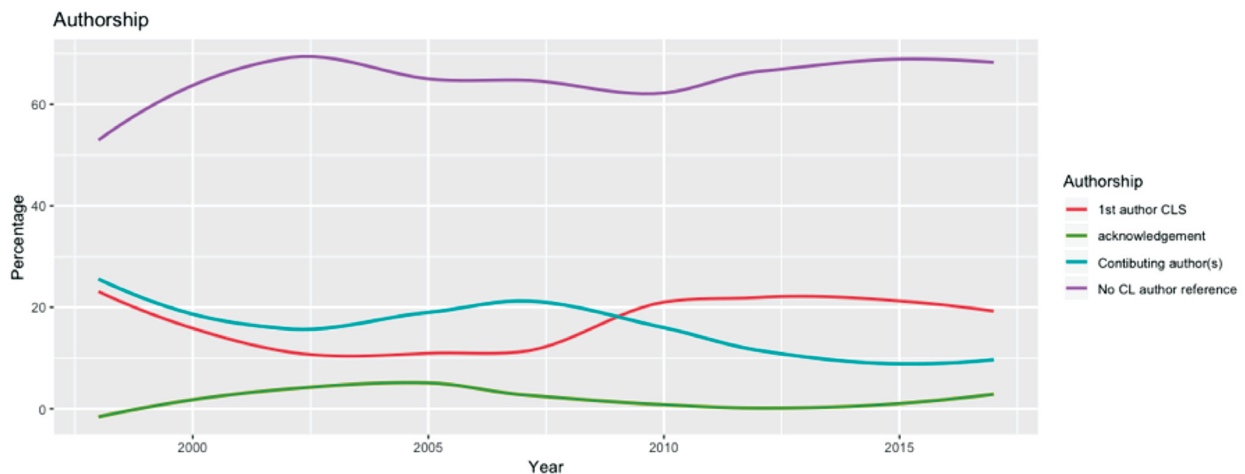


Figure 8 Percentages as a Smooth Function of Year: Child Life Authorship

present analysis. However, as described above, 21 of these CCLS contributors were observed to author publications on topics outside the scope of child life services and did not reference the profession outside of the author byline.

Journal Discipline

The percentage of articles by journal discipline identified in this sample is shown in Figure 9. Medical journals were most frequent with 39.19% (107) followed by Nursing at 24.17% (66), Child Health and Development at 8.05% (22), and Other at 13.60% (37). Examples of “Other” journal disciplines included psychology, music and art therapy, family sciences, and professional studies.

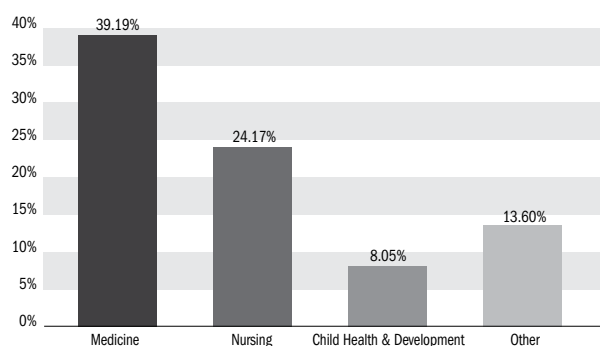


Figure 9 Percentage of Publication by Journal Discipline

When examined as a smooth function of year (LOESS curves), nursing journals were the predominant outlet for articles with “Reference to Child Life” from around 1998 to 2010, as shown in Figure 10. However, across most of the sampled time period, articles with “Reference to Child Life” were increasingly be-

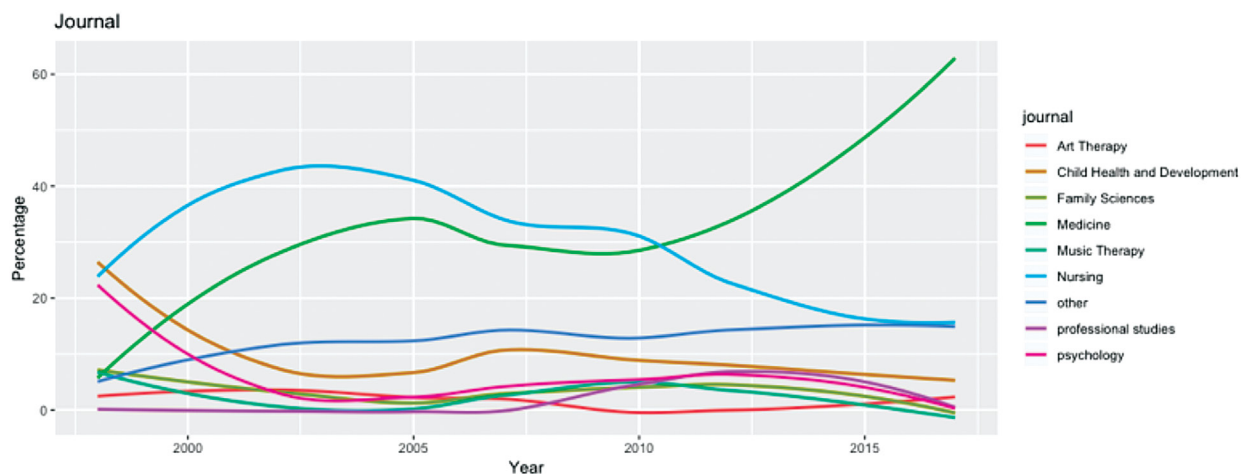


Figure 10 Percentages as a Smooth Function of Year: Journal Discipline

ing published in medical journals, which became the predominant outlet from 2010 to 2017.

To test that the observed differences between categories and/or change over time was significant, we fit a multinomial logistic regression model with journal category as the outcome and “medicine” as the reference class. Results are shown in Table 6.

Table 6 Multinomial Logistic Regression Model

Category	Intercept estimate	S.E.	p-value	Slope of time estimate	S.E.	p-value
Nursing	-0.475	0.164	.004	-0.125	0.033	<.001
Child Health and Development	-1.565	0.243	<.001	-0.119	0.046	.009
Psychology	-2.091	0.304	<.001	-0.119	0.056	.033
Music Therapy	-3.165	0.519	<.001	-0.172	0.082	.037
Art Therapy	-3.295	0.538	<.001	-0.134	0.093	.148
Family Sciences	-2.506	0.373	<.001	-0.145	0.064	.024
Professional Studies	-2.435	0.373	<.001	0.036	0.083	.664
Other	-1.015	0.194	<.001	-0.046	0.041	.266

Alpha .05

The negative and significant intercepts for all categories indicate that medicine was significantly more likely than all other categories. The significant and negative slope estimates for nursing, child health and development, psychology, music therapy, and family sciences indicate that, over time, these categories became increasingly less likely than medicine.

Discussion

These results highlight several key findings of importance not only to practicing Certified Child Life Specialists, but all involved in child life work — students, academics, administrators, managers, or interdisciplinary colleagues. First, child life presence in published research is increasing over time, from a total of three articles published in 1998 to 32 published in 2017 (with a mean of 13.62 articles per year). It is difficult to attribute this increase entirely to intra-professional initiatives or programs, as the emergence of digital publishing and open-access journal formats has greatly increased the total number of empirical articles published across disciplines, particularly in the past ten years (Pinfield et al., 2016). Although a causal link cannot be identified within the bounds of this study, these results suggest that the frequency of research related to child life specialists will continue to rise as publication outlets expand.

When child life presence in the total sample of 273 articles was evaluated more closely, additional patterns emerged. First, in most of the articles (75.8%; 207), the term “child life specialist” or “child life therapist” was only mentioned in the body of the paper, without further description of professional practice or research involvement. These brief mentions do enhance the visibility of Certified Child Life Specialists to audiences which may not have previous exposure. At the same time, much like in clinical care, the quality of these references can often speak volumes more than the quantities alone. Therefore, Certified Child Life Specialists should strive to advocate for the quality of their services not only in the clinical realm, but also in academic literature as well.

On the other hand, of the total sample, only six (2.2%) featured child life specialists or child life-led interventions as the subject of focus or study. Between 1998 and 2017, there was no significant increase in these types of articles, likely because of the small sample subset available. This observation is particularly concerning, as the sustainability of the child life profession is intricately intertwined with the dominant evidence-based practice philosophy of health care. Therefore, although child life presence is increasing, it is important to consider both the quality and quantity of these inclusions to ensure that the profession is accurately represented, easily recognized, and valued for its provision of evidence-based psychosocial care for children and families.

Another key finding is the changing trend in the types of child life content and interventions appearing in the published literature. As these results highlight, publications related to play have been decreasing over the past 20 years, despite play being a foundational tenet and skill of the child life profession (Williams et al., 2019). Although the vein of play runs strong through procedural preparation and support interventions, which appear to be significantly increasing in literature related to child life services, the fundamental role of play is seldom discussed in these procedure-focused articles. Instead, interventions are typically described as standardized educational sessions that may or may not include a more structured, adult-led application of medical play to achieve procedural coping goals.

One potential explanation for this changing trajectory of research focus may stem from the practicalities of research design. Play, as a primarily individualized and open-ended intervention, is exceedingly more difficult to define, measure, and evaluate in a controlled experimental condition. Results garnered from these studies are difficult to generalize across populations and clinical settings, reducing their perceived value in the medical community. Procedural interventions, when standardized into experimental protocols that can be manipulated by study staff, may be considered more objective, reliable, valid, and actionable by the same intended audience. Despite the child life community’s recognition of the value of both kinds of knowledge and study, the evidence-based medicine movement — at its core — emphasizes the power and “truth” yielded by experimental designs such as the randomized controlled trial (Dang & Dearholt, 2017).

In terms of authorship, it is important to recognize the lack of child life authors identified in publications between 1998 and 2017. More than 67% of the articles included in this study failed to list an author with a CCLS credential; slightly more than 1% featured a CCLS in the article acknowledgements rather than the byline. When child life specialists are listed as authors, there is a similar likelihood as to whether they will occupy a primary author or secondary author positions; 17.9% and 13.6% respectively. Furthermore, study results reveal that these percentages are not increasing over time.

One possible explanation for this phenomenon is the lack of research coursework requirements for Certified Child Life Specialists prior to 2019. Perhaps a perceived lack of knowledge and experience has

served as a barrier to child life involvement in research design and dissemination. However, another possible explanation is the positioning of child life specialists as psychosocial practitioners in a medically dominant context. Certified Child Life Specialists could benefit from additional training and resources to assist them in advocating for their rightful place as contributors to research about their services.

Finally, a distinct finding of this scoping review concerns the journals in which articles about child life services are most likely to be located. When categorized by academic discipline, medical journals (39.2%) and nursing journals (24.2%) were most likely to house articles referencing Certified Child Life Specialists, followed by a smaller percentage featured in child health and development journals. And, as of 2010, the dominant prevalence of child life research in nursing publications shifted to a more medical audience, in journals such as *Pediatric Radiology*; *Rheumatology*; *Palliative Medicine*; and *Burns*.

There is both benefit and cost to this observed trend in this study. First and foremost, while frequent publication in nursing and medical journals may be due to multidisciplinary research collaborations, at the same time it serves to increase the recognizability of child life services for the audience most likely involved in health care administration and decision-making. On the other hand, these trends highlight the current status of child life as a professional field, rather than an academic discipline or field of study. With these mentions primarily situated in practice-oriented journals, it will be difficult to elevate child life practice as a distinct field of study that merits further inclusion in academic institutions and scholarly repositories. Moving forward, the child life profession should consider generating its own publication outlets to support the evolution of child life-related research and practice into a discrete field focused on the psychosocial needs of children and families in health care settings.

As the earliest review of its kind of emerging evidence of child life-related publications, this study is valuable for the identification of the types of evidence that address and inform child life work. Furthermore, scoping reviews have been described as “an ideal tool to determine the scope or coverage of a body of literature on a given topic and give clear indication of the volume of literature and studies available as well as an overview (broad or detailed) of its focus” (Munn et al., 2018, p.2). The analysis presented allows for

the clarification of perceptions of the extant child life-related literature by offering statistical evidence of the progress and limitations of child life topics, focus, authorship, and academic disciplines of journals published between 1998 and 2017. Efforts to inform clinical practice, academic training, advocacy, and research arise from a range of initiatives. In this case, the scoping review may serve as a marker in time and offer direction for future research and publication activity.

Conclusion

This scoping review revealed a consistent increase in research literature written by and about Certified Child Life Specialists over the past two decades, although at non-significant levels. Thus, there is more work to be done. By noting these trends in CCLS authorship and participation, as well as interventions and populations studied, child life professionals can appeal not only to their anecdotal experiences and clinical expertise, but also to the evidence when advocating for the needs of patients and families — echoing the spirit of the evidence-based medicine movement. In addition, this knowledge of the literature base illuminates the importance of capitalizing on interdisciplinary relationships and opportunities for scholarly collaboration to advance the child life field. Furthermore, these results demonstrate the importance of both academic and clinical education about evidence-based practice, scholarly inquiry, and research to ensure the longevity of the child life profession not just in the literature, but also for the psychosocial well-being of children and families.

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Workplace Relationships and Professional Burnout Among Certified Child Life Specialists

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ABSTRACT

Certified Child Life Specialists (CCLS) work within a complex medical system, comprised of multiple interpersonal relationships including those with their immediate supervisors, peers, and non-child life medical staff. The job demands of a CCLS often place them in situations that involve high levels of stress and anxiety, placing them at risk for burnout and job turnover. This study examined which types of work relationships are associated with levels of burnout. The study included a sample of CCLS ($n = 214$) working a minimum of 20 hours a week in clinical settings in the United States. Participants completed an online survey containing the Caplan Social Support Instrument, the Maslach's Burnout Inventory, and an open-ended question related to burnout. Multiple linear regression was used to identify factors associated with burnout. Having a positive relationship with one's direct supervisor, a positive relationship with peers, or positive relationships with non-child life medical staff were associated with lower rates of burnout. Age, years of experience, exposure to trauma and bereavement, and exposure to chronic or terminal illness were not found to be significant predictors of burnout. Qualitative analysis identified additional stressors that participants considered contributors to burnout including compensation, workload, and respect and understanding of the child life role by other medical professionals.

Child life specialists occupy an important role within the world of pediatric health care. Since 1922, child life specialists have been present in children's hospitals and on pediatric units providing psychosocial care and support for children and their families in the medical environment (Wheelwright, 2018). The Association of Child Life Professionals (ACLP) has over 5,000 registered members made up of child life managers, specialists, and students across the world (ACLP, 2018). Certified Child Life Specialists (CCLS) focus on allowing children to maintain steady development during a stressful experience and support the whole child during a medical experience, including their emotional and social needs (ACLP, 2018; Holloway & Wallinga, 1990).

Research has shown that child life services are per-

ceived by patients, families, and medical staff to improve the medical experience for pediatric patients (Duda, 2018; Tyson et al., 2014). Other benefits noted in these studies include shortened hospital visits and reduced amounts of pain, fear, and anxiety experienced by children during medical procedures. The work that child life specialists do often requires them to become emotionally engaged with patients and families during medical experiences, exposing them to others' strong emotions, stress, or trauma (ACLP, 2018; Figley, 1995; Krog, 2016).

Certified Child Life Specialists and other health care workers are at high risk for experiencing negative effects from their work environment. Research on caregiving professions similar to child life have found that this exposure to emotionally charged interactions

puts them at a high risk for experiencing job stress and may be harmful to their psychological well-being (Figley, 1995). Burnout is a psychological condition that occurs primarily in caring professions and is characterized by long-term emotional exhaustion and decreased interest in one's work (Embriaco et al., 2007; Maslach et al., 1996; Munn et al., 1996). Burnout often occurs due to demanding interpersonal situations, psychological strain, and chronic stress (Krog, 2016; Meadors et al., 2009). Symptoms of burnout include irritability, emotional instability, rigidity in relationships with coworkers, and eating and sleeping problems (Embriaco et al., 2007). Those experiencing burnout tend to have lower job satisfaction, higher job turnover, and a lowered level of job performance (Embriaco et al., 2007; Fisackerly et al., 2016; Holloway & Wallinga, 1990).

A child life specialist's unique position within a complex health care system places them at high risk for experiencing burnout. A CCLS engages in multiple interpersonal relationships throughout the day with patients and families, fellow child life staff, and clinical staff members. Involvement with people is a known source of burnout, but something that a CCLS is unable to remove from their work (Holloway & Wallinga, 1990). The role of a child life specialist requires them to be present with patients and staff during moments of high stress and emotion.

Due to daily tasks and job characteristics, over half of child life specialists are found to be at risk for developing burnout, a similar rate to other human service professions (Brinson, 2012; Fisackerly, 2017). Feelings of burnout are in turn related to the professional's intention to leave a job and high turnover rates (Fisackerly, 2017; Fisackerly et al. 2016; Maslach et al., 1996). Additionally, experiences of burnout and high turnover in the medical field are associated with a decreased quality of care and safety for patients, and increased medical errors (Embriaco et al., 2007; Hall et al., 2016). It is important to understand the phenomena of burnout among child life specialists to decrease job turnover and increase quality of care for all pediatric patients and families.

Social Relationships and Burnout Among Health Care Workers

Research suggests that social support can play an important protective role in preventing burnout among health care workers. A low level of support from su-

perisors and colleagues is associated with job dissatisfaction and stress, two indicators of burnout (Caplan et al., 1975). For professions with similar work environments and caseloads as a child life specialist, the quality of relationships with coworkers has repeatedly showed to be a protective factor against burnout and similar symptoms (Abualrub, 2004; Embriaco et al., 2007; Lee et al., 2010; Purpora & Blegen, 2015; Rollins et al., 2018; Roomaney et al., 2017; Sun et al., 2017). For a child life specialist, healthy relationships at work are positively associated with professional well-being and negatively associated with job dissatisfaction, intention to leave a job, compassion fatigue (lowered ability to experience empathy following repeated exposures to emotional situations without proper coping or processing skills), stress, and burnout (Fisackerly et al., 2016; Holloway & Wallinga, 1990; Krog, 2016; Munn et al., 1996). The current study attempted to replicate those findings, while further distinguishing which specific types of support seem to be most important to avoid burnout.

This relationship between social support and burnout has been attributed to multiple positive benefits within the workplace, including less conflicts between colleagues and a higher likelihood of relying on coworkers in times of stress (Abualrub, 2004; Shirey, 2004). At least one program was able to improve burnout and job turnover levels of varying health care workers by improving the supportive work environment through randomized implementation of the Civility, Respect, and Engagement in the Workplace initiative (CREW). The CREW initiative consisted of facilitated sessions over the course of six months that focused on interactions between staff (Leiter et al, 2011).

Positive social support in the workplace is beneficial to the overall care provided by a hospital. With lower levels of burnout and job turnover, quality of care for patients is positively impacted (Abualrub, 2004). Some have suggested that high levels of support within the health care workplace may be able to counteract the emotional labor (the work of regulating one's own emotions during interactions with patients and families experiencing high emotions) of caregiving professions (Fisackerly et al., 2016). These findings suggest that higher levels of social support will be associated with lower levels of burnout. The current study tests the hypothesis that positive supervisor, peer, and medical co-worker relationships will be associated with lower levels of burnout among child life specialists.

Methods

Participants and Data Collection

This study was approved by the Institutional Review Board at the University of Missouri. Data was collected from a web-based survey completed by a randomly selected sample of Certified Child Life Specialists that reside in the United States. These child life specialists were invited to participate through email once selected. Participants received an email containing a link to an information and consent form, assuring participants of confidentiality and voluntary participation, and a follow-up email one week later. Participants were allowed to continue with the survey after confirming certified status and working more than 20 hours a week in a clinical position.

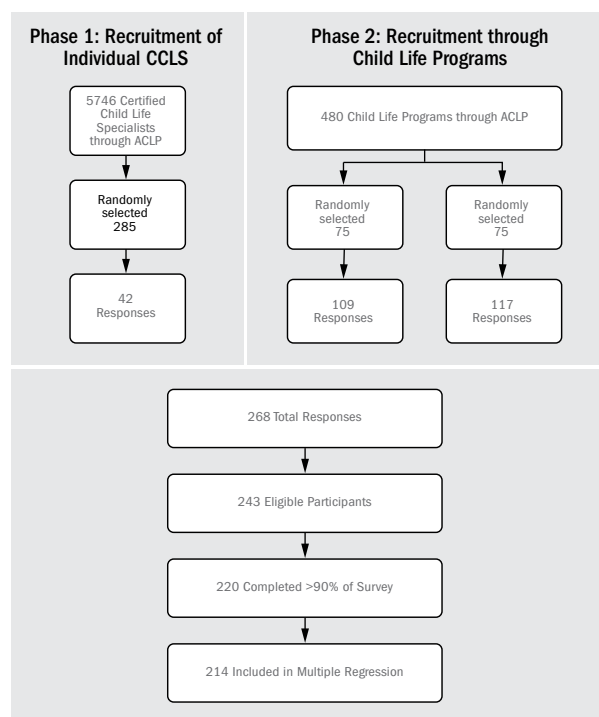


Figure 1 Participant Selection

Figure 1 outlines the recruitment strategy. A goal of collecting 200 completed survey responses was set. Step one of the sampling procedure involved randomly selecting 285 participants from the complete list of ACLP members (5,746 child life professionals and students). From that initial email sent to 285 participants, 42 responses were collected. Since this attempt resulted in fewer than the goal number of completed surveys, recruitment then continued with two waves of 75 randomly selected child life programs from the complete list of child life programs (480) on the Association of Child Life Professionals website. The first

round collected 109 individual responses and the second round collected 117 individual responses. Of the 268 total collected responses, 243 participants met the following minimum eligibility requirement of working more than 20 clinical hours a week as a Certified Child Life Specialist (students and non-practicing specialists were excluded from this study). The final sample included the 220 eligible respondents; however, six of those participants reported not having a peer child life specialist or being a one-person child life team, and thus those data were excluded from the multiple regression analysis due to their lack of peer support scores.

Sample and Measures

Demographics. Demographic information was collected from participants and included: gender, ethnicity, country of employment, highest level of education (i.e., BA, MS, and PhD), size of organization (i.e., small 0-99 pediatric beds, medium 100-499 pediatric beds, and large 500+ pediatric beds), and the nature of their direct supervisor (i.e., CCLS, nursing, family services, and other). Participants also reported on their age, number of years working as a CCLS, the percentage of their work hours exposed to patients involved in a trauma or bereavement, and their exposure to patients with a terminal or chronic illness.

Burnout. The Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS, MP) is a questionnaire designed to measure a participant's level of burnout and has been widely used in research on health professionals (Embriaco et al., 2007; Guidroz et al., 2012; Holloway & Wallinga, 1990; Knox et al., 2018; Munn et al., 1996; Ofei-Dodoo et al., 2018; Spence Laschinger et al., 2009; Sun et al., 2017). The measure includes 22 questions that ask how often the respondent experiences various indicators of burnout (e.g., "I feel emotionally drained from my work" and "I don't really care what happens to some patients"). Respondents answer using a Likert scale from 0 = "Never," to 6 = "Every day." The measure includes three subscales: emotional exhaustion (7 items), depersonalization (7 items), and personal accomplishment (8 items).

The choice to utilize the MBI-HSS (MP) stemmed from its ability to accurately assess a participant's level of burnout syndrome (BOS) specifically based on the work context, as opposed to other measures that include personal life or outside factors (Fisackerly et

al., 2016; Knox et al., 2018; Van Mol et al., 2015). One strength of the MBI-HSS (MP) is that participants report on the degree they experience symptoms of burnout, rather than relying on the term “burnout” in items (Knox et al., 2018). Additionally, the use of the MBI-HSS (MP) allows comparison with previous studies utilizing the MBI-HSS (MP) with professions like child life.

The present study used the score for emotional exhaustion as the outcome measure of burnout (rather than depersonalization and personal accomplishment) for conceptual and empirical reasons. Scholars have argued that the measure for emotional exhaustion substantially represents the notion of “burnout” more than the measures for personal accomplishment and depersonalization (Embriaco et al., 2007; Guidroz et al., 2012; Munn et al., 1996; Spence Laschinger et al., 2009). Emotional exhaustion is the result of interpersonal conflict, chronic stress, and emotional burden at work and is exhibited through a lack of energy or interest in one’s work (Fisackerly et al., 2016; Guidroz et al., 2012; Maslach & Leiter, 2017; Munn et al., 1996). Being emotionally exhausted leads to depersonalization and a decreased sense of personal accomplishment (Embriaco et al., 2007; Maslach et al., 1996). Emotional exhaustion specifically has been linked to lowered job satisfaction and increased intention to leave a job (Guidroz et al., 2012; Spence Laschinger et al., 2009).

Previous research using the MBI-HSS (MP) demonstrated satisfactory reliability and validity of the instrument, with Cronbach’s alpha for the three subscales ranging from $\alpha = 0.69$ to $\alpha = 0.95$, and with a test-retest reliability of 0.95 (Maslach et al., 1996; Loera et al., 2014; Montiel-Company et al., 2016; Sun et al., 2017). In the present study, Cronbach’s alpha for emotional exhaustion was 0.88. A sum score of 27 or over on the emotional exhaustion subscale indicates a high level of emotional exhaustion, a sum score of 17-26 on the emotional exhaustion subscale indicates a moderate level, and a sum score of 16 or under indicates a low level of emotional exhaustion (Maslach et al., 1996).

Relationships. The Caplan Social Support Instrument (CSSI) (Caplan et al., 1975) was used to measure the strength of the participants relationship with their supervisor, peer CCLS, and non-child life medical staff. The CSSI was chosen based on its ability to compare different workplace relationships on the

same scale, and its focus on the interpersonal nature of the relationship. Participants responded to four questions for each of the three relationship domains, on a Likert scale of 1 (not at all), to 4 (very much). A score of 0 indicates “don’t have any such person.” For each of the domains, questions include: “How much does each of these people go out of their way to do things to make your work life easier for you?”; “How easy is it to talk with each of the following people?”; “How much can each of these people be relied on when things get tough at work?”; and “How much is each of the following people willing to listen to your personal problems?” Scores were averaged to create individual mean response scores for supervisor, peers, and coworkers, with a higher score representing higher levels of perceived social support from that domain. Responses of “don’t have any such person” for a subscale resulted in a score of 0 and were categorized as missing data, for that category.

Prior research utilizing the CSSI has found Cronbach’s alpha scores ranging from $\alpha = 0.63$ - 0.93 on the measure (Caplan et al., 1975; Kovach et al., 2009). In the present study, Cronbach’s alpha for supervisor relationship was 0.86, for CCLS peer relationships it was 0.92, and 0.83 for non-child life medical staff.

Qualitative. Participants were asked to provide a short answer to the following question: “What do you feel is the single strongest cause of worker burnout among Certified Child Life Specialists?” This exploratory question was asked to explore CCLS’s views toward burnout and to assess how social relationship and other factors not included in this study are perceived as contributors to burnout.

Data Analysis

Data were exported from Qualtrics as a CSV (comma separated value) file and imported into R studio for analysis. Descriptive statistics were calculated for participant demographic variables. Multiple linear regression was used to regress burnout scores on demographic and relationship quality variables. Listwise deletion was used in analysis, resulting in the exclusion of six cases who did not have CCLS peers, and therefore had missing peer support scores. Predictor variables included age, years of experience, percent of work hours spent with trauma or bereavement patients, percent of work hours spent with chronic or terminally ill patients, and overall social support. Prior to analysis, distributions and regression models were

assessed for normality, including tests for discrepancy and leverage of participants, a Shapiro-Wilks test, a Breush-Pagan test, and a Durbin-Watson test.

Text responses to the open-ended item regarding causes of CCLS burnout were imported into Microsoft Excel for content analysis. In the analysis, the respondent's entire textual response was considered as the unit of analysis. The analysis procedure involved the following steps: (a) reading all responses to become familiar with the contents, (b) reviewing responses case by case

to generate a preliminary set of potential themes, (c) identifying the final set of themes, and (d) coding each response into the appropriate theme. In 19 cases (8%), the response could fit into two of the themes. In these cases, the researcher coded by weighting the themes within the response. Thus, an exhaustive and mutually exclusive set of themes were identified.

Results

Descriptive Analysis

Participants in this study identified primarily as white (86.9%) and female (97.7%), which is consistent with participant demographics in prior CCLS studies (Fisackerly et al., 2016; Holloway & Wallinga, 1990; Munn et al., 1996). Study participants indicated working in a combination of small (35%), medium (50.5%), and large (13.1%) hospitals in the United States. On average, participants spent around half of their time (47.2%) with chronically ill patients and around a quarter of their time (23.0%) with trauma patients or bereavements. The majority of participants (78.2%) are supervised by a CCLS. Participant's average perceived social support score with supervisors was 3.2, with their peer CCLS it was 3.7, and with non-child life medical staff it was 3.1. On average, participants reported a moderate level of burnout ($M=25.0$, score over 27 is high) according to MBI-HSS (MP) criteria. This level is high compared to previous studies of CCLS emotional exhaustion using the measure, which reported average scores of 18.06 (Holloway & Wallinga, 1990) and 19.2 (Munn et al., 1996). Detailed frequencies and percentages for all categorical variables are presented in Table 1, and descriptive statistics for all continuous variables are in Table 2.

Table 1 Participant Demographics

Characteristic	Frequency	Percent
Which gender identity do you most identify with?		
Male	5	2.3
Female	215	97.7
Please specify your ethnicity: check all that apply		
White	191	86.8
White, Black, or African American	2	0.9
White, Black, or African American, prefer not to answer	1	0.5
White, Native Hawaiian, or Pacific Islander	1	0.5
White, Hispanic, or Latino	3	1.4
White, prefer not to answer	3	1.4
Black or African American	4	1.7
Asian	4	1.7
Asian, Hispanic, or Latino	1	0.5
Hispanic or Latino	5	2.3
Other/Prefer not to respond	5	2.3
What is the highest level of education you have completed?		
Bachelor's degree	113	51.4
Master's degree	105	47.6
PhD	1	0.5
Prefer not to respond	1	0.5
What is the size of your hospital based on pediatric capacities?		
Small (0-99 beds)	77	35
Medium (100-499 beds)	111	50.5
Large (500+ beds)	29	13.1
Other/Prefer not to respond	3	1.4
What is the occupation of your direct supervisor?		
Certified Child Life Specialist (CCLS)	172	78.2
Nursing Profession (RN, LPN, etc.)	32	14.5
Family Services Coordinator	1	0.5
Not Listed	14	6.3
Prefer not to respond	1	0.5
In which country are you currently employed?		
United States	220	100

Table 2 Participant Characteristics

Variable	Mean	Median	Standard Deviation
Age	33.6	30.5	9.0
Years as a CCLS?	8.7	6.0	7.8
Percent of time with trauma patients/ bereavements?	23.0	15.0	22.6
Percent of time with patients chronically/terminally ill?	47.2	40.5	32.0
Overall Social Support	3.3	3.4	0.4
Supervisor	3.2	3.5	0.8
Peer CCLS	3.7	4.0	0.5
Non-CCLs Medical Staff	3.1	3.3	0.7
Emotional Exhaustion	25.0	24.0	8.9

Table 3 Correlations Between Demographic Variables, Social Scores, and Emotional Exhaustion

Measure	1	2	3	4	5	5a	5b	5c
1. Age	---							
2. Years CCLS	0.885**	---						
3. Trauma/Bereavements	-0.024	0.023	---					
4. Chronic/Terminally Ill	0.094	0.089	0.126	---				
5. Social Support	0.008	0.116	0.096	0.053	---			
5a. Supervisor	0.002	0.011	0.105	-0.006	0.722**	---		
5b. Peer	-0.047	0.024	-0.083	0.009	0.527**	0.121	---	
5c. Medical Staff	0.082	0.215**	0.076	0.099	0.640**	0.119	0.085	---
8. EE	-0.091	-0.092	-0.0001	0.089	-0.398**	-0.317**	-0.217**	-0.221**

* = p-value < .05 ** = p-value < .01 n=220 for all calculations not including "Social Support" or "Peer"

Trauma/Bereavement = percent of work hours interacting with trauma patients or bereavements

Chronic/Terminal = percent of work hours interacting with chronic or terminally ill patients

Social Support = Combined average relationship score with supervisor, peer CCLSs, and non-child life medical staff

EE = Emotional Exhaustion

Quantitative Analysis

Bivariate correlations between all variables are presented in Table 3. Participants who had more experience as a CCLS reported better relationships with medical staff $r(218)=0.215$, $p<.01$. Emotional exhaustion scores were not significantly correlated with

age, $r(218)=-0.091$, $p>.05$; years working as a CCLS, $r(218)=-0.092$, $p>.05$; interactions with chronic or terminal illness, $r(218)=-0.0001$, $p>.05$; or interactions with traumas and bereavements, $r(218)=-0.089$, $p>.05$. Overall, positive social support was negatively correlated with emotional exhaustion, $r(212)=-.398$, $p<.01$. A positive relationship with one's supervisor, $r(212)=-.317$, $p<.01$; peer CCLSs, $r(212)=-.217$, $p<.01$; and non-child life medical staff, $r(212)=-.221$, $p<.01$ were associated with a lower level of emotional exhaustion.

Table 4 Multiple Regression Model – Social Relationships and Emotional Exhaustion (Burnout)

Model	R2	Unstandardized		Standardized	t value
		b	St. Error	β	
Model	.157				
(Constant)		60.88	6.93		8.78**
Age		-0.23	0.14	-0.22	-1.62
Years as a CCLS		0.18	0.17	0.15	1.10
Trauma/Bereavement		0.001	0.03	0.003	0.05
Chronic/Terminal		0.03	0.02	0.11	1.78
Supervisor		-3.23	0.77	-0.27	-4.18**
Peer		-3.30	1.17	-0.18	-2.82**
Medical		-2.80	0.92	0.20	-3.04**

** $p<.001$, other p-values not significant at .05 level

Trauma/Bereavement = percent of work hours interacting with trauma patients or bereavements

Chronic/Terminal = percent of work hours interacting with chronic or terminally ill patients

Social Support = Combined average score of relationship with supervisor, peer CCLSs, and non-child life medical staff

Multiple linear regression analysis results are presented in Table 4. The model, which included demographic predictive factors (i.e., age, years of experience, interactions with traumas/bereavements, and interactions with chronic/terminally ill patients) and social relationships predictive factors (with supervisors, peer CCLSs, and medical staff) was significant, $F(7, 206) = 6.651$, $p < .001$ and represented a small but significant effect ($R^2_{adj} = 0.157$), accounting for 15.7% of the variance in emotional exhaustion. Diagnostic tests for influential cases and assumption testing for multicollinearity, normality, homoskedasticity, and independence of error were deemed satisfactory. Results of the regression indicated that supervisor relationship, $t(206) = -4.18$, $p < .001$; peer CCLS relationships, $t(206) = -2.82$, $p < .001$; and non-child life medical staff relationships, $t(206) = -3.04$, $p < .001$ significantly predicted emotional exhaustion while controlling for other variables. Based on beta weights, supervisor relationship ($\beta = -0.27$) had the strongest association with emotional exhaustion, with an expected 0.27 de-

crease in emotional exhaustion for every one standard deviation increase, while controlling for the other social relationships. Relationship with peers ($\beta = -0.18$) and medical staff ($\beta = -0.20$) had smaller and similar influences with a 0.18 and 0.20 decrease in emotional exhaustion for every one standard deviation increase in the respective variable, while controlling for the other variables in the model.

An additional independent sample t-test was conducted to test for possible differences in emotional exhaustion between those whose direct supervisor is a CCLS and those whose direct supervisor is from another discipline. Results of the t-test, $t(225) = -0.417$, $p > .05$, $d = 3.74$ indicated that levels of emotional exhaustion did not differ significantly between those who were directly supervised by a CCLS ($M = 24.78$, $SD = 9.24$) and those with a supervisor from another profession ($M = 25.37$, $SD = 7.86$).

Qualitative Analysis

Directed content analysis (see Table 6) was used to code and group responses to the open-ended question by common themes (Hsieh & Shannon, 2005). Six themes were identified: 1) workload and compensation, 2) lack of respect or understanding, 3) emotional burden and compassion fatigue, 4) lack of support, 5) poor work-life balance, and 6) job ambiguity.

Participants citing workload and compensation as a cause of burnout (31% of respondents) reported feeling that they had a poor patient-to-CCLS ratio and were not receiving the appropriate salary for their work. Many participants also reported needing more child life specialists on their staff to meet patient needs. The second-highest reported perceived cause of worker burnout (22% of respondents) was coded as lack of respect or understanding for the child life profession by other staff in the hospital. Participants

Table 6 Thematic Correlation: Common Causes of Burnout Reported by Child Life Specialists

Theme	Description	#(%)	Examples
Workload and Compensation	Responses related to being understaffed, being unfairly/poorly compensated for work and education level, having high level of patient to CCLS ratio	68 (31%)	Poor CCLS to patient ratios Over worked and under paid wearing too many hats Low compensation in relation to the number of patients we see daily and the work we do Increased workload with no increase in staffing
Lack of Respect or Understanding	Responses related to needing to advocate for the CCLS profession to other medical staff or families, feeling undervalued by hospital administration or other medical professions	48 (22%)	Lack of respect from other medical providers Other team members not understanding or respecting the profession Lack of respect from hospital administration Repetitive advocating for what the CCLS can do
Emotional Burden and Compassion Fatigue	Responses related to the emotional burden and toll of caring for sick children and their families, interactions with high acuity patients such as bereavements/traumas and the chronic patient population	39 (18%)	Having to deal with sad/difficult situations at work (abuse, child deaths, etc.) Emotional weight of the work of CCLSs Compassion fatigue Emotional labor
Lack of support	Responses related to the lack of support from the child life manager, team members, or ACLP	29 (13%)	Managers that are not supportive Not being supported by management, staff, ACLP Not being supported by boss/peers
Poor work-life balance	Responses related to the personal inability to care for one's feelings of burnout - as supported by either the individual or the institution	29 (13%)	Not enough self-care, either personally or the institution does not allow for it Lack of work-life balance and boundaries Failing to maintain appropriate boundaries
Job Ambiguity	Responses related to being unsure of boundaries of job title	5 (2%)	Job ambiguity Juggling multiple responsibilities beyond patient care
Other		1 (<1%)	Unkindness to healthcare workers

Note: Participants response to the question: What do you feel is the single strongest cause of worker burnout among CCLSs? (n = 219).

reported having to consistently advocate for the child life profession and often receiving pushback from medical staff. Likewise, participants reported feeling a lack of recognition from administration, medical providers, and other health care disciplines for their work. A smaller proportion of responses (18%) reported feeling an emotional burden or compassion fatigue from working with difficult cases. Slightly smaller groups of respondents were coded as feeling a lack of support (13%) and having a poor work-life balance (13%). Additionally, a small group of respondents were coded as struggling with job ambiguity (2%).

Discussion

The purpose of this study was to examine the connection between burnout and child life specialists' relationships with different individuals. Results from this study support the initial hypothesis that positive supervisor, peer child life specialists, and medical co-worker relationships are associated with lower levels of burnout among child life specialists.

Relationships and Burnout Levels

Positive relationships with one's supervisor, a peer CCLS, and with non-child life medical staff each had significant positive associations with lower levels of emotional exhaustion (while controlling for potential influence of age, years of experience, and interactions with traumas, bereavements, and chronic or terminally ill patients).

Reporting a high quality relationship with one's direct supervisor was found to have the strongest association with low burnout and emotional exhaustion, with relationships with peer CCLSs and medical staff having smaller but similar associations. These findings are congruent with several studies regarding burnout in the health care field and the influence of the supervisor relationship (Brinson, 2012; Munn et al., 1996). Additionally, participants rated their relationships with a peer CCLS ($M = 3.68$, $SD = 0.50$) as more supportive on average than with their supervisor or medical team. Levels of burnout did not depend on whether one's direct supervisor was a CCLS versus another profession.

In open-ended responses, participants described what they considered to be causes of burnout among child life specialists. Lack of compensation and having a

large workload were seen as particularly problematic. Participants also frequently reported concern regarding a lack of respect or understanding of child life by other hospital staff. Other burnout causes were the emotional burden of the child life profession, feeling a lack of support from co-workers, and seeing child life as having a poor sense of work-life balance.

Importantly, although a lack of support related to social relationships in the workplace was cited as burnout cause, it was mentioned significantly less often than the other three top-cited themes. This finding implies that the Caplan Social Support Instrument used for this study is relevant but cannot fully capture all factors influencing the degree of burnout that a CCLS experiences. This qualitative analysis suggests that additional research into causes of child life burnout might focus on the impact of compensation and workload, respect from other professionals in the health care field, compassion fatigue, or co-worker relationships.

Limitations

There were several identified limitations to this study. Of the original 243 respondents, 23 survey respondents (9.5%) were not included in analysis due to not completing over 90% of the survey. Although this represents a small portion of the total sample, it is possible that these participants were unique, for example in terms of their duties, support, and burnout. Additionally, participants in the study reported a moderate level of emotional exhaustion, with an average score for each social relationship category above three on a scale of one to four. It is possible that the study respondents are those who are not experiencing the highest levels of burnout or work stress, as they had the time and ability to complete the survey. Future studies might try alternate methods to increase levels of survey completion and assure a representative sample. The regression analysis only accounted for 15% of the variance. Future research studies should aim to determine what factors could account for the remainder of the variance among emotional exhaustion scores. Additionally, six of the respondents who completed the survey were one-person CCLS teams. Future research could explore whether relationships and burnout are different among these types of programs. Despite these limitations, the findings have important implications for the child life profession.

Implications and Significance of Study

The proposed study aimed to examine the association between worker burnout and workplace relationships among Certified Child Life Specialists. Because health care workers are at high risk to experience burnout due to their job demands and work environments, patients are then at risk of receiving less than optimal care. Pediatric patients and their families come to hospitals at a time of high anxiety in their life and are relying on the support from a child life specialist to support and guide them through the experience. In order to provide the best possible care to these patients, it is important to recognize what may be amplifying experiences of burnout.

Findings from this study have the potential to influence interventions targeting workplace social relationships among child life specialists or similar health care professions. Based on results, supervisors of child life programs appear to have a particularly strong impact on their employee's levels of burnout, highlighting the need for competent and caring supervisors. This finding may indicate a need for management training or additional certification for supervisors of child life programs on ways to support and recognize staff burnout, along with regular evaluations of the level of support received, to ensure child life specialists' needs are being adequately met. Findings suggest that supervisor support alone is not sufficient to eliminate the effects of burnout, which indicates that finding ways to establish and maintain strong relationships with peer child life specialists and other medical staff may also be important.

Responses to the open-ended question suggest additional areas of future research and attention. The common perception that being overworked, understaffed, and under-compensated leads to burnout suggests a need for hospitals to re-evaluate workload and compensation in relation to the benefits they provide to the institution. Also, given that lack of respect and understanding of the child life profession by other medical staff was a commonly cited cause of burnout, training for CCLS and their supervisors should include advocacy for the child life profession to other medical teams and to administrative boards. Responses suggest a need for more general education for various medical staff on the child life profession and how to utilize them as a resource within pediatric health care settings.

Results from this study may influence future programming or coursework for both certified child life specialists and their managers. The Association of Child Life Professionals may be one governing body to take responsibility for the burnout of the profession's members, offering continued education seminars and professional development units focused on reducing causes of burnout for child life specialists. These sessions should focus on education and support for managers of child life teams, as results from this study suggest that child life specialists who feel more supported by their managers experience less burnout. This education should empower child life managers to be better able to reduce additional causes of burnout as reported by child life specialists in this study. These may include teaching managers ways to advocate for their profession in terms of increased funding or adding more positions to reduce feelings of being overworked or unfairly compensated. Additional seminars may focus on advocacy to medical boards and institutions on the value of child life specialists to reduce feelings of their staff being misunderstood or undervalued by the institution. Following sessions may educate both managers and child life specialists on role boundaries for child life specialists to reduce feelings of job ambiguity, reflection and support following intense patient situations to reduce emotional burden, and continued support for maintaining a healthy work-life balance. These educational topics may lead to lowered burnout through targeting of specific concerns voiced by child life professionals, and by strengthening the relationship between child life specialists and their managers.

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Exploring Child Life Role and Impact of Providing Psychosocial Care During Short-Term Medical Missions

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ABSTRACT:

Certified Child Life Specialists (CCLSs) have been engaged with other health professionals to provide care within international short-term medical missions (STMMs). However, there is minimal research describing the care they provide, their professional roles, and the impact of their services on the beneficiaries, as well as the volunteer CCLSs. This exploratory, survey-based, descriptive study reports findings regarding roles and experiences of 55 CCLSs who volunteered to provide psychosocial care for children and families on STMMs. They reported providing play, normalization, psychological preparation for medical procedures, and emotional support, resulting in observable reduction in patient and parent anxiety. Nonpharmacological pain management and education for capacity building regarding psychosocial care were not routinely provided. Using Campinha-Bacote's cultural competency framework and Knowles' adult learning theory, we explored the reciprocal impact for CCLSs volunteering on STMMs. CCLSs reported improvement in their own cultural competency, professional skills, and child life competencies. Findings suggest providing psychosocial care on STMMs benefited patients, families, and the CCLSs. A brief commentary on children's rights and ethical considerations for those in a child life role on STMMs is included. Practice and research implications are provided to enable greater understanding of the child life role in STMM contexts and to inform prospective CCLS volunteers of this opportunity, as well as to educate STMM organizations about the role of child life.

Addressing global health care needs in the form of short-term medical services from high income resource countries to low- and middle-income countries has been shown, along with interest in international volunteerism, to make a difference in improving unmet health care needs worldwide (Hawkins, 2013; Steinke & Shieh, 2014; Sykes, 2014). Various terms are used in the literature to refer to these short-term medical

services including missions, programs, humanitarian assistance, outreach, or service trips, with medical missions, and short-term medical missions (STMMs) used more frequently (Sykes, 2014). Health care services provided on STMMs range from surgical care to care for acute, life-threatening conditions, or providing treatment for chronic conditions; and mission durations range from two days to one month (Maki

et al., 2008). STMM volunteer teams are generally composed of physicians, nurses, and other professional health care providers with team composition varying from two to 90 providers per mission (Maki et al., 2008; Steinke & Shieh, 2014). The current study focuses on the role of child life specialists on STMMs. The authors would like to acknowledge at the outset that the COVID-19 pandemic has resulted in additional layers of vigilance in health care settings, severely curtailed global travel, and temporarily ceased, reduced, or modified many STMM initiatives. Since the current study addresses an underexplored topic of child life services on STMMs, it serves to advance the relevant foundational literature.

According to Sustainable Development Goals' child health data, more than five million children throughout the world die each year before they reach their fifth birthday, and children born into poverty are almost twice as likely to die before the age of five as those from wealthier families (United Nations, 2020). While this number has dropped by 53% since 1990, there is still much progress to be made (UNICEF, 2018). The disproportionate burden of child mortality and morbidity in resource-limited countries supports the need for international volunteerism with STMMs that offer health care services to children. Volunteers serving on STMMs can impact child health outcomes in developing countries by delivering and promoting local sustainability of health education, and surgical, medical, and psychosocial care that some communities in developing countries may have difficulty accessing. Children cope uniquely with health care experiences and often display negative reactions to medical procedures, with potential for immediate and long-term psychological impact including eating and sleeping disturbances, decreased cooperative behavior, increased fear, and post-traumatic stress (Thompson et al., 2018). There are limited available guidelines for integrating psychosocial care in STMM practice, and this care is mostly underprovided in routine patient care in developing countries. In general, psychosocial care in medical settings is defined as the provision of psychological and emotional support as well as practical advocacy as it relates to promoting resilience for patients adjusting to their diagnosis, accessing and adhering to medical treatment, and developing coping skills to incorporate their illness successfully into their lives (Reiss & Sand-

born, 2015). There is a need to develop a more consistent definition of psychosocial care provision during STMMs which focuses on children's health. Toward this aim, the current study explored the experiences and roles of Certified Child Life Specialists (CCLSs) providing psychosocial care on STMMs. As a category of psychosocial provider workforce, CCLSs have become involved in serving on international STMMs to provide support and education that address child development, typical fears, and behavioral responses of children, parental anxieties, coping strategies, and parent-child interactions (Desai et al., 2018).

Many STMMs follow international standards for patient safety based on the World Health Organization (WHO, 2012) and United Nations Children's Fund (UNICEF, 2018) standards of practice for child health in developing countries. These standards of practice focus on building sustainable partnerships with local communities, respecting differences in cultural perspectives and beliefs, and delivering developmentally appropriate psychosocial care to children and families. Upholding these standards generates significant promise for improving health outcomes in resource-limited countries and strengthening capacities within host communities (Hawkins, 2013; Seager et al., 2010).

The United Nations Conventions on the Rights of Children (UN-CRC) proclaims that children should have the "first call" on resources to secure their rights, and primacy be given to the principle of "the best interests" of the child (United Nations General Assembly, 1989). The UN-CRC provides a framework for the integration of the principles of children's rights into health care such that children have the right to receive medical care in ways that diminish their suffering, does minimal psychological damage, and promotes their full development. Children have a right to have their voices heard, questions answered, pain managed, have familiar caregivers present during difficult procedures, as well as have options to play and learn even while receiving medical care (Canadian Institute of Child Health, 2002; Desai et al., 2018). STMMs are fast paced and task oriented; they provide medical and surgical procedures to generally a large volume of patients, in limited space, with a potential for language barriers with medical workers who may be foreign to the patients and families. These are

additional elements which could lead to anxiety in children and their families or caregivers beyond receiving health care in an unfamiliar clinical setting. This suggests the need for inclusion of specialized staff who understand child development, family dynamics, psychosocial risk factors in pediatrics, and coping skill development to address the psychological needs of children in health care settings. However, psychosocial care services for children in medical settings in countries where STMMs typically occur face restrictions related to awareness, access, trained personnel, resource prioritization, capacity, and accountability. For example, according to Enright (2020), of 6,170 known CCLSs, the following is the breakdown of the top five countries where they reside: 5,704 in USA, 346 in Canada, 55 in Japan, nine in Qatar, and seven in the UK. Whereas in countries where STMMs may be hosted, there are three CCLSs living in the Philippines, and two CCLSs each living in China, India, Kenya, Mexico, and Romania.

Child Life Specialists' Role and Credentials

Support for an expanded role of CCLSs on the international level is reflected in the ACLP's Official Documents (Association of Child Life Professionals, 2016). Child life practices are applicable to any health care setting and transferrable to other environments in which the potential for infants, children, and youth to cope, learn, and master developmental milestones is placed at risk (Association of Child Life Professionals, 2020). The core of the child life profession is providing developmentally appropriate patient education about diagnoses, psychological preparation for medical procedures, planning and rehearsing coping strategies, nonpharmacological pain management, therapeutic play, and family support for pediatric patients and their families (Romito et al., 2021). CCLSs focus on the strengths and well-being of children while promoting their optimal development and minimizing the adverse effects from experiences in health care or other potentially stressful settings. CCLSs adhere to child life competencies, which are the minimal level of acceptable practice as defined by the Association of Child Life Professionals (ACLP), formerly known as the Child Life Council (Association of Child Life Professionals, 2020).

CCLSs must hold at least a bachelor's degree preferably in fields related to child life, human development, child development, education, or psychology. The CCLS certification credential is administered by

the Child Life Certifying Committee. At the time of this publication, the credential is earned by completing a college degree including 10 courses approved by the ACLP, completing a CCLS-supervised 600-hour clinical internship, and passing the child life certification examination (Association of Child Life Professionals, 2020).

Ethical Considerations for CCLSs Serving on STMMs

Ethical principles such as beneficence, non-maleficence, autonomy, justice, and competence should be upheld when providing child life services (Brown et al., in press), including when integrating psychosocial care during STMMs. Poverty, illiteracy, limited access to health care services, limited availability of medications, as well as cultural and language differences can result in exploitation of the population served on STMMs (Murray, 2016). First, the principle of competence needs to be considered when the CCLS is preparing to serve on an STMM. Adequate preparation of the CCLS regarding working within the culture of the host country, its health care system, prior missions at the specific site, working correctly with interpreters, and with humility to provide psychosocial care where it may not be the norm should be considered. The child life role is integrated to support the child and family's autonomy. Using trained interpreters as cultural brokers to provide information at an appropriate cultural reading level would help promote the child and family's sense of control (Ho, 2008). STMMs should work within existing health care structures to enhance self-sufficiency for patients and their families and create sustainable projects that the community can continue to build upon through future missions (Murray, 2016). CCLSs serving on STMMs have a unique opportunity toward raising awareness regarding psychosocial care services in health care settings in developing countries. This study provides a brief commentary regarding ethical considerations of integrating child life role on STMMs. Additionally, considerations regarding STMMs providing an opportunity for personal and professional development of volunteers (Sykes, 2014; Withers et al., 2013) are explored for CCLSs.

Impact of Volunteering on STMMs on the CCLS

STMMs not only increase health outcomes for children and families within developing countries, but also have been found to improve cultural competency levels and professional development for health care

professionals serving on STMM teams (Campbell et al., 2011). The present study draws from Campinha-Bacote's (2002) cultural competency theory and Knowles' (1973) adult learning theory to explore and support the reciprocal impacts for CCLSs volunteering on STMMs. Cultural competency refers to a body of knowledge, skills, attitudes, and behaviors in which health care professionals can deliver sensitive, empathetic, humanistic care that is respectful for patients (Fox, 2005). Cultural competency theory emphasizes that developing cultural competence is an ongoing process that is strengthened by direct cultural encounters (Campinha-Bacote, 2002). The more contemporary concept of cultural humility means being aware of power imbalances, being humble in every interaction with every individual, and is a life-long process (Foronda et al., 2016). While the construct of cultural humility acknowledges power disparities between provider and client, challenges institutional-level barriers, as well as provides a theoretical re-visioning of traditional cultural education efforts, it is less developed than existing cultural competency models (Fisher-Borne et al., 2015). For the current exploratory study, the cultural competency model offered a more reasonable fit.

Experiential learning is a major construct of adult learning theory. Adult learning can be a byproduct of experiences, and adults learn best from their own experiences, as well as from the experiences of others (Knowles, 1984). CCLSs volunteering on STMMs often work with a culturally diverse group of patients and families, collaborate closely with a global interdisciplinary team, and adapt to provide psychosocial care in a resource-limited setting which in turn can impact their cultural competencies, professional skills development, and child life competencies.

Purpose of Current Study

The present study aimed to (i) explore the roles and experiences of CCLSs volunteering on STMMs; (ii) examine the perceived impact of psychosocial care provided by CCLSs on patients, families, and health care providers within host countries; (iii) explore how CCLSs prepare to serve on an STMM; (iv) examine the impact that serving on STMMs can have on CCLSs' cultural competency, professional skills development, and child life competencies; and (v) examine barriers for CCLSs toward serving on STMMs.

Methods

This study received approval from the University and Medical Center Institutional Review Board of East Carolina University and the Institutional Review Board of Operation Smile, an international medical nonprofit organization providing access to safe cleft surgery to individuals around the world.

Data Collection

A cross-sectional, two-section survey was administered using Qualtrics online survey software to elicit responses from CCLSs. The cross-sectional, exploratory, descriptive study design allowed for surveying participants at a single point of time, across many geographical settings, to identify patterns of this unexplored role of CCLSs on STMMs (Alreck, & Settle, 2004; Sedgwick, 2014). Participants were recruited through the ACLP online forum and Operation Smile's child life specialty contact list. All CCLSs were eligible to complete the first section of the survey, and only those CCLSs who had served on at least one international STMM outside of the respondent's country of residence were eligible to complete the second section of the survey. Study reminders were sent twice after the initial posting to increase participant response.

Survey Instrument and Data Analysis

The survey tool was developed by the first two authors and content was validated by two experts in the field. The tool was piloted by five CCLSs and appropriate modifications for language clarity were made. The first section of the survey tool included questions regarding participant demographic information and explored barriers toward volunteering on STMMs. The second section included questions regarding participant experiences with international STMM(s); role of CCLS on the interdisciplinary STMM team; perceived impact and sustainability of child life services or psychosocial care, training, and preparation for STMM(s); as well as the impact of the STMM experience on the participants' cultural competency, professional skills development, and child life competencies. The tool included both close-ended and open-ended questions.

Specific questions measuring cultural competency and professional development were adapted with permission from Campbell et al.'s (2011) survey tool. The cultural competency scale ($\alpha=.82$) consisted of

12 items relating to various aspects of cultural competency (e.g., awareness of health care disparities). The professional development scale ($\alpha=.88$) consisted of eight items relating to various aspects of professional development (e.g., ability to communicate effectively with a team). Questions assessing whether STMM experiences contributed toward improved child life practices were created based on the child life competencies included in the ACLP's Official Documents (Association of Child Life Professionals, 2016).

Descriptive frequency data were analyzed using SPSS 22 statistical software. Two authors and a research assistant independently analyzed open-ended questions using thematic analysis, then met to discuss findings and discrepancies until consensus was reached.

Results

Results from responses of the 55 participants who had served as a CCLS on at least one international STMM and had completed both sections of the survey are primarily reported in this article. The number of CCLSs responding to the different questions varied throughout the survey, and the frequency percentages were calculated based on the total number of CCLSs who responded to that question. Additionally, responses from 66 CCLS who had never served on any STMM were examined for their reported barriers toward serving on STMMs.

Key Characteristics of Respondents Who Have Served on STMMs

The mean age of the participants was 37.87 years ($SD= 10.07$), and work experience as a CCLS ranged from two to 28 years. Demographic information and key characteristics are presented in Table 1. The desire to help children and families in resource-limited countries was selected as the top reason for volunteering on a STMM by over half ($n=30$ of 54, 55.5%) of respondents. Personal growth ($n=24$ of 49, 49%), professional growth ($n=22$ of 43, 51.2%), and interest in travel ($n=18$ of 47, 38.3%) were reported as the next three reasons for volunteering on STMMs. Notably, influence of professional colleague or peer, and spiritual/religious reasons were least frequently reported as facilitators for volunteering on STMMs.

Participants most frequently volunteered on STMM(s) in Asia ($n=36$, 65.5%), with the top three countries being the Philippines ($n=10$), Vietnam ($n=8$), and Cambodia ($n=7$). CCLSs also volunteered

Table 1 Demographic Information and Key Characteristics of CCLSs Who Have Volunteered on STMMs ($n=55$)

Characteristic	Categories	Number	Percentage
Gender	Female	53	96.4
	Male	2	3.6
Race/Ethnicity	White	52	94.5
	Latino/Hispanic	2	3.6
	Asian or Pacific Islander	1	1.8
Current position as CCLS	Child life specialist	35	63.6
	Child life administrator/manager	6	10.9
	Child life academician (full time)	1	1.8
	Not currently employed in child life	7	12.7
	Other	6	10.9
	Highest level of education	Bachelor's Degree	26
Master's Degree		28	50.9
Doctoral Degree		1	1.8
Highest degree major	Human Development and Family Science	14	25.5
	Child and Family Studies	10	18.2
	Child Development	5	9.1
	Psychology	4	7.3
	Early Child Education	4	7.3
	Other (e.g. Child Life)	18	32.0

in Africa ($n=29$, 52.7%) and South/Central America ($n=29$, 54.4%). The most frequently reported countries they volunteered in Africa included Kenya ($n=8$), Morocco ($n=8$), and Ethiopia ($n=7$). The most reported countries they volunteered in South/Central America were Nicaragua ($n=4$), Bolivia ($n=3$), Honduras ($n=3$), and Peru ($n=3$).

Majority of the participants ($n=45$, 81.8%) reported volunteering for Operation Smile. Other organizations participants reported volunteering with for STMM-type service were CURE, Partners in Health, The Daisy Fund/World Eye Cancer Hope, Connect-123, The CRUDEM Foundation, For Hearts and Souls, and Standish Foundation for Child and Family Centered Healthcare. Participants reported most frequently ($n=50$, 90.9%) volunteering on surgical STMMs in resource-limited countries which provided care for children who had clefts, craniofacial deformities, burns, cardiac defects, ophthalmic, or orthopedic needs.

Role of CCLS on STMMs: Types of Psychosocial Care and Interventions Provided

The types of psychosocial care and interventions provided by CCLSs on STMMs were separated into four categories including play and normalization, psychological preparation and support for medical procedures, education regarding pediatric psychosocial care, and administrative tasks.

Play and Normalization

Thirty-four (63%) of 54 participants reported that they always provided normalization of the environment through creating a child-friendly play space at the mission hospital site. Half ($n=27$ of 54, 50%) of respondents reported always providing orientation for children and their families to the medical setting. Child life specialists also reported always providing developmental play ($n=26$ of 54, 48.1%), medical play ($n=24$ of 54, 44.4%), therapeutic play ($n=22$ of 54, 40.7%), safety/infection control-toy cleaning ($n=10$ of 54, 18.5%), and group games ($n=9$ of 53, 17%).

Psychological Preparation and Support for Medical Procedures

Over half of participants ($n=31$ of 54, 57.4%) reported always providing emotional support to children and half ($n=27$ of 54, 50%) reported always providing emotional support and education to parents. Twenty-four (44.4%) of 54 participants reported providing psychological preparation for surgery and other potentially stressful experiences most of the time. Participants reported providing guidance in using non-pharmacological pain management techniques some of the time ($n=21$ of 53, 39.6%), most of the time ($n=9$ of 53, 17%), and always ($n=8$ of 53, 15.1%).

Education Regarding Pediatric Psychosocial Care for Health Care Professionals

Participants reported that they always supervised local volunteers and/or STMM team students and volunteers ($n=19$ of 54, 35.2%). Participants reported providing informal, ongoing education to STMM team members regarding psychosocial care ($n=20$ of 54, 37%), and regarding child development ($n=19$ of 54, 35.2%) most of the time. Notably, 29 (53.7%) of 54 CCLSs reported never providing formal education (e.g., lecture or seminar) regarding child development, and 28 (51.9%) of 54 reported never providing formal education about providing psychosocial care for children and families in healthcare settings to STMM members or international host health care providers.

Administrative Tasks Provided by CCLSs on STMMs

CCLSs reported always managing and providing toys and medical play materials on STMMs ($n=39$ of 53, 73.6%). Over half ($n=37$ of 52, 71.2%) of the participants reported always working within the cultural context. Most ($n=44$ of 53, 83%) participants reported never developing/implementing a budget for a CCLS position on the STMM. Twenty (37.7%) of 53 participants reported never helping in the development and evaluation of child life services within the STMM. Four (26.7%) of 15 participants reported usually completing other types of administrative or logistical tasks while volunteering on STMMs such as assisting with packing and unpacking medical equipment, facilitating team building activities, and helping other team members as needed.

CCLS Role Clarity on STMM

Nearly three-fourths ($n=37$ of 54, 68.5%) of participants perceived that their role as a CCLS was clearly defined on the STMM, while 16 (29.6%) of 54 participants perceived that their role as a CCLS on the STMM was only somewhat defined. Twenty-four (45.3%) of 53 participants perceived that the interdisciplinary team clearly understood their role as CCLS, while 29 (54.7%) of 53 participants perceived that their role was only somewhat understood. Analysis of open-ended responses reinforced that interdisciplinary STMM team members were often surprised by the range of knowledge and skills CCLSs utilized to improve the holistic care provided to patients and families; therefore, educating them regarding CCLS role was necessary.

Impact of Child Life Services on STMM Beneficiaries

Immediate Coping Outcomes as Reported by CCLS for Patients and Families

Table 2 shows CCLSs' perceptions regarding the immediate impact of providing psychosocial care on patients within the host countries. Importantly, as noted in Table 2, coping outcomes were perceived as favorably impacted most of the time by over half of participants. Effective pain management was perceived to be the least impacted coping outcome. Forty-eight (94.1%) of 51 participants reported observing parents/families who received child life services to exhibit less stress and anxiety and noted that these parents were able to support their child more effectively during the STMM experience. Also, 39 (73.6%) of

Table 2 Perceptions of CCLSs Regarding Immediate Outcomes on Beneficiary Patients in STMM Host Countries (N=53)

Observed Immediate Outcomes:	Never		Rarely		Some-times		Most of the Time		Always	
	n	%	n	%	n	%	n	%	n	%
Patients exhibited less stress and anxiety.	0	0	0	0	13	25.0	31	59.6	8	15.4
Patients were more engaged throughout the healthcare experience.	0	0	0	0	17	32.1	28	52.8	8	15.1
Patients were less scared of medical procedures.	0	0	0	0	21	39.6	28	52.8	4	7.5
Patients were more comfortable with healthcare providers.	0	0	1	1.9	19	35.8	27	50.9	6	11.3
Patients were able to cope more effectively.	0	0	0	0	17	32.1	32	60.4	4	7.5
Patients exhibited more cooperation with medical procedures.	0	0	1	1.9	19	35.8	27	50.9	6	11.3
Patients exhibited more effective pain management.	1	1.9	4	7.5	30	56.6	13	24.5	5	9.4
No difference observed in the patient's ability to cope with the healthcare experience.	30	56.6	12	22.6	5	10.2	2	4.1	0	0

Note. Number of participants that responded to each question varied. Percentages were calculated based on total number of participants who responded to each question.

53 participants reported that patients and their parents/families verbalized being less anxious about medical procedures/surgery after receiving child life services. Additionally, 47 (88.7%) of 53 participants noted that fellow STMM health care providers and local health care providers were more committed to providing family-centered care because of learning about the CCLS role and interacting with child life specialists.

Reported Efforts Toward Creating Sustainable Impact of Child Life Services

Notably, 47 (88.7%) of 53 participants reported that interdisciplinary STMM health care providers expressed interest and commitment for providing family-centered care because of learning about the child life role and interacting with child life specialists. Forty-two (79.2%) of 53 participants reported always leaving play resources for their child life counterpart

or nurses to use with patients in the host countries. Meanwhile, 38 (73.1%) of 52 participants reported never sending any type of resources to the host country after returning home from the mission. About half ($n=27$ of 51, 52.9%) of participants reported maintaining a sustainable partnership with at least one host country medical team member, for a time frame ranging from one year to over 10 years, typically via email or online communication. However, 39 (73.6%) of 53 participants reported never following up with any medical team member from the host country regarding psychosocial care after returning from the mission. In open-ended responses regarding following up with host country team, a common theme emerged that there were limited opportunities for CCLSs to personally follow up with medical team members from the host country. Instead, the participants felt that the STMM organization possibly provided follow up communication regarding provision of psychosocial care. One participant responded, "I feel that the hosting [STMM] foundation has made strides, rather than me personally." CCLSs ($n=10$) also commonly mentioned that it was much easier to maintain a long-term collaborative communication if they worked directly with a specific child life or psychosocial care counterpart during the STMM.

Training and Preparation for CCLSs Prior to Serving on STMMs

Participants reported using four main training methods that had the most impact on preparing them for the STMM experience. These included communicating with other CCLSs who had served on STMMs ($n=42$, 76.4%), conducting their own research regarding mission site ($n=34$, 61.8%), reviewing mission-related information packets sent by the STMM organization ($n=32$, 58.2%), and communicating with other medical team members ($n=22$, 40%). Least frequently utilized training methods reported were individualized face to face training ($n=2$, 3.6%), online methods (e.g., webinar or modules; $n=3$, 5.5%), child life conference presentations ($n=2$, 3.6%), and own previous experience working internationally ($n=1$, 1.8%). Two (3.6%) CCLSs reported receiving no training or preparation prior to their STMM experience. Participants reported wanting more information and preparation prior to STMMs regarding CCLS role expectations, promoting child life's sustainability in host countries, and information regarding types of appropriate supplies to bring on STMMs.

Impact of Serving on STMMs on CCLSs

CCLSs reported that volunteering on STMMs had a noteworthy impact on their self-perceived growth as a child life professional. The areas of growth included cultural competency, professional skills development, and enhancing child life competencies.

Cultural Competency

Fifty-three respondents reported on cultural competency development items on Campbell et al.'s (2011) survey tool. Table 3 shows CCLSs' perceptions regarding how serving on STMMs impacted their cultural competency. Notably, as seen in Table 3, CCLSs overarchingly reported that volunteering on STMMs not only increased their self-awareness regarding their own values, beliefs, and personal biases, it also strengthened their ability to communicate with patients from different socioeconomic and cultural backgrounds. One participant reflected:

“The STMM brought me back to the root of why we do what we do! Play is so vital and healing to children and play and preparation were my focus. Even when I was struggling with the language barrier, I was reminded that play is universal and does magical things for children no matter what country you are in.”

As described by another participant, “[Volunteering on a STMM] is a thorough way to experience and learn about different cultures; ... and techniques [used by] professionals around the world.” Overall participants noted that volunteering on STMMs was helpful to improve skills in communicating effectively with physicians, health care professionals, and staff from different social and cultural backgrounds.

Professional Skills Development

Fifty-three respondents also reported on professional skills development items on Campbell et al.'s (2011) survey tool (see Table 3). Most participants agreed that volunteering as a CCLS on a STMM positively impacted several aspects of their professional skills development, including the ability to form partnerships with team members, ability to adapt quickly to a new health care setting, and ability to communicate effectively with a team. Other factors such as self-confidence, professionalism, ability as well as desire to become a leader, and familiarity with medical knowledge were also positively impacted. One participant explained, “I felt that I gained a lot of confidence with finding different ways to do medical teaching

Table 3 Impact of Volunteering on STMMs on CCLSs' Cultural Competency and Professional Skills Development (N= 53)

Cultural Competency	N	%	Professional Skills Development	N	%
Strengthened ability to develop collegial relationships with diverse inter-professional teams	53	100	Strengthened ability to form partnerships with team members	51	96.2
Increased self-awareness regarding own values, beliefs, and personal biases	52	98.1	Strengthened ability to adapt quickly to a new health care setting	50	94.3
Communicate more effectively with patients from different backgrounds	52	98.1	Strengthened ability to communicate effectively with team	48	90.6
Communicate effectively with physicians, health care professionals, and other staff	52	98.1	Increased self-confidence	46	86.8
Increased awareness of health care disparities	53	100	Increased professionalism	45	85
Increased personal sense of responsibility	52	98.1	Strengthened ability to become a leader	42	79.2
Increased appreciation for the impact of a person's culture on health and self-confidence	51	96.2	Increased familiarity with medical knowledge	38	71.7
Increased confidence in working with individuals from other cultures	50	94.3	Increased desire to become a leader	37	70
Increased ability to quickly adapt to a new health care setting	50	94.3			
Increased likelihood of participating in volunteer activities with underserved populations	49	92.5			
Increased confidence in working with interpreters	47	88.7			

that would adapt to the needs of different patients/families.”

Child Life Competencies

Forty-nine (92.5%) of 53 participants reported that their STMM experience(s) invigorated them as a CCLS, and 48 (94.1%) of 51 participants reported that they achieved marked personal growth from serving on the STMM. Most participants agreed that volunteering as a CCLS on a STMM contributed toward improving their child life competencies. The top

three competencies impacted by the STMM included implementing child life services within the structure and culture of the work context ($n=49$ of 53, 92.5%), continuously engaging in self-reflective professional child life practice ($n=49$ of 53, 92.5%), and representing and communicating child life practice and psychosocial issues of infants, children, youth, and families to others ($n=48$ of 53, 90.6%). Forty-eight (92.3%) of 52 participants agreed that volunteering on a STMM has been a valuable contribution toward their child life continuing education, and 49 (92.5%) of 53 participants agreed that volunteering on STMMs should potentially be considered for earning professional development unit credit toward CCLS recertification. As reflected by a study participant, “Counting medical mission time toward certification [maintenance PDUs] would be great, and it makes sense. I learned way more on missions than I ever did in a day-long workshop.”

Barriers to Volunteering on STMMs

Of the 66 CCLSs who reported never volunteering on a STMM, several stated reasons for not volunteering. Of 53 respondents, 17 (32.1%) cited lack of available days of leave from current employment as their topmost barrier, and 13 (24.5%) cited this as the second highest barrier. Of 51 respondents, 17 (33.3%) cited being unaware of opportunities to serve on STMMs as their topmost or second highest barrier to volunteering. Of 46 respondents, 15 (32.6%) cited financial costs or concerns as their topmost or second highest barrier. The least frequently selected barriers to volunteering were personal safety concerns, visa or passport related logistical procedures, and fear of being unprepared to serve.

Discussion

This exploratory study adds to the literature concerning the role of CCLSs on STMMs and the bidirectional impacts of volunteering on STMMs for patients and families in host countries as well as for the CCLSs providing psychosocial care. Children have the right to life, survival, and development; to receive care with their best interests in the forefront; to not be discriminated; and to have their views heard as individuals with their own abilities, culture, and language (United Nations General Assembly, 1989). These rights should be honored in all health care settings including on STMMs by viewing children as a child first and then as a patient. Our findings sug-

gest that integrating the CCLS role on STMMs promotes children’s unique rights in health care settings through their advocacy of having children’s perspectives heard, preparing children for surgery, promoting parental presence for support, and providing children opportunities for play. Delivering psychosocial care to patients as integrated within health care services promotes their dignity and respect, as well as contributes to the patient’s ability to be better informed and to cope with the health care experience (Association of Child Life Professionals, 2020).

Role of Child Life Specialists and Their Impact on Patients and Families

Participants most frequently reported providing normalization of the health care environment, therapeutic play, emotional support, and psychological preparation for medical procedures which resulted in observable reduction in anxiety for the patients and family members. Classic literature supports that observed behavioral responses are valid indicators of measuring adaptive and maladaptive coping (Kronenberger et al., 1997; Wolfer & Visintainer, 1975). CCLSs reported that they noted lower stress levels and improved abilities to cope with the medical experience based on their observation of patients’ and families’ verbal and behavioral responses. Children want information about hospital procedures in an engaging, honest manner to help them gain realistic expectations of procedures and be less worried, and their parents have a role as gatekeepers to help them have access to this information (Bray et al., 2019). Observations of CCLSs in the current study align with the classic findings of Koller, (2008), Lynch, (1994), and Melamed and Siegel, (1975) that children who are psychologically prepared for surgery have reduced fear and anxiety and exhibit more cooperative behaviors. While challenges existed in measuring outcomes, the majority of CCLSs reported contributing to reducing patients’ fear of medical procedures and health care providers, increasing cooperation with medical procedures, and enhancing patient engagement throughout the STMM experience. Patient outcomes were also measured by observations verbalized by other health care team members. As one participant stated, “my nursing supervisor said at the end of the mission that these were some of the calmest, most prepared children she had ever worked with.”

Lower stress and anxiety for patients also leads to higher patient satisfaction, which is a commonly

used indicator for measuring the quality of health care (Prakash, 2010). Reeve et al., (2004) explain that one of the primary concerns for parents seeking care on STMMs for their children going into surgery was regarding pain management. Our data suggests that providing children guidance in using pain management coping techniques was not always a priority for CCLSs, as less than a third of the respondents reported providing this intervention always or most of the time. The facilitation of nonpharmacological pain management techniques is an essential component of the CCLS role (Romito et al., 2021) and is recognized in one STMM organization's Standards of Care (Operation Smile, 2020, a). Our findings suggest that CCLSs should be consistently informed that coaching and rehearsing of nonpharmacological pain and distress management techniques with patients is an expectation of their role on STMMs and they should more intentionally and routinely provide coping rehearsal for pain management in collaboration with interdisciplinary team members.

Literature supports that a parent or caregiver's anxiety levels are strongly correlated with how a child will respond to hospitalization (Fortier et al., 2010; Power et al., 2012). Empowering family or caregivers by providing reinforcement education and emotional support is an essential component of family-centered care and the CCLS role (Romito et al., 2021). Our findings reveal that CCLSs on STMMs do provide this intervention, resulting in less stress and anxiety for caregivers who were then better able to support their child throughout the STMM health care experience. A study participant described observing lower anxiety among mothers who received child life services, and stated:

“The parents always seemed incredibly grateful for our care and education. The mothers of young children often expressed that having us there made them feel less fearful of their child having surgery. Many times, the mothers would ask me to go into surgery with the baby/child to hold them until they fell asleep [from receiving anesthesia].”

Reeve et al., (2004) underscore the importance of understanding the belief systems of the family and community, the status of the child in the community, socio-cultural contexts which will determine the future of their patients, and the outcomes envisioned by patients and families from having the surgery. CCLSs

have the ethical responsibility for providing care with cultural humility while upholding patient and family autonomy and empowering them to communicate their wishes to the medical providers. When a CCLS provides accurate information with interpreters' assistance to patients and their caregivers in the language that they understand, they should become more empowered to have their wishes or concerns heard, provide informed consent with more clarity, and better advocate for overall care including pain management after surgery. Some CCLSs reported that language barriers and cultural differences made it more difficult for them to assess how their patients were coping. For example, a participant reported, “the patients were so stoic, it was difficult to decipher if the patients were happy/scared/sad because the children usually just did what they were told.” While communicating across language barriers during a STMM is a challenge for the CCLS, this also is a hurdle for patients and families and creates an extra tier of vulnerability for them (Ho, 2008). All health care workers need training to appropriately collaborate with interpreters and translators (Langdon & Saenz, 2015). CCLSs should be mindful of the tenets of non-maleficence, patient autonomy, and veracity when working with individuals who speak a different language. Harmful misconceptions could be created if CCLSs do not use interpreters when demonstrating use of medical equipment for procedural preparation (Desai, In press). CCLSs should as a best practice consistently use interpreters and refer patients and caregivers to translated patient education materials in the language that is most appropriate for them. Other ethical considerations for providing child life services on STMMs include the necessity for having appropriate current credentials and training toward providing psychosocial services only within the scope of their practice. Being mindful of cultural considerations and cost efficiency in use of any materials (e.g., for play, personal protective equipment) in a resource-limited setting is also necessary.”

Participants reported that they were initially viewed as “the play lady” or “play person” at the beginning of the STMM, but by the end of the STMM, medical team members better understood the versatility of the comprehensive child life role. One participant reported being told by STMM team members, “I didn't know child life did that. You've changed my understanding of the role of child life.” All child life specialists should be knowledgeable of their job description, as well as roles and responsibilities expected of them on a ser-

vice program by the STMM organization. Interdisciplinary team members should also be educated about the child life role, so they can work collaboratively to uphold children's comprehensive rights. Our findings also suggest that working directly with CCLSs helps increase role clarity regarding psychosocial care services among international health care providers.

Capacity Building in Host Countries and Sustainability Efforts

Sustainability and impact of STMMs and other short-term experiences in global health are directly associated with forming and maintaining collaborative partnerships with host communities (DeCamp, 2011; Loh et al., 2015; Melby et al., 2015). There is an expectation on most STMMs for international volunteers to share knowledge through teaching and mentoring the local health care staff (Dawson et al., 2017). A crucial component of sustainability is capacity building, which involves strengthening local health systems and training of local health care providers (Loh et al., 2015; Melby et al., 2015). Feedback from host communities is necessary to continuously improve international STMM programs (Riviello et al., 2011). Participants in the current study had mixed experiences regarding sustainability efforts for psychosocial care and maintaining collaborative partnerships with host communities. Our findings suggest that less than half of the participants provided formal education regarding psychosocial care in health care settings, thus possibly resulting in a missed opportunity. CCLSs did not always realize that they were expected to build psychosocial care capacity with host country counterparts and have requested more information regarding this role expectation. CCLSs serving on STMMs should be more consistent and intentional in engaging in a reciprocal process of modeling psychosocial care and mentoring.

Additionally, following the STMM, by maintaining mutually respectful contact with a child life equivalent counterpart or medical team members in the host community, information regarding pediatric psychosocial care can be continuously shared while cultural nuances can be learned by the CCLSs. CCLSs serving on missions should be made aware of the importance of creating and maintaining sustainable, collaborative partnerships with host communities. Almost half of the CCLS participants reported never or rarely maintaining ongoing communication with any host country medical team member after the STMM had

concluded. Many participants described that the STMM organization with whom they volunteered created and maintained sustainable partnerships with host communities, rather than them personally. Participants who were more likely to maintain an ongoing, individual, collaborative partnership with a host country team member reported having a designated psychosocial care counterpart from the host country. One participant described, "Some host country [counterparts] follow the CCLS to learn our role and then implement our practices after we leave to better take care of their pediatric patients." Our findings support that involving CCLSs on STMMs raised awareness of local health care providers regarding providing psychosocial care for children receiving care in health care settings. However, more defined and targeted efforts are needed to increase both awareness and capacity to build sustainable psychosocial services on and beyond STMMs.

If long term sustainability of integrating psychosocial care is the STMM organization's goal, then creating a child- and family-centered care environment involves educating not only fellow psychosocial providers, but also educating all medical team members and administrators. Volunteer CCLSs should be educated about this goal and provided guidance by the STMM's child life leadership regarding these efforts. Commitment from STMM organization leadership both in the resource and host countries toward these efforts is also necessary for promoting psychosocial care. Many STMM partnerships include the donation of materials and durable medical equipment toward building host country's capacity (Sykes, 2014). Majority of CCLSs reported leaving play resources for their child life counterpart or nurses in the host country. Developing new pedagogies through engaging holistic approaches in higher education (Higgins & Thomas, 2016) should also be pursued with host country partners to enhance the status of pediatric psychosocial services.

Impact on the Volunteer

As referenced earlier, outcomes in STMM literature also addresses the motivations to volunteer and impact on the volunteer (Sykes, 2014). Like findings from Withers et al. (2013), CCLSs were less likely to report spiritual or religious reasons for volunteering and reported career-oriented benefits derived from participating on a STMM in the form of increases in cultural competency and professional development. Campinha-Bacote's (2002) cultural compe-

tency model served as one theoretical framework for the current study, which is defined by five cultural constructs including cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Our findings suggested that CCLSs who served on STMMs reported gains in all five constructs. They reported increased self-awareness regarding their own values, beliefs, and personal biases regarding working with others. Cultural knowledge was enhanced, as they reported increased awareness of global health care disparities. Participants reported increased cultural skills regarding confidence in working and communicating effectively with people from different socioeconomic status, cultures, and working with interpreters. The STMM promoted cultural encounters by providing CCLSs the opportunity to not only work with patients from different socioeconomic and cultural backgrounds, but also with diverse interdisciplinary health care team members and host country community members. Finally, findings indicated that most participants reported they are more likely to volunteer with individuals in underserved communities in the future, suggesting increase in the cultural desire construct. Our findings are consistent with findings of Amerson (2010) and Campbell et al. (2011) suggesting that volunteering with international outreach activities, including STMMs, increased health care providers' cultural competency.

As proposed by Knowles' (1984) adult learning theory, which also served as a theoretical framework for the current study, CCLSs acknowledged that volunteering on a STMM positively impacted several aspects of their professional development. CCLSs reported increased professionalism, communication skills, leadership abilities, confidence, medical knowledge, and felt invigorated as a professional. As stated by a study participant, "Real experience is the best teacher." As lifelong learners, CCLSs who served on STMMs became more familiar with international perspectives of delivering pediatric health care services and gained appreciation for the impact of a person's culture on their health. This knowledge likely enhances CCLSs' clinical practices by allowing them to become more sensitive, responsive, and better able to advocate for pediatric patients from a variety of social, economic, and cultural backgrounds both on STMMs and in their home country (Desai et al., 2018). Results from the current study suggest that volunteering on STMMs is a valuable opportunity for CCLSs to gain

professional knowledge and development.

Notably, our findings also suggest that volunteering on STMMs contributed toward enhanced child life competencies regarding interdisciplinary teamwork and effective communication as outlined in the ACLP's official documents (Association of Child Life Professionals, 2016). Specifically, participants reported the highest increases in their abilities to function as a member of the services team, continuously engage in self-reflective professional child life practice, and represent and communicate child life practice and psychosocial issues of patients and families to others. Most of the participants noted that volunteering on an STMM was a valuable contribution toward their child life continuing education and that the experience could potentially be considered a professional development activity toward earning professional development units (PDUs) for CCLS recertification.

Study Limitations

Data were collected through self-report methods and relied on perceptions of CCLSs, which could have potential for respondent bias, mainly social desirability. The relatively small sample size limits the ability to generalize findings. While the study addresses an underexamined topic, more in-depth examination of patient and family outcomes must be made. Patient and family coping outcomes relied on perceptions of CCLSs and while useful, other forms of evidence should be collected. Also, since STMMs are varied and range widely in their scope, more research exploring child life role and its outcomes in various types of STMM settings will add to more nuanced findings. For example, Yeager and Bauer-Wu (2013) discuss how with a foundation in cultural humility, nurse researchers and other scholars can initiate meaningful and ethical projects to better address and reduce health disparities. While the current study provides more generic data on perceived coping outcomes, child life specialists serving on STMMs in diverse geographic sites and within varied cultural contexts could collaborate with nursing colleagues to study more defined health and coping outcomes for children and families who are likely to be different from them in various ways including race, ethnicity, religion, or socioeconomic status. Additionally, lack of examination of long-term impact regarding the relationship between serving on STMMs and gaining professional benefits limit conclusions at this point.

Implications for Practice and Research

The current study provides implications for various stakeholders and for future research. The authors reiterate that the need for modifications and training to further enhance safety and minimize risks will be necessary for child life role in STMM settings. STMM organizations are modifying their global strategies with expected seasonal coronavirus trends and the infectious nature of COVID-19. STMM organizations will be working with many governments that will change their restrictions and consent to resume international activities based on epidemiological patterns, response, and treatment outcomes within their countries (Operation Smile, 2020b). Child life services will need to make necessary accommodations such as not expecting to volunteer on large international STMMs for a considerable timeframe and opportunities for engagement with STMM organizations outside of a typical mission service delivery model.

Child Life Specialist Serving on STMMs

With reference to improving direct services, CCLSs should increase guidance for patients and families in using nonpharmacological pain management techniques during STMMs. CCLSs can also educate families and caregivers about taking care of a child with a health care need, child development milestones, and long-term community reintegration efforts. CCLSs should be more consistent and intentional in providing both informal and formal education about promoting psychosocial care. CCLSs should be made aware of the importance of creating and maintaining sustainable, collaborative partnerships with host communities toward psychosocial care capacity-building efforts.

Research Regarding Measuring Effectiveness of CCLSs' Role on STMMs

While the CCLSs reported generally positive patient outcomes, developing or identifying existing tools to measure the efficacy of CCLS interventions on STMMs to increase evidence-based support for both short- and long-term patient and family coping outcomes is crucial. Evaluating patient and family satisfaction specific to the CCLS role on the team is important. Using external evaluators regarding impact of CCLS role would enhance these findings.

Child Life Managers and Hospital Administrators of Volunteer CCLSs

The most frequently cited barrier toward volunteer-

ing as a CCLS on a STMM was lack of available days of leave/vacation from current employment, followed by concern regarding financial costs. Exploring the feasibility for child life managers to advocate for partial paid time off or providing some reimbursement toward STMM costs to reduce these barriers would be useful. Recognizing the benefits to the CCLS in terms of strengthened cultural competency, professional development, enriched child life competencies, and improved career motivation, and how this may translate into enhanced job performance is necessary. More research to evaluate professional benefits from serving on STMMs is indicated. Particularly, exploring newer constructs related to cultural practice such as that of cultural humility would be recommended. Serving in a child life role in resource-limited settings typical for STMMs could facilitate exploring whether the experience promotes cultural humility and recognition of power inequities that exist in the patient-provider relationship and within communities.

Child Life Professional Organization

Findings from the current study, albeit self-reported, suggest that volunteering on STMMs improved CCLSs' clinical practices, professional development, and cultural competencies, and was deemed valuable toward child life continuing education. One incentive for volunteering on STMMs could be the consideration of approving professional development units toward maintaining child life certification based on length of STMM service and types of interventions provided. Assembling an ad hoc task force to explore this option would be worthwhile.

STMM Organizations Serving Children

While STMMs have succeeded in increasing access for medical and surgical care for indigent patients, there is an opportunity to promote holistic, rights-based, family-centered care by including CCLSs or equivalent psychosocial service providers on STMMs. Patient outcomes data related to coverage, morbidity, or mortality associated with treatments is more standard; changes in quality of life resulting from medical/ surgical interventions are less frequently measured (Sykes, 2014). Including a focus on pediatric psychosocial services may increase the opportunity for such inquiry. Additionally, STMM organizers should provide CCLSs with adequate preparation for their role, establish networking opportunities to communicate with CCLS who have already served, and create more awareness regarding opportunities

to get involved. While child life professionals are not readily available in most developing countries, STMM organizations may be on the forefront of pioneering awareness regarding the role of psychosocial service providers for improved patient outcomes. Developing partnerships with the local pediatric health care community to build a relationship with equivalent psychosocial care providers in host countries and reciprocally sharing program development knowledge, skills, and resources is needed. More emphasis should be placed on engaging higher education institutions in host countries with child development, human development, teacher preparation, and psychology departments as they can be a source for identifying appropriate academically trained individuals for providing psychosocial care in pediatric settings and may be positioned to create new curriculum toward promoting sustainability. Lessons can be learned from preservice training of early childhood educators which provided volunteers with historical, social, and cultural contexts of host countries for developing sustainability (Ärlemalm-Hagsér & Elloitt, 2017). By standardizing recruitment, training, and credentialing of psychosocial care providers in host countries, STMM organizations would make an important contribution to holistic well-being of children and families they serve. There is an opportunity for further research into the feasibility of the role of CCLSs or equivalent psychosocial providers in building capacity toward developing sustainable pediatric psychosocial services within host country health systems.

Conclusion

This study adds to the STMM literature specific to the participation of CCLSs and their contribution towards promoting psychosocial well-being of pediatric patients and their families receiving medical or surgical care in this setting. This research provides information about the roles fulfilled by CCLSs on STMMs, child life competencies utilized on STMMs, factors which motivate or create barriers to such service, preparation received to serve on medical missions, as well as professional gains achieved by CCLSs serving on STMMs. The current study also informs prospective volunteers regarding this role and offers training considerations for such work. While more research is needed to increase evidence-based support of the CCLS role on STMMs, the current study highlights this role for the wider interdisciplinary internation-

al STMM community and the potential this creates towards enhancing child well-being and child rights within this unique health care context.

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Pediatric Medical Traumatic Stress

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ABSTRACT

Pediatric medical traumatic stress is a newly emerging term in the literature that is used to describe the impact of negative health care experiences on children and their families. The aim of this scoping review is to explore the health care conditions in which the pediatric traumatic stress framework has been described and what is known about the experiences of children and families who are facing pediatric medical traumatic stress. Best practices for conducting a scoping review were utilized which included the preferred reporting items for systematic reviews and meta-analyses extension checklist for scoping reviews (PRISMA-ScR). Following the inclusion and exclusion criteria, 16 articles were included in this review. Results demonstrate a lack in the knowledge around variants within health condition, developmental stage, pre-existing factors, the longevity of symptoms, child reports on trauma, and how trauma can impact future health care.

Pediatric medical traumatic stress (PMTS) is described as trauma resulting from negative medical experiences which can have a devastating effect on both the child and their family, as well as impact future hospital visits (Kazak et al., 2006). PMTS is not viewed as a traumatic stress disorder, but rather as post-traumatic stress symptoms (PTSS), in which a variety of symptoms of post-traumatic stress disorder (PTSD) may be present without meeting the full diagnostic criteria for PTSD (Kazak et al., 2006). Identifying the varying symptoms of PTSD has shown to be more supportive to patients and families than looking at the psychiatric diagnosis alone (Kazak et al., 2006). In order to develop an understanding of the unique aspects of trauma symptoms in children that are caused by a medical

event, the term PMTS was developed to describe these symptoms within a pediatric medical context (Ari et al., 2018). The definition was developed from research and clinical experience of trauma specifically related to health care (Kazak et al., 2006), and is defined as

a set of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures, and invasive or frightening treatment experiences. Medical trauma may occur as a response to a single or multiple medical events (The National Child Traumatic Stress Network, 2003, para 1).

These responses may include re-experiencing, arousal, or avoidance symptoms (The National Child Trau-

matic Stress Network, 2003). PMTS is understood as a framework that brings a new understanding of how injury, medical procedures, illness, and treatment can impact children and families (Kassam-Adams, 2006). The PMTS framework provides the opportunity to widen the understanding of the impact of medical events on children and their families (Kassam-Adams, 2006).

Post-traumatic Stress Disorder, Post-traumatic Stress Symptoms, Acute Stress Disorder, and Pediatric Medical Traumatic Stress

There are similarities in the symptoms that are present between post-traumatic stress disorder (PTSD), post-traumatic stress symptoms (PTSS), acute stress disorder (ASD), and PMTS, but also defined distinctions. PTSD is a psychiatric disorder that involves disturbing or distressing symptoms after exposure to a traumatic experience (Kessler et al., 2012). Symptoms include avoidance of stimuli, changes to mood and condition, as well as notable changes to arousal and reactivity that last for more than a month after trauma exposure and are not attributed to other factors (Barnes et al., 2021). ASD is also a psychological disorder, with diagnosis involving exposure to trauma and experiencing nine or more symptoms from the diagnostic categories (negative mood, intrusion, dissociation, avoidance, and arousal) that last anywhere from three days to one month after the traumatic exposure and are not attributed to another condition (Barnes et al., 2021). ASD diagnosis is utilized before

PTSD can be diagnosed (within one month of symptoms) or as a predictor of the potential development of PTSD (Bryant, 2018). PTSS and PMTS are not viewed as psychological disorders but as the symptoms associated with PTSD. These symptoms include avoidance, arousal, and re-experiencing. While they have overlapping elements, PMTS is understood more specifically with these symptoms which are related only to medical trauma in a pediatric population (Kazak et al., 2009).

The majority of trauma research in pediatric health care focuses on PTSD, ASD, and PTSS, which may be due to the fact that there is currently no standardized measure for PMTS (Ari et al., 2019). There is a dearth of research that examines traumatic stress within the context of the PMTS framework; however, there are currently no reviews in the literature focusing specifically on the PMTS framework alone for understanding children and family's experiences and its presentation across health care conditions. As Certified Child Life Specialists (CCLSs) support children and families through their healthcare experiences, increased understanding of how PMTS has been described in the literature and the specific conditions studied aids in identifying gaps in the knowledge base, allow for further clarification of the presentation of PMTS, as well as expand the knowledge around how to support children and families within a health care setting.

Introduction to Scoping Review

A scoping review was undertaken to explore the existing evidence of the application of the PMTS framework. Colquhoun et al. (2014) define a scoping review or scoping study as “a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematically searching, selecting and synthesizing existing knowledge” (p.5). The mapping of research knowledge is an important exercise in health care research, and scoping reviews are becoming an increasingly favorable way to present research (Colquhoun et al., 2014). Scoping reviews have been heavily adapted in health care research and have advantages over other traditional literature reviews as they allow for systematic searches of emerging evidence bases (Minaker

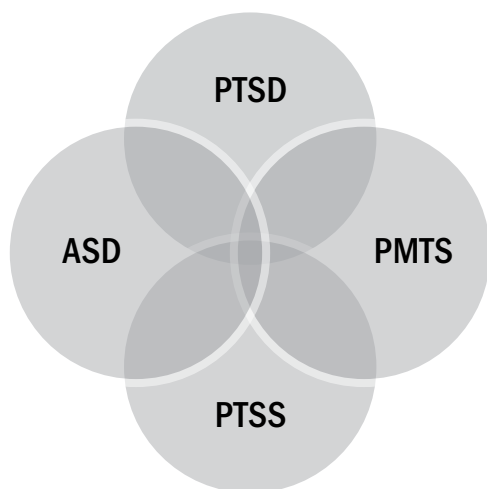


Figure 1 *Overlapping Elements of Trauma*

et al., 2016). Scoping reviews are often completed to identify the range, nature, and extent of existing literature, as well as to identify gaps where no previous research has been conducted (Arksey & O'Malley, 2005; Levac et al., 2010). Arksey and O'Malley (2005) were among the first to publish a framework for providing methodological guidance to undertaking a scoping study. Levac et al. (2010) furthered the understanding of the framework to guide scoping reviews, and the Joanna Briggs Institute (JBI) subsequently published a document to support existing direction on conducting a scoping review (Peters et al., 2015). In 2018, the preferred reporting items for systematic reviews and meta-analyses developed an extension checklist for scoping reviews (PRISMA-ScR; Tricco et al., 2018, appendix 1). All of the above will provide a methodological guide and format for the current scoping review, focusing on the framework originally proposed by Arksey and O'Malley (2005) which includes these six steps:

1. Identify the research question: mapping out the research question that is sought to be answered; this should be clearly defined and broad in nature;
2. Identify relevant studies: identify relevant studies and make decisions for where to search (e.g., language, sources, and time span);
3. Study selection: select studies based on inclusion and exclusion criteria;
4. Chart the data: extraction of data from relevant literature;
5. Collate, summarize, and report results: a framework that is analytically or thematic to provide an overview of the literature; and
6. Consultation: this stage is optional and provides opportunities for stakeholder involvement to provide insights beyond the literature.

Methods

Research Question

The aim of a scoping review is not to strive for answers to very specific questions or to comment on the quality of the studies included (Arksey & O'Malley, 2005). Instead, scoping reviews involve the posing of broad research questions, to support a summation of the ev-

idence base (Levac et al., 2010). This scoping review aimed to address the following questions:

1. In what health care conditions has the pediatric medical traumatic stress framework been described in the literature?
2. What is known about child and family experiences of pediatric medical traumatic stress?

Study Identification

An extensive search of PUBMED, Embase, and PsycINFO databases was undertaken using a combination of keywords and synonyms as noted in Table 1.

Table 1 Search Terms and Synonyms

'paediatric medical traumatic stress'	'children'	'hospitalization'
or	or	or
'pediatric medical traumatic stress'	'child'	'hospital'
or	or	or
'PMTS'	'paediatrics'	'healthcare'
	or	or
	'pediatrics'	'illness'

Once the search was completed and appropriate articles were obtained, key journals were searched for relevant primary studies, in addition to systematic and other forms of literature reviews as recommended by Arksey and O'Malley (2005). All studies were identified through a review of the title and abstract and evaluated against the inclusion and exclusion criteria. If they met the criteria, the full text articles were retrieved for further screening.

Inclusion Criteria

1. Include children's or caregivers' experience of PMTS in a health care context;
2. Include children aged birth-17 years old or their families with PMTS; and
3. Published between 1990 and 2020.

Exclusion Criteria

1. Articles published in languages other than English;
2. PMTS with children or families outside of a health care context such as natural disasters or abuse;
3. PMTS not involving experiences of children between birth and 17 years old and families;

4. Studies involving practitioners' experiences of PMTS; and
5. Studies not directly referring to PMTS and its framework, including studies looking specifically at PTSS, ASD, and PTSD exclusively.

Study Selection

Article titles and abstracts were searched to determine eligibility against the identified inclusion and exclusion criteria. A full text article of any study that mentioned PMTS in the title or abstract was obtained for further screening. To limit bias within study selection, several provisions were put in place. These included:

- Agreement on the search string and databases;
- Agreement of inclusion and exclusion criteria;
- Agreement of PRISMA diagram;
- Independent review and extract of three papers to agree articles are appropriate; and
- Review of papers in which the reviewer was uncertain and came to a team consensus.

Charting Data

Ritchie and Spencer (1994) describes this stage of the review as interpreting, sorting, and charting material according to key themes (Arksey & O'Malley, 2005). The following pieces of data were extracted from each study including: authors, date published, country of author origin, aims, methods, sample size, and results (Table 2). This data was then put into an excel database to allow for analysis (Arksey & O'Malley, 2005).

Results

In total, 595 potential papers were identified through the initial database search and an additional one was identified in a subsequent search. After excluding 163 duplicates, 433 articles remained for further screening by abstract and title against the inclusion and exclusion criteria. Of these, 406 articles were excluded, leaving 27 full text articles to be screened. Following full-text screening, 16 papers were selected for inclusion (Figure 2).

Based on the country of the lead author, most papers derived from the United States (Figure 3). The papers were published between 2006 and 2019. Eight of the papers were review articles, research studies accounted for five, conference proceedings were two, and a case study was the remaining paper. The results of the

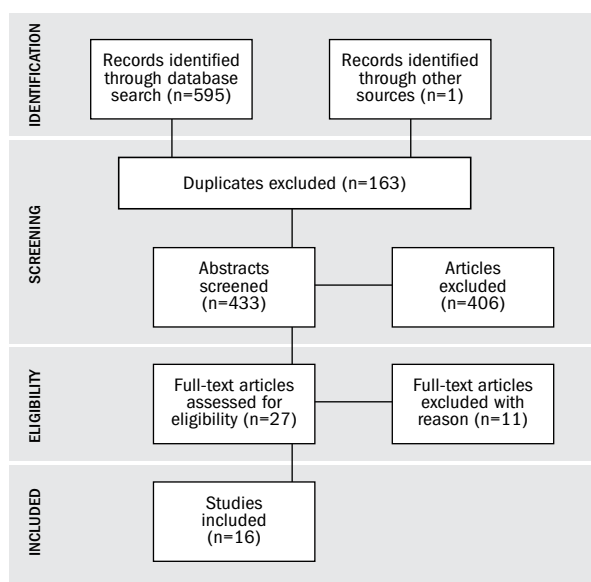


Figure 2 PRISMA Flow Chart

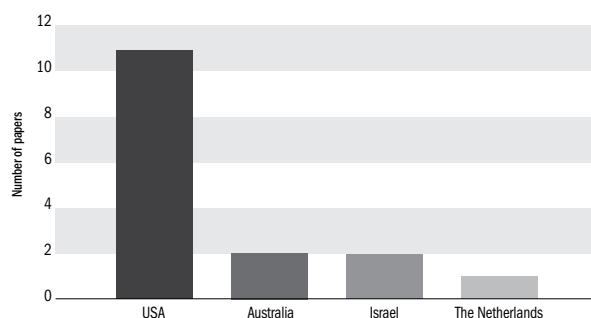


Figure 3 Prevalence of Countries

review are presented in three key categories: identification and assessment of symptoms, pediatric health conditions, and interventions.

Identification and Assessment of Symptoms

Kazak and colleagues (2006) developed the first model aimed at assisting in the assessment and identification of PMTS. The model was developed out of a lack of understanding how medical trauma may unfold over various points in the course of pediatric illness (Kazak et al., 2006). The *integrative model of pediatric medical traumatic stress* is a therapeutic model which breaks down the expected pathway most families experience during a traumatic medical event into three phases (Kazak et al., 2006). The model aids in explaining the psychological impact that PMTS can have on both children and families (Kazak et al., 2006), and provides a structure for describing how children and families may adapt to medical challenges over time; supports the identification of symptoms; and guides

Table 2 Data Extraction

Author	Date	Title	Country	Aim
Kazak et al.	2006	Integrative model of pediatric medical traumatic stress	USA	To guide assessment and intervention for patients and families, construct a model for assessing and treating pediatric medical traumatic stress by integrating the literature across pediatric conditions
Pai & Kazak,	2006	Pediatric medical traumatic stress in pediatric oncology: family systems interventions	USA	To review family systems interventions in pediatric oncology with a focus of reducing PMTS across the family unit
Vermaes et al.	2008	PMTS and stress response sequences in parents of children with spina bifida	The Netherlands	To test the presence and course of PMTS symptoms in parents of children with spina bifida
Jordan et al.	2013	Maternal report of infant emotional well-being following their infant's hospitalization for neonatal cardiac surgery	Australia	To investigate if infants exhibited emotional and behavioral dysregulation of traumatic responses post cardiac surgery in their first 3 months of life
McGarry et al.	2013	Pediatric medical trauma: The impact on parents of burn survivors	Australia	There were three aims: i) Investigate the psychological profiles of parents exposed to PMTS; ii) Identify the impact that pre-existing factors of distress have on parents; and iii) Examine the association between resilience and risk of increased psychological distress
Bergeron	2016	Factors that support the use of child-parent psychotherapy as an intervention for child-parent dyads to pediatric medical traumatic stress	USA	To explore the literature around clinical interventions for young children who have experienced PMTS
Guvenek-Cokol et al.	2016	Medical traumatic stress: A multidisciplinary approach for iatrogenic acute food refusal in the inpatient setting	USA	To examine food refusal in the context of medical traumatic stress of a 5-year-old girl and demonstrate treatment interventions
Price et al.	2016	Systematic review: A reevaluation and update of the integrative (trajectory) model of pediatric medical traumatic stress	USA	To re-evaluate, review, and update the integrative model of pediatric medical traumatic stress
Ari et al.	2018	Surgical procedures and pediatric medical traumatic stress (PMTS) syndrome: Assessment and future direction	Israel	To assess the frequency and characteristics of psychological symptoms persisting 3 months after hospitalization in a pediatric surgery ward
Yagiela et al.	2018	Reframing pediatric cardiac intensive care outcomes: The importance of the family and the role of pediatric medical traumatic stress	USA	To explore the experiences and outcomes of families and children admitted to an intensive care unit for cardiac disease

Method	Sample	Results/Findings
A model of PMTS is developed through review of literature	Not stated	The paper developed a 3-phase model to support the identification of symptoms, assessment, and intervention of children and families suffering with PMTS across conditions. This model was the first to support the development of assessment and intervention for PMTS.
Review	Not stated	The findings show that the integrative model of pediatric medical traumatic stress is useful for understanding psychological consequences of pediatric oncology and beyond treatment. Interventions for PMTS were acknowledged, including: The Surviving Cancer Competently Intervention Program (SCCIP), The Surviving Cancer Competently Intervention Program-Newly Diagnosed (SCCIP-ND), and the Problem-solving Skills Training (PSST). All are promising when working with PMTS within oncology.
Parental report Two part qualitative study Semi-structured clinical interviews	Study 1: 23 parents with a new-born diagnosed with spina bifida within 3 months of age Study 2: 58 parents of school-aged children with spina bifida	Study 1: While reporting symptoms of intrusion and arousal, their symptoms weren't intense or frequent enough to be described as PMTS. Study 2: Significant amount reported the highest levels of PMTS were found at spina bifida diagnosis. Symptoms of PMTS were shown to decrease between diagnosis and the first 4 years of the child's life.
Qualitative study Parental highly structured interviews and questionnaire	97 mothers of infants under 3 months who had cardiac surgery.	The responses of the mothers described three types of infants: those who appear happy with no behavior or emotional problems, those that appear mainly happy but have an area of difficulty, and infants who have significant issues in relation to emotion and/or behavioral problems.
Parental report Utilization of 4 screening tools around different facets of PMTS (the Connor Davidson resilience scale, the impact of events scale revised, the depression and anxiety scale, and the screening tool for early predictors of PTSD)	63 parents of children with a burn requiring at least one night stay in hospital	Findings suggest parents of children who have sustained a burn will experience significantly more symptoms of PTSD than the general population in the USA. Significant distress is experienced in the first week of a burn incident. Parents reported lower levels of resilience and more symptoms of depression and anxiety.
Review	Not stated	The findings show that while there is research in the area of trauma-informed cognitive behavior therapy, it may not be appropriate for younger children with PMTS. For PMTS in younger children under the age of 5 years, the use of child-parent psychotherapy (CPP) may be better aligned and allow for a focus on therapy that incorporates play and is flexible.
Case study	1 child aged 5 years	Findings suggest that multidisciplinary team is important to support patients facing trauma. Behavior intervention, family support, and decreasing medical trauma are valuable interventions.
Systematic literature review	216 papers	The findings demonstrate that the new evidence base supports the assumptions of the integrative model of pediatric medical traumatic stress and puts a new assumption based on the literature. In line with new evidence, the model was updated and renamed the integrative (trajectory) model of pediatric medical traumatic stress.
Prognosis study. Parental report via questionnaires (demographic questionnaires, Achenbach's child behavior checklist, assessment of PTSD symptoms, the post-traumatic stress disorder semi structured interview, the preschool children's assessment of stress scale) over the phone 3-5 months post discharge	Parents of 79 children aged 1-6 years from a range of conditions requiring pediatric surgery including; gastroenterology, urology, dermatology, ENT, ophthalmology, orthopedics, cardiology, neurology, nephrology, cardiology, combined conditions and other conditions	Showed that a significant amount of children in the sample were shown to suffer from psychological stress following surgery, per parental response.
Review	Not stated	Findings suggest that parental support is required, specifically interventions that support psychological and emotional health of parent and build on resiliency skills. Following the integrative model of pediatric medical traumatic stress, it supports that parents may be impacted by pre-existing factors prior to admission and appropriate assessment and intervention is required.

Table 2 Data Extraction (continued)

Author	Date	Title	Country	Aim
Ari et al.	2019	Traumatic stress among school-aged pediatric surgery patients and their parents	Israel	To assess prospectively the prevalence and characteristics of PMTS in school-aged children and their parents following hospitalization in a general pediatric surgery ward
Cuneo, Perito, et al.,	2019	Medical traumatic stress in pediatric patients with cystic fibrosis	USA	To show the prevalence and predominant symptoms of PMTS in children and adolescents with cystic fibrosis (CF)
Cuneo, Perito, et al.	2019	Medical traumatic stress in pediatric patients with chronic pancreatitis	USA	Identify the prevalence and predominant symptoms of PMTS in children and adolescents with chronic pancreatitis
Christian-Brandt et al.	2019	When treatment is traumatic: An empirical review of interventions for pediatric medical traumatic stress	USA	To review literature on PMTS using a developmental framework and identify gaps
Lakatos et al.	2019	Child-parent psychotherapy with infants hospitalized in the neonatal intensive care unit	USA	To describe the use of CPP within the neonatal intensive care unit (NICU) to show it can be adapted for use with infants who have experienced PMTS
Yagiela et al.	2019	Parent medical traumatic stress and associated family outcomes after pediatric critical illness: A systematic review	USA	To summarize literature on parental medical traumatic stress from a child's critical illness requiring PICU admission

the development of interventions that are targeted specifically for PMTS (Kazak et al., 2006). The model consists of three phases that aim to support in the identification of PMTS from addressing early experiences of trauma, reducing distress, and identifying longer term trauma that may persist to PTSD (Kazak et al., 2006).

Within phase I (peri-trauma), it is believed that pre-existing factors of the child and family can make them more vulnerable to the development of PMTS symptoms, which interact with the characteristics of a medically traumatic event (i.e., feelings of horror, helplessness, or life threat; Kazak et al., 2006). Phase II (early, ongoing, evolving) involves the continued experiences of trauma related to the trigger medical event. These can include responses and symptoms that are ongoing such as pain, memories of treatment, or worries for the future (Kazak et al., 2006). Phase III (long-term) looks at long-term PMTS involving trauma symptoms that have not subsided over time (Kazak et al., 2006). Due to the lack of PMTS specific research, the model was developed from studies

conducted around PTSS and PTSD within a medical setting and across illness groups. It stresses the need to view PMTS in the context of a family and is centered on five main assumptions:

1. Potentially traumatic medical events have similarities across illness or injury groups;
2. There are a variety of normal reactions to traumatic medical events;
3. Children and families can have pre-existing psychological issues;
4. A developmental outlook is required for thinking about trauma related to children; and
5. A social-ecological or contextual approach is ideal (Kazak et al., 2006).

To review if further developments had emerged since the creation of the *integrative model of pediatric medical traumatic stress*, a systematic review of 216 papers was undertaken to examine if the model needed to be updated (Price et al., 2016). Literature was in-

Method	Sample	Results/Findings
Parental report via questionnaires (demographic questionnaire, Achenbach's child behavior checklist, University of California at Los Angeles-PTSD reaction index: DSM-V version, and posttraumatic stress diagnostic scale)	Parents of 88 children (aged 6-13 years) of mixed medical conditions (orthopedics, urology, dermatology, gastroenterology, neurology, cardiology, ENT, nephrology, combined reasons, and other reasons)	Findings show that both children and their parents are vulnerable to traumatic symptoms following hospitalization and found a correlation between parents and child distress.
Conference abstract Single-center, cross-sectional survey using the validated UCLA PTSD-Reaction Index and the Impact of Events Scale - Revised	21 children and adolescents aged 8-21 years	The responses reported they experienced events that they perceived as traumatic during health care, and one-third of the responses reported arousal symptoms.
Conference abstract Single-center, cross-sectional survey using the validated UCLA PTSD-Reaction Index and the Impact of Events Scale - Revised	21 children and adolescents aged 8-21 years	Over half reported consequential PMTS symptoms, particularly arousal and intrusion symptoms. Within these symptoms categories, patients reported frequent sleep disturbance and concentration problems.
Systematic literature review	16 papers	Findings show that the literature was mixed when thinking about PMTS with a developmental framework, and further studies are needed looking at children's cognitive and development stages. When looking at interventions, cognitive behavior therapy was found to be part of the base of the majority of interventions for PMTS.
Review	Not stated	The findings show that CPP can be adapted to be used in the NICU and may have promise in being able to support PMTS in infants.
Systematic review	23 papers	Findings show that parent and family outcomes of developing PMTS after an admission for critical illness are affected by various factors. These factors include pre-existing factors, their experience being hospitalized, and stressors post-hospitalization.

cluded with studies that examined traumatic stress, ASD, or PTSD related to children or families within health care (Kazak et al., 2006). The review found developments in the research that furthered our understanding of additional pediatric populations such as burn victims, diabetes, cardiology, brain injury and premature infants, as well as the relationship between child and parent PMTS and the impacts of PMTS on future health outcomes. With the new evidence in the way PMTS is experienced, an additional assumption was put forward. The new assumption held that PMTS impacts future health outcomes, and a new model was developed and renamed as the *integrative (trajectory) model of pediatric medical traumatic stress* (Price et al., 2016). This updated model also consists of three phases that were renamed (phase I: peri-trauma, phase II: acute medical care, phase III: ongoing care or discharge from care), emphasizing the varying clinical changes in medical care that can vary across illness groups and potentially traumatic events (Price et al., 2016). As well as introducing four trajectories (resilient, recovery, chronic, and escalating PMTS), these changes were made to show the variability in

the psychological impacts and responses to illness and injury (Price et al., 2016). The new model also highlights important developments in the evidence of experiences of trauma and childhood health. These changes include:

1. PMTS symptoms can move across the phases at different rates, in relation to timing and the course of medical events; procedures and treatment can also vary across various health conditions;
2. Identifies individual assessments aimed at reducing possible risk for PMTS;
3. The addition of trajectories of PMTS in line with recent evidence;
4. Confirms a skills-based approach is required to support children and families with PMTS;
5. Stresses the importance of viewing PMTS within the context of family; and
6. Updated the intervention and identification implications (Price et al., 2016).

The two PMTS models are important foundations for understanding the potential stages that children and their families may experience in order to support the identification of symptoms to aid in the implementation of therapeutic interventions. Missing the initial signs can lead to trauma progression and worsening symptoms, which could result in children and families meeting the full criteria for PTSD (Kazak et al., 2006; Price et al., 2016). There is also an identified need for a validated screening tool to identify patients who are at risk of developing PMTS, to aid in the support of early identification and implementation of appropriate support (Ari et al., 2018; Yagiela et al., 2019). As no such tool exists, a study is being conducted to develop a measurement tool specific to PMTS (Ari et al., 2018).

Pediatric Health Conditions

Nine of the 16 papers focused specifically on the experiences of PMTS within different patient groups. These diagnostic groups included oncology (Pai & Kazak, 2006), cardiac conditions (Jordan et al., 2013; Yagiela et al., 2018), pediatric intensive care unit (Yagiela et al., 2019; Yagiela et al., 2018), chronic pancreatitis (Cuneo, Ly, et al., 2019), spina bifida (Vermaes et al., 2008), cystic fibrosis (Cuneo, Perito, et al., 2019), food refusal (Güvenek-Cokol et al., 2016), and burn victims (McGarry et al., 2013). A further two of the articles included children from a pediatric surgery group from various medical conditions (Ari et al., 2019; Ari et al., 2018).

Ari et al. (2018) examined PMTS symptom experiences in children from a range of conditions requiring pediatric surgery. PMTS symptoms demonstrated in this population include 55.7% of children who suffered from symptoms of re-experiencing. Of those children, 30.4% demonstrated avoidance, and 32.9% displayed symptoms of arousal (Ari et al., 2018). A further 15.6% of parents also reported that they were very concerned about their child's difficulties with separation since the surgery, with 28.9% reporting that their child was more attached to family members (Ari et al., 2018). In addition, 22.1% of parents reported that their child now reacts with panic to any sudden changes, even those outside of the health care context, and a high number of the children suffered from psychological distress following discharge from the hospital (Ari et al., 2018). A second study conducted in pediatric surgery explored the characteristics and prevalence of PMTS across children and their parents

(Ari et al., 2019). It was identified that over 10% of children met the Diagnostic and Statistical Manual of Mental Disorders' (DSM-V) PTSD criteria for diagnosis, and a further 26.4% partially met the criteria (Ari et al., 2019). The findings showed high rates of post-traumatic distress for both children and parents post-surgery, with the majority of parents noting their children's hospital admission as the main traumatic event (Ari et al., 2019). These findings highlight the impact that the medical environment has on both child and parent. Recognition of the impact on parents is important for understanding how their level of stress impacts their child's experiences and their ability to support them (Yagiela et al., 2018).

Yagiela et al. (2018) described the need for parental support to aid in emotional and psychological health and resilience of a child following the admission to a pediatric intensive care unit (PICU). The authors found that negative child outcomes correlated with parents with PTSD symptoms (Yagiela et al., 2018). There appears to be a link between parental anxiety and child PMTS symptoms, and the consideration of parental PMTS symptoms has been identified in various patient groups (Ari et al., 2019; Ari et al., 2018; Christian-Brandt et al., 2019; Güvenek-Cokol et al., 2016). Vermaes et al. (2008) examined PMTS symptoms in parents with children who have spina bifida.

Parents of newly diagnosed infants reported symptoms of intrusion and arousal; however, symptoms were not described as sufficiently intense or recurring to be viewed as PMTS (Vermaes et al., 2008). However, parents with school-age children with spina bifida were asked to describe the stage of the condition that they thought they had the highest levels of trauma; the participants identified the stage following the initial spina bifida diagnosis (Vermaes et al., 2008). This was in contrast to the reports of parents currently in the initial stages of diagnosis, showing the parents might not be aware of symptoms at the time due to the shock or not being able to recognize the symptoms (Vermaes et al., 2008). In a study of children who had experienced burn trauma, McGarry et al. (2013) found that parents reported lower levels of resilience and experienced psychological distress that was significant within a week of their child's burn injury. Vermaes et al. (2008) further identified that symptoms of PMTS were shown to decline between diagnosis and the first four years of the child's life. These findings may indicate that parents may have their highest rates of trauma at initial diagnosis (McGarry et

al., 2013; Vermaes et al., 2008). This could be due to children getting older and having less reliance on their parents, having developed a routine, understanding of the condition, having reduced uncertainty, or parents who have accepted the condition and its impacts over time (Vermaes et al., 2008). However, the longevity of symptoms of PMTS is currently unknown. Pai and Kazak (2006) identified that symptoms can persist after cancer treatment and when patients are in remission. This was the only article that identified that PMTS symptoms in children and families can continue to impact functioning long after discharge from medical care.

Only two papers involved children directly as participants, via a survey, which questioned them about their experiences of trauma. A pilot study conducted by Cuneo et al. (2019a) found 80% of children and young people suffering with chronic pancreatitis reported that they had experienced a frightening hospital experience. The most common PMTS symptoms reported were intrusion and arousal symptoms. A similar finding showed that 76% of patients with cystic fibrosis reported they had a traumatic event during a health care experience, 62% reported they had a painful or scary medical trauma experience, and one-third of the responses reported arousal symptoms (Cuneo, Perito, et al., 2019). Along with health conditions, a child's age may also impact the PMTS symptoms experienced. Jordan et al. (2013) found PMTS symptoms of alarm and avoidance were present in infants after cardiac surgery when presented with reminders of medical trauma, even in those that appear generally happy. This study highlighted that even infants under three months of age are susceptible to PMTS and their perception of the environment shouldn't be underestimated (Jordan et al., 2013).

The developing evidence is indicating that symptoms of PMTS can differ among health conditions and developmental stage. Some studies have found re-experiencing to be the most common symptom (Ari et al., 2018; Vermaes et al., 2008). It is unclear if these differences are due to age or health condition group, highlighting the need for further research to develop an understanding of the variances with symptom presentation.

Therapeutic Interventions

There are currently no accepted standardized interventions specifically aimed at reducing PMTS symp-

toms. However, eight of the 16 papers discussed intervention techniques which may aid in supporting children and parents suffering with PMTS.

Christian-Brandt et al. (2019) identified varying approaches to PMTS interventions, with the most popular being cognitive behavior therapy (CBT), which demonstrated mixed evidence on effectiveness at reducing PMTS. CBT that is trauma focused (TF-CBT) has been shown to have benefits in supporting those who have experienced medical trauma (Ari et al., 2018; Bergeron, 2017). However, some concerns have been raised on its effectiveness when utilized with younger children due to cognitive understanding and lack of evidence for children under five years of age (Bergeron, 2017). When working with children it is imperative to consider their development capabilities, and as TF-CBT uses factors that involve emotional regulation, memory and language, this questions its transferability for younger children (Bergeron, 2017). Bergeron (2017) recommended using child-parent psychotherapy (CPP) as an intervention for PMTS when working with children from birth to five years. This is due to its flexibility and play-focused techniques that start simple and work with the family's needs (Bergeron, 2017; Lakatos et al., 2019). Similarly, Lakatos et al. (2019) discussed the potential benefits of utilizing CPP with infants for the support of PMTS. Further research in this area is required to determine if this is an effective technique for working with children and families experiencing PMTS.

The most promising findings were in studies that utilized interventions which were self-guided, online, or time-limited (Christian-Brandt et al., 2019). Guvenek-Cokol et al. (2016) recommended creating a consistent environment, decreasing medicalization, establishing medical play, implementing behavioral plans with positive reinforcement, and the importance of utilizing the multidisciplinary team. Furthermore, Christian-Brandt et al. (2019) found that interventions should integrate a developmental lens, consider approaches such as trauma-informed care, screening patients using the pediatric psychosocial preventative health model (universal, targeted, and clinical interventions), and consider the child's wider ecosystem.

Interventions aimed at decreasing stress and increasing resilience in parents might have a universal impact on their well-being and that of the child's (McGarry et al., 2013), which can aid in developing appropri-

ate coping skills for both the child and parent. These findings highlight the need for parent-specific interventions for support of both their child and family through trauma (Yagiela et al., 2019). One particular study recognized that fathers might benefit from specific support interventions, particularly fathers with mental health problems which can impact their child's behavioral and psychological development (McGarry et al., 2013). Increased research around parent's specific support is required to aid in developing interventions targeted at their unique and individual needs.

Pai et al. (2006) discussed existing family systems interventions (The Surviving Cancer Competently Intervention Program (SCCIP), The Surviving Cancer Competently Intervention Program-Newly Diagnosed (SCCIP-ND), and the Problem-Solving Skills Training (PSST)) that can be utilized to support the reduction of PMTS symptoms in pediatric oncology patients. SCCIP has shown evidence of addressing symptoms of medical trauma in adolescents who survived childhood cancer along with their families (Pai & Kazak, 2006). Where the SCCIP-ND is utilized in families newly diagnosed with cancer, there is only preliminary data on its effectiveness in reducing trauma symptoms and further evaluation studies have been recommended (Pai & Kazak, 2006). The PSST is an intervention focused on mothers of children who have been newly diagnosed with cancer and aims to teach problem solving to reduce trauma symptoms (Pai & Kazak, 2006). These interventions have only been utilized within oncology patient groups.

Discussion

There have been variations to the findings of when trauma symptoms develop across conditions and how differing symptoms may manifest across health conditions. In some health conditions such as spina bifida and burn injuries, symptoms of PMTS were reported to be higher at immediate diagnosis (McGarry et al., 2013; Vermaes et al., 2008), and then decrease over time (Vermaes et al., 2008). Whereas, other patient groups such as oncology showed that symptoms continued long after medical care ended (Pai & Kazak, 2006). Arousal was the most common symptom in some health conditions (Cuneo, et al., 2019; Cuneo et al., 2019; McGarry et al., 2013; Vermaes et al., 2008), while for others it was avoidance (Guenek-Cokol et al., 2016; Jordan et al., 2013; McGarry et al., 2013)

or re-experiencing (Ari et al., 2018; Vermaes et al., 2008). As there is no standard measurement of PMTS (Ari et al., 2019), it is difficult to assess symptoms and the course they can follow throughout medical care experiences.

It would be beneficial for future studies to involve children directly to understand their first-hand experiences of PMTS and if these experiences are different to parental reports, as trauma may be experienced and perceived differently. The age of children varied in this review from birth to 19 years. Further research examining age-specific trauma experiences can help to support the utilization of a developmental lens with identification and intervention, as well as determine if theories on younger children being more vulnerable to trauma symptoms are accurate (Bergeron, 2017).

It is evident that understanding the symptoms and responses to PMTS within pediatric patient groups and their families is imperative for the development of future interventions for PMTS (Pai & Kazak, 2006). Recommendations for interventions for PMTS should integrate a developmental lens, consider approaches such as trauma-informed care, screening patients using the pediatric psychosocial preventative health model (universal, targeted, and clinical interventions), and consider the children's wider ecosystem (Christian-Brandt et al., 2019).

This scoping review identified gaps in the knowledge base on when and how to provide therapeutic support to children and parents who have experienced medical trauma. As PMTS is still an emerging area of study, there is limited awareness on the variants within health condition, developmental stage, pre-existing factors, the longevity of symptoms, child reports on trauma, and how trauma can impact future healthcare. Further research that investigates PMTS specifically in relation to symptoms, health conditions, interventions, and therapeutic support services for children and their families will support CCLSs in working with families exposed to trauma. Through further understanding how PMTS impacts children and their families, how they experience trauma, and what interventions may help will enable CCLSs to provide targeted support. Research thus far has looked at PMTS as a concept to help understand how it might be experienced; future studies aimed at understanding how CCLSs can support children and families experiencing trauma, as well as when and what CCLS input would be helpful, is warrant-

ed. CCLSs work with children in health care settings and their skills in speaking with children about their health care experiences are uniquely placed for furthering research on PMTS that is undertaken directly with children, rather than about children.

Limitations of Review

This review included papers that specifically examined PMTS within pediatric medical conditions. Papers were excluded that exclusively described PTSS, PTSD, or ASD. Although it is recognized that PMTS is an extension of ASD, PTSS, and PTSD, the aim of this review was to understand how the emergence of the PMTS framework has been utilized to describe experiences of medical traumatic stress in children who have experienced a variety of health conditions. In doing so, it is acknowledged that papers looking at trauma within a health care context that fall outside the PMTS label will have been excluded from this review. Guidelines for scoping review recognize a benefit to having more than one researcher conduct searches and evaluate studies (Levac et al., 2010). However, the budget limitations for this review did not allow for multiple researchers. To limit bias in the selection of studies and extraction of data, the process described in the study selection was put in place with a supervisory team.

Conclusion

It is anticipated that research in this field will continue to grow and increase our understanding of the experiences of children and their families who are facing hospitalization. Furthering understanding of how PMTS is experienced by different developmental stages and health care conditions will provide the opportunity for CCLSs working with patients and families facing medical trauma to be able to identify symptoms and provide therapeutic support that is aimed at their unique needs.

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Supporting Children Experiencing a Pediatric-Sexual Assault Forensic Examination: Preparation for and Perceptions of the Role of the Child Life Specialist

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ABSTRACT

To help minimize negative outcomes, child life specialists can provide psychosocial care to patients undergoing a pediatric sexual assault forensic examination (P-SAFE). This exploratory study used a survey to examine child life specialists' perspectives on their preparation for and role in P-SAFEs. Participants reported their main duties with this population include procedure support, play, and building rapport. The benefits of having child life involved in P-SAFEs were noted as decreasing re-traumatization, increasing cooperation, increasing coping, and decreasing stress and anxiety. Participants reported that most child life services were provided in preparation for the exam and during the exam. The services utilized were preparation, play, and distraction to help patients cope. Results indicated child life specialists felt valued by the multidisciplinary team, especially for their role in procedure support. Lastly, child life specialists reported training for this role occurring most often through informal on the job training. In summary, child life specialists acknowledged the stressors associated with a P-SAFE and perceived their role as beneficial in minimizing such stressors. Health care facilities that provide P-SAFEs should further consider the benefits of child life services to these patients and advocate for their services during P-SAFEs.

Introduction

In the United States, it is estimated one out of every seven girls and one out of every 25 boys are victims of sexual abuse (Townsend & Rheingold, 2013). In 2016, 8.5% of the reported child abuse and neglect cases were instances of sexual abuse, totaling approximately 57,329 cases in the U.S. (U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2018). When child sexual abuse (CSA) is reported, steps are tak-

en to review the report and determine if a pediatric sexual assault forensic examination (P-SAFE) is necessary (U.S. Department of Justice Office on Violence Against Women, 2016). During a P-SAFE, the health care provider collects forensic evidence, such as clothing and swabs from the child's mouth and anogenital area. Additionally, the provider examines the patient's anogenital areas with a camera looking for injury (e.g., bruises, cuts) and swabs the anogenital area for sexually transmitted diseases (Lahoti et al., 2001). Some hospitals use the following criteria

for determining whether to conduct a P-SAFE on a prepubescent patient: 1) the disclosure of the assault or a witness to the assault, 2) the assault happened within the past five days, and 3) the assault involved skin to skin contact with the patient's anogenital area (Children's Mercy Hospital, 2015).

The P-SAFE process can be one that causes anxiety, distress, or pain for pediatric patients (Berenson et al., 1998; Tener et al., 2012). During a P-SAFE, body parts that were recently abused are examined. Therefore, the patient may experience stress, anxiety, and possibly re-traumatization of the abuse (Berson et al., 1993). Berson and colleagues (1993) examined children's perceptions of the P-SAFE and found children see the exam as intrusive and have a negative view of the doctor afterwards. Additionally, children reported restraining during the exam was reminiscent of their previous sexual abuse (Berson et al., 1993). Since hospital staff are working with this vulnerable population, it is important to consider the best practices in making sure the P-SAFE does not re-traumatize the patient. In the U.S. Department of Justice Office on Violence Against Women (2016) protocol for P-SAFEs, the importance of the exam being child-centered, victim-centered, and trauma-informed during the care for CSA victims is emphasized. Examples of different victim-centered techniques include preparation and distraction, which have been shown to be beneficial in easing stress and anxiety and increasing coping in pediatric patients (U.S. Department of Justice Office on Violence Against Women, 2016).

There is some evidence that victim-centered techniques are effective in minimizing negative outcomes during anogenital exams. For example, Rheingold et al. (2013) studied the effectiveness of providing a psychoeducation video to children and their caregivers about the upcoming anogenital procedure. Results indicated the education session decreased stress during the exam for the families (Rheingold, Danielson, et al., 2013). Similarly, another study found preparation before the exam and providing a supportive atmosphere during the exam helped to decrease stress for the child (Gulla et al., 2007). Furthermore, children that are more aware of what the exam entails appear to be less anxious during the exam (Rheingold et al., 2013). Such findings emphasize the importance of preparing children for sexual abuse exams; when they are prepared, they exhibit less anxiety and stress.

In addition, distraction interventions have been identified to offer support for children during exams, such as P-SAFEs (Chambers et al., 2009; Sinha et al., 2006). Distraction is a type of nonpharmacological support provided to children during different treatments and examinations. Distraction focuses a patient's attention away from the distress of the procedure to a more neutral stimulus, such as toys (Chambers et al., 2009), music (Sinha et al., 2006), and tablets (Sinha et al., 2006); leading to a decrease in stress for the patient (Stevenson et al., 2005). Research indicates the use of interventions such as using a clown for distraction (Tener et al., 2012) and video eyeglasses (Berenson et al., 1998) are effective in decreasing children's anxiety and fear during sexual abuse examinations. Such findings suggest distraction can decrease fear, anxiety, and stress for pediatric patients undergoing P-SAFEs.

As members of the health care team, child life specialists specialize in providing psychosocial care to pediatric patients, such as preparation and distraction. The American Academy of Pediatrics Policy Statement on Child Life Services (2021) states child life specialists are an essential role in pediatric health care because they focus on the development and well-being of every child and provide services that minimize the harmful effects of hospitalization for pediatric patients and their families. Research suggests that child life specialists can help relieve anxiety and promote coping in a variety of settings and with diverse medical diagnoses (Brewer et al., 2006; Burns-Nader et al., 2017). Child life specialists are increasingly working with P-SAFE patients, either in emergency departments or outpatient clinics that specialize in P-SAFEs. Due to the vulnerability of this population, child life specialists have the potential to benefit P-SAFE patients by providing patient-centered education and distraction. According to the Association of Child Life Professionals' Value Statement, "Expansive research consistently demonstrates that Certified Child Life Specialists generate positive behavioral, psychological, and physiological outcomes through individualized interventions with pediatric patients" (Boles et al., 2020, p.2). Evidence finds that child life specialists provide pediatric patients with play-based, coping-centered techniques, such as education and distraction, which have been shown to improve pediatric patients' experiences by decreasing pain, anxiety, and distress (Boles et al., 2020).

Current Study

Children who are sexually abused undergo stressful and upsetting procedures as part of their care. Although child life specialists are often the health care professionals providing psychosocial support to CSA patients, current literature is limited about the role of the child life specialists in P-SAFEs. The purpose of this study was to address the gap in the literature by collecting information on the role of child life specialists during P-SAFEs and their preparation for providing care to this population. When examining the role of child life specialists, this study also looked at the stressors child life specialists perceive children to experience during a P-SAFE. Information on both the perceived stressors of children during a P-SAFE and the role of child life specialists during a P-SAFE allows for a reflection on whether the children's identified stressors are appropriately addressed and attended to in the role of the child life specialist. Specifically, the study examined the following research questions:

1. What are child life specialists' perspectives of the stressors they see children experience during a P-SAFE?
2. What are child life specialists' roles during a P-SAFE?
3. What are the stressors child life specialists experience working with P-SAFE patients?
4. What training do child life specialists have to work with P-SAFE patients?

Methods

Procedure

To gather current data, an online survey was developed for use with individuals working with the P-SAFE population as Certified Child Life Specialists. With Institutional Review Board approval, the survey was disseminated through the Association of Child Life Professionals (ACLP) Forum. The ACLP Forum is an online network only available to members of ACLP. It provides child life specialists, program coordinators, and students the opportunity to share information related to the child life profession. There are approximately 4,138 ACLP members who receive ACLP Forum posts. Study information, such as the purpose of the study, inclusion criteria, as well as a hyperlink to participate, was posted on the ACLP Forum. The post was replicated three times over the period of a month.

To be eligible to participate, a person had to be at least 18 years old, a Certified Child Life Specialist, and have at least four months of experience working with the P-SAFE population in the United States. If a person was non-certified, non-English speaking, and not working in the United States, they were not eligible for participation. Those eligible and interested in participation used the hyperlink to access study materials. Participants provided electronic consent and then completed a survey on their demographics and experiences working with P-SAFEs.

Participants

A total of 24 child life specialists responded to the ACLP Forum posts and completed the online consent and survey. Of the 24 surveys submitted, three were excluded due to being less than 50% complete. Although it can appear the response rate for participation was weak, information on the exact number of child life specialists providing care for P-SAFEs is unknown at this time.

Participants ($n = 21$) ranged in age from 24 to 51 years ($M = 31.29$, $SD = 6.9$). All the participants were female, and most were Caucasian. Additionally, participants' work experience with this population ranged from nine months to 240 months ($M = 54.9$, $SD = 49.90$), with a majority working with the P-SAFE population in the Emergency Department and/or Abuse Clinic ($n = 18$, 85.6%). For additional demographic information, see Table 1.

Measures

Background questionnaire

The background questionnaire included demographic questions of the participants including age, ethnicity, and gender. Additional information, including the participants' history as a child life specialist, how long they have been a Certified Child Life Specialist, how long they have worked with P-SAFEs, years of schooling, and location in which they worked with P-SAFE cases, was also collected.

The Child Life Specialist's Perceived Role in Sexual Abuse Examinations Survey

This survey examined the roles and needs of child life specialists serving patients receiving P-SAFEs. This survey was created by two child life specialists, with each contributing specific knowledge and experience to the survey development. The primary author is a Certified Child Life Specialist (CCLS) with

Table 1. Participant Demographic Information

Variable	n	%
Age (M,SD)	31.29, 6.69	
Ethnicity (%)		
Caucasian	19	90.5
Middle Eastern	1	4.8
Biracial	1	4.8
Gender (%)		
Female	21	100
Male	0	0
Education (%)		
Bachelor's	12	57.1
Professional - Master's	9	42.9
Hospital Size (%)		
Small Children's Hospital	5	23.8
Medium Children's Hospital	13	16.9
Large Children's Hospital	2	9.5
Large Adult Hospital	1	4.8
Location Worked in with P-SAFE population		
ED	12	57.1
ED and Abuse/Clinic	4	19.0
Inpatient	2	9.5
ED and Other Units	2	9.5
Child Protection Program	1	4.8

two years' experience, including training and clinical work specific to the P-SAFE population. The second CCLS has over 15 years experience and is a preeminent scholar in the field. The survey questions were created based on their training in child life, experiences working with the P-SAFE population, as well as empirical based knowledge from the literature of the child life field. For example, one question on the survey asked, "What services do you use with this population?" The possible choices of preparation, distraction, play, comfort positions, procedure support, and coping were selected because previous studies indicate the benefits of child life providing such interventions (e.g., Burns-Nader et al., 2017; Diener et al., 2018; Fereday & Darbyshire, 2008; Gursky et al., 2010; Hall et al., 2018; Scott et al., 2016). After the creation of the survey, it was distributed to a third CCLS with expertise with the P-SAFE population for feedback and critique. The survey was finalized with consideration of the third child life specialist's input.

The survey consisted of 46 questions in three domains: (1) Exploring the child life specialist's role with sexual abuse populations, including (a) interventions with P-SAFE patients, (b) roles, and (c) responsibilities and job duties; (2) Specific stressors in sexual abuse populations; and (3) Training received at preservice and in-service specific to working with sexual abuse

populations. Most questions collected information by asking participants to select from a list of potential answers (e.g., "When do you provide support to this population? Select all that apply"). Other questions, such as how valued the child life specialist felt as part of the multidisciplinary team, were asked using a Likert scale (e.g., strongly valued to strongly not valued and very well trained and prepared to not trained or prepared at all). Additionally, two qualitative questions were included: 1) "What are the most difficult aspects of working with this population?" and 2) "What are the most rewarding aspects of working with this population?" Very little is known about child life specialists' view of the difficult and rewarding parts of working with P-SAFE patients. Understanding the difficulties and rewards is important as compassion fatigue is related to the presence of such factors when providing care (Van Mol et al., 2015). Compassion fatigue is defined as caregivers' experience with distress due to an ongoing relationship with demanding individuals (Van Mol et al., 2015). Therefore, the survey provided two qualitative questions to allow for an open-ended discussion about the variables child life specialists experience while providing care to P-SAFE patients.

Data Analysis

Statistical Package for the Social Sciences (SPSS) version 24 was used to analyze the descriptive data. For the two qualitative questions, the first two authors coded and extracted themes from the two questions using a constant comparative methodology (Glasser, 1965). Individually, the two authors reviewed the responses for the two questions. Each author selected short descriptors that they felt summarized the meaning of the response, with some responses having multiple descriptors identified. Then, they grouped the descriptors into broader categories. For example, "abuse story" and "hearing the child" were grouped into "feelings surrounding child's abuse story." Next, the two authors met to compare and discuss the identified categories, address questions, and determine a finalized coding scheme. The first two authors then coded the two questions with the chosen coding scheme. Answers were coded with the potential to identify multiple codes in a participant's response. After this round of coding, inter-rater reliability was determined, and any differences were resolved. The two questions were then coded for reliability a second time by a graduate research assistant. Inter-rater reliability was very high between the first two authors

(86% for question one and 93% for question two), as well as between the first author and the graduate research assistant (86% for question one and 86% for question two) and the second author and the graduate research assistant (93% for question one and 86% for question two). Analyses included identifying all codes and the frequency of codes.

Results

What are child life specialists' perspectives of the stressors they see children experience during a P-SAFE?

To address this question, participants were asked to select the stressors that they perceive this population experiences. Child life specialists perceived re-traumatization ($n = 17$, 81%) and lack of information/understanding ($n = 11$, 52.4%) as the two greatest stressors experienced by children in this population. Similar results were found when asked their perception of the most common stress points. Participants listed the exam itself ($n = 16$, 76.2%) and the pre-procedure events ($n = 14$, 66.7%) as the most common stress points. See Figure 1 for more information on perceived stressors.

What are child life specialists' roles in the P-SAFE population?

To determine the role of child life specialists in the P-SAFE population, the survey gathered information on job duties and responsibilities, when child life specialists provided support, and the types of preparation, distraction, and play used. Additionally, participants identified how they feel their role is beneficial, how

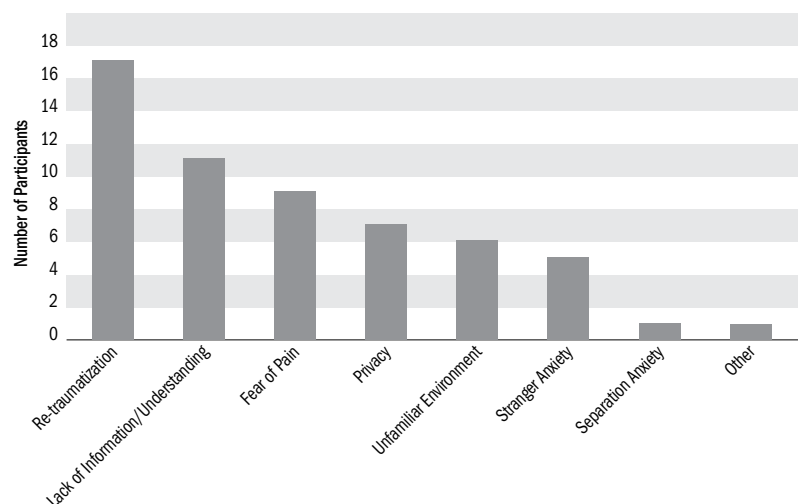


Figure 1. Child Life Specialists' Perspective of the Stressors Experienced by Children During P-SAFE

Table 2. Child Life Specialist Job Duties and Responsibilities During P-SAFE

	n	%
Procedure support	20	95.2
Play	20	95.2
Building rapport with patients	19	90.5
Charting	18	85.7
Assessment	17	81
Education	17	81
Supporting co-workers	12	57.1
Child life department roles	10	47.6
Rounds/in-services	10	47.6
Planning	6	28.6
Other	2	9.5

they advocate for the patient, and how they perceive the multidisciplinary team views them. First, the participants reported numerous job duties and responsibilities with the P-SAFE population. As seen in Table 2, when asked to select their required job duties, the duties selected the most were procedure support, play, building rapport with patients, charting, assessment, education, and supporting co-workers. When asked to list their top five duties with consideration of time and importance of duty, there was no clear top duty; six participants (28.6%) selected assessment as their top duty, seven (33.3%) selected procedure support as their second duty of importance, and five (23.8%) selected rapport as their third top duty. See Table 3 for additional results.

Participants were also asked to identify when they provided support to P-SAFE patients. The participants surveyed provided support to patients during preparation for the exam ($n = 21$, 100%), during the exam ($n = 21$, 100%), post exam ($n = 20$, 95.2%), prior to the exam ($n = 19$, 90.5%), and during interviews with other medical staff ($n = 17$, 81%). Some provided support at other times as seen in Table 4.

Participants reported providing support through play, preparation, and distraction. All the participants provided play and preparation to P-SAFE patients. For distraction, of the 21 participants, only one said they did not provide distraction to the population. The most noted ways of providing preparation were as follows: infor-

Table 3. Top Duties of Importance and Time for Child Life Specialists during P-SAFEs

Duty	1st-Duty	2nd Duty	3rd Duty	4th Duty	5th Duty
Procedure support	2	7	3	2	2
Education	2	3		2	
Rapprt	3	2	5	1	1
Preparation	3	2	1	1	
Coping				1	
Follow-up					
Child life dep. roles					1
Charting					1
Support to siblings					1
Support to caregivers					1
Support to co-workers					1

mation to the patient ($n = 21, 100\%$), information to the adult caregiver ($n = 19, 90.5\%$), familiarization with equipment ($n = 19, 90.5\%$), comfort position ($n = 18, 85.7\%$), and the use of medical teaching dolls ($n = 12, 57.1\%$). The most noted distraction techniques utilized were conversation ($n = 20, 95.2\%$), the iPad ($n = 18, 85.7\%$), breathing exercises ($n = 18, 85.7\%$), relaxation exercises ($n = 17, 81\%$), and music ($n = 17, 81$). Play was primarily used to normalize the hospital environment ($n = 20, 95.2\%$) and to build rapport ($n = 20, 95.2\%$). A slight majority ($n = 11, 52.4\%$) of the participants chose medical play as a form of play used during P-SAFEs.

The child life specialists reported their role to be beneficial in several ways, such as, minimized re-traumatization ($n = 21, 100\%$), increased procedure cooperation ($n = 21, 100\%$), increased coping ($n = 20, 95.2\%$), decreased anxiety and stress ($n = 20, 95.2\%$), and increased return to baseline by the child after the procedure ($n = 18, 85.7\%$). See Figure 2. The par-

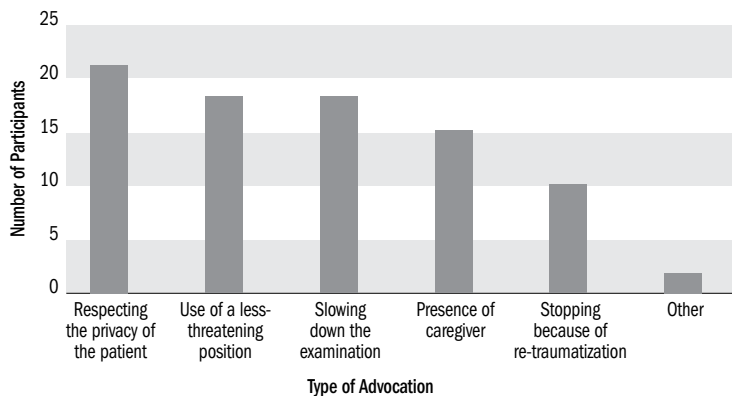


Figure 2. Methods Child Life Specialists Use to Advocate for Patients During P-SAFE

Table 4. When Child Life Specialists Provide Support for P-SAFEs

	N	%
During preparation	21	100
During the exam	21	100
Post exam	20	95.2
Prior to exam in patient room	19	90.5
During interviews	17	81
During vital signs	10	47.6
While in waiting room	6	28.6
During admission	5	23.8
During check-in	4	19
During support groups	1	4.8

ticipants reported that the interventions used most frequently to help minimize re-traumatization were respecting the privacy of the patient ($n = 21, 100\%$), using a less-threatening position ($n = 18, 85.7\%$), slowing down the examination ($n = 18, 85.7\%$), advocating for the presence of a caregiver ($n = 15, 71.4\%$), and stopping the exam because of re-traumatization ($n = 10, 47.6\%$). See Figure 3. Of the 21 participants, 10 had experience advocating for stopping an exam. There were mixed results on the question that examined if the child life specialist was comfortable advocating for an exam to stop: 10 were very comfortable (47.6%), four were somewhat comfortable (19%), two were neutral (9.5%), and four were somewhat uncomfortable (19%).

In relation to the multidisciplinary staff, all the participants felt valued ($n = 11, 52.4\%$) or strongly valued ($n = 10, 47.6\%$). They also felt that the multidisciplinary team’s perceptions of them was primarily as a procedure supporter ($n = 10, 47.6\%$), educator ($n = 5, 23.8\%$), and facilitator of coping ($n = 4, 19\%$).

What are the stressors child life specialists experience working with the P-SAFE population?

The participants were asked two qualitative questions about the stressors of working with this population: 1) “What are the most difficult aspects of working with this population?” and 2) “What are the most rewarding aspects of working with this population?” Fourteen (66.67%) of the 21 participants responded to these questions. Ten of the 14 (71.4%) responded that hearing the children’s stories was the most difficult part of working with this popula-

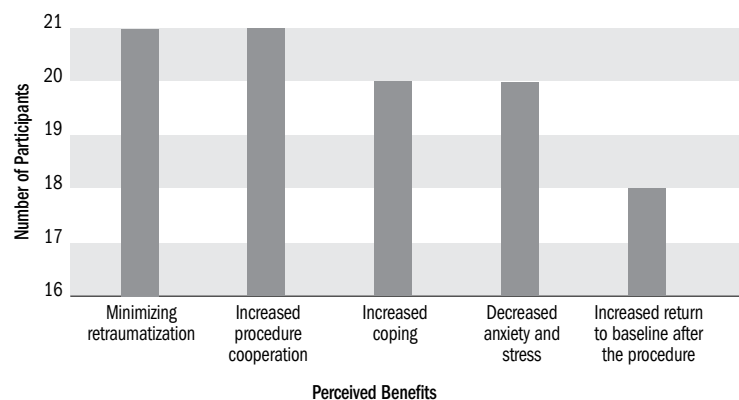


Figure 3. Perceived Benefits of Child Life Services During a P-SAFE

tion. One participant stated that “some of the stories can be heartbreaking and seeing how traumatized the patients can be is difficult.” Another participant said, “hearing the stories of why children came in, and trying not to carry that home with me” was a difficult part. One participant stated that it is hard especially if they do not have a “supportive team” or another child life specialist who works with this population. Other difficult parts of working with this population included concern about patient re-traumatization ($n = 2$, 14.3%), patient anxiety (i.e., fear, stress, tears, vocalizations; $n = 2$, 14.3%), and patient traumatization from the abuse ($n = 2$, 14.3%). In addition, two (14.3%) participants brought up the point that it is hard to balance the length of time involved with these cases with other duties and responsibilities.

When asked about the rewarding parts of working with this population, five (35.7%) of the 14 participant’s responses were related to feeling helpful, and five (35.7%) responses were about helping patients cope with the P-SAFE. Other responses included promoting overall coping with the abuse ($n = 2$, 14.3%), contributing to successful collection of forensic evidence ($n = 2$, 14.3%), and decreasing re-traumatization ($n = 1$, 7.1%). One participant (7.1%) also described being a part of a team caring for the P-SAFE patient: “Working with a team of people who are dedicated to helping victims of sexual abuse/assault cope and move forward on a journey of healing.”

Participants were also asked to rate their frequency of self-care practices. Of the 21 participants, 19 responded to this question. It was found that 15 (71.5%) practiced self-care often, somewhat often, or very often. Whereas four (19.1%) did not practice it or practiced it not often.

What training do child life specialists have to work with this population?

To gain information on the question of what training do child life specialist have to work with this population, participants were asked how prepared they felt, trainings that prepared them for this role, trainings they lacked, and trainings that are important to seek for continued education. A majority, 15 of 20, responded they were at least trained and prepared adequately (71.4%), whereas four (19%) felt somewhat trained and prepared and one (4.8%) felt not trained or prepared at all. Most of

the participants felt the training that best prepared them for this role was informal on the job training from other health care professionals ($n = 19$, 90.5%), and the second most noted preparation was self-taught methods ($n = 11$, 52.4%). When asked about the training they lacked or needed more of, many stated the need for formal workshops for professional development units ($n = 13$, 61.9%) and information through ACLP’s resources ($n = 8$, 42.9%). The participants also stated it is important to continue visiting various trainings and resources as part of this job. The question asked to select all that apply; the trainings noted included information on recent research related to this topic ($n = 16$, 76.2%), workshops ($n = 13$, 61.9%), information through the ACLP resources ($n = 12$, 57.1%), and informal on the job training from other health care professionals ($n = 11$, 2.4%).

Discussion

The role of the child life specialist on a team that conducts P-SAFEs is evolving. Child life specialists are trained to provide psychosocial care and support to children, adolescents, and their families during traumatic and stressful hospital experiences. This study examined child life specialists’ perspectives regarding their role in P-SAFEs as well as the perceived benefits and difficulties working with that patient population. Findings identified that child life specialists view themselves as being beneficial to patients and the health care team during P-SAFEs by minimizing re-traumatization, increasing cooperation, increasing coping, and decreasing stress and anxiety. Participants note the common duties they provide are procedure support, play, and building rapport with patients. These duties most often occur during preparation for the exam and during the exam itself. Participants also

reported experiencing both difficulties and rewards when providing services during P-SAFEs. Results provide insight into the training that child life specialists receive for this role, including training that is needed, and training that they lacked.

Roles and Responsibilities of the Child Life Specialist During P-SAFEs

Findings suggest child life specialists have many duties during P-SAFEs such as procedure support, play, rapport building, charting, assessment, and education. Assessment, procedure support, and rapport building were consistently among the most important duties as part of child life specialists' role in P-SAFEs. The U.S. Department of Justice Office on Violence Against Women Protocol (2016) emphasizes the importance of the exam being child-centered, victim-centered, and trauma-informed. The importance of preparing patients through information sharing and offering distraction interventions during the examination are noted as essential parts of the P-SAFE process (U.S. Department of Justice Office on Violence Against Women Protocol, 2016). In the present study, all the child life specialists reported providing preparation for the examination, and all but one provided distraction during the examination. The present study found that child life specialists who work with this population recognize the need for preparation and distraction and provide interventions that allow information to be given and ease stressors. Thus, their work aligns with the national protocol.

Three important components of a child life specialist's work are preparation, play, and procedure support (Boles et al., 2020). A child life specialist provides information to the child and family and explains different aspects of the procedure, hospitalization, or experience to them (Romito et al., 2021). Preparation by a child life specialist has been found to be related to decreased pain and anxiety during procedures (Boles et al., 2020; Brewer et al., 2006; Gursky et al., 2010; Li & Lopez, 2008), an increase in understanding (Boles et al., 2020; Li & Lopez, 2008), and an increase in satisfaction from the patient and parent (Gursky et al., 2010; LeBlanc et al., 2014; Li & Lopez, 2008). When utilizing preparation interventions with the patients undergoing P-SAFEs, all the child life specialists in the current study stated giving information to the child and caregivers was the most important part of the intervention. Previous studies found that information given to the child and care-

giver about the P-SAFE was beneficial in decreasing stress and increasing cooperation (Gulla et al., 2007; Rheingold et al., 2013).

In the current study, most of the child life specialists provided distraction using conversations, iPads, breathing exercises, relaxation exercises, and music. These techniques are used to help focus children's attention away from the stress-inducing exam to a more neutral stimulus (Burns-Nader et al., 2016). With other populations of pediatric patients, distraction techniques, such as iPads and breathing techniques, have been found to be beneficial during health care experiences (Boles et al., 2020; Burns-Nader et al., 2017; Hylan et al., 2015).

Child life specialists' use of play in the hospital is a main facet of their role, as it is beneficial in promoting development and decreasing anxiety in children during health care experiences (Boles et al., 2020). Play has been found to help decrease the amount of pain experienced and decrease negative physiological responses to medical procedures (Cassell, 1965; Kaminski et al., 2010; Moore et al., 2015). In this study, the child life specialists primarily used play to normalize the environment and build rapport. Play has been shown to be important for establishing a therapeutic relationship between an adult health care provider and the child (Boles et al., 2020; Burns-Nader & Hernandez-Reif, 2016). Interestingly, when rating their duties of importance, the child life specialists stated that building rapport was one of their top duties.

Play is a critical component to the role of the child life specialist; however, in this study, it was only ranked as the third, fourth, or fifth duty of importance. Participants perceived it as less important compared to providing assessment, procedure support, and rapport building to this population. For child life specialists, play is often described as unstructured time with materials that is child-led and has no extrinsic goal (Burns-Nader & Hernandez-Reif, 2016). Such a type of play requires materials, time, and space. Some of these variables may be difficult to control during a P-SAFE. For example, time can vary from patient to patient. Some patients may have more time while a parent meets with social work, and another may have a short period of time during such a meeting.

Stress Points of a P-SAFE for Patients

Participants reported that they perceived pre-procedure and the exam itself as the two biggest stress

points of a P-SAFE for patients. Additional findings suggest that they address these stress points in their role. The participants described that P-SAFE child life interventions are implemented most often during preparation for the exam and during the exam itself. As previously noted, patients experiencing a P-SAFE view it as being reminiscent of their trauma from the recent abuse (Berson et al., 1993). It is important to note that preparation for the exam and the exam itself are the points when the possibility of re-traumatization may increase (Berson et al., 1993). Therefore, it is appropriate for child life specialists to view these as the most important times to provide services, as they are the times children are displaying the potential for the most distress.

Benefits of Including Child Life Specialists in PSAFES

The child life specialists in this study viewed their role as beneficial. Although these findings are self-reported by the child life specialists who participated in this study, the authors appreciate that child life specialists have a strong background in child development and understand the typical stressors that children encounter during health care experiences. The foundational knowledge of the child life specialist layered with understanding the potential stressors of the health care experience creates opportunities for the child life specialist to meet the unique needs of each patient (Lookabaugh & Ballard, 2018). In the current study, child life specialists thought their role helped to minimize re-traumatization, increase coping and cooperation, and lower anxiety and stress. Although previous studies have not examined the benefits of a child life specialist's support during a P-SAFE, previous studies have shown the presence of child life specialists minimize children and family's anxiety (Bartik & Toruner, 2017), promote coping (Brown et al., 2015), and promote procedure compliance (Tyson et al., 2014) during a variety of procedures, such as medical imaging, burn treatments, surgery, and laceration repairs (Boles et al., 2020).

Child life specialists provide interventions during the moments of a procedure they assess as being the greatest stressors; in the current study, this was viewed as prior to the exam and during the exam to prevent re-traumatization. In their role, child life specialists reported advocating for the prevention of re-traumatization by respecting the patient's privacy, using less threatening positions, slowing down the examination,

advocating for the inclusion of the caregiver, and stopping the exam, if necessary. Although child life specialists recognized their role in advocating for the exam to stop, only half had experience in stopping an exam, and only a few felt comfortable with advocating for stopping an exam. As an advocate for children and families, the role of requesting an exam to end when the child is experiencing re-traumatization is an important one for child life specialist to consider.

Multidisciplinary Team's Value of Child Life Specialist's Role

The child life specialists reported feeling valued by the multidisciplinary team. This value of the child life specialist's role has developed over time. Historically, child life specialists were not seen as part of the health care team (Gaynard, 1985). However, a later study found that the multidisciplinary team reported child life specialists to be important for the psychosocial well-being of pediatric patients (Cole et al., 2001). This current study adds to this evidence that child life specialists hold positive attitudes towards their role.

Difficulties and Rewards

Working as a member of the health care team that provides support to victims of abuse or trauma can be an emotionally taxing job (Baird & Jenkins, 2003; Bride, 2007; Meadors & Lamson, 2008). The child life specialists in the current study listed hearing the children's abuse stories as the most difficult part of working with this population. They felt the most rewarding part of working with P-SAFES was being helpful during a difficult time. Previous studies have examined compassion fatigue and its prevalence in health care professionals that work with higher-stress populations (Van Mol et al., 2015). Maslach et al., (2001) found that burnout can lead to numerous negative outcomes, such as poorer job performance and mental health concerns. It is important for health care professionals to engage in self-care, as self-care is recommended to be a solution to burnout and compassion fatigue (Newell & MacNeil, 2010). Self-care is important to assist the child life specialist in processing the stories presented with each patient.

Some participants in this study reported they do not engage in self-care. This finding is concerning, as there is ample research on secondary trauma and compassion fatigue that frame the importance of self-care for health care professionals (Baird & Jenkins, 2003; Bride, 2007; Meadors & Lamson, 2008; Newell &

MacNeil, 2010; Van Mol et al., 2015). It is important for a child life specialist working with this population to have the resources and knowledge of the value of self-care. However, much of the literature does not focus on health care workers such as nurses, social workers, and child life specialists that work with P-SAFEs. Additionally, there is not much information available on the rewards of working with this population.

Training

Most child life specialists in this study were trained to work with the P-SAFE population primarily through informal job training and self-taught methods and felt they lacked formal workshops and professional resources. When looking at the training that other professionals receive with this population, there is a stark difference in the specific training required. Pediatric Sexual Assault Forensic Nurse Examiners are required to go through a sexual assault nurse examiner education program with contact hours and examination beyond what is required of a basic nursing degree (Commission for Forensic Nursing Certification, 2019). Unless the child life specialist was trained to provide P-SAFEs during their internships, most of the training comes from other child life staff on the job. While on-the-job training is important, pre-service curriculum and simulations that provide real world experiences may prove valuable to provide the emerging child life specialist with a sense of competence prior to being on the job.

Limitations

There are limitations to this study. For one, the sample size is small. Additionally, the participants were all female and majority were White; therefore, there are limitations for the generalizability of the findings. Furthermore, of the 21 respondents, a few did not answer all the questions or left some questions partially answered. Due to the quantitative nature of the study and the desire to offer a shorter survey, free response questions were limited. Based on the responses, some of the data collected were not able to be explained further, which could have helped clarify the results. Finally, this study used self-reported measures by child life specialists to examine their perceived value regarding their role in P-SAFEs. Therefore, the ability to draw conclusions from the findings is limited.

Implications for Practice

This is the first study designed to look at the role of child life specialists with the P-SAFE population. The

current study found child life specialists view their services to patients undergoing P-SAFEs as decreasing re-traumatization, increasing cooperation during the examination, increasing coping, and decreasing stress and anxiety. As health care professionals learn more about the impact of trauma on children and families and include trauma-informed practice in their roles, the evidence will continue to support the inclusion of the child life specialist as a member of the P-SAFE team.

In this study, participants indicated they feel valued by the medical team, especially for their role in procedure support. Based on previous research, the benefits of child life services in other areas and the findings of this study, child life specialists can provide positive interventions with these patients; therefore, more hospitals that complete P-SAFEs should consider including child life specialists as part of the team. Furthermore, child life specialists should prepare and advocate for the ability to provide services during P-SAFEs.

As noted by the participants in this study, more training is necessary. To best align with other professionals who work within the P-SAFE team, child life specialists should have opportunities to develop knowledge and skills both at the preservice and in-service levels. In the current study, a lack of consensus in the identification of the most important duties of a child life specialist during a P-SAFE suggests additional evidence is needed to identify the essential duties of a child life specialist in fostering positive outcomes in P-SAFE patients. Such evidence could then inform a more standard training for child life students and clinicians. Preservice preparation may include specific training with trauma-informed simulations that offer insights for real-world situations that impact children and families. In addition to preservice preparation, professional development conference sessions, webinars, and certificate programs are needed to offer continuing education for the child life professional.

Implications for Future Research

This study offers an initial view of the role of the child life specialists as part of the P-SAFE team. More research is needed to fully understand the complexity of the child life professional's role and how they can best serve this population. For example, future research is needed to examine the benefits of distraction provided by child life specialists to patients during P-SAFEs. Additional information is needed to further

examine the child life specialist's role in advocating for the patient during the P-SAFE, and the stressors in advocating for the stopping of a P-SAFE to prevent re-traumatization of the patient. Future research is needed to examine other health care professionals, such as doctors, nurse examiners, social workers, and the patient and family about their views of the child life specialist's role in P-SAFEs.

Conclusion

With increased understanding in trauma-informed care and how to engage with and provide interventions for children and families who have experienced trauma, the role of the child life specialist continues to evolve in many areas of clinical practice. This study examined the evolving role of the child life professional in the P-SAFE population. With growing opportunities to move the child life profession to a more research-centered place, this study adds to the current literature and provides implications for the training of and roles of child life specialists in P-SAFEs and recommendations for future research.

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Emotional Safety in Pediatrics: Introduction

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The intent of medical care is three-fold: the maintenance of health, relief from pain, and prevention of illness and injury. The ethical responsibility to “first, do no harm” extends beyond the body and into the minds of those seeking care (Hockenberry & Wilson, 2008). However, “Damaging the emotional being can be an unintended consequence of healing the physical being. Children and adolescents can suffer for years as a result of this paradox” (Gordon & Paisley, 2018, p. 155). Providing emotionally safe medical care ensures such harm does not befall pediatric patients and their families.

Children and adults often feel frightened, confused, and overwhelmed by medical experiences. The National Child Traumatic Stress Network reported that up to 80% of children and their families experience some traumatic stress following medical treatment for life-threatening illnesses or injuries (Peterson, 2018). Iatrogenic harm is known as the disease or symptoms that are a direct, albeit unintentional, consequence of medical care. The damage is not only brought on by the treatment but also by the actions or comments of healthcare professionals (HCPs). These negative reactions can have long lasting and far-reaching consequences, greatly impacting children’s physical and mental health (Landolt et al., 2009; Price et al., 2016; Zatzick et al., 2008).

Pediatric medical traumatic stress (PMTS) refers to “a set of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures, and invasive or frightening treatment experiences” (National Child Traumatic Stress Network, n.d., “Search - Medical Trauma,” para. 1). The symptoms of PMTS include intrusive thoughts, hypervigilance, and avoidance (Kassam-Adams & Lucas, 2017; Kazak et al., 2006; Price et al., 2016; National Child Traumatic Stress Network, n.d., “Search - Medical Trauma,” para. 1). Though PMTS is not a diagnosis on its own, the traumatic stress symptoms associated are part of the diagnostic criteria for both posttraumatic stress disorder and acute-stress disorder

“We owe it to the future not to harm our children in their hearts and minds while we cure their diseases and repair their broken bones.”

– Association for the Care of Children’s Health

(American Psychiatric Association, 2013). These reactions are known to negatively impact children’s daily functioning, adherence to medical treatment, and overall health-related quality of life (Kassam-Adams & Lucas, 2017; Kazak et al., 2006; McCormick et al., 2014; Price et al., 2016).

Childhood pain, anxiety, and poor coping have life-long and costly consequences. Negative childhood experiences of medical pain and fear are significant predictors of pain, fear, and medical avoidance in adulthood (Pate et al., 1996). McMurtry et al. (2015) stated, “The emotional sequelae of unmanaged pain, most notably a fear of needles, can have a much longer lasting impact” (p. S7) and often originates from childhood experiences. Injection phobia leads to medication refusal, avoidance of preventative health, forgoing vaccinations, and delayed medical care (McMurtry et al., 2015; Orenius et al., 2018; Wright et al., 2009). Avoiding preventative and life-saving medical care causes a significant economic burden (McMurtry et al., 2015). Just as negative medical experiences have a lasting impact, so do positive ones. Greater medical coping in adulthood is tied to positive medical coping in childhood. Similarly, when supportive measures are used for pain and fear in pediatric patients, they experience less pain and fear related to medical care as adults (Pate et al., 1996). Therefore, managing pain and providing developmentally and emotionally appropriate care in pediatrics paves the way for positive future healthcare encounters.

Pediatric healthcare professionals want what is best for their patients. However, barriers such as staffing logistics, institutional policies and practices, perceived and real time constraints, and inadequate staff training contribute to actions that may be harmful to children

and families, and in turn, cause distress in medical team members. The result is that medical care delivery potentially creates lasting wounds for the patient and family, and for the HCP. Lee (2013) discussed the notion of guiding healthcare professionals to reduce suffering for patients and families, not just physically but emotionally. While experiencing distress when facing health issues is inevitable, the presence of “unnecessary anxiety” can be reduced by ameliorating the dysfunction in the delivery system (p. 1777). HCPs and the healthcare system can have a bidirectional impact on the culture of emotional safety.

The World Health Organization (2020) defined patient safety as the absence of preventable harm to a patient during the process of healthcare and reduction of risk of unnecessary harm associated with healthcare to an acceptable minimum. The acceptable minimum is based on collective notions derived from current knowledge and resources (World Health Organization, 2020). To date, the level of emotional harm that pediatric patients are expected to endure is far too high. In this paper, comprehensive details are shared regarding the impact and risks associated with emotional harm to pediatric patients in the healthcare setting, and to key mitigating strategies are outlined.

The Association of Child Life Professionals defines emotional safety (ES) as an intentional, interdisciplinary practice to promote resiliency, healing, and trust for pediatric patients and their families during medical experiences. The solution-focused practice includes proactively, comprehensively, and systematically addressing the developmental and emotional needs of pediatric patients. Emotional safety encompasses specialized strategies including atraumatic, patient and family-centered, trauma-informed, culture-centered, and developmentally appropriate care. These clinical components are woven throughout the four pillars of emotional safety: (a) screening and assessment; (b) intervention; (c) environment; and (d) education, training, and communication. The supporting framework includes primary and sub-goals of each pillar. These key drivers were identified by researching evidenced-based practice, reviewing current best practice models, and incorporating input from content experts.

Each pillar in the emotional safety framework addresses a key area of focus. The first pillar, screening and assessment, addresses the implementation of a system that identifies patient and family percep-

tions, experiences, needs, and strengths. It also explores strategies for making the results accessible to all appropriate healthcare professionals, thus ensuring the implementation of interventions that prioritize, respect, and protect the emotional wellbeing of the patient and family during healthcare experiences. The second pillar, intervention, focuses on the commitment to a child’s comfort and understanding regarding medical encounters. It incorporates best practices, grounded in empirical evidence whenever possible, in each patient and family encounter. The third pillar, environment, uses evidenced-based practice to promote safe and reliable environments that minimize stress and promote emotional safety for patients, families, and healthcare professionals. The fourth pillar is staff education, training, and communication. The goal is to facilitate collaborative relationships and to develop helpful communication strategies among the interdisciplinary team, the patient, and their support systems. The goal includes educating teams about the implementation of emotionally safe standards of care, utilizing the patient and family voice, and advocating for them within the boundaries of the medical environment. This framework is a comprehensive guide to engaging in the practice of emotional safety in pediatrics.

Wherever physical safety is discussed, emotional safety should be addressed as well. They are two sides of the same coin and both deserve equal consideration. In 2020, the Association of Child Life Professionals conducted a national survey of healthcare professionals to gauge their thoughts on emotional safety. Of the 225 HCPs who responded, 95.95% stated they believe emotional safety is equally important to physical safety. However, Sokol-Hessner et al. (2015) asserted that the awareness and prevention of emotional harm is lagging that of physical harm by over twenty years. To date, the term “patient safety” is used to reference the physical safety of the patient and rarely, if ever, considers their emotional safety. The system needs to catch up with the values held by the front-line medical professionals. As the Institute of Medicine stated, “... it is simply not acceptable for patients to be harmed by the same health care system that is supposed to offer healing and comfort” (Kohn et al., 2000, p. 3).

Healthcare professionals also suffer when emotional safety is not prioritized. Since its introduction over three decades ago, the term “moral distress” is increasingly used to describe the experience of healthcare

professionals when they are routinely put into a position where they must comply with a process they believe is damaging. When they are placed in a systemic process that contradicts their belief in what is right, they can fall into a crisis (Davis et al., 2018; Garros et al., 2015; Jameton, 1984). Two examples might be assisting in medical procedures where the child's pain is not adequately controlled despite knowing there are accessible options available or being asked to restrain a crying patient by lying them flat and holding them down during an examination when they could be held comfortably and safely by their caregivers instead. This incongruence of self leads to feelings of anger, frustration, powerlessness, and shame (Davis et al., 2018; Jameton, 1984). It can also lead to burnout (Burston & Tuckett, 2012), job dissatisfaction (Allen et al., 2013), and even to HCPs leaving the profession altogether. Rather than pathologizing moral distress in those who experience it, Tigard (2019) emphasized its value as it "...warns us of something significant being amiss and demanding systematic reform" (p. 602). The system can be changed when those within it bring to light the shortcomings and implement strategies for improvement.

It is imperative to adopt emotional safety as a core philosophy for medical delivery. Such practice will reduce patients' medical trauma and distress and foster their trust, thus paving the way for positive healthcare encounters in the future and improving their health-related quality of life. Enhancing care by systematically adopting the ES framework will also result in a decrease of moral distress experienced by healthcare professionals. The emotional safety practice, and all four pillars therein, must be incorporated into the important quality and safety work being executed by medical institutions around the world.

Definitions

Emotional safety (ES) is defined as an intentional, interdisciplinary practice to promote resiliency, healing, and trust for pediatric patients and their families during medical experiences. In this paper, the term child refers to patients from birth through adolescence. Healthcare professionals (HCPs) are medical professionals who have specialized training and experience. This includes physicians, physician assistants, nurses, clinical assistants, medical technicians, specialists, and physical/occupational/speech/respiratory therapists. Psychosocial/spiritual professionals are

those in the medical field who tend to the emotional, social, spiritual, and psychological needs of patients and families. They include child life specialists, clinical social workers, creative arts therapists, play therapists, chaplains, psychiatrists, and psychologists. Caregivers include the patient's parents, guardians, or adults taking primary responsibility of caring for the child. Family is used to describe whoever the child defines as their support or family. Siblings include anyone the child considers a sibling, close relative, or friend.

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