THE EVALUATION TOOL FOR CHILD LIFE INTERNS

THE EDUCATIONAL IMPACT OF THE EVALUATION TOOL FOR CHILD LIFE INTERNS: A MIXED METHODS STUDY

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Abstract

Background: The Association for Child Life Professionals (ACLP) requires those seeking to become a Certified Child Life Specialist (CCLS) complete a minimum of 480 hours of supervised clinical experience prior to the certification exam. Trainees' skills are evaluated using the Evaluation Tool for Child Life Interns. This tool consists of 54 skill-based items scored with a 7-point Likert-based rating scale (with a Not Applicable (NA) option) and space for open-ended narrative feedback. Skill based items are within three separate domains: Assessment, Intervention and Professional Responsibility. There are no published research studies available to date on the use or effectiveness of the tool.

Purpose: This study seeks to explore the educational impact of the tool using two sources of data: frequency of NA ratings across the three domains and narrative feedback from preceptors in comment sections of the tool.

Methods: Using an explanatory sequential mixed methods design, quantitative data (proportion of NA ratings) and qualitative data (preceptors' comments) from evaluation tools obtained from 45 learners spanning the academic years 2011 – 2016 at McMaster University's Post Graduate Diploma Program in Child Life. Mean proportion of NAs was evaluated using a 2 (time: internship 1 and internship 2) x 3 (domain: assessment, intervention and professional responsibility) two-way repeated measures analysis of variance ANOVA. Qualitative data was explored using thematic analysis of preceptors' narrative comments for skill-based items where at least 1 NA rating was selected.

Results: Analyses of quantitative data revealed NA ratings to be substantially greater in the professional responsibility domain (22%) relative to both assessment (<1%) and

intervention (3%) domains (p-value < 0.001). There was no main effect for time. Qualitative analyses showed that the use of NA was primarily due to the intern not having the opportunity to experience or demonstrate the skill being rated. Four themes emerged from the thematic analysis of narrative feedback (constructive feedback, action plans, clinical examples with patients and families, little to no opportunity for skill development).

Conclusion: The Evaluation Tool for Child Life Interns offers quantitative and qualitative feedback to child life learners with benefits and challenges to its use. The subtasks in the assessment and intervention domains represent child life practice across various placement sites. Within the professional responsibility domain, skills being assessed require further review through stakeholder input to ensure they reflect current practice. The narrative feedback provided by preceptors is detailed and constructive. The tool is discouraged for use as a single summative assessment to make decisions of competency and is recommended for formative and summative use as one method of feedback within a program of assessment.

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Declaration of Academic Achievement

The following is a declaration that the content of the research in this document has been completed by Allison Sohanlal and recognizes the contributions of Dr. Meghan McConnell, Dr. Joanna Pierazzo and Dr. Alan Neville in both the research process and the completion of the thesis. Allison Sohanlal contributed to the study design and was responsible for data collection, data analysis and writing of the manuscript. Dr. Meghan McConnell assisted with the study design, data analysis and manuscript review. Dr. Joanna Pierazzo and Dr. Alan Neville provided insightful advice and manuscript review.

Chapter 1. Background

Assessment of Clinical Skills in Health Professions Education

Health professions is a general term that refers to people working in healthcare who have direct responsibility for patient care. Health professions include but are not limited to the fields of medicine, nursing, occupational therapy, physical therapy and child life. While the assessment of acquired knowledge is generally gathered through written and oral examinations, the assessment of knowledge, skills and behaviours is much more complex. Direct observation of learners, by experienced clinicians in practice, allows for assessment of clinical performance through guidance, feedback and support, towards the integration of knowledge and skills in an authentic environment (van der Vleuten, Schuwirth, Scheele, Driessen & Hodges, 2010). In this study, assessment refers to the measures used to rate the performance of a learner (Wilkes & Bligh, 1999).

The clinical training component of any health professions education program aims to provide the learner with the skills required to perform, at minimum, as an entry-level clinician upon graduation. The rigor of the assessment methods used to provide feedback about learner performance has a direct impact on the quality of the educational experience. Poor or weak assessment methods can result in health professionals who are not properly prepared for their field, which subsequently has negative effects on the quality of healthcare services provided to patients and families. In order to ensure learners are entering the workforce with the required knowledge and skills of their profession, learners' must be assessed through direct observation. Miller's pyramid is a framework used to describe four levels of competency in clinical training with the top two levels of "shows how" and "does" applying directly to how a learner applies

knowledge to practice in the clinical setting (Miller, 1990). Miller's pyramid allows clinical education programs to look at their entire program of assessment to examine how and where knowledge and skills are acquired and assessed. A frequently used method of assessment for the direct observation of clinical learners are in-training evaluation (ITE) tools.

There is a vast amount of research available regarding the use of ITE tools that outline benefits and challenges to their use. ITE tools remain one of the most authentic methods to assess learners based on direct observation in clinical training, encourage formative (frequent) and summative (final) feedback and often include a mixture of quantitative and qualitative input from preceptors. Research focusing on the psychometric testing of ITE tools frequently refer to the weak reliability and validity of scores due to a number of factors including the subjectivity of rater opinions on performance, the inability to repeat patient interactions (low sample sizes) in clinical settings and lack of preceptor training in the use of specific tools and how to provide feedback (Walsh, Seldomridge & Badros, 2008; Turnbull, Gray & MacFadyen, 1998). A specific challenge that is lacking in current research is what to do with Not Applicable (NA) ratings for specific skills or competencies. NA ratings are not missing data, they are purposeful ratings referring to skills that are not observed or not available at a training site. If a large number of NA's are selected within a particular domain or set of competencies, the utility and authenticity of the items within the tool are compromised. A vital recommendation for clinical education programs is to review their assessment methods and programs regularly to ensure they meet current professional standards and clinical skill expectations. Due to the possibility that the Evaluation Tool for Child Life

Interns is widely used to assess the performance of child life learners in clinical practice, it is concerning that there is so much emphasis within the child life profession, on a tool that has no psychometric data available (Association for Child Life Professionals, 2017a; Appendix 1).

The Child Life Profession

Child Life Specialists (CCLS) are health care professionals who work with children, youth and families, helping them to understand, cope and navigate stressful or life changing events. The child life profession began on pediatric wards of hospitals in the 1950's and has since grown in size, as well as academic and professional standards (Thompson, 2009). As of 2017, the number of CCLS' worldwide is 5,694, 88% of whom are from the United States of America. The profession in Canada remains small with only 321 (6%) CCLS' (B. James, personal communication, April 10, 2017).

The Association for Child Life Professionals (ACLP) is a nonprofit organization founded in 1982 that helps to maintain professional standards worldwide and "advances the credibility of the child life profession by fostering research and promoting the efficacy of child life practice" (Association for Child Life Professionals, 2017b). The ACLP is the only organization that provides the opportunity to sit for certification to become a CCLS. Current minimum requirements to sit for certification include: (1) completion of a bachelor's degree, (2) required child life coursework, (3) 480 hour clinical internship supervised by a practicing CCLS.

Academic programs offering child life curriculum exist at both the undergraduate and graduate levels. Those wishing to pursue a career as a CCLS must obtain the academic and clinical training to understand, consolidate and apply the knowledge, skills

and behaviours required to meet professional standards. The clinical training of child life interns is not standardized and programs vary widely in the organization of internships and assessment methods used to evaluate performance. There is only one evaluation tool readily available and accessible to child life clinical education programs – The Evaluation Tool for Child Life Interns (Appendix 1). There are no published research studies or data available regarding the utility of the tool in the assessment of clinical performance of child life interns.

McMaster Post Graduate Diploma Program in Child Life

The child life diploma program at McMaster University began in 1991 under the Department of Pediatrics and Faculty of Health Sciences in Hamilton, Ontario. It is an eight-month applied professional program that focuses on the development of knowledge and skills to prepare learners for a career as a CCLS. Interested candidates apply to the post-graduate program having successfully completed their undergraduate bachelors degree. The program is competitive, receiving an average of 100 applications each year of which only ten learners are selected for admission. Academic coursework is completed through a period of eight-months and includes two eight-week clinical internship experiences (see Appendix 2 for course schedule).

Clinical Education Program

The clinical education program at McMaster University is led by a CCLS in the position of Clinical Internship Coordinator. Clinical education consists of one course that runs from November through to April. The course, titled Internship and Problem Based Tutorial (PBT), is a pass/fail course that includes sixteen weeks of full time clinical training and a weekly live class to consolidate the acquisition of knowledge and skills and

to provide learners with ongoing support and education. Learners are evaluated in the course through several assessment methods. Evaluation of clinical internship performance is completed using The Evaluation Tool for Child Life Interns (Association for Child Life Professionals, 2017a). Evaluation in PBT consists of a number of portfolio components to enhance learners' clinical education including journaling, case study presentations, clinical sessions, documentation and competency related assignments. During clinical experience, learners are paired with CCLS preceptors at placement sites across Canada working within larger health professional teams in pediatric care.

Future Directions – Child Life Profession and McMaster Child Life Program

The ACLP 2015-2018 strategic plan highlights the priorities of professional credibility, member experience and organizational strength (Association for Child Life Professionals, 2017c). Taskforces are working on three major changes to the profession in response to the three priorities: (1) increasing the minimum requirements for education to a graduate degree by 2022, (2) increasing the minimum number of clinical internship hours from 480 hours to 600 hours by 2019, and (3) providing the opportunity for accreditation to child life internship programs. In response to the ACLP priorities and in an effort to increase the credibility and rigor of child life training, the McMaster Post Graduate Diploma Program in Child Life will close in 2016 to introduce the first child life masters program in Canada. The Masters of Child Life and Pediatric Psychosocial Care program will begin in fall 2016. Examining the educational impact of the Evaluation Tool for Child Life Interns will benefit child life learners and preceptors, clinical training sites and academic programs. Baseline information about the tool will help to ensure that learners are being assessed accurately in the acquisition of knowledge

and skills to meet the ACLP requirement of minimum entry-level competence to enter the child life profession.

Chapter 2. Study Purpose & Research Questions

Norcini and colleagues (2011) use three categories to describe assessment in practice: (1) areas where practice is consistent with the evidence, (2) areas where practice is not yet consistent with the evidence, and (3) areas where there is a lack of evidence. Of the three categories, the Evaluation Tool for Child Life Interns falls into the third category. There are no psychometric data available on the tool and the feasibility and acceptability of the tool are unknown. In providing these three categories, Norcini and colleagues leave room to consider evaluating single assessment tools if there is a lack of evidence. In beginning to evaluate an entire assessment program, baseline information on the tools used is a necessary first step.

The Evaluation Tool for Child Life Interns is the only tool provided to child life programs by the ACLP, yet no published research exists describing the use of the tool or its effectiveness in evaluating the clinical skills of child life interns (Association for Child Life Professionals, 2017a). The tool is a high stakes assessment, often used as a summative evaluation upon which a decision of competency is made. Child life learners must meet the criteria outlined in the Clinical Experience Verification Form to be at "minimal entry-level competence" at the end of their clinical training before they can apply to sit for certification (Association for Child Life Professionals, 2017d; Appendix 3). As a profession, it is important to begin to understand the educational impact of the tool, including a review of task and subtask items to determine if it is appropriate for use across a variety of clinical settings (Schuwirth & van der Vleuten, 2004). There are approximately 434 child life hospital and community based programs around the world that could potentially run a child life internship program (B. James, personal

communication, April 10, 2017). There are currently no data available from the ACLP on the number of child life internship programs or the number of programs that use the Evaluation Tool for Child Life Interns to assess the clinical performance and competency of interns. As this is the only tool available from the ACLP, it's probable that a large number of child life internship programs utilize the tool to evaluate their interns' skill development.

Researchers Position in the Study

Through this researcher's position as the Clinical Internship Coordinator for the child life internship program at McMaster University, the tool requires review to maintain quality standards in education and to respond to feedback from clinical preceptors and students over the years. Feedback is mixed on the use of the tool, and a preceptor feedback survey conducted by this researcher (McMaster Child Life Clinical Preceptor Feedback 2014-2016, June, 2016) revealed common challenges in the use of the tool including duplicate task items, the varied interpretation of the descriptions provided for the rating scale categories, the length of time required to complete the tool, current practice skills not addressed by the evaluation tool and tasks which are consistently given Not Applicable (NA) ratings.

This thesis work began by looking at mean scores of learners across the tool in an effort to gather baseline psychometric data. The initial statistical analysis of mean scores showed a high prevalence of NA ratings, which challenged and skewed the data, specifically, the reliability and validity of the scores (NA ratings were replaced with learners' mean scores). A subsequent review of the literature provided little information on what to do with clinical assessment tools having high percentages of NA ratings. Due

to the number of NAs across the tool, the gap in the literature and known feedback from learners and preceptors about the presence of NAs in the tool, this researcher recognizes the importance of first addressing the use of NA ratings in detail as a first step to examining the educational impact of The Evaluation Tool for Child Life Interns.

Purpose of the Study

This study seeks to explore the educational impact of Not Applicable (NA) scores within The Evaluation Tool for Child Life Interns through the review of five years of learner evaluations (completed by preceptors) from the McMaster University Post Graduate Diploma Program in Child Life from 2011-2016 (Association for Child Life Professionals, 2017a). Using a mixed methods approach, the study will first examine the frequency of NA ratings across the tool, from 54 skill-based items across three competency domains of assessment, intervention and professional responsibility. A secondary interest in this study is to explore a purposive sample of preceptor comments to generate themes from narrative feedback where tasks in the tool have at least one NA rating.

Research Questions

This study employs an explanatory sequential mixed methods research design. To retain the format and study design, the Phase 1 quantitative study questions are addressed first to examine the core research problem. Phase 2 qualitative study questions are created after the quantitative data has been collected and analysed to enhance the quantitative results and provide more detailed information. The questions used to guide this study are:

Phase 1: Quantitative

- *Is there a difference in the frequency of NA scores between time (internship 1 vs internship 2) and domain (assessment, intervention, professional responsibility)?*
- *Which tasks and subtasks have higher frequencies of NA ratings?*

Phase 2: Qualitative

- *What themes emerge from narrative feedback provided by preceptors through the comment sections of the tool?*

Chapter 3. Literature Review

Introduction

Over the past two decades, academic and training programs in health professions education have had increased pressure to examine the quality of their clinical assessment methods and programs. Professional associations and healthcare employers are more frequently using the notion of competency to ensure that health care professionals are qualified with a minimum baseline of knowledge and skills to be fit for practice (Mattison, Sculthorp, Schroeder & Zacharias, 2017). The field of medical education helped to fuel this accountability with a demand for quality assurance of physicians in training beginning in the 1970's (Norcini, Holmboe & Hawkins, 2017). As more research emerges about the quality of clinical training programs, there is evidence to show that clinical performance of a learner does not necessarily predict clinical competence (Panzarella & Manyon, 2007). Competency involves life-long learning where the acquisition of skills is ongoing as learners continuously work to develop, apply and refine expertise (Epstein, 2007; Eva et al., 2013; Harris et al., 2017). The notion of competency looks at whole task performance, where knowledge, skills and attitudes combine to allow health professionals to carry out their jobs independently (Schuwirth & van der Vleuten, 2011). If portions of assessment tools are unable to assess skills due to the use of NA ratings, competency and whole task performance are compromised.

Child life specialists are part of the healthcare team and as such, require clinical training programs with assessment methods that encourage frequent, detailed feedback to ensure learner progress is measurable and working towards minimum competency. The child life profession continues to grow and as the ACLP increases the educational and

training requirements to become a CCLS, the assessment methods used as a gateway for entry into the profession must be examined. This chapter begins with an overview of Miller's pyramid as the framework for which this research study is grounded (Miller, 1990). A comparison of two prominent models used to examine clinical assessment methods and programs will lead to a review of current literature on the benefits and challenges of in-training evaluation (ITE) tools. As there are no research studies available in the field of child life pertaining to these topics, literature from the related fields of medicine, nursing, social work, psychology and physiotherapy inform this literature review.

Miller's Pyramid

George Miller developed a framework in 1990 to specifically address the assessment of clinical competence (Norcini et al., 2011). Miller's review on the

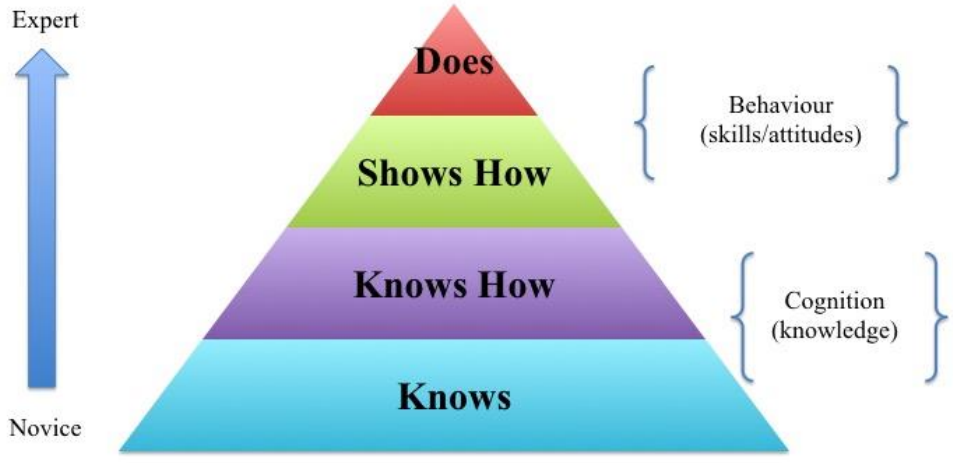

Figure 1. Miller's Pyramid of Assessment of Clinical Competence (Miller, 1990)

assessment of clinical skills in medical education urges educators to never rely on one single assessment method to make judgments on performance when the delivery of professional services is so complex (Miller, 1990). Current research continues to stress Miller's view of the importance of examining a program of assessment instead of individual tools (van der Vleuten & Schuwirth, 2005). The introduction of Miller's pyramid (see Figure 1) provides a framework that outlines the levels of professional expertise that can and should be assessed over time as learners gain more knowledge and skills through a professional program. The pyramid shows a progression of skills as the learner moves from novice to expert and from baseline knowledge (e.g. "knows", "knows how"), to the ability to perform skills and tasks of their profession independently in the clinical environment (e.g., "shows how", "does"). In order to progress to the highest level of performance, guidance from an experienced clinician who takes a reflective approach to teaching and learning is key (Field, 2004).

The bottom two levels of the pyramid involve cognitive processes and knowledge assessed through more traditional methods within educational institutions. Learners at this level are considered novices who are at the beginning stages of gathering information ("knows") about the knowledge and skills specific to their profession. Many tools that assess knowledge, such as Multiple Choice Question exams (MCQ), have been shown to produce scores that have good reliability and validity, and are frequently adopted by educational institutions (Miller, 1990). The next level of the pyramid is "knows how", where the notion of competency begins. Students are assessed using a variety of methods where they are able to use their acquired knowledge to show application and develop a care plan for a patient problem. Assessments in the "knows how" level are commonly

focused on clinical problem solving and case study approaches but may also include Objective Structured Clinical Examinations (OSCE's) and simulated patients. Assessment methods at this level are most likely to occur in the classroom environment.

The top two levels of the pyramid are concerned with the behaviour (skills and attitudes) demonstrated by learners in clinical practice situations. The "shows how" level of the pyramid assesses the learners' ability to develop a care plan for specific patients or demonstrate their clinical skills in real life scenarios. OSCE's and simulated patients may be used in clinical environments depending on resources available, however learners are more likely to be asked to develop and present solutions to a patient problem during clinical encounters. The final, top portion of the pyramid is the most difficult to assess and is the area where more research is needed. For a student to demonstrate the "does" portion of the pyramid requires the ability to independently make decisions and manage care of the patient (separate from "shows how", where they are being observed by an expert who is still able to provide support if needed) (Miller, 1990). At this level, the learner is considered to be approaching a higher level of application of knowledge to practice associated with entry-level skills or minimum competency to work in their profession. Sample size is a common problem in assessing the top level of the pyramid. The number of opportunities available to demonstrate skills with patients in the presence of qualified people who can assess the trainee in an unpredictable health care environment is a challenge for many clinical training programs.

Current research is interested in the top two levels of the pyramid to understand what clinical learners actually do in practice. Much of the research on assessment in medical education focuses on the bottom levels of the pyramid, yet there isn't a direct

connection between what a learner "knows" and what they "do" in practice (van der Vleuten, Schuwirth, Scheele, Driessen & Hodges, 2010). Wass, van der Vleuten, Shatzer and Jones (2001) refer to the assessment of the "does" portion of the pyramid as the "international challenge of the century" as finding assessment tools whose scores demonstrate good reliability, validity and educational value is a "gold standard yet to be achieved" (p.948).

Academic training programs in child life can be classified using Miller's pyramid, with the academic training focused on the lower two levels and the clinical training focused on the top two levels of "shows how" and "does". A key issue for consideration in assessing these upper levels is the quality of the data gathered. Although the Evaluation Tool for Child Life Interns includes both quantitative and qualitative data, if a rating of NA is given (providing no quantitative score for a specific skill) and no narrative comments are provided, the learner is not provided with any feedback for that particular skill. This is a serious issue for programs who do not adhere to Miller's (1990) recommendation to use multiple methods of assessment to determine clinical competency. If only one tool is utilized and it is missing feedback on multiple skills or tasks, programs may be at risk of putting new professionals into the field who are not properly prepared to practice in their profession, putting patients and families at risk. Using only one method of assessment to determine if a learner is competent to practice in their field cannot account for the complexity of a profession or the different aspects of performance required in learning the skills of a profession (Epstein, 2007; Miller 1990; van der Vleuten & Schuwirth, 2005; van der Vleuten et al., 2010).

Within the top two levels, the assessment methods utilized in the field of child life are limited. The Evaluation Tool for Child Life Interns is a tool encouraging direct observation of learners by their clinical preceptors and is used in high stakes assessment situations. The tool itself does not encourage direct and frequent observations of learners' performance in the clinical setting as it is only suggested for "voluntary use" and there are no clear recommendations for how to adapt the tool for formative or summative assessment. In the McMaster child life program, the tool is completed twice in each internship, where a preceptor's memory of individual observations over a period of eight weeks, may not be clear or accurate (van der Vleuten, 1996). Other learning portfolio components such as journaling, competency logs detailing direct interactions with patients and families and assignments focused on case study based scenarios are included to supplement the evaluation tool; however the tool is used as the final deciding factor for clinical competency. Adopting other methods of assessment such as the OSCE or standardized patients have not yet been attempted by the McMaster child life diploma program but are planned as part of the new Masters in Child Life program.

Criteria for Examining Clinical Assessment Methods & Programs

Addressing Miller's "shows how" and "does" categories of the pyramid, the assessment of clinical skills in health professions settings deserves careful consideration to the process and methods used. Criteria used to guide educators and clinical settings in evaluating assessment programs help to build the quality of clinical placements. The act of assessment has several benefits to learning. Assessment provides motivation, guides learners to what is important, ensures that learning has occurred and creates opportunities (Norcini et al., 2011). Norcini and colleagues see the process of assessment impacting

many stakeholders, including the learner, clinical preceptors, the educational institution, and the welfare of patients in the healthcare system.

van der Vleuten's (1996) utility model and Norcini and colleagues (2011) criteria for good assessment provide similar considerations toward examining assessment methods and programs. Both are based in the field of medicine and health professions education and outline several key criteria that help to ensure assessment methods offer a robust learning experience (Norcini et al., 2011). Educational programs can use these criteria to evaluate the quality of their assessment methods or program, with the understanding that assessment should drive learning and that the search for one perfect tool is futile (van der Vleuten et al., 2010). Both models are outlined in Table 1 with careful consideration for how individual criteria are impacted by frequent NA ratings.

Table 1. Comparison of Utility Model and Criteria for Good Assessment – Impact of Frequent NA Ratings

Utility Model (Van der Vleuten, 1996)	Descriptions (adapted from van der Vleuten, 1996)	Criteria for Good Assessment (Norcini et al., 2011)	Descriptions (adapted from Norcini et al., 2011)	Impact of Frequent Not Applicable (NA) Ratings
Reliability	The results from the scores on the tool remain consistent across similar circumstances	Reproducibility or consistency	The results from the scores on the tool remain consistent across similar circumstances	Skewed data when true scores (values) are not provided consistently; NA ratings create inconsistency in scores Introduction of bias if NA data are removed or replaced with mean scores
		Equivalence	The same assessment has equal scores when used across different institutions	NAs could vary widely between institutions pointing to the tool not being applicable across all settings and therefore not inclusive of the complexity of the profession
Validity	The instrument measures what it is supposed to measure	Validity/coherence	Research supports the use of the assessment for a defined purpose	Relevance of content of assessment items is questioned Lack of validity provides little support for the effectiveness of an assessment method Poor validity may result in lack of research on the use of the tool
Educational Impact	Process of assessment motivates learners through content, format, information given and programming	Educational effect	There is educational benefit from the assessment	NAs cause specific skills to not be assessed therefore assessment items are not matched to learning objectives Feedback to learners is minimal and does not drive learning
	Assessment objectives should match educational objectives	Catalytic effect	Results from the assessment drive learning	Frequent NA ratings highlight skills or competencies that may be outdated or no longer apply; tool doesn't encourage learning because it does not reflect current practice
Acceptability	Extent to which the assessment procedure is accepted by those involved in the assessment	Acceptability	Those who use the assessment consider the results credible	An outdated tool is less likely to be utilized to its full potential by learners and preceptors NA scores leave questions as to individual learner's competency in required skills of a profession Credibility of tool is at risk if it doesn't provide specific feedback to learners or help preceptors guide learners in skill acquisition
Cost	Monetary cost of instrument construction and review Cost of using the assessment (time involved for preceptors and learners)	Feasibility	The assessment is practical for use	Assessment tool does not evaluate learners on key skills necessary to practice in the profession Potential for more time spent completing narrative comments because NA scores do not provide any feedback. Learners and preceptors may see the tool as ineffective in providing accurate feedback

Utility Model

van der Vleuten's (1996) conceptual model is grounded in the utility of assessment tools through "practical suggestions and research recommendations" (p.55). The utility model presents additional concepts for evaluating assessment methods outside of traditional psychometric data (reliability and validity of scores). Although his 1996 paper originally suggested the utility model be used for the purpose of examining individual assessment tools, he has recently changed his approach to examine entire programs of assessment, noting the importance of a wide spectrum of methods and contexts (van der Vleuten & Schuwirth, 2005). This view echoes Miller's (1990) suggestion for the use of several methods of assessment to evaluate competency. This perspective changes the approach to assessment from a measurement problem to an issue of educational and program design (Schuwirth & van der Vleuten, 2004).

A balance between the five variables of the utility model is considered to be ideal; however the presence of NA ratings has an effect on all of the variables (Schuwirth & van der Vleuten, 2004; see Table 1). van der Vleuten's first two variables of reliability and validity are standard measurement criteria in health science education as they pertain to psychometric data. Both are based on analyzing data gathered through examining the use of a tool over time. The presence of frequent NA ratings across a tool can significantly impact the reliability and validity of scores from the tool by creating inconsistency in scores and questioning the relevance of individual skill items being assessed. The reliability or consistency of test scores is expressed as a coefficient between 0 and 1 with 0.80 being the minimally acceptable value under high stakes testing conditions (van der Vletuen & Schuwirth, 2005). Strong reliability of scores indicates

that a test will also discriminate between students who are performing well and those who are performing poorly and need further attention or remediation (Schuwirth & van der Vleuten, 2004). A single test showing valid scores is not a valid measure of competence for an entire profession (Schuwirth & van der Vleuten, 2004). Reliability and validity are related and often discussed together. Although reliable scores are not necessarily valid, one cannot have validity without reliability. This relates directly to the initial research completed for this thesis, where reliability of scores was high, however the large number of NA ratings were replaced by mean student scores, skewing the data and decreasing the validity of the scores (real data was replaced by data not representative of the actual scores). Although the initial research results showed a reliability coefficient >.80, replacing all NAs (which are unscored items) with the students' mean score is not an accurate portrayal of true performance for that skill-based item as the item was never actually scored by the preceptor. This also has an effect on the validity of the scores since the scores do not reflect what they are supposed to be measuring (replacing an unknown score with a mean score). Although NA does not have a specific value, they are important to consider as they highlight skill areas that will require further development. Only after the frequent use of NAs is addressed and resolved within a tool, can the psychometric data be examined again in future.

The third variable, educational impact, relates directly to validity as the impact on assessment and learning is referred to as "consequential validity" (van der Vleuten & Schuwirth, 2005). Consequential validity speaks to the social consequences of an assessment, as well as the "intended and unintended uses and effect of the data" (NKwake, 2015, p. 113). When reviewing assessment methods, consequential validity

relates directly to the issue of missing vital information about a learners' performance in specific skill areas (due to NA ratings or missing data). Assessment through the tool is impacted through the inability to assess specific constructs or skills and impacts learning due to the lack of feedback provided to improve or motivate future performance. Revisiting the notion of assessment as a driver for learning, four areas should be considered when determining educational impact: (1) content, (2) format, (3) information given, and (4) programming (van der Vleuten, 1996). The content of the assessment measure should match educational objectives and be applicable to practicing in professional reality. Content also involves designing assessments that are varied in subject and format in order to prevent learners from studying to the test and instead show their ability to apply knowledge to skill based on general competency outcomes (van der Vleuten et al., 2010). The format of an assessment should be easy to follow, clear and easily understood by the learner and clinical preceptor. Information given to the learner both in formative and summative testing situations should include detailed qualitative feedback along with quantitative results (van der Vleuten, 1996). Reviewing quantitative and qualitative feedback from learner evaluations on file along with feedback of the training program as a whole should be completed every few years for quality improvement purposes (Lockyer et al., 2017). Programming considerations that affect the quality of an educational experience include how often assessments are required and whether or not there are breaks in assessment to help learners process information and develop sound learning strategies (van der Vleuten, 1996). The four areas that impact how assessment drives learning apply not only to the learners but to the clinical preceptors who complete the assessment tool. Finally, in considering the use of global

rating scales often attached to direct observation tools, the educational impact of any one assessment weighs heavily on what occurs after the feedback is provided to the learner, not necessarily on the scores provided by the rater (van der Vleuten et al., 2010)

The final two variables, acceptability and cost, impress the power of any assessment method as being determined by feedback from the learner, clinical preceptor and educational institution. An assessment method that is not accepted by those who use it, affects the quality of the training experience for everyone involved. The potential for detailed and frequent feedback to allow the learner to continue to develop their skills is also at risk when NA's are frequently used (van der Vleuten, 1996). The cost of implementing and using particular assessment methods relates to the resource limitations that are common in busy healthcare environments. Methods that are too time intensive will impact the detail and amount of feedback provided to the learner. The length of the tool, appropriateness of questions and time required to complete the tool are all important factors best addressed by speaking to the stakeholders involved, a process which is out of scope for this research study.

Criteria for Good Assessment

Norcini et al. (2011) provide a framework for good assessment based in medical education and training where assessment involves "testing, measuring, collecting and combining information, and providing feedback" (Norcini et. al, 2011, p. 206; see Table 1). Norcini and colleagues place great emphasis on the variety of stakeholders involved in the assessment process whereas van der Vleuten speaks more to the type and variety of assessment methods. Stakeholders include examinees (learners), teachers-educational institutions, patients, and healthcare system and regulators. Considering the perspectives

of stakeholders involved in the assessment process leads to a richer clinical education experience for all involved (Recker-Hughes et al., 2014). Norcini and colleagues support and promote the use of theories to support the decisions educators make in implementing assessment methods. The research literature around teaching and learning is important to consider to ensure programs of assessment are thoughtfully and purposefully designed to produce competent health care professionals. Miller's pyramid is commonly used as a framework to examine the application of skills in clinical practice and allows programs to identify the number and quality of assessment methods being utilized as learners move up through the levels of the pyramid. Both van der Vleuten and Norcini and colleagues agree that those in clinical practice do not look to research in teaching and learning enough to inform their programs of assessment.

The intended use of any assessment method is part of determining if it meets the criteria for good assessment. The criteria and emphasis that is unique to Norcini and colleagues' theory when compared to the utility model is that of catalytic effect. Although catalytic effect can be compared to van der Vleuten's educational impact, it differs in its sole focus on how assessment drives learning (Wass et al., 2001). Assessment of clinical skills is a key component for learners to move from novice to expert in achieving minimum competency in their chosen field (Epstein, 2007). If the results of an assessment method and resulting processes for feedback are conducive and supportive to learning (i.e. feedback is frequent, detailed and formative assessment builds towards a summative evaluation), it is more likely to have catalytic effect. If feedback is not conducive to learning, the assessment may fail to "drive learning forward" and

provide empty or meaningless information to the learner and educational program (Norcini et al., 2011, p. 211).

Norcini and colleagues (2011) make a point to detail the purpose of assessments and delineate between formative (assessment for learning) and summative (assessment of learning) assessment. Examining the differences between the two relates to future recommendations on how often The Evaluation Tool for Child Life Interns should be utilized for optimum feedback and benefit for the learner. Assessment for learning, also called formative assessment, involves regular, information-rich feedback and the opportunity to adjust instruction or learning goals based on the needs of the student (Schuwirth & Van der Vleuten, 2011; van der Vleuten et al., 2017). The key to formative assessment is detailed and frequent feedback and the opportunity for learners to reflect on their performance (Lofmark & Martensson, 2017). Although self-assessment and reflection are encouraged, this type of feedback for assessment purposes, is provided by the preceptor and is more likely to be qualitative, written information and should occur regularly throughout the clinical training experience, producing a catalytic effect (Gonsalvez et al., 2017). Norcini and colleagues suggest formative assessment involve four key pieces: "(1) embedded in the instructional process, (2) provides specific and actionable feedback, (3) is ongoing, and (4) is timely" (2011, p. 211).

Assessment of learning, also referred to as summative assessment, focuses on summarizing a learner's progress and making high stakes decisions about whether or not a learner can move forward in training or is ready to work in the profession with minimum competence. Summative assessment is traditionally quantitative in nature and based on predetermined criteria either from a professional association or an academic

program (Gonsalvez et al., 2017). This type of assessment is most applicable to Norcini and colleagues' criteria of validity-coherence, reproducibility-consistency and equivalence (see Table 1) as they are psychometric criteria that provide support and credibility to assessment methods. Missing data or NA scores across an assessment method that is used for formative or summative purposes may damage the credibility of a program. The presence of an experienced preceptor or multiple preceptors functions as a gatekeeping mechanism to help ensure competent professionals are entering the workforce and those who are not yet competent, are provided with additional training and support or are encouraged to consider an alternative profession. Both formative and summative assessments need to be meaningful and offer specific information that helps learners to improve clinical competency (Turnbull, Gray & MacFadyn, 1998).

Epstein & Hundert (2002) see the need to take into account "what is assessed, how it is assessed, and the assessment's usefulness in fostering future learning" (p. 228). The tools used to assess clinical competence impact the learners' experience and the quality of healthcare services provided to patients and families. While both models give strength to the importance of research in teaching and learning, van der Vleuten's (1996) original article introducing his utility model is geared toward the evaluation of students achievement through pre-designed assessment methods such as multiple choice questions, written and live simulations and the triple jump exercise. Only in his recent published works has he promoted the use of utility theory towards a program of assessment with the attention turning to direct observation tools. The inspiration for Norcini and colleagues (2011) criteria comes from the multifaceted nature of workplace assessment in medical education. Both models provide comprehensive considerations for

reviewing assessment methods. van der Vleuten focuses more in psychometrics and lacks the emphasis on stakeholder input and catalytic effect that Norcini and colleagues provide. Norcini also leaves room for categories of assessment in practice, recognizing that in the case of a lack of evidence for a program of assessment, initial analysis of assessment methods is important to begin to evaluate the effectiveness of clinical education programs. This relates directly to the study of The Evaluation Tool for Child Life Interns and the examination of how frequently NA ratings are assigned. In the absence of psychometric data or in the case that there are tools that have not yet been tested for reliability and validity, the impact of how the stakeholders utilize the tool, what benefit or outcomes are produced and the degree to which assessment methods drive learning forward are key factors to consider.

Limitations to using these models is most impactful when there is no psychometric data available for a particular tool. Programs desiring to review their assessment methods may not have the resources to examine all of the criteria at once. There are a wide variety of assessment methods used in child life clinical training so assessment at the programmatic level must begin with individual programs as the results of one program may not be generalizable to others. The field of child life is small compared to other health professions and the number of CCLS' who have research backgrounds that would have the resources to analyze the tool is equally as small. For this reason, the use of Miller's pyramid is recommended as part of a foundational review process for any clinical education program. The levels of the pyramid allow for a high-level examination of a program of assessment and provide a map for what assessment

methods fit into each level, highlighting gaps or areas of focus towards ensuring learners are being challenged to demonstrate both knowledge and skills in practice.

In Training Evaluation (ITE) Tools

The use of direct observation and ITE tools remains the most widely used form of assessment and evaluation in health care education in North America (Regehr, Eva, Ginsburg, Halwani &Sidhu, 2011). The diploma program in child life at McMaster University evaluates the knowledge of clinical interns through a portfolio of assignments but the largest weighted assessment of the portfolio is performance as rated by preceptors on The Evaluation Tool for Child Life Interns. This ITE tool is used in the direct observation of learners for both formative and summative feedback using quantitative and qualitative information from the clinical preceptor(s).

Professional programs in health care education use terms such as preceptorship, clinical education, fieldwork, internship, clerkship, practicum, etc. to describe ITE (Ralph, Walker & Wimmer, 2008). The ultimate goal of any assessment method in clinical training is to capture the learners' ability to translate knowledge to practice in a variety of clinical contexts. The use of ITE tools achieves that goal because students are being trained in-situ and are immersed in the clinical environment in direct patient care. Regehr, Eva, Ginsburg, Halwani and Sidhu (2011) define ITE tools in postgraduate education as "informal, unstructured, cumulative, in situ evaluations" (p. 6). These methods of assessment are often difficult to standardize due to the unlikelihood of reproducing authentic patient encounters and the unpredictability of training environments (Middlemas & Hensal, 2009). ITE tools aim to cover a wide range of

competencies or skills which may develop at different speeds depending on what the learner is exposed to in the training environment.

The direct observation and subsequent assessment of health professions learners in the clinical setting is one of the responsibilities of a clinical preceptor. A preceptor is a healthcare professional who provides guidance, mentorship and teaching to learners in the clinical environment. Within health professions training programs, preceptors complete in-training evaluation (ITE) tools to directly assess learner performance in clinical settings. These tools not only guide the preceptor to the performance expectations for the learner, but also provide an opportunity for feedback and reflection for learners as they move towards entry-level competency in their chosen field (Turnbull et al., 1998).

Types of ITE Tools

There are generally two categories of direct observation ITE tools, all of which aim to address Miller's (1990) top two levels of the pyramid ("shows how" and "does"). The first category is characterized by "individual encounters" and are defined by a single situation or point of assessment. Examples of these tools are the OSCE, Mini-Clinical Evaluation Exercise (Mini-CEX), video observation of clinical encounters and use of incognito simulated patients (van der Vleuten et al., 2010; van der Vleuten & Schuwirth, 2005).

The second category relates to this research study and involves longer-term methods that allow for clinical skills to be assessed over weeks, months or years observing multiple samples of performance (van der Vleuten et al., 2010). Examples of longer-term methods include assessment tools with global rating scales, end of rotation

evaluations, peer assessment and multisource feedback. The Evaluation Tool for Child Life Professionals is a longer-term assessment method. These methods are more likely to include both quantitative and qualitative information and are completed by peers, preceptors, other health care professionals or even patients (van der Vleuten et al., 2010). In support of longer-term assessment methods, a recent study by Oerlemans et al. (2017), compared the assessment of single encounters and clinical performance to a series of encounters. The results showed that assessment of skills and behaviours focused on multiple patient encounters produced a more accurate picture of competency development due to a more holistic view of skill development. An additional finding suggested that narrative feedback should be encouraged since rating skills using a numbered rating scale limits the judgment of performance to predetermined criteria.

Although portfolios can be used for assessment and take place over weeks or months, van der Vleuten and colleagues consider them to be in a category of their own relating to aggregate methods. Portfolios sample clinical skills using a variety of methods for multiple purposes (assessment, monitoring, coaching, etc.), although those purposes are most effective when combined and used as a primary modality for whole task performance (van der Vleuten et al., 2010)

Benefits in the Use of ITE Tools

ITE tools can target a learners' skill development at Miller's "does" level of clinical competence. They are helpful when trying to create authentic opportunities that allow for "expert judgment" in the assessment of clinical performance. Authentic assessment is a term used to describe the process of learners using knowledge to solve problems, or the act of "doing" (Mattison et al., 2017). Authentic assessment relates

directly to Miller's "does" level of the pyramid where the interest in assessment is to see how learners apply their knowledge to solve problems independently in real life clinical settings. Typically, assessment is centered around the educational institution, learner and clinical preceptor. It's important to consider that learners who succeed in clinical placements become employees, and employers are interested in skilled workers who are adaptable to the ever-changing healthcare environment (Mattison et al. 2017). The recent shift to more authentic assessment in real clinical environments is largely due to public pressure for accountability and quality improvement in health professions education (Norcini, Holmboe & Hawkins, 2017).

ITE tools help the assessment process to drive learning. When used over a period of weeks or months of clinical training, ITE tools used regularly for formative assessment and at the end of placement for summative purposes, capture a holistic view of the accumulation of skills over time. It is recommended that tools combine the two forms as information from formative assessments build toward a final summative assessment. The use of frequent, detailed feedback encourages preceptors to use ITE tools to guide, coach and monitor progress of the learner in addition to assessment purposes (van der Vleuten et al., 2011). Tools used for direct observation provide one of the only ways to assess the development of complex clinical skills over time, such as clinical decision making. Utilizing experts in the field to complete the assessment tools while directly observing the learners is an asset to ITE.

The use of longer-term assessment methods allows for multiple assessors to contribute to feedback on the tool. Multiple assessors can improve reliability of scores by increasing sampling of performance and reducing bias through having several

opinions of performance across various contexts (Lockyer et al., 2017). Clinical placements in the McMaster child life program involve either one learner to one preceptor or one learner to two preceptors (two preceptors indicating a split placement in two different areas). Traditional clinical training in health professions education involved one to one relationships in supervision, although competency-based education has created a shift supporting multiple assessors or preceptors. Loewen et al. (2017) conducted a systematic review examining learner : preceptor ratios and found the 1 learner : 1 preceptor and multiple learners : multiple preceptors were most frequently discussed in the literature. Benefits of a single preceptor include improved clinical skills, clinical competence and an increase in individual attention. Challenges include lack of peer support for the learner and increased workload for the preceptor (Loewen et al., 2017). Benefits of multiple learners : multiple preceptors include diverse practice experiences, increased peer support, decreased anxiety, increased independence and shared knowledge between learners. Challenges include difficulty managing different expectations from multiple preceptors, and role confusion amongst staff (Loewen et al., 2017). Multiple assessors does have the benefit of a more holistic view of competency and less pressure on preceptors when summative decisions or unacceptable performance must be addressed (Lockyer et al., 2017).

Several studies citing the benefits of ITE tools relate to the creation of new tools. Research in the last decade has begun to focus on ITE tools that have been recently developed to replace tools with low acceptability from clinicians using them to assess learners in the front lines of healthcare (Fitzgerald, Delitto & Irrgang, 2007; Walsh, Seldomridge & Badros, 2008). The process of creating a new tool is similar to gathering

evidence for existing tools. As Norcini and colleagues (2011) suggest, stakeholder input is crucial to ensure competencies are aligned with current practice and the format and structure of the tool is acceptable for a busy healthcare environment. Neglecting to involve key stakeholders in developing tasks or skills to be assessed could damage validity through repetitive or outdated information. Watson et al. (2002) cautions against the inclusion of too many irrelevant concepts when assessing competencies or skills as it undermines the directness (and sensitivity) of the tool. The format and content of the ITE tool is important to consider for educational impact. In a study examining the validity of a clinical internship evaluation tool for physical therapist education programs, Fitzgerald et al. (2007) created their own tool to increase the benchmark of "entry-level graduate" to "competent clinician". Secondary goals were to update the skills and behaviours being assessed on the tool and ensure the tool was short and easy to use. The study required faculty item reviews and a survey about the tool to determine if the items represented skills and behaviours important to the profession (Fitzgerald et al. 2007). All items were found to be appropriate for expectations of a student and the tool was also considered by preceptors to be practical for use without requiring too much time to complete. The results of the study found evidence towards the validity of the scores on the tool for use in assessing physical therapy interns in a practical and easy to use format showing positive educational impact from clinical instructors and faculty members. The validity of the scores and feedback from the tool mirrors van der Vleuten's recommendation for measures to resemble the profession in reality (1996).

Motivated by years of "dissatisfaction with existing instruments", Walsh et al. (2008) developed a new tool for preceptors in nursing education (p. 113). The new tool

aimed to address challenges for preceptors providing constructive feedback and in reducing the amount of time spent completing the tool. Preceptors, clinical managers and faculty participated in the initial phase of development to identify the priorities for what clinical behaviours should be evaluated. After creating an initial tool that did not produce the desired results, Walsh et al. set out to create a more practical tool for preceptors that contained a small set of performance indicators that preceptors themselves regularly carried out during the course of a work day. Instead of a traditional ordinal rating scale, the authors created a rubric with specific descriptions or expectations of performance. Instead of asking preceptors to choose only one rating, preceptors were encouraged to select as many descriptors as needed for a more holistic assessment of performance. A category for "not observed/no opportunity" was added for the purpose of identifying which skills needed to be made available to the learner either through clinical or educational days.

Challenges in the Use of ITE Tools

One of the biggest challenges to the direct observation of trainees with patients originates from the complexity and unpredictability of the healthcare environment. The opportunities available to assess learners in the moment can be sporadic, based on availability and are infrequently able to be planned and structured in advance. ITE tools may be used in practice without ever having been subjected to psychometric testing or analysis to determine their utility. In a systematic review of clinical competence assessment in nursing, Watson, Stimpson, Topping & Porock (2002) found that many of the methods reviewed in the study were rarely tested for reliability and validity of scores. ITE tools often assess a range of competencies for a specific profession but it is equally

important to look outside of general competencies, to what essential skills are required for future practice (Turnbull et al., 1998).

Within medical education, research on the utility of in training evaluation reports (ITER) show a lack of ability to discriminate between students and an inability to identify those learners who are performing poorly (Doyle, Webber & Sidhu, 2007; Regehr et al., 2011). Assessment of students based on clinical encounters observed days or weeks after the direct observation can be subject to poor or inaccurate recall. Adding to poor recall, if a preceptor focuses solely on the quantitative rating scale attached to each skill, the quality of feedback may not drive learning forward. Recent studies show the value of narrative or qualitative feedback on tools, especially those that relate to consistent behaviours observed over time by a clinical preceptor (Oerlemans et al., 2017; Rekman et al., 2016). In a study of the evaluation processes for the training of clinical psychologists, Norcross et al. (1986) found that informal qualitative procedures were used most and quantitative comparison procedures least. A shift in thinking urges clinical education programs to understand that quantitative data are not necessarily more reliable or valid than qualitative data (Epstein, 2007). Qualitative feedback allows preceptors to provide detail and information outside of the predetermined ordinal scale which can help to identify learners who need additional support (Oerlemans et al., 2017).

Preceptors or raters use of ITE tools are often cited as a major weakness stemming specifically from the amount of subjectivity in human assessment, lack of training for preceptors and rater errors (Epstein, 2007). The subjectivity of assessment comes with any judgment of performance regardless of the method used, however van der Vleuten and colleagues do not see this as entirely negative (2010). The availability of

experts in the field is key to direct observation and some bias or subjectivity can be lessened through training and clear expectations from faculty about expected performance outcomes (van der Vleuten et al., 2010). Kogan et al.'s systematic review found that although training was described for 47% of the tools reviewed, it was often a brief, one time training event (2009). Providing training to clinical preceptors is important since "assessment ability is acquired, not innate" (Lockyer et al., 2017, p. 612; Strohschein et al., 2002). In a review of assessment and feedback for learning in medicine, Sklar (2017) cited the following four components that should be included in faculty development:

1. Training in observation skills in authentic settings (workplace based assessments)
2. Feedback and coaching skills
3. Self-assessment and reflection skills
4. Peer guidance skills developed through a community of practice (p. 723)

Gonsalvez, Wahnon & Deane (2017) found that in the supervision of psychology learners in practice, preceptors were often given no benchmarks or standards for expected performance on the assessment tools. Psychology preceptors also reported completing assessment tools based on the learners' description of their performance as opposed to through direct observations which is a major issue for ITE that could be addressed by making the expectations of the use of the tool clear to all raters. The McMaster child life diploma program does not have a formal preceptor training program. The program does provide preceptors with information about their role via a handbook and brief online videos to help make clear the expectations of the program, the roles of the preceptor and learner and the evaluation process.

Another weakness related to raters is the unwillingness or preference to give students unfavourable ratings. Reasons provided by raters who were hesitant to highlight

poor performance in their learners include not having proper support or structure provided by academic administration to deal with a struggling or failing student (including being unsure of how to give constructive feedback), the difficulty of assuming dual roles (of mentor and evaluator), the potential to damage relationships with the intern or academic faculty, lack of time to complete the tool in detail, as well as the potential to harm the reputation of the intern or of themselves as a professional (Gonsalvez et al., 2017; Regehr et al., 2011; van der Vleuten et al., 2010; Walsh et al., 2008). Fitzgerald et al. (2013) found that clinical performance that is of high quality is reported quicker and is more detailed than poor performance leading to high performing learners receiving more detailed evaluations.

Related distribution errors such as leniency bias (failure to fail) and central tendency error also relate to the use of the rating scale provided in the ITE tool. The hawk and dove effect is a stringency/leniency bias that results in the rater being either too easy or too harsh in rating students. Providing tools that encourage more narrative feedback can help decrease biases in the use of rating scales. The overall impact of bias can lead to learners graduating and entering healthcare professions without meeting minimum competency or entry-level performance (Gonsalvez et al., 2017). Central tendency error refers to the tendency for raters to stay safely in the middle of a Likert-type scale (Turnbull et al., 1998). This type of error, if in isolation of qualitative comments on performance, doesn't provide constructive feedback for the student and if used across the tool, would not identify a student who needs remediation to improve their clinical skills. Similar effects occur when NA ratings are selected, giving minimal feedback (other than the skill wasn't observed or the opportunity wasn't available) to the

learner. The second type of rater error is referred to as the halo effect. The halo effect is a correlational error where raters are influenced by information provided to them about the student or because they have already formed an impression of the student that affects their ability to score objectively (Turnbull et al., 1998).

In Norcross et al's (1986) study of psychology internship practices, the five major obstacles in conducting meaningful training evaluations for internship sites were time constraints, inadequate methods and measures, lack of personnel, transparency of interns and insufficient funding. These obstacles mirror Norcini and colleagues (2011) focus on catalytic effect in that the evaluations did not drive learning forward, but instead, are met with issues outside of the psychometric properties of the tool. In a review of the literature around clinical education practices in health care education programs, Strohschein et al. (2002) found similar obstacles along with a need for proper training for clinical preceptors and a need for how to help learners connect theory to practice.

Use of "Not Applicable" (NA) in Rating Scales

A particular challenge in using ITE tools related to this study involves the rating category of NA, available in The Evaluation Tool for Child Life Interns at the end of a 7-point Likert type scale. Although the use of NA in the tool is defined as "the intern had no opportunity to demonstrate this skill or this skill does not apply in this patient area", this study cannot address how many preceptors read the definitions of rating scale categories and therefore use the NA rating appropriately (see Appendix 1, p.3). The choice to include an NA category in performance evaluation scenarios encourages raters to identify when a specific skill does not apply, instead of providing a score for unobserved performance which can lead to increased halo errors (Raymond, 1986).

There is no published research available in health science education literature that specifically examines how NA ratings impact the overall assessment and determination of competency for learners. Although some may want to consider a NA score as missing data, selecting NA is a conscious choice on the part of the preceptor and should not be classified as missing data or analyzed using missing data procedures. A brief overview of research on missing data highlights the importance of treating NA scores separately when analyzing data from ITE tools.

Wainer (2010) sees missing data as the most "important practical problem facing researchers today" (p. 8). Missing data can significantly affect the assessment of competency when aggregate methods of evaluation are used or where large data sets are being examined (McConnell, Sherbino & Chan, 2016). Pampaka, Hutcheson and Williams (2016) refer to the problem of missing data being "rarely dealt with or even acknowledged in education research" (p. 21). Missing data can be classified into three main categories: (1) Missing completely at random (MCAR) where scores are missing due to unpredictable, random reasons, (2) Missing at random (MAR) where data are missing due to another conditional variable (related to the observed data), (3) Missing not at random (MNAR) where the data missing depends on both observed and unobserved (missing) data (Pampaka et al., 2016). It is important when reporting research outcomes to always include details of missing data. Common methods for dealing with missing data include discarding the data (listwise or pairwise deletion), replacing the missing data with a "dummy" or code, and estimating missing data with a mean score.

The results of dealing with NA scores the way researchers treat missing data would have similar negative effects to the analysis of assessment methods. In the

preparation of missing or NA data for analysis, omitting data from descriptive statistics techniques such as listwise or pairwise deletion or replacing all instances of NA with mean scores would result in skewed reliability and validity (Pampaka et al., 2016). Particularly in the case of NA scores, choosing to use the mean would provide a false rating for something that was never directly observed. For this research study, the researcher did not want to treat NA scores as missing data because a score of NA is a purposeful action and is distinctly different from missing values. Unfortunately, a large portion of NA scores affects data in the same way that missing data does, lowering the psychometric properties of a tool significantly. More research is needed on the topic of the impact and suggested methods to examine a large number of NA ratings within a data set.

Chapter 4. Methods.

Overview

In this chapter, the methodology used to address the research questions is explored. The chapter begins with a rationale for choosing the study design and a description of the data collection instrument used for both phases of the study. The two phases of the study including sample, data collection and data analysis procedures are described sequentially. This research study aims to explore the educational impact of The Evaluation Tool for Child Life Interns by examining the frequency of NA ratings and themes that emerge from preceptors' comments within the tool. As the tool has both quantitative (ratings from a Likert-type scale) and qualitative data (comments section under each task group) to explore, a mixed methods approach was utilized.

Study Design

In the field of education research, mixed methods designs are becoming more valuable because they allow for a complex approach to analyzing and understanding research questions. A mixed methods approach helps to minimize the limitations of a study because both quantitative and qualitative methods are utilized. The approach also allows for a more complete understanding through having qualitative data to inform and further expand on quantitative results (Ivankova, Creswell & Stick, 2006). The challenges of using a mixed methods approach include the extensive amount of data that is collected and analyzed and the need for the researcher to be familiar with both quantitative and qualitative research methods (Creswell, 2014).

This study employs an explanatory sequential mixed methods design. Explanatory designs are appropriate when the primary focus of the study is the collection

and analysis of quantitative data with the results being used to plan a second smaller, qualitative phase of the study (Creswell & Plano, 2011). The qualitative data collection and analysis helps to explain and provide more depth to the quantitative results resulting in a more robust interpretation of all data collected (Creswell, 2014). A mixed methods approach is key to this study because there is no previous data available regarding the use of The Evaluation Tool For Child Life Interns. The larger, quantitative phase of this study focuses on the collection and analysis of NA ratings across the tool in the domains of assessment, intervention and professional responsibility. The smaller, qualitative phase is taken from a subset of NA data (comments from all task items with at least one NA rating) and focuses on the exploration of themes from preceptors' narrative feedback. Since the focus of this research is to provide information on the educational impact of the tool, a mixed methods design is essential to provide a more holistic picture of two key areas within the tool related to feedback (NA ratings and preceptor comments).

Data Collection Instrument

The Evaluation Tool for Child Life Interns is provided by the ACLP and is a criterion-referenced tool based on the Child Life Competencies (Appendix 4) and the 2008 Professional Certification Exam Rubric (not available to researcher). The tool aims to provide both quantitative and qualitative feedback to child life interns regarding skill development during clinical training. The tool is used as a vehicle for discussion regarding feedback on clinical skill performance and identification of strengths and areas for improvement within the three competency domains of assessment, intervention and professional responsibility. The Evaluation Tool for Child Life Interns is the source of data for both phases of this study (Appendix 1).

The tool is broken down into domains, tasks and subtasks. The three domains of assessment, intervention and professional responsibility represent core competencies for clinical practice in child life and are also the domains tested in the ACLP certification exam. Each domain contains overarching tasks and subtasks. Only subtasks are scored (see Table 2).

Table 2. Properties of The Evaluation Tool For Child Life Interns

Domain	Number of Tasks (Not Scored)	Number of Subtasks (Scored)
Assessment	3	10
Intervention	7	25
Professional Responsibility	5	19
Total	15	54

Across the tool, there are a total of 54 subtask items which are scored using a 7 point Likert-type scale with an option for Not Applicable (NA). Directions for the use of the 7 categories on the Likert-type scale as well as definitions for the meaning of NA are provided in the beginning of the tool (see Appendix 1). At the bottom of each task section, a comment box is provided for narratives regarding the intern's performance, encouraging preceptors and interns completing the tool to list areas of strengths and a proposed action plan (see Figure 2).

***Task 3:* Identify psychosocial factors (e.g., diversity, culture, spirituality, family dynamics and structure, coping styles, socioeconomic status) and family-identified needs and goals in order to provide patient- and family-centered care**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Integrates assessment of psychosocial and contextual factors in understanding children's and families' adjustment and behavior	0	1	2	3	4	5	6	N/A
B. Assesses key psychosocial and contextual factors, identifying strengths and vulnerabilities relevant in developing a plan of care	0	1	2	3	4	5	6	N/A
C. Assesses the meaning for the child and family of the illness, diagnosis, procedure, or reason for visit	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Figure 2. Example of Task, Subtask and Rating Scale from The Evaluation Tool for Child Life Interns

A copy of the complete Evaluation Tool for Child Life Interns is provided in Appendix 1.

Within the McMaster child life clinical education program, the tool is used as both a formative (low stakes) and summative (high stakes) assessment at four points across the sixteen weeks of clinical training (see Table 3).

Table 3. Formative and Summative Use of The Evaluation Tool for Child Life Interns

	Formative Assessment	Outcome	Summative Assessment	Outcome
Internship 1	Condensed version of tool	Feedback, reflection and discussion around learning goals and clinical skills progress	Full version of tool	Feedback and discussion about clinical skills progress. *Decision by clinical preceptor and clinical education coordinator if learner moves on to Internship 2*
Internship 2	Condensed version of tool	Feedback, reflection and discussion around learning goals and clinical skills progress	Full version of tool	Feedback and discussion about clinical skills progress. *Decision by clinical preceptor and clinical education coordinator to sign ACLP Clinical Experience Verification form confirming "minimum entry-level competency"*

At all four points of assessment, the learners complete the tool as a self-assessment and reflection of clinical performance. Clinical preceptors also complete the tool, reflecting on the direct observations of the learners' skills and behaviours in the clinical environment. The clinical education coordinator reviews all formative and summative assessments by meeting with learners and preceptors throughout the training period. Learners are expected to move forward in their skill acquisition with each assessment and the decision to sign the ACLP Clinical Experience Verification form (see Appendix 3) confirms that the learner has met minimum entry-level competency and the minimum 480 hours of training experience. The verification form can then be submitted to the ACLP by the learner towards the requirements to sit for the certification exam to become a CCLS.

Ethics

This researcher received confirmation from the McMaster Research Ethics Board that the study did not require REB approval as it is considered a Quality Improvement (QI) study. All data used in this study were accessed from past student files, which are kept locked in a filing cabinet, inside the child life program office. A copy of the email confirming the study as QI program research is provided in Appendix 5.

Phase 1: Quantitative Methods

The goal of the quantitative phase was to collect and analyze NA ratings from evaluation tools from 2011-2016. The research questions for the quantitative phase of the study were:

1. *Is there a difference in the frequency of NA scores by time (internship 1 vs internship 2) and domain (assessment, intervention, professional responsibility)?*
2. *Which task and subtask items have higher frequencies of NA ratings?*

Quantitative Sample

Criteria for Exclusion

A separate section focusing on professional skills of learners positioned at the end of The Evaluation Tool for Child Life Interns is excluded from this study. The professional skills section lists seventeen professional behaviours and includes a rating scale of 1-3 with descriptions of (1) unacceptable performance, (2) meets expectations and (3) outstanding performance. This section is excluded because it uses a different rating scale (without an NA category) and is not compatible to analysis with the rest of the 54-item tool.

Each learner has two points of evaluating performance in each internship: formative (around 4 weeks) and summative (around 8 weeks). Beginning in 2014, the

clinical education program adapted the formative version of the tool to reflect feedback from learners and preceptors that completing the full tool twice in eight weeks was too time consuming. The formative assessment was changed to a summarized version of the full tool, with the purpose of providing overall task related assessment of learner progress to promote discussion between the learner and preceptor. Comparison of data are not possible because the subtask scores are not included in the adapted formative tool used from 2014-2016.

The total number of learners in the child life program from 2011-2016 is fifty-two. Each learner should have two summative evaluations on file (n=105). Of the potential 105 evaluations, a total of 9 evaluations are excluded from this study. A small number of evaluations are missing from learner files (n=8) and one evaluation is considered an outlier and is omitted from the study as it is the only third internship completed by a learner over the five-year period.

Criteria for Inclusion

Evaluation Tools

Evaluation tools from the academic years 2011-2012, 2012-2013, 2013-2014, 2014-2015 and 2015-2016 were included in this study. These specific academic years were selected because the evaluation tool began to be used by the program in 2011 and the McMaster child life diploma program closed in 2016 in preparation for the masters child life program to begin. Learners with complete data sets (n=45) met inclusion criteria. Complete data sets were defined as a learner with both internship 1 and internship 2 summative evaluations in their file. A total of 90 evaluations are included in this phase of the study.

Placement Sites

A total of 14 placement sites were included in the study and represent all placements that occurred from 2011-2016. Each year, child life learners complete Internship 1 from November to January and Internship 2 from February to April. The first internship takes place within Ontario and the second internship can take place anywhere across Canada. The majority of placement sites are in hospitals with pediatric services, although some community placements are available if a CCLS is available to take on a preceptor role. All placement sites have a current affiliation agreement with McMaster University.

Clinical Preceptors

A total of 59 child life preceptors completed the 90 evaluation tools in this sample. Clinical preceptors are assigned to learners individually (1:1) or in split placements where one learner has two preceptors (1:2). To assume the role of a clinical preceptor, CCLS' with at least 4000 hours of paid work experience, who are in good standing with the ACLP. The academic program does not have any control over the selection of preceptors, rather, the organization provides available preceptors either because they volunteer for the role or are selected based on availability or experience in precepting. A CCLS preceptor is expected to facilitate the learners' development in a variety of practical skills, in the domains of assessment, intervention, and professional responsibility, as well as guidance in professional behaviours.

Data Collection

To maintain confidentiality and anonymity of the interns and preceptors involved in this research, each were given a unique number in place of their name. The names of

the specific placement sites are not reported in this study and will remain confidential. In the case where two preceptors evaluated one learner and two separate summative evaluations were completed, individual subtask scores were averaged into one score for the purpose of analysis and comparison to the remaining evaluations scored by one preceptor. As the purpose of research initially focused on psychometrics, all score values (0-6) were initially manually inputted into an excel spreadsheet by the researcher. A code of "99" was used to represent NA ratings and missing data was identified by a blank cell. Missing data for this tool were defined as no score assigned to a subtask item. Once the focus of the study shifted to NA ratings, all NA data was coded as a 1, blank cells identified missing data and 0's indicated all other scores on the tool (0-6). In the case of two preceptors and one learner, where each preceptor completed a separate evaluation, the presence of a subtask score by one preceptor would override the presence of an NA rating on the same subtask by the second preceptor (score is collected instead of the NA rating). All data files are kept on an encrypted USB key that remains with the researcher for the duration of the study. After the study is complete, the encrypted USB key will be kept in the child life office at McMaster University for potential future quality improvement studies for the program based on the data collected.

Data Analysis

Is there a difference in the frequency of NA scores by time (internship 1 vs internship 2) and domain (assessment, intervention, professional responsibility)?

The analysis of mean percentage of NA scores by time and domain was conducted using a 2(time) x 3(domain) two-way repeated measures analysis of variance ANOVA. The variables for the quantitative questions related to frequency of NA scores are summarized in Table 4 below:

Table 4. Quantitative Phase: Independent & Dependent Variables

Variable	Type	Data
Independent	Within subjects	Domain (assessment, intervention, professional responsibility)
Independent	Within subjects	Time (internship 1 vs internship 2)
Dependent		Mean proportion of Not Applicable (NA) scores

Post-hoc paired t-tests were conducted to find the differences between the domains of:

- Assessment and intervention
- Assessment and professional responsibility
- Intervention and professional responsibility

Which tasks and subtasks have higher frequencies of NA ratings?

Descriptive statistics were used to first calculate percentage of NA ratings by task and subtask across 90 tools. Subtask domains having >30% NAs were highlighted to indicate that a significant number of learners were not being assessed for that subtask. Choosing a conservative threshold allows for the review of which subtask items may need to be incorporated elsewhere in the curriculum if they are consistently not being assessed in clinical internship.

Phase 2: Qualitative Methods

The qualitative phase of the study aimed to address the results of the quantitative analysis through the exploration of comments provided by preceptors. Of specific interest was to explore if an emerging theme involves comments directly related to NA ratings. The research question for the qualitative phase of the study was:

What themes emerge from narrative feedback provided by preceptors through exploring the comment sections of the tool?

Sample

The sample for the qualitative phase is not concerned with complete data sets, but with exploring comments from preceptors from any evaluation that has at least one NA rating.

Data Collection

Due to the initial focus of this thesis, comments from every task section across 90 individual tools were already manually inputted into an excel spreadsheet. In the second phase of this study, comments related to tasks with at least one NA rating were extracted from the larger data set. Any names or identifying information were omitted from the recorded data. All data was kept on an encrypted USB key throughout the duration of the study and thereafter, moved to a locked drawer in the child life program office at McMaster University.

Data Analysis

Thematic analysis involves "identifying, analyzing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). The focus of the sample for the qualitative phase was chosen after the analysis of the quantitative data, pointing to statistically significant differences in the frequency of mean NA scores in each domain. The goal of the qualitative phase was to conduct a thematic analysis in order to explore themes and commonalities in the narrative feedback provided, including whether or not comments specifically addressed NA ratings. Computer software was not used to conduct the thematic analysis as the comments were so detailed and thorough that in many cases, multiple themes came from one comment box. The manual analysis of the

data also allowed this researcher to use clinical expertise and professional experience to understand and code the data.

Several assumptions were made prior to the analysis of narrative data due to the researchers' familiarity with the tool in the assessment of clinical training. As there are no prompts in the comments section to encourage preceptors to elaborate on NA scores, comments may not address the NAs given. Due to the instructions provided at the beginning of the tool and the description of NA (labeled as Not Applicable) in each task score sheet, the assumption was that preceptors were aware that the use of an NA score means the opportunity to demonstrate the subtask skill is not available, or was not directly observed.

Narratives in a comment box could contain several themes representing the breadth of feedback provided by preceptors. A deductive thematic analysis approach was used to explore narrative data from comment sections. This type of approach involves using research questions to group data, looking for similarities in themes and grouping comments into categories. Thematic analysis is used often to find patterns in data, however there are several ways to conduct such an analysis (Braun & Clark, 2006). To provide clarity to the approach to thematic analysis in this study, a detailed summary of phases of thematic analysis is included in Table 5.

Table 5. Phases of Thematic Analysis (adapted from Braun & Clark, 2006, p. 87)

Phase	Description of the process
1. Familiarizing self with the data	Reading and re-reading the data, noting down initial ideas and patterns
2. Searching for themes	Exploring data to generate a thematic "map" of the analysis; data revisited several times to ensure broad themes are captured
3. Defining and naming themes	Ongoing analysis into themes and subthemes to capture the overall story the analysis tells, generating clear definitions and names for each theme
4. Producing the report	Selection of extract examples, final analysis of selected extracts, relating the analysis back to the research question and literature, producing a scholarly report of the analysis

Chapter 5. Results

Phase 1 - Quantitative

Sample Demographics

A total of 14 placement sites offered child life internships over the five year period. The large majority of placements occurred in Ontario primarily due to the requirement of first internships to be within the Greater Toronto Area (GTA). Figure 3 details the number of placements offered by province.

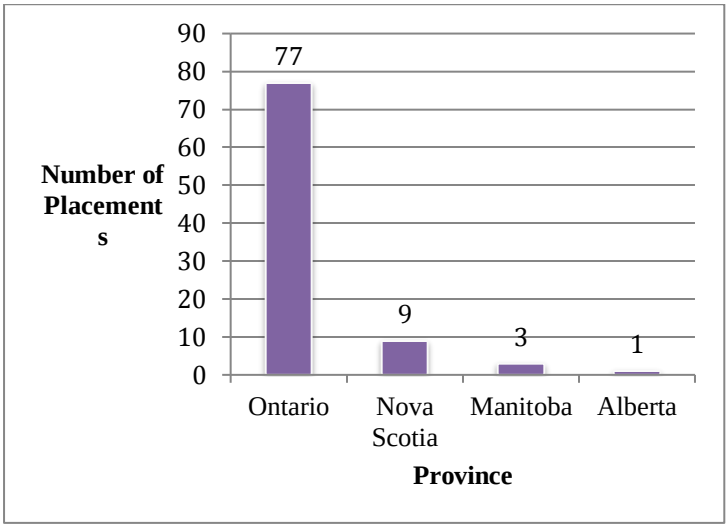

Figure 3. Number of Placements by Province (2011-2016)

The learner to preceptor ratio for clinical placements is either 1:1 or 1:2. Figure 4 shows that there were only slightly more learners with 2 preceptors in the first internship and slightly more learners with 1 preceptor in internship 2.

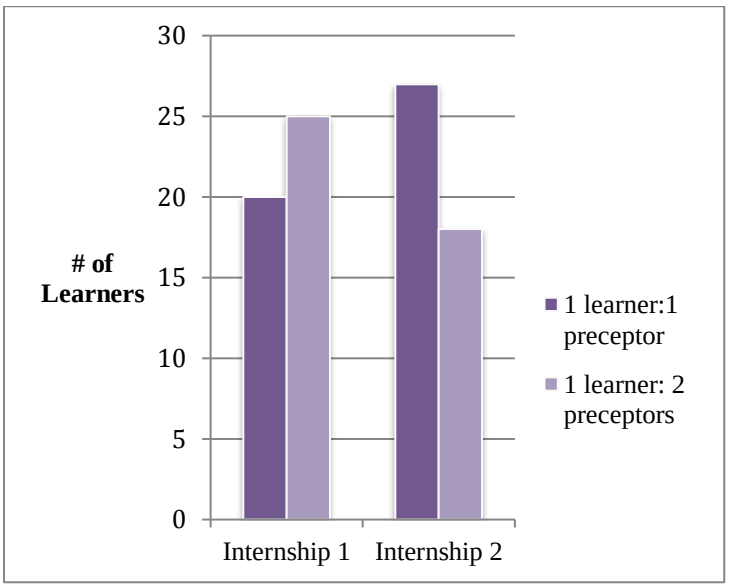

Figure 4. Learner to Preceptor Ratios by Placement & Time of Internship

Among the 59 preceptors in the sample, individual preceptors completed the tool between a range of 1 - 6 times over the five-year period (see Figure 5).

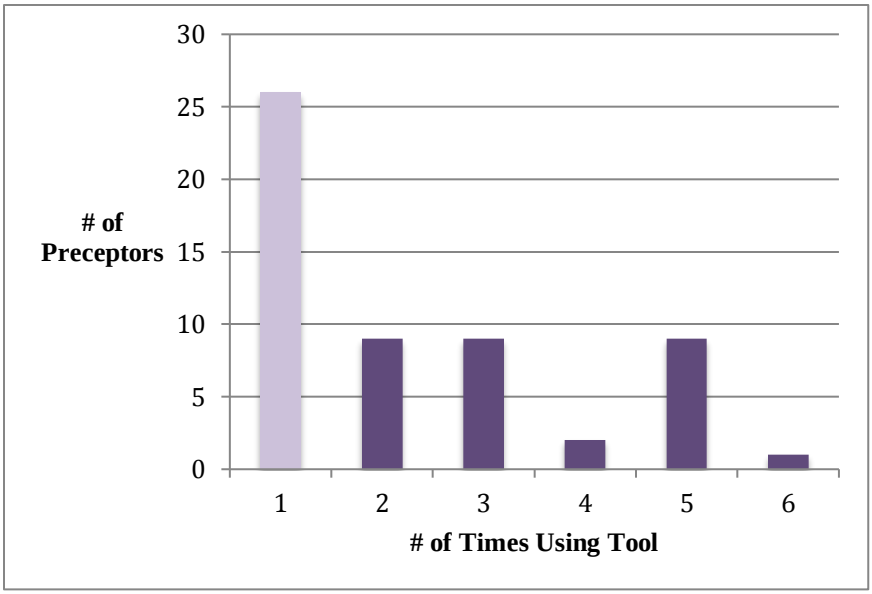

Figure 5. Preceptors' Experience Using Evaluation Tool (2011-2016)

Missing Data

For this phase of the study, missing data were coded as a blank cell and represented the absence of a score assigned on a subtask item. There were very little missing data throughout the 90 tools analyzed. The domains of assessment and professional responsibility had no missing data. The domain of intervention had <1% missing data (0.18%).

Results

Is there a difference in the frequency of NA scores by time (internship 1 vs internship 2) and domain (assessment, intervention, professional responsibility)?

The 2 x 3 repeated measures ANOVA was conducted, with time and domain serving as within- subjects variables. The dependent measure was the mean percentage of NA ratings. Figure 6 shows the mean percentage of NA scores for each domain across time.

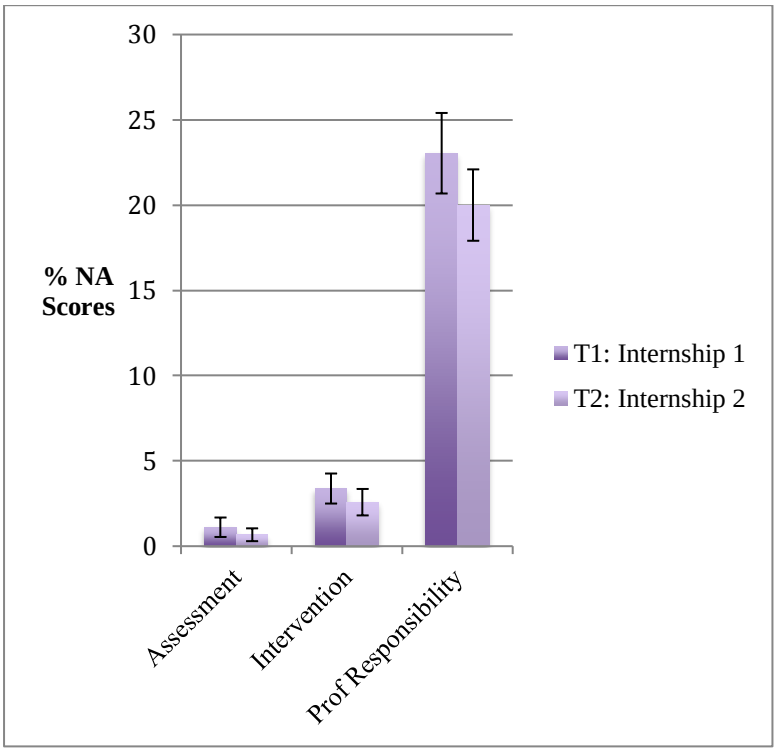

Figure 6: Mean % of NA Ratings by Domain Across Time

There was no interaction between time and domain (*F(2,88)* = .57, p = .453) such that time had no effect on overall mean percentage of NA ratings and had no interaction with domain. There was no main effect of time (see Table 6), where the mean percentage of NA ratings was not significant (F(1,88) = .98, p = .326) but the main effect of domain (see Table 7) on mean percentage of NA scores was significant such that the professional responsibility domain had the highest frequency of NA scores (*F*(2,88) = 166.14, p < .001).

Table 6. Main Effect – Time

Time	Mean	Std. Error
T1 (Internship 1)	9.17	0.98
T2 (Internship 2)	7.74	0.87

Table 7. Main Effect – Domain

Domain	Mean	Std. Error
Assessment	0.88	0.32
Intervention	2.97	0.60
Professional Responsibility	21.52	1.46

To determine where the difference in main effect of domain was, paired samples t-tests were conducted. The results show that the mean percentage of NAs was smallest for assessment, followed by intervention and was largest for professional responsibility. More specifically, a significant difference was found in the scores for assessment (M=.88%, SD=2.20) and intervention (M=2.98%, SD=4.03) conditions; (t(90) = -3.30, p = .002, Cohen's d=0.52). Similarly, there was a significant difference in the scores for assessment (M=.88%, SD=2.20) and professional responsibility (M=21.52%, SD=9.83) conditions (t(90) = -14.50, p = .000, Cohen's d=-2.09). Finally, there was a significant difference in the scores for intervention (M=2.98%, SD=4.03%) and professional

responsibility (M=21.52%, SD=9.83) conditions (t(90) = -12.40, p = .000, Cohen's d=1.89).

What are the frequencies of NA scores by tasks and subtasks?

Using descriptive statistics and looking at the percentage of NA scores present for tasks and subtasks within each domain, NA ratings were found to be present in all tasks and in 65% of subtasks. The percentage of NAs by domain and task are outlined below in Figures 7,8 and 9.

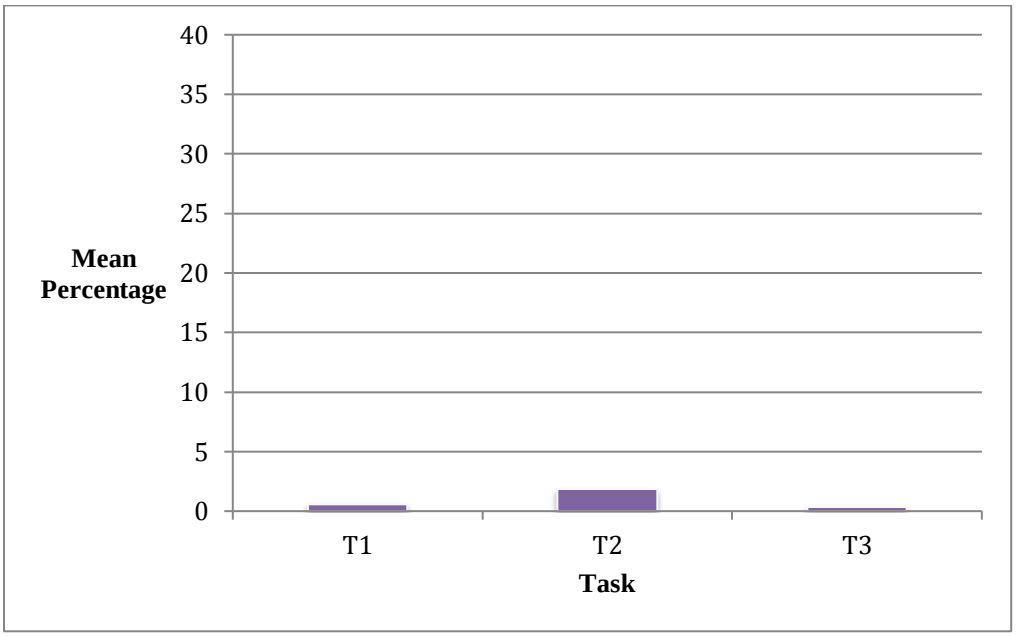

Figure 7. Assessment Domain – Mean % of NA by Task

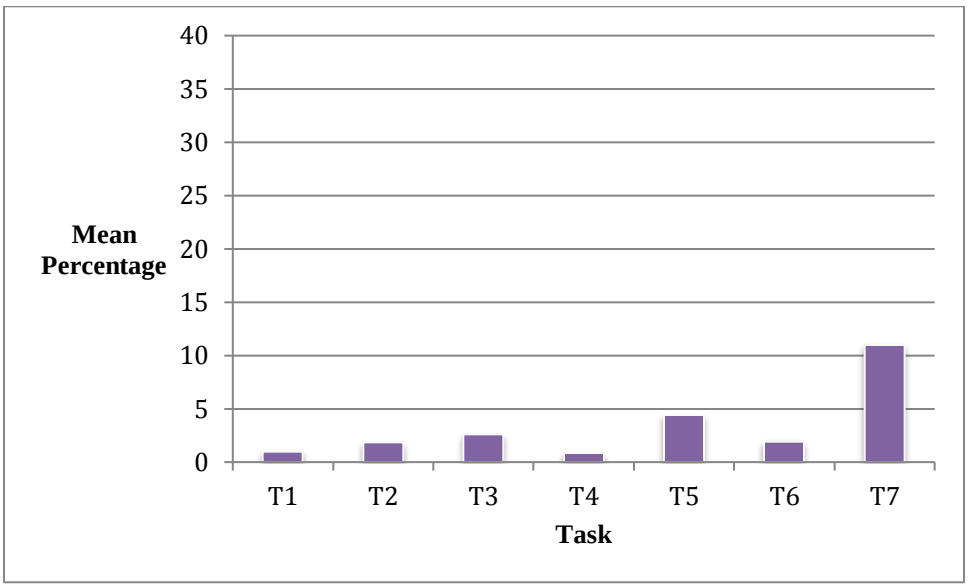

Figure 8. Intervention Domain – Mean % of NA by Task

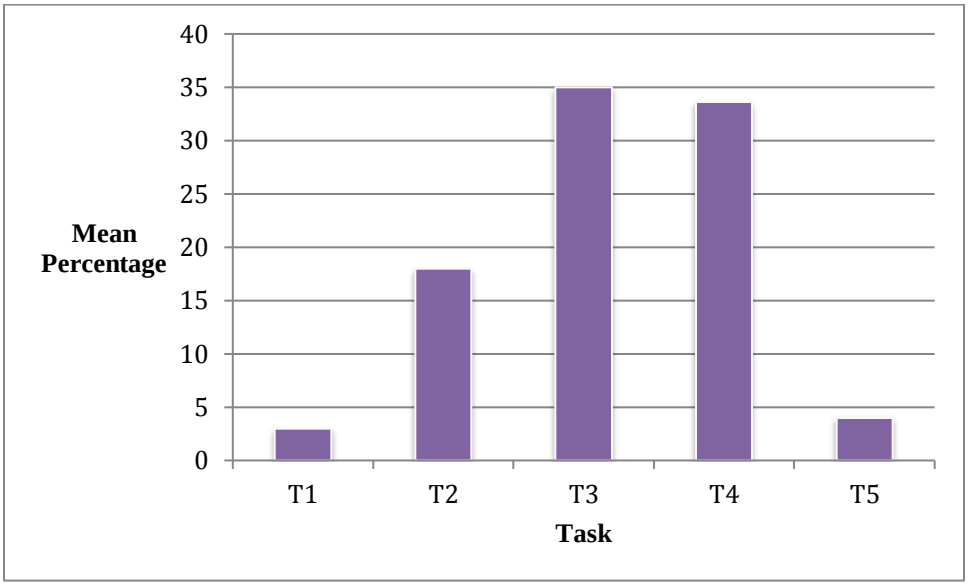

Figure 9. Professional Responsibility Domain – Mean % of NA by Task

Each task has between 1 and 7 subtasks. In the analysis of subtasks by domain, Figure 10 shows the percentage of subtasks with at least 1 NA rating.

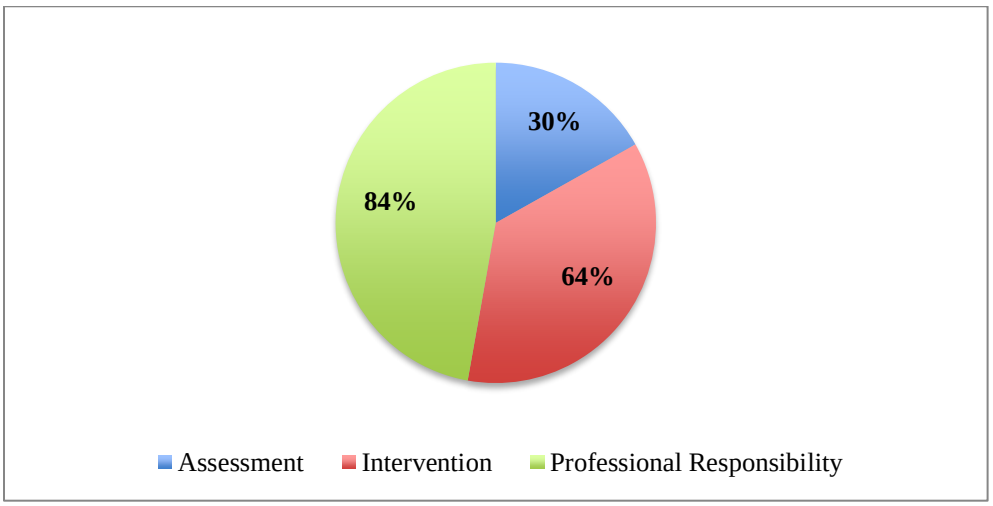

Figure 10. Subtasks with at Least One NA Rating (by Domain)

There were 8 subtask items in the professional responsibility domain that had between 30% and 56% NA ratings. This represents a large amount of specific skills that are not consistently being assessed in clinical training. Table 8 shows the specific subtasks with descriptors that have >30% NA scores.

Table 8. Frequency of NA Scores >30% – Professional Responsibility

Task	Subtask Item Number	Subtask Item Description	Frequency of NA Scores
2	C	Recommends referrals when the needs of the child and family are beyond the scope of child life practice	42%
3	A	Provides comprehensive volunteer orientation in their assigned area and to the child life program	58%
3	B	Delegates volunteer duties and assignments effectively, matching volunteer ability to complexity of task and communicating expectations and roles clearly	31%
3	C	Participates in giving and receiving volunteer feedback in a constructive manner	54%
3	F	Communicates information effectively, integrating basic concepts of public speaking and teaching methods appropriate to subject matter and audience	38%
4	B	Maintains supplies and equipment with attention to budgetary constraints	57%
4	C	Collects, analyzes and reports accurate and pertinent data in a timely manner	42%
4	D	Provides feedback relevant to continuing program improvement, identifying opportunities and needs to promote positive change	33%

The commonalities around the subtask items with >30% NAs include recommending referrals, volunteer management, communication, administrative tasks and program improvement. A complete list of all subtasks with NA ratings including the subtask description and frequency of NAs is included in Appendix 6.

Phase 2 - Qualitative

Sample Demographics

A total of 88% (n=80) of the evaluations from the larger quantitative sample contained at least 1 NA rating. Comment boxes from tasks with one or more NA ratings (n=232) were explored using thematic analysis.

Missing Data

As in the quantitative phase of this study, missing data are important to report. Of the total number of comment boxes in the qualitative sample (n=232), 25% had no comment and were coded as missing data.

Results

What themes emerge from narrative feedback provided by preceptors through the comment sections of the tool?

Over the three domains of assessment, intervention and professional responsibility, 75% of comment boxes contained narrative feedback. A total of four overarching themes and three subthemes emerged from exploring preceptors' comments through the process of thematic analysis. The themes and subthemes in Table 9 are listed in order from most frequent occurrence of comments to least frequent; however the number of times a theme appears does not imply that it is more important than any other

theme (Braun & Clarke, 2006). Listing the themes by frequency allows for a broad overview of the nature of narrative comments from child life preceptors.

Table 9. Thematic Analysis: Themes and Subthemes for Preceptor Comments

Themes and subthemes	Characteristics
Theme 1: Constructive feedback	Comments are specific and in the form of constructive feedback for the learner
Subtheme 1a. Child life skills/competencies	Specific comments citing skills important to child life practice such as therapeutic play, documentation, assessment, coping and distraction techniques, etc.
Subtheme 1b. Overall strengths	General comments mentioning positive attributes and qualities of learner such as professional behaviours (e.g. communication, time management), building positive relationships, etc.
Subtheme 1c. Areas for improvement	Comment clearly discusses areas of practice needing improvement
Theme 2: Action plans	Specific examples provided by preceptor suggesting ways learner can enhance skills and abilities; includes opportunities to take advantage of in next placement or in future employment
Theme 3: Clinical examples with patients and families	Specific examples provided of interactions with patient, families or health care providers directly observed by preceptor
Theme 4: Little to no opportunity for skill development	Comment mentions a lack of opportunity or exposure to subtask item at placement site or very few opportunities (relates to NA score)

When categorizing comments into the final themes and subthemes, the narrative was so detailed that sentences within a comment box were often divided amongst several themes. For example:

> *"Very strong in her communication skills and speaks with confidence, respect and accuracy. Education of staff through rounds, case conferences and meetings and advocating for Child Life involvement where appropriate. Did an excellent job on first day of admission independently introducing Child Life Services to clients and families and providing education on scope and benefits. No opportunities to work with volunteers have presented themselves"*

In the sample above, themes (in the order they present themselves) include overall strengths (theme 1b), child life skills and competencies (theme 1a), clinical examples

with patients and families (theme 3) and little to no opportunity for skill development (theme 4)

Theme 1: Constructive Feedback

The majority of feedback was coded under the theme of constructive feedback. Preceptors who chose to leave comments for learners did so in a manner that was encouraging and supportive, even in the case where skills and behaviours needed additional focus and improvement.

Subtheme 1a. Child life skills/competencies

Narrative comments describing the learners' ability to demonstrate specific child life skills was the most frequent occurrence throughout the sample. Much of the descriptions provided in comment boxes referenced strengths in specific areas of child life assessment and intervention techniques as well as working with the multidisciplinary healthcare team. For example:

> *"Has demonstrated strong understanding in developmentally appropriate play and its vital role in assessing patients understanding and misconceptions"*

> *"She creates a safe and supportive atmosphere for the discussion of upcoming events and preparation for challenging experiences. She has worked with CLS to select preparation tools and techniques, and implement educational strategies to match the needs of patients and families"*

> *"Appears very comfortable within both the Child Life Team as well as our multidisciplinary team, and has become an invaluable resource for staff to access for assistance (from various disciplines). Joins multidisciplinary rounds; is comfortable to offer insights, facts regarding a patient/care"*

On several occasions, narrative about child life skills was paired with providing specific examples of clinical interactions (theme 3).

> *"It was great to see her remember and integrate coping plans (either one planned with preceptor or herself) that have worked with the child in previous visits; she also demonstrated understanding and need for changes in coping plans based on family's /child's/her assessment on effectiveness*

Subtheme 1b. Overall strengths

Narratives that fit this theme centered around communication skills, organization and time management, interpersonal skills and displaying confidence. For example:

> *"Very strong in her communication skills and speaks with confidence, respect and accuracy"*
>
> *"She maintained great organizational skills outlining weekly goals, time sheets for projects and her special projects"*
>
> *"Great time management skills and able to maintain priorities and manage day in unpredictable setting"*
>
> *"She has strong interpersonal skills which enable families to trust her and confide in her, and they work together to create goals"*
>
> *"She remains confident and flexible in stressful situations"*

In two cases, narrative incorporated positive feedback from other health care professionals. For example:

> *"She took the initiative to create a document offering tips for parents bringing their child in for surgery. Feedback from pre-surgery staff was very positive."*
>
> *"Many professionals that K has worked with have told me that they were very impressed with how well-spoken she is and that she contributes meaningful information."*

Subtheme 1c. Areas for improvement

A repeated pattern of feedback by preceptors is the level of detail provided that points to specific actions or direction that drives learning for those in clinical training who are in the process of acquiring skills required of their profession. For example:

> *"Room to grow. She found it difficult to think clearly under pressure if she was asked to document and required more time to think about recording her interventions. This comes with time and confidence and healthcare professionals learn to think quickly regarding chart notes, they begin to have common record keeping phrases that they use to document and it's a learned skill to leave work at work _ no chart noting at home."*
>
> *"Time management is an area that she can work on the most both at internship with patients and in fulfilling responsibilities as a student. For example, she can use her assessment and prioritization skills to help guide the most appropriate amount of time and support to give to a patient and family. This balance will help her manage a larger patient load in the future. Outside of the clinical setting, having completed all paper work (journals, competency logs) at home can help her focus on patient care while at internship. Your preceptor can be your guide/resource in completing tasks, but at the end of the day, it is your responsibility to ensure work is completed in a timely manner"*

This subtheme is distinct from theme 2 (action plans) as these narratives highlighted performance that needed improvement and either included or did not include specific direction on how to build skills in areas of practice. For example:

> *"There will always be an audience, gain confidence in front of others"*

> *"I still observe hesitance with certain staff, especially the physicians, but she has been able to approach nurses and clearly communicated goals/plans/concerns in a meaningful way"*

Theme 2: Action Plans

Narratives coded as "action plans" provided clear and specific strategies, suggestions and opportunities to advance clinical practice skills. Some narratives phrased action plans in ways the learner should continue to build skills. For example:

> *"Continue to seek opportunities to engage in specific teaching opportunities with patients in next internship. Continue to modify introduction of CL role to families dependent on their situation. She has responded well to and incorporated feedback on this skill during internship"*

Other comments specifically used the words "strengths" and "action" from the directions provided in the comment boxes ("areas of strength and proposed action plans"). For example:

> *"ACTION: Attend weekly rounds and treatment planning meetings to share child life assessment, observations and plans with team, and utilize information shared by other members of the treatment team. Attend other meetings - information meetings, shift change, etc. to share information about your plan for the day. Continue to liaise with other team members and work with them to collaborate on a patient's plan of care, providing the best possible care for children and families"*

> *"ACTION: Play is the foundation of child life work so be sure to take time to play every day! Play will allow you to connect with the kids and families, develop rapport, make assessments, gather information and direct your future interventions. Play is also fun and enjoyable and normalizes the health care environment for kids. When the staff see you playing with kids, they really see the value in the work that we do. Child life can role model play behaviours for kids and adults including parents and staff! Provide play opportunities to help support kids' normative growth and development. Think of what you can do to support kids who may be delayed in their development or at risk of regressing due to an extended hospitalization. Show us more of your fun, creative and imaginative play skills!*

> *"Action plan for second internship: provide feedback (when possible) to supervisors/preceptors regarding internship in order to facilitate change, new learning opportunities and improvements. Continue to work on balancing patient care and administrative duties. For example, when department is slow, its valuable time to work on projects, presentations, etc."*

Theme 3: Clinical examples with patients and families

This theme is important to support preceptors showing evidence of direct observation of clinical learners in practice. The ACLP recommends preceptors spend a minimum of 80% of their work day with interns to ensure learners have the opportunity to observe clinical experts in practice but also to encourage preceptors to remain with learners during patient encounters for guidance and support. For example:

> *"During bloodwork support, she responded well to guidance to empower parents to have a role in the procedure. Increasing comfort with providing procedural support/distraction through modifying support based on pt's age/developmental level. She shows increased awareness of tone of voice, # of voices in room during procedures"*

Narratives in this category also included a range of strategies utilized by the learner, documenting the progression of clinical skill and the ability to draw on acquired knowledge and apply it in clinical practice. For example:

> *"She has recommended strategies in the OR to support children falling asleep during induction i.e. counting, positive thinking (self talk), singing songs, telling stories, holding hands, distraction techniques, bubble blowing, iPad use"*

Theme 4: Little to no opportunity for skill development

This theme relates directly to the focus of the qualitative phase of the study regarding NA scores. Only 9% (n=28) of comments from the qualitative sample directly addressed the NA score within the task, however 75% (n=21) of the comments were from the domain of professional responsibility. The majority of comments were related to the lack of opportunity orienting and training volunteers and limited opportunities for documentation of administrative responsibilities.

"There was limited involvement with volunteers within the ED. However, she did have opportunities to advocate and educate others about child life (i.e. Child Life Day set up). The exhibit for CL day looked amazing!!

"The majority of these duties (documenting administrative responsibilities) are not a daily or weekly occurrence for this preceptor and although I am part of various committees and meetings through the year, no opportunities arose during her internship. She is knowledgeable and passionate about Child Life, has an open communication style and I'm sure will rise to the challenge in her future work"

Chapter 6. Discussion

Overview

The main objective of this mixed methods study is to explore the educational impact of Not Applicable (NA) scores from preceptors within The Evaluation Tool for Child Life Interns through two sequential phases of research: quantitative analysis of NA ratings and qualitative analysis of preceptor comments from tasks with one or more NA ratings. The larger quantitative sample from 45 learners, where each learner has two evaluations on file (n=90 evaluations) provided a more complete picture of the frequency of NA ratings broken down by time, domain, task and subtask. The qualitative sample of comments (n=232) were taken from tasks with at least one NA rating allowed for the exploration of themes through analyzing preceptors' narrative feedback. This chapter incorporates this researchers' experience with the tool as well as relevant literature to support interpretations of study outcomes. A discussion of the implications of each phase of research will inform the analysis of the educational impact of the tool. Finally, the strengths and limitations to the study as well as future directions for research and use of the tool in clinical education programs is outlined.

Phase 1 Educational Impact - Quantitative

NA Ratings

This research study evolved from the desire to examine the psychometric properties of the Evaluation Tool for Child Life Interns to a more specific focus on the educational impact of frequent NA ratings. Due to the prevalence of NAs across 90 evaluations, particularly in the professional responsibility section, the original study could not obtain reliable scores using psychometric analyses. A traditional view of the

utility of assessment methods would dismiss the use of the tool based on the inability to provide any reliability or validity of scores (Lockeyer et al., 2017). Although you cannot have validity without reliability, other factors such as van der Vleuten (1996) and Norcini et al's (2011) criteria are important to consider. Recent research into the assessment of clinical competence has expanded utility to include the value of non-psychometric data such as acceptability, cost, equivalence, catalytic effect and educational impact (van der Vleuten, 1996; Norcini et al. 2011). The additional criteria for good assessment speaks to the importance of stakeholder input, value of assessment to the learner and preceptor and how the assessment method drives learning forward towards expected levels of competency (Norcini et al., 2011). NA ratings are purposefully chosen by preceptors to highlight an area of practice that requires attention or has been missed, so they are important to include in assessment tools when minimum competency must be met during clinical training. The educational impact of frequent NA ratings can be described through the outcomes of this study.

The presence of more NA ratings in first internship is consistent with the progression of knowledge and skills outlined in Miller's pyramid (Miller, 1990). Learners new to the clinical environment build confidence over time, beginning with shadowing their preceptor in their daily work and spending time with patients and families (Hengstberger-Sims et al., 2008). Once a comfort level with the role is reached, learners are more likely to engage in the "does" portion of Miller's pyramid. This explains why there are less NAs in the second internship where a learner is expected to be further along in their skill development and prepared for more independent opportunities. A skill with a NA rating in first internship may still have the opportunity to be

experienced by the learner in the second internship. Preceptors from internship 2 should be made aware of NA ratings from first internship so they can help ensure the learner has the opportunity for those particular skills either through direct experience or through other teaching and learning opportunities (case studies, discussion, staff presentations, etc.).

The domains in the evaluation tool are taken from the standards for the ACLP certification exam. As the Evaluation Tool for Child Life Interns is a criterion-referenced tool, the expectation is that it reflects current practice in the profession. Based on professional experience with the evaluation of child life learners in clinical training and familiarity with the subtasks of the tool, it is not surprising that the professional responsibility section would have the largest mean percentage of NA ratings in comparison with the assessment and intervention domains. This researcher has been involved in the review of all learners' formative and summative evaluations using the tool and has observed the frequent use of NA ratings in the professional responsibility section. What was unexpected is the difference in mean percentage of almost 20% between the first two domains of assessment and intervention and the third domain of professional responsibility. Of the three domains, the professional responsibility domain contains tasks and subtasks that are not as applicable to practice across all placement sites. This is an issue of equivalence where tools should produce similar scores or results across different institutions (Norcini et al., 2011).

Using Miller's pyramid as a guide, the tasks and subtasks in the assessment and intervention domains address the "shows how" and "does" levels of clinical competence. The assessment domain contains foundational skills in gathering information from

patients, families and the healthcare team, showing an understanding of child and adolescent development and the identification of psychosocial factors that impact the provision of family centered care. The intervention domain is the largest section of the evaluation tool with each task and subtask addressing a learners' ability to work directly with patients and families in providing support, advocacy, preparation, teaching, facilitating play and documentation of interventions. The levels of competency and assessment related to Miller's pyramid are evident through the combination of a mixture of skills in direct patient care and the ability to demonstrate knowledge and integration of child development and psychosocial care (either through discussion with their preceptor or in presenting the information to others). Specific subtasks in the intervention domain that require attention due to higher frequencies of NAs involve utilizing pain management strategies (11%) and documenting interventions in the medical record (20%).

The wording of subtask items may be influencing the number of NA ratings, resulting in construct irrelevant variance. This common threat to validity can stem from poorly written test items which is an issue of quality assurance and improvement for educational programs to review (Reinert, 2013). For a learner to utilize pain management strategies with pediatric patients, the learner requires the opportunity to first observe their preceptor performing the skill, then use pain management strategies with the support of their preceptor, followed by leading a session on pain management strategies with a pediatric patient independently. A study surveying child life specialists and their involvement in pediatric pain management found that child life specialists commonly use non-pharmacological pain management approaches in daily practice to help support

children and families undergoing stressful procedures (Bandstra et al., 2008). The issue in directly observing specialized areas of intervention such as pain management teaching is in the number of samples or opportunities for learners (Miller, 1990). In an eight-week placement, it may be difficult depending on the placement site of the learner, to be able to utilize pain management directly with a patient if the situation only occurs once or twice in an internship (and likely the first time it occurs the learner is observing, not "doing"). If the subtask asked for learners to demonstrate their knowledge of pain management strategies and in the absence of the opportunity with a patient, to role play or demonstrate their knowledge in other ways there would likely be less NA ratings.

The intervention subtask with the highest frequency of NA ratings references documenting clinical encounters with patients and families and is an area of practice that requires attention for child life programs and learners in the clinical environment. The first issue with NAs being selected for this subtask is the wording of "documents concisely, objectively, and accurately in the child's medical record". Preceptors may be rating this as NA because the opportunity to document in the medical record is not available to the learner. Some learners do not have access to electronic charting as per hospital policy, while others are working in an area where preceptors themselves do not chart or document as part of their regular daily practice (Mintz et al., 2009). Cheevakasemsook, Chapman, Francis and Davies (2006) studied nursing documentation complexities and found "nurses' competence, motivation and confidence in documenting performance to be insufficient" (p. 372). Nurses cited a variety of reasons for incomplete, inaccurate or ineffective charting such as not having enough time between patients to document, never being formally trained in documentation, hesitation in

documenting in the medical record due to lack of confidence and lack of supervision to ensure documentation was correct (Cheevakasemsook et al., 2006). A solution to decrease the number of NAs in this subtask would be to remove the words "in the child's medical record". Some learners may be documenting informally to practice this skill, and although it's not in the medical record, if it is reviewed and feedback is provided by a preceptor, it should be recognized and assessed using the rating scale. Documentation is an important part of any health care professionals work with patients and families and learners need repeated opportunities to practice being concise, objective and accurate in reporting their assessment, interventions and plans of care for patients and families.

Professional Responsibility Domain

The professional responsibility domain is a mixture of direct practice skills relating to communication, education of self and other administrative related tasks. Some of the subtasks require the learner to engage in the "does" level of Miller's pyramid but this section overall switches between all four levels of the pyramid mixing knowledge and behaviour and a variety of concepts ranging from professional relationships to education of others, professional standards, maintaining supplies, budget maintenance and ethics. Due to the high frequency of NAs across this domain, examining the 8 subtask items with more than 30% NA ratings in detail is warranted.

Task 2C – Recommends referrals

Recommending referrals is a formal process that may be out of scope for many child life learners. Although learners may discuss referrals with their clinical preceptor, rarely would a learner place a formal referral as they are not employees of the organization. The wording of this item may be too specific and prevent preceptors from

considering a discussion with the learner around referrals where the learner is able to identify an appropriate health care professional to provide the child and family with services beyond the scope of child life. Another consideration are those placement sites where child life does not place referrals, because they are the specialist who other professions refer to for specific psychosocial services. Subtask items that are not transferrable across different placement sites risk another threat to validity known as construct underrepresentation or case specificity. This occurs when there are limited cases or sampling from which to assess (Reinert, 2013).

Task 3 A,B,C,F – Educate staff, students, volunteers and the community

All four skills in this task were rated NA with a frequency of 31% - 58%. Items A,B and C involve very specific tasks when supervising volunteers and although this skill was a regular part of child life practice a decade ago when CCLS' primarily worked in inpatient units of hospitals, child life practice has expanded to outpatient clinics and specialty clinics where direct patient care is a large percentage of a CCLS' work day (AAP, 2006). Some child life departments in larger children's hospitals now have a specific role for child life specialists that involves organizing events and managing volunteers so CCLS' working in direct patient care no longer have volunteers under their supervision. In placements where volunteers are managed or overseen by CCLS', the opportunity to provide a volunteer orientation (subtask 3a) may only occur once every four months when a child life internship is only 8 weeks in length. Item F points to communication skills including public speaking and "teaching methods appropriate to subject matter and audience". This item is also worded in a way that is confusing and

vague so that it could be interpreted in various ways, either as the ability to give speeches or presentations to large groups (referenced by the words "public speaking") which are rarely available to child life learners, to "teaching methods" which could include working with patients and families, other staff, or the community at large, leaving much room for interpretation by clinical preceptors.

Task 4 B,C,D – Administrative responsibilities

These skills include maintaining supplies and equipment, budgeting, collecting and analyzing reports and providing feedback towards program improvement. Each of these skills are outside of direct patient activities and are either infrequently performed by CCLS' or not included in their job responsibilities. Learners in busy clinical placements, where their preceptors are working in the front lines of care, would not be exposed to these responsibilities and would rarely be required to demonstrate competency in them. Many of these subtasks would be appropriate for management level CCLS' who do not supervise child life learners directly. Of the three items, child life learners may have the opportunity to discuss program improvement with their preceptor but to do so without prompts or the information being requested of them would require a learner who is confident in their role and comfortable enough to suggest program improvement to a person who is rating their performance on a daily basis. The relationship between the learner and preceptor and the attitude of the learner (passive versus proactive) are complexities that would also effect the learner's ability to demonstrate this task (Deketelaere, et al., 2006).

The results from the analysis of NA ratings across the three domains of assessment, intervention and professional responsibility were for the most part, expected

by this researcher based on the use of the tool with preceptors and learners over the past seven years. Quantitative methods are limited in their ability to shed light on the use of a rating scale and in particular, the availability of an NA rating and how it is used. To add depth to the quantitative phase of this study and the educational impact of the tool, the second phase of this research involved thematic analysis to provide additional information on how preceptors' narratives provide feedback to learners when they have one or more NA ratings within a task section of the tool.

Phase 2 Educational Impact - Qualitative

Narrative Feedback

The use of narrative feedback to enhance learner's clinical experiences is gaining popularity in medical education and in health professions education at large. As competency based education grows, so do the number of journal articles and studies citing the importance of qualitative assessment methods. Qualitative methods are also important in capturing skill development in professionalism, an area that is difficult to capture using a predefined rating scale (Harris et al., 2017). The drawbacks of this type of feedback include the time and thoughtfulness required to provide original feedback, however using multiple assessment methods that are a mix of quantitative and qualitative methods can provide a good balance for preceptors and learners (Harris et al., 2017; Lockyer et al., 2017).

Examining the format of the Evaluation Tool for Child Life Interns, it's easy to see why learners would not be particularly motivated by the assessment if they received ratings in the lower half of the rating scale with no accompanying written feedback. As data from the entire tool was collected due to the initial focus of this study on

psychometrics, it is known that across the entire tool, 79% of comment boxes were filled with some form of narrative feedback from preceptors pointing to the perceived usefulness of narratives over rating scales in child life learner assessment methods. After completing the thematic analysis of comments and reviewing the resulting themes, it is clear that the educational impact is in the narratives provided throughout the tool by preceptors. Relying solely on rating scales for assessment may present challenges to the learner, although rating scales may be helpful in orienting preceptors to what they should be commenting on in the narratives. Many child life learners become fixated with the numbers on ordinal rating scales regardless of the description provided in the associated category. Learners frequently expect ratings of 5 (job entry) by the end of their first eight-week internship and may be disappointed with anything lower than a 4 (increasing independence). However, when the rating provided is accompanied by detailed narrative feedback in the comments section, learners can understand how preceptors came to their rating, often with specific examples of performance that can be improved or exemplary performance. The narratives provided throughout the 90 evaluation tools were impressive due to the detail and supportive nature of the feedback provided.

The themes of constructive feedback, action plans, clinical examples with patients and families and little to no opportunity for skill development that emerged from the data revealed a pattern of multiple layers of feedback within comment sections, demonstrating preceptors' willingness to voluntarily provide additional feedback above and beyond the ordinal rating scale. The use of narrative feedback allows preceptors to share clinical expertise that learners can benefit from outside of the textbook knowledge they acquire in academic programs. Many narratives matched current recommendations for feedback to

be detailed, meaningful, constructive and focused on strengths and areas of improvement in order to drive learning forward (Turnbull et al., 1998; van der Vleuten & Schuwirth, 2005).

Although much of the feedback provided by preceptors was detailed, 25% of comment boxes in the qualitative sample did not have any comments attached to a task with NA ratings. This points to a weakness in the tool as it leaves the details of why that NA was selected (opportunity not available, preceptor unwilling to assign a low score, skill not directly observed, etc.) open to interpretation. Although it allows preceptors and faculty to know where gaps in learning may occur, it requires the action of a preceptor or faculty to determine other ways to address the skill so the learner has the opportunity to demonstrate their performance. Through the analysis of over 200 comments, it was difficult to find a comment that signaled poor or unacceptable performance. This lack of narrative speaking to poor performance could be an indication of leniency bias or it could confirm Fitzgerald et al.'s (2013) position that learners who are performing at or past expectations receive more immediate, detailed feedback then learners who are struggling (Gonsalvez et al., 2013). Future research could compare comments to rating scale scores to compare the content in preceptors' narratives to low scores. Each health care profession is slightly different in its focus and the approach to assessment may also differ. Where some clinicians may prefer a short checklist or rating scale, preceptors in child life were provided with a very lengthy tool and the opportunity to only use the rating scale provided. The large majority of comment boxes in The Evaluation Tool for Child Life Interns were filled with narrative feedback from preceptors, from as little as a sentence to as large as a paragraph of descriptive feedback including clinical examples

and suggestions for improvement and skill development. Oerlemans et al. (2017) promote the use of narrative feedback to prevent preceptors from staying within the predefined rating scales that are part of many ITE tools. In the case of child life preceptors in the McMaster clinical education program, preceptors appeared to prefer providing narrative feedback. Preceptors spent a great deal of time completing the evaluations and it is evident through the narratives that preceptors are invested in providing quality clinical experiences for learners. This preference for qualitative measures matches the findings in Norcross' study of evaluation processes in the training of clinical psychologists, a field closely related to the child life profession (1986).

The Educational Impact of The Evaluation Tool for Child Life Interns

What's important about any assessment method is that it is one of many methods in a program of assessment and that the use of the tool is thoughtful, promotes regular feedback and is accepted by those who use it (van der Vleuten & Schuwirth, 2005). A more holistic approach to considering the value of assessment methods ensures that the traditional focus on numerical scores, begins to shift to incorporate a focus on assessment for learning and assessment of learning (Lockyer et al., 2017). Educational impact is a term referenced in both van der Vleuten's (1996) utility model and in Norcini and colleagues (2001) criteria for good assessment (educational effect and catalytic effect). The educational impact of a tool speaks to its ability to motivate learners and provide some educational benefit to the assessment process. Although van der Vleuten (1996) and Norcini and colleagues (2011) suggest a balance between several criteria, the use of the Evaluation Tool for Child Life Interns within the McMaster child life program requires some baseline information from which to design a larger program wide assessment within

the clinical education program. In the process of determining the educational impact of an assessment method or program of assessment, van der Vleuten suggests four criteria for consideration in ensuring assessment drives learning: content, format, information given and programming. Applying these four criteria to this mixed methods study, several suggestions for the use of the Evaluation Tool for Child Life Interns will be offered.

Content

Based on the low frequency of NA ratings in the first two domains of assessment and intervention, the majority of the tool does reflect skills in practice in professional reality. The third domain of professional responsibility requires an in-depth review as several of the subtask items are consistently rated NA pointing to the skills either being outside of the scope of a learner or no longer applicable to current child life practice. In the review and revision of the tool, the focus of individual items should lend itself to a holistic assessment that is not so specific in skills that it creates consistent situations of NAs across clinical placement settings. Skills should be specific to practice skills but broad enough to incorporate child life practice in diverse contexts (Oerlemans et al., 2017)

The wording of the subtasks should be reviewed with stakeholder input to enable clearer directions of expected skills and broader skills that would enable wider sampling of skill development. This would also contribute to increased reliability of scores through having multiple sampling opportunities to demonstrate clinical competency (van der Vleuten, 1996). Future research on the tool should involve an item review either through focus groups or a survey to determine which subtask items may be repeated

across domains and if any current child life competencies are not being assessed with the tool. The child life competencies were recently updated in 2016 by the ACLP and to date, the Evaluation Tool for Child Life Interns has not been adapted to include the new competencies. Alignment to the updated child life competencies and professional guidelines of practice in child life such as the code of ethics and code of conduct is also recommended. In looking forward to the new Masters of Child Life program, it's an opportunity to review the tool and ensure that assessment objectives match educational objectives. All of the above suggestions will contribute to enhanced validity of scores produced from the tool. Validity of the scores produced by the tool is a vital consideration especially due to the decisions made through the use of the Evaluation Tool for Child Life Interns as a high-stakes, summative assessment prior to graduating from the program.

Through examining the two domains of the tool that have very few NA ratings, a strength of the tool is its ability to combine quantitative and qualitative information about a learner's performance and the willingness of many child life preceptors to take the time to provide detailed narrative feedback. The tool used in combination with other structured and unstructured measures would add to a portfolio of information bringing meaning and motivation to the clinical experience for learners (Lockyer et al., 2017).

Format

The most frequent complaint about the format of the Evaluation Tool for Child Life Interns is the number of scored subtasks and the time it takes to complete the tool from the perspective of a busy clinical preceptor (McMaster Child Life Clinical Preceptor Feedback 2014-2016, June, 2016). If the full tool is being used as both a formative and

summative assessment several times during a clinical placement, critical information could be left out in an effort to get through the tool quickly. In this study, even though preceptors complained about the length of the tool, they continued to provide detailed feedback. Narrative feedback was provided in 79% of available comment boxes, pointing to a need to consider the creation of a tool that is less focused on rating scales and numbers and more focused on written feedback. Specific prompts for preceptors to follow could include strengths, areas for improvement and areas for opportunity for each competency being assessed. The use of NA ratings throughout the tool may be missed by preceptors who are unable to see the overall trend in NAs across several pages. Even if learners are receiving one or two NAs per task, the total number of NAs across the tool and three domains could be detrimental to fostering learning and skill building. Adding a specific prompt to the tool asking preceptors to comment directly on NA ratings would also improve the format of the tool.

Information given

The quality and format of feedback provided to learners is essential to the educational impact of any assessment tool. Encouraging the 1:2 ratio of learner to preceptors for child life placements may increase the reliability of scores and reduce single rater bias. Although the tool includes instructions on the definitions for each category on the rating scale and expected performance, preceptors require additional information that makes the goals of assessment clear, provides expectations for assessment and supports their role as a preceptor (Lockyer et al., 2017). Training would be of most benefit if it is ongoing throughout the internship experience and offered

through short training sessions available online to take into account the busy schedules of health care professionals.

The Evaluation Tool for Child Life Interns should not be the only source of feedback for child life learners. Instead of looking at the tool as producing a gateway decision to entry-level competency, it should be utilized as one method in a program of assessment that provides feedback and quality control as to the progression of skills of a learner. NA ratings from internship 1 should be shared with preceptors in internship 2 to offer continuity in learning and ensure continued development of skills and behaviours (Harris et al., 2017). Sharing specific information from one rotation to another does have the risk of biasing preceptors who do not yet know the learner, especially in situations of underperforming learners, but focusing on NA ratings as opposed to all scores across the tool and providing training for expectations in the use of the tool can reduce rater bias (van der Vleuten, 1996)

Use of the tool and the type of feedback it provides, such as the value of narrative feedback given by child life preceptors, should be known to the academic programs using the tool and the professional association who created it (ACLP). Regular review of the use of the tool in a variety of clinical education programs would benefit the profession of child life since the results from this study are not generalizable to all child life education programs, especially those in the United States whose child life internship programs are primarily based and run entirely by child life hospital programs as opposed to child life academic programs.

Programming

In looking at the Evaluation Tool for Child Life Interns as part of a program of assessment, the shorter version used for formative feedback should continue to be used frequently to encourage memory retention and accurate assessment of direct observations from preceptors. The use of the formative evaluation tool (both rating scale and narratives) should be studied to determine its utility separate from the full summative version of the tool. Other methods of daily or weekly feedback such as journals and competency logs will add to the overall feedback that can be included for the learner. There are four key pieces to formative assessment that should be considered: "(1) embedded in the instructional process, (2) provides specific and actionable feedback, (3) is ongoing, and (4) is timely" (Norcini et al., 2011, p. 211). Conducting short, formative assessments every two weeks allows for continuous feedback and frequent conversations about goals and objectives between the learner, preceptor and clinical internship coordinator. Harris et al. (2017) encourage modern assessment practices to be embedded in frequent reviews of a learners' educational plan in order to close the gap between "observed and desired practice" (p. 605). The full summative version of the tool should continue to be used as one method in a program of assessment to determine the learner's readiness to move on to internship 2 and at the end of internship 2, the learner's readiness for independent professional practice in the field of child life. This format of increased formative assessments would also allow for "decision moments to be disconnected from assessment moments" where learners can focus on incorporating feedback given throughout their internships, improving practice along a continuum leading up to the final summative evaluations (Harris et al., 2017). The Evaluation Tool for Child Life Interns

does provide a mixed methods source of feedback for a learners' acquisition of the majority of skills and competencies required of the child life profession.

Strengths and Limitations

This study explores the use of the Evaluation Tool for Child Life Interns by child life clinical preceptors but does not include the use of the tool by learners. Future research should examine the use of the tool by both learners and preceptors to gain a better understanding of its strengths and limitations. As the tool is available for use by any child life internship program around the world, disseminating the outcomes from this study will provide baseline information to the ACLP and child life academic and internship programs in considering how to best utilize the tool as well as future research that would optimize the educational impact of the tool. This study will also inform the creation of the approach to clinical education in the new Masters of Child Life program. The outcomes from this study will allow this researcher to continue to use the tool within the program, but to adapt it to optimize its use for learners and preceptors.

This research is a first step towards providing some initial information on the use of the tool at one academic institution. Results from this study should not be generalized to other child life academic or independent internship programs. Data was gathered from one source (the Evaluation Tool for Child Life Interns) with a limited sample of 45 learners. Due to the scope of this thesis, the opportunity for additional qualitative measures such as a focus group that would incorporate preceptors' experiences with the tool was not possible. Although assessing single tools is no longer considered best practice, the use of mixed methods research to explore a tool with no previous evidence

of utility, in a profession that is approaching a major change in training and education standards is warranted.

Future Directions

The assessment of learners in clinical training is a multifaceted process taking into account feedback from a variety of methods before making a judgment of minimum competency as a gateway into a profession. Using Miller's pyramid to examine where and how an educational program assesses competence from foundational knowledge through to independent skills and behaviours provides a practical guideline to follow. Child life clinical education programs should use The Evaluation Tool for Child Life Interns as part of a program of assessment, not as a single assessment method for determining entry-level competency. Academic and internship programs will benefit from paying attention to the frequency of NA ratings for individual learners to ensure those skills are part of the learners training through other assessment methods (OSCE's, simulated patients, case studies) if direct experience in the clinical setting is not available. Future research should involve stakeholders (preceptors, learners, faculty) to review the tool for its format and rating scale. The ACLP is advised to invest in updating the tool to reflect the newly revised child life competencies as significant changes are being made to the educational and training requirements for future child life specialists.

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Appendix 1: The Evaluation Tool for Child Life Interns

Evaluation Tool for Child Life Interns

Student's Name: _____

Evaluator's Name: _____ Rotation: _____

Evaluator's Name: _____ Rotation:_____

The evaluation of a child life intern is an assessment of demonstrated clinical skills and knowledge base. The following document is designed to assess skills and knowledge base reflective of the CLC Child Life Competencies and the Child Life Professional Certification Examination Classification System. The intern will be evaluated by her/his supervisor(s) on performance achieved during the internship, with opportunity for discussion related to clinical skills/knowledge base and areas of recognized strength for maximized growth and development.

The document is designed for the same tool to be utilized multiple times during the internship so that progress across the continuum of the experience is easily discerned. Space is included for the evaluator to make additional comments and define, when indicated, necessary and specific action plans for successful achievement of competencies. The rating levels of 0, 1 and 6 as defined below are shaded in grey as it is anticipated that they will be used sparingly and after careful consideration and documentation of specific performance examples.

Disclaimer:
Use of this tool is voluntary. Application of and the results from the use of this tool are at the discretion of the internship program. Results are not a guarantee of future performance.

RATING DEFINITIONS

0. Not Acceptable

The intern does not perform this skill at a level acceptable for a beginning child life intern, even when provided considerable assistance by preceptor. If little or no improvement is observed, intern may be asked to withdraw from the internship.

1. Below Standard

The intern requires significant assistance in order to perform the skill or behavior. The intern is given multiple opportunities to build skills and is having difficulty integrating feedback and improving skills. If little or no improvement is observed, intern may be asked to withdraw from the internship.

- **Assistance/Guidance:** The intern performs this skill at a level comparable to that of beginning child life intern *when provided considerable assistance* by preceptor.
- **% of Caseload**: Preceptor is unable to allow intern to function independently at this task (0% of caseload).
- **Amount of Follow-up Required:** Follow-up is required with patients/families/staff by preceptor after nearly every time the intern performs this task.
- **Initiative:** Intern displays very little, if any, initiative towards performing this task.
- **Ease of Performing Task:** Intern's apprehension around patients and families when performing this task is *consistent and apparent.*

2. Standard Beginning Intern

The intern requires appropriate assistance in order to perform the skill or behavior, but is demonstrating improvement in this area.

- **Assistance/Guidance:** The intern requires considerable assistance in order to perform the skill or behavior, but is demonstrating improvement in this area.
- **% of Caseload:** Preceptor is able to allow intern to function independently at this task <25% of the time.
- **Amount of Follow-up Required**: Preceptor is still observing and/or visually present. Preceptor finds it necessary to follow-up with patients/families/staff after intern performs this task most—though not all—of the time.
- **Initiative:** Intern displays growing sense of initiative towards performing this task, however is often prompted by preceptor.
- **Ease of Performing Task:** Intern is *beginning* to display ease around patients and families.

3. Continued Improvement

The intern requires some assistance in order to perform the skill or behavior effectively most of the time.

- **Assistance/Guidance:** The intern requires *occasional* assistance in order to perform the skill or behavior effectively.
- **% of Caseload:** Preceptor is providing *regular guidance* regarding prioritization and skill set, however, allows intern to function independently 25-50% of the time when performing this task.
- **Amount of Follow-up Required:** Intern takes direction and applies it appropriately. *Some* follow-up is required with patients/families/staff by preceptor when intern performs this task.
- **Initiative:** Intern takes the initiative to perform this task more often; preceptor needs to prompt *approximately half of the time*.
- **Ease of Performing Task:** Intern's ease around patients and families is *growing*, and it is becoming apparent when performing this task.

4. **Increasing Independence**
   The intern takes initiative and is able to begin tasks independently the majority of the time.
   - **Assistance/Guidance:** The intern requires *very little* assistance in order to perform the skill or behavior effectively.
   - **% of Caseload**: Intern begins to share responsibility of patient load (example: "splitting the patient load"). Intern functions independently 50-75% of the time. Preceptor has to provide guidance regarding prioritization *only occasionally*.
   - **Amount of Follow-up Required**: Intern takes direction and applies it appropriately. *Very little* follow-up is required with patients/families/staff by preceptor when intern performs this task.
   - **Initiative**: The intern takes initiative and is able to begin this task independently, most *often without prompting from the preceptor*.
   - **Ease of Performing Task**: Intern's ease around patients and families is *consistent and apparent in <u>most</u> interactions.*

5. **Job Entry**
   The intern is able to perform the skill or behavior effectively and independently. The intern applies the skill in a manner expected of a child life intern ready to begin his/her first job as a child life specialist.
   - **Assistance/ Guidance**: The intern is able to perform this skill or behavior effectively and independently—not requiring the assistance of the preceptor. The intern applies the skill in a manner expected of a child life intern ready to begin an entry level position as a child life specialist.
   - **% of Caseload:** Intern can assume most or all of the entire caseload of a child life specialist (75-100%). Preceptor *very rarely* provides guidance regarding prioritization.
   - **Amount of Follow-up Required:** Intern consistently interacts appropriately with patients/families/staff. *Preceptor does not find it necessary to follow-up* with patients/families/staff after intern's interactions.
   - **Initiative:** Intern takes initiative and *always begins tasks independently*.
   - **Ease of Performing Task:** Intern's ease around patients and families is consistent and apparent in *<u>nearly all</u> interactions*.

6. **Exceeds Job Entry**
   The intern performs the skill or behavior at the level of a child life specialist with 1-2 years experience.
   - **Assistance/Guidance**: The intern performs this skill or behavior with an exceptional level of expertise.
   - **% of Caseload**: Intern can assume 100% of the child life specialist's caseload and *does not require <u>any</u> guidance regarding prioritization of patient and family needs*.
   - **Amount of Follow-up Required**: Intern interacts with patients/families/staff exceptionally well. No follow-up is required and patients/families/staff often comment on how well the intern performed at this task.

- **Initiative**: Intern takes initiative to go above and beyond standard expectations, often thinking often thinking of unique approaches to her/his work.
- **Ease of Performing Task**: Interns' ease around patients and families is consistent and apparent in all interactions and can even put others at ease by her/his presence.

N/A Not Applicable

The intern had no opportunity to demonstrate this skill or this skill does not apply in this patient area.

Domain I: Assessment

Task 1: **Identify, obtain, and use relevant data (e.g., healthcare, family, child) regarding the child and family to develop a comprehensive assessment and initiate a plan of care**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Effectively interprets and incorporates pertinent data into developing a child life plan of care	0	1	2	3	4	5	6	N/A
B. Uses developmentally appropriate play as a primary tool in assessing and meeting developmental and psychosocial needs	0	1	2	3	4	5	6	N/A
C. Utilizes effective communication skills to learn from children and families and formulate patient- and family-centered, culturally appropriate goals	0	1	2	3	4	5	6	N/A
D. Prioritizes child life services based on comprehensive analysis of the needs of patients and families	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Task 2: **Identify developmental factors and their implications regarding the child's healthcare experience in order to plan appropriate interventions**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Accurately assesses patients' developmental levels, identifying strengths and vulnerabilities	0	1	2	3	4	5	6	N/A
B. Assesses the child's and family's concept of illness, diagnosis, procedure, or reason for visit	0	1	2	3	4	5	6	N/A
C. Utilizes knowledge of human growth and development theory in identifying relevant developmental considerations for individual patients and families	0	1	2	3	4	5	6	N/A

Areas of strength and proposed action plan(s):

Task 3: **Identify psychosocial factors (e.g., diversity, culture, spirituality, family dynamics and structure, coping styles, socioeconomic status) and family-identified needs and goals in order to provide patient- and family-centered care**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Integrates assessment of psychosocial and contextual factors in understanding children's and families' adjustment and behavior	0	1	2	3	4	5	6	N/A
B. Assesses key psychosocial and contextual factors, identifying strengths and vulnerabilities relevant in developing a plan of care	0	1	2	3	4	5	6	N/A
C. Assesses the meaning for the child and family of the illness, diagnosis, procedure, or reason for visit	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Domain II: Intervention

Task 1: **Provide psychosocially and developmentally appropriate support that is responsive to the specific needs of children and families.**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Identifies goals and interventions that reflect accurate assessment of individual needs and respect for diverse cultural and family contexts	0	1	2	3	4	5	6	N/A
B. Adjusts goals and interventions as needed to meet individual needs and respect contextual factors	0	1	2	3	4	5	6	N/A
C. Coordinates child life programming with multidisciplinary and family goals as well as medical treatment plans and care giving schedules	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Task 2: **Empower and collaborate with children and families to develop and use advocacy skills**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Accurately assesses patients' and families' strengths and preferences for participating in care and decision-making	0	1	2	3	4	5	6	N/A
B. Recognizes and facilitates participation of patients and families in ways that enhance their sense of control and independence	0	1	2	3	4	5	6	N/A
C. Communicates with patients and families in ways that demonstrate respect for and affirmation of individual experiences, preferences, and perspectives	0	1	2	3	4	5	6	N/A

Areas of strength and proposed action plan(s):

***Task 3:* Provide educational opportunities and resources that are responsive to the needs of children and families in order to promote learning and mastery**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Assesses knowledge level, misconceptions, previous experiences, and unique socio-cultural and learning needs	0	1	2	3	4	5	6	N/A
B. In collaboration with family members and professionals, determines realistic goals and objectives for learning and identifies an action plan to achieve these goals	0	1	2	3	4	5	6	N/A
C. Adjusts teaching to the conditions, emotional states, developmental abilities, and cultural considerations of both the child and family	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

***Task 4:* Facilitate preparation (e.g., psychological, educational) for challenging situations with children and families in order to minimize fear and anxiety and to promote mastery of their experience**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Engages in ongoing assessment of potential stressors, recognizing and responding to individual cues communicated by child and family	0	1	2	3	4	5	6	N/A
B. Adjusts preparation approach to the conditions, emotional states, developmental abilities, and cultural considerations of both the child and family	0	1	2	3	4	5	6	N/A
C. Uses developmentally appropriate and medically accurate teaching aids, preparation techniques, and terminology so that the child's and family's knowledge is increased and emotional needs are supported	0	1	2	3	4	5	6	N/A

D. Facilitates planning, rehearsal and implementation of coping strategies as part of preparation	0	1	2	3	4	5	6	N/A

Areas of strength and proposed action plan(s):

***Task 5: Facilitate the development of coping strategies for children and families (e.g., pain management, Positioning for Comfort®,* distraction, alternative focus, guided imagery, child participation) in order to minimize distress and promote empowerment**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Accurately assesses children's and families' distress and coping levels and responses	0	1	2	3	4	5	6	N/A
B. Utilizes effective techniques to aid child and/or parent coping during procedures or stressful events with appropriate consideration given to developmental level and emotional state	0	1	2	3	4	5	6	N/A
C. Utilizes appropriate psychological pain management strategies	0	1	2	3	4	5	6	N/A
D. Supports parents to be present and provide support to their child during stressful events	0	1	2	3	4	5	6	N/A
E. Facilitates opportunities for play and other developmentally appropriate activities to decrease distress and increase effective coping	0	1	2	3	4	5	6	N/A
F. Plans and implements activities to aid immediate and long term coping and adjustment	0	1	2	3	4	5	6	N/A

Areas of strength and proposed action plan(s):

Task 6: Facilitate play (e.g., recreational, healthcare, therapeutic) and familiar life experiences in order to encourage expression, process information, and promote development and normalization	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Identifies goals for play activities based on individual assessment of children's conditions and developmental and psychosocial needs	0	1	2	3	4	5	6	N/A
B. Facilitates opportunities for therapeutic play that increase children's mastery and coping with healthcare experiences	0	1	2	3	4	5	6	N/A
C. Facilitates opportunities for play that support individual developmental needs and tasks	0	1	2	3	4	5	6	N/A
D. Creates adaptive environments and activities for children whose access is restricted by a specific diagnosis or condition	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

***Task 7:* Evaluate and document assessments, goals, interventions, outcomes, and significant events in order to communicate and modify care plans as necessary**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Evaluates effectiveness of interventions based on outcomes achieved and adjusts plan in response	0	1	2	3	4	5	6	N/A
B. Documents concisely, objectively, and accurately in the child's medical record, including developmental and psychosocial issues pertinent to the plan of care	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Domain III: Professional Responsibility

Task 1: Maintain professional standards of practice through adherence to established ethical guidelines in order to provide respectful and competent care	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Follows medical orders, infection control, safety procedures, privacy and confidentiality and all other policies of the setting	0	1	2	3	4	5	6	N/A
B. Establishes and maintains appropriate therapeutic relationships and professional boundaries among patients, families and staff	0	1	2	3	4	5	6	N/A
C. Identifies relevant ethical concerns and participates in analysis of ethical issues to guide practice	0	1	2	3	4	5	6	N/A

Areas of strength and proposed action plan(s):

Task 2: Promote professional relationships (e.g., child life team, interdisciplinary teams, community resources) in order to enhance communication and collaboration, foster patient- and family-centered care, and maximize positive outcomes	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Collaborates with family members and professionals to integrate interdisciplinary and family goals into child life services	0	1	2	3	4	5	6	N/A
B. Communicates effectively with team members through case conferences, rounds, and other informal and formal contacts pertinent to the needs of the child and family	0	1	2	3	4	5	6	N/A
C. Recommends referrals when the needs of the child and family are beyond the scope of child life practice	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Task 3: **Educate staff, students, volunteers, and the community in order to promote greater awareness of the needs of children and families as well as the child life profession**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Provides comprehensive volunteer orientation in their assigned area and to the child life program	0	1	2	3	4	5	6	N/A

B. Delegates volunteer duties and assignments effectively, matching volunteer ability to complexity of task and communicating expectations and roles clearly	0	1	2	3	4	5	6	N/A
C. Participates in giving and receiving volunteer feedback in a constructive manner	0	1	2	3	4	5	6	N/A
D. Demonstrates effective advocacy for psychosocial issues and the child life profession	0	1	2	3	4	5	6	N/A
E. Applies child life knowledge and evidence-based practice to contribute to the education and awareness of others within the setting and community	0	1	2	3	4	5	6	N/A
F. Communicates information effectively, integrating basic concepts of public speaking and teaching methods appropriate to subject matter and audience	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Task 4: **Recognize and document administrative responsibilities (e.g., quality improvement, staffing, and resource allocation, policies, and program evaluation) in order to ensure quality services**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Organizes and manages time effectively, balancing direct and indirect care responsibilities appropriately	0	1	2	3	4	5	6	N/A
B. Maintains supplies and equipment with attention to budgetary constraints	0	1	2	3	4	5	6	N/A
C. Collects, analyzes and reports accurate and pertinent data in a timely manner	0	1	2	3	4	5	6	N/A

D. Provides feedback relevant to continuing program improvement, identifying opportunities and needs to promote positive change	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

Task 5: **Engage in continuing education (e.g., educational opportunities, relevant medical information, technology, research & literature) in order to promote professional development**	Not Acceptable	Below Standard	Standard Beginning Intern	Continued Improvement	Increasing Independence	Job Entry	Exceeds Job Entry	Not Applicable
A. Participates actively in educational offerings throughout the internship, demonstrating critical thinking skills and insight into application in practice	0	1	2	3	4	5	6	N/A
B. Uses current developmental theory and research to guide assessment of and identify rationale for child life plan of care	0	1	2	3	4	5	6	N/A
C. Identifies personal learning needs and develops effective learning plans, accessing available resources	0	1	2	3	4	5	6	N/A
Areas of strength and proposed action plan(s):								

PROFESSIONAL SKILLS

KEY: **1=Unacceptable performance**
2=Meets expectations
3=Outstanding performance

	1	2	3
Reflective Practice			
Recognizes and demonstrates willingness to explore how personal challenges, learning needs, cultural and personal beliefs impact professional practice.			
Engages in self-reflective practice, demonstrating realistic and critical thinking regarding own performance, and incorporates insights into practice.			
Engagement in Supervision			
Readily accepts and integrates supervision and feedback from supervisor and other members of healthcare team.			
Seeks support from mentors, peers, and supervisors.			
Contacts both clinical and academic supervisors in a timely manner when absences are necessary or other concerns arise so they may be addressed.			
Initiative			
Is motivated to learn**.**			
Follows through on specific assignments and tasks.			
Accepts responsibility and demonstrates initiative in work.			
Professional Presentation of Self			
Maintains a positive attitude, is tactful, and considerate.			
Demonstrates adaptability and flexibility in the healthcare environment.			
Remains calm in stressful situations.			
Demonstrates respect for others' points of view.			
Practices careful attention to verbal and written communication and to personal appearance.			
Maintains confidentiality of children, families, and staff in and out of the healthcare setting.			
Time Management			
Completes site assignments on time.			
Attends meetings and other scheduled responsibilities on time.			
Adheres to work hours and schedule.			

Evaluation Reviewed & Discussed with Supervisor:

Rotation: _____ Date: _____

Supervisor Signature: _____ Intern Signature: _____

Additional Comments:

Evaluation Reviewed & Discussed with Supervisor:

Rotation: _____ Date: _____

Supervisor Signature: _____Intern Signature: _____

Additional Comments:

Appendix 2: McMaster Diploma Program Course Schedule

Course Code	Course Title
CLS 101	Leadership Issues
CLS 102	Community Issues
CLS 103	Family
CLS 104	Function of Play I
CLS 105	Function of Play II
CLS 106	Group Studies
CLS 107	Independent Study
CLS 108	Internship/Problem Based Tutorial

Appendix 3: Clinical Experience Verification Form

Clinical Experience Verification Form

Updated December 2012

Background

There are three components of eligibility for the Child Life Professional Certification Examination. All three must be met prior to the application deadline for the exam administration. Refer to the *Candidate Manual* for more details.

1. Minimum of Baccalaureate Degree: Applicants must have either completed a bachelor's degree, or be in the final semester of study for that degree.

2. Course Work: Applicants must have completed a total of 10 college-level courses in child life or a related department/subject.

3. Clinical Child Life Experience: Applicants must complete a minimum of 480 hours of child life clinical experience under the direct supervision of a Certified Child Life Specialist who meets specific qualifications. Hours may be completed as an internship or fellowship. This is the form on which these hours are documented.

Definition of Clinical Experience

The clinical experience being verified should involve training and education in a manner that results in a minimum, entry-level competence in each of the following areas by the end of the training experience, whether at one site or several:

- Developmentally-supportive play and social interactions with infants, children, youth and families, in individual and group settings
- Long- and short-term goal setting based upon assessment of infant, child, youth and family stress potential
- Individual, therapeutically-oriented interactions, including: psychological preparation and development of associated coping processes, stress reduction techniques, healthcare education, healthcare play, expressive interventions, nonpharmacological pain management techniques and procedural support
- Collaboration with families regarding developmental issues and the impact of stressful events
- Consideration of diversity and socioeconomic issues
- Interaction and coordination with interdisciplinary team members, including participation in team meetings
- Instruction and practice of documentation in institutional records
- Materials management
- Supervision/coordination of volunteers and special events
- Prioritization of daily workload in relation to patient and administrative responsibilities
- Evaluating self (skill level, professionalism, personal coping styles, professional boundaries) and overall programming, implementing appropriate changes when needed
- Developing knowledge regarding medical terminology, etiology, disease process, and medical procedures
- Maintaining a therapeutic relationship with infants, children, youth and families
- Incorporating family-centered care practices
- Exhibiting an understanding of and adhering to departmental and organizational policies and procedures
- Administrative planning and implementation, when appropriate

Purpose of the Clinical Experience Requirement

Clinical preparation programs exist to complement and support the child life profession. These programs are vital to child life as the excellence of any profession depends on the performance of its practitioners. The Child Life Certification Program cannot bestow competence on individuals but rather recognizes it. It is the responsibility of academic and clinical preparation programs to put forth competent individuals who are prepared to establish their eligibility to sit for and pass the Child Life Professional Certification Exam.

Important Notes

- Candidates must exhibit minimum, entry-level competence as indicated by the clinical supervisor on the reverse of this form in order to establish eligibility for the Child Life Professional Certification Examination
- A minimum of 480 hours must be successfully completed on or before the exam application deadline. If a training experience is longer than 480 hours, it may continue after the deadline.
- Candidates are permitted to accrue the required 480 hours at multiple institutions. This form must be completed by the supervisor at each institution.
- Photocopies of the original form are accepted as documentation when establishing eligibility for the exam.
- Exam candidates are encouraged to keep a copy of this form for their records.
- The supervising CCLS at his/her discretion may assign other child life specialists to provide training during rotations as long as he/she maintains formal supervision of the individual

Instructions

Complete the requested information on the reverse and submit by fax at 301-881-7092 or mail to:

Child Life Council
11812 Parklawn Drive, #310
Rockville, MD 20852

Clinical Experience Verification Form, page 1 of 2

Definition of Clinical Supervision

Supervision must be direct and formal and provided by a Certified Child Life Specialist who:

1. Maintains professional child life certification throughout the clinical training program
2. Has at least 4,00 0hours paid child life clinical experience prior to taking on the supervisory role
3. Is responsible for the educational development and guidance of the applicant in the clinical setting to include:

- Demonstration, modeling & teaching professional behaviors and skills
- Defining action steps to achieve competence relative to CLC's Standards of Clinical Practice and Competencies (see *O ffiial Documents of the Child Life Council*)
- Setting learning goals/objectives
- Creating and maintaining an effective learning environment
- Providing opportunities for exploring ethical issues
- Providing feedback regarding professional boundaries
- Facilitating the individual's application of theory to practice
- Orienting the individual to the placement site and policies
- Monitoring performance by observing the individual's progress and providing opportunities for discussion, feedback and growth

It is important for clinical supervisors to:

- Have daily contact with the individual, working at least 80 %of the same hours
- Schedule private, weekly, formal, uninterrupted supervision meetings with the individual
- Have no dual relationships with the individual (family member, spouse, friend, etc.)
- Arrange for alternate supervision of the individual by another CCLS in his/her absence
- Monitor the fulfillment of required hours
- Directly observe the individual in order to monitor and evaluate performance
- Model for and then observe the individual demonstrating a minimum, entry-level competence in the following activities:
  - Therapeutic play (healthcare play required for healthcare setting)
  - Healthcare education
  - Group programming
  - Stress point preparation
  - Teaching coping skills
  - Introduction of services
  - Interactions with staff and/or volunteers
  - Presentation skills
  - Supportive relationships with infants, children, youth and families
  - Developmentally – supportive play
  - Documentation
  - Self-evaluation skills
  - Use of appropriate technology with patients
  - Materials management
  - Special events and public relations
  - Family-centered care
  - Respect for diversity
  - Ethical behavior
  - Maintenance of safe and therapeutic environment
  - Sibling intervention
  - Patient assessment skills and prioritization of client needs and other responsibilities

By signing this form you attest that all conditions and requirements set forth on both pages of this form have been met. By stating that the applicant exhibits minimum, entry-level competence, you attest that he/she has been adequately trained relevant to the Standards for Clinical Preparation Programs, supervised by an appropriately-qualified CCLS, has shown him/herself to be minimally competent in the Child Life Competencies, and meets the clinical experience requirement to establish eligibility for the Child Life Professional Certification Exam. (Please see the *Official Documents of the Child Life Council* and the *Child Life Certification Candidate Manual* for details.) Note: If clinical training was completed at more than one institution, multiple forms should be submitted—one completed by the CCLS at each institution

Applicant Name _____ **Internship or Fellowship** *(circle one)*

Institution Name _____ **Number of Hours Completed** _____

Start Date for these Hours _____ **Date these Hours were Completed** _____

During this Period, Applicant Has Demonstrated Minimum, Entry-Level Competence as Described on the Reverse of this Form *(Check one)* Yes No

Supervisors may submit additional information on a separate sheet to support their answer

CCLS Supervisor Name *(Please print)* _____

Certified From _____ (Date (Month/Year)) **to** _____ (Date (Month/Year)) **Certification #** _____

CCLS Supervisor Signature _____ **Date** _____

Clinical Experience Verification Form, page 2 of 2

Appendix 4: Child Life Competencies

Child Life Competencies June 2016

CHILD LIFE COMPETENCIES

Introduction

The following child life competencies are the minimal level of acceptable practice as defined by the Child Life Council, and are a guide for individuals or organizations who may wish to further define competencies specific to their situation. The order of competencies does not reflect a sequence or hierarchy of importance.

I. Care of Infants, Children, Youth, and Families

A. Competency

The ability to assess the developmental and psychosocial needs of infants, children, youth, and families.

Knowledge

- Articulate theories of human growth and development, play, and family systems.
- Describe formal and informal techniques to assess developmental and emotional state.
- Identify relevant data used to develop a comprehensive child life assessment.
- Identify factors that impact a child and family's vulnerability to stress and trauma.
- Identify how children and families interpret and make meaning of health, illness, and loss.
- Recognize families as they define themselves, identifying strengths and challenges in family dynamics and community supports.
- Describe the cyclical process of assessment, plan, intervention, and evaluation of child life services.

Skill

- Apply formal and informal techniques to assess developmental level and emotional state.
- Integrate the strengths and resources of the child and family into the plan of care.
- Prioritize child life services based on susceptibility to stress and trauma.
- Effectively collaborate with members of the service team to create a collaborative plan of care.

1

- Apply the cyclical process of assessment, plan, intervention, and evaluation of services to keep assessments accurate and up-to-date.

B. Competency

The ability to initiate and maintain meaningful and therapeutic relationships with infants, children, youth, and families.

Knowledge

- Articulate the tenets of patient and family-centered care.
- Describe the essential elements of the therapeutic relationship.
- Identify effective communication skills to support a child and family.
- Identify values related to sociocultural diversity.
- Recognize educational opportunities and resources that are responsive to the needs of the child and family in order to promote learning and mastery.

Skill

- Build trust and rapport with infants, children, youth, and families.
- Maintain appropriate professional boundaries to preserve the therapeutic relationship.
- Utilize effective communication skills in the process of supporting children and families.
- Utilize therapeutic and creative modalities to meet individual developmental and emotional needs.
- Match and pace interactions according to developmental level, emotional state, family preferences, and individual needs.
- Support the central role of the family, valuing strengths and needs in implementing child life services.
- Demonstrate respect for sociocultural diversity.

C. Competency

The ability to provide opportunities for play for infants, children, youth, and families.

Knowledge

- Articulate the definitions and functions of play.
- Identify the developmental and social milestones of play.
- Identify therapeutic approaches that facilitate open-ended, developmentally-supportive play and expressive arts.
- Understand common play themes relevant to life events and healthcare experiences.
- Identify toys and materials that encourage open-ended and expressive play, as well as close-ended play, and the value and purpose of each.
- Recognize ways in which activities and materials can encourage cultural connections.
- Identify theories related to play that best support child life practice.

2

Skill

- Demonstrate the ability to assess individual play needs and incorporate play into daily practice.
- Facilitate opportunities for play to decrease distress, provide enjoyment and comfort, enhance mastery, and promote healing.
- Plan and implement appropriate play activities and materials for children and families of diverse cultures, varying developmental needs, and physical abilities.
- Plan and implement activities that encourage expression of a range of emotions.
- Demonstrate the ability to observe a child's play to conduct a developmental and coping assessment.
- Utilize child-centered responses and techniques to facilitate a safe, non-judgmental, non-evaluative environment for children to explore and express themselves.
- Establish safe and engaging play spaces that promote cross-cultural connections, facilitate group play, and encourage children to choose and explore at their own pace.
- Model and teach child-directed play skills to build capacity in others, such as volunteers, medical staff, and family caregivers.

D. Competency

The ability to provide a safe, therapeutic and healing environment for infants, children, youth, and families.

Knowledge

- Explain the impact of environmental design on human behavior.
- Identify emotional safety hazards and corresponding preventive and protective measures.
- Identify environmental safety hazards and corresponding preventive and protective measures.
- Recognize public health guidelines for technology in early childhood and identify digital content that facilitates coping.
- Identify knowledge of privacy and confidentiality policies.

Skill

- Establish and maintain a therapeutic, healing and family-centered environment.
- Provide input about facility design to promote orientation, comfort, healing, culturally inclusive materials, security and normalization.
- Implement infection control and safety policies and procedures.
- Demonstrate respect for and facilitate privacy and confidentiality.

E. Competency

3

The ability to support infants, children, youth, and families in coping with stressful events.

Knowledge

- Identify types of stressful events affecting children and families, including medical procedures, pain, traumatic life events, loss, end of life, and grief work.
- Identify factors that may impact vulnerability to stress.
- Describe immediate and long term coping styles and techniques, as well as their effect on adjustment and behavior.
- Describe sensory, cognitive, and behavioral coping strategies specific to developmental stages and populations.
- Articulate effective non-pharmacological pain management techniques.
- Identify principles of effective advocacy in partnership with families and other team members.
- Understand the role of communication, particularly active listening and empathic responding, in building relationships with families undergoing stress.
- Understand the role of self-reflection in aiding patients and families in the process of mourning.
- Identify various stages or models of grief.

Skill

- Assess responses to stress; plan, implement and evaluate care accordingly.
- Introduce and facilitate rehearsal of techniques to aid immediate and long term coping, with consideration for the unique needs of the individual and family, such as coping style, previous experience, developmental level, culture, spirituality, family situation, and emotional state.
- Facilitate mastery of potentially stressful experiences.
- Utilize appropriate non-pharmacological pain management strategies.
- Empower and support patients and families to effectively self-advocate as well as advocate on behalf of those who cannot do so.
- Demonstrate an ability to use verbal and non-verbal empathic responses with children and caregivers during stressful events.
- Implement a team plan for coping support during medical procedures, including parental presence with guidance, comfort positions, role responsibilities, and distraction techniques to help children refocus their attention.
- Facilitate opportunities for play and dialogue following stressful events to reflect upon emotional responses and reinforce coping skills.
- Act as a team participant in bereavement work on behalf of families.
- Assess self-awareness skills concerning stress, trauma response, loss, and grief work in order to practice effective self-reflection.

F. Competency

The ability to provide teaching, specific to the population served, including psychological preparation for potentially stressful experiences, with infants, children,

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youth, and families.

Knowledge

- Identify basic terminology, processes, and expected plan of care for the population served.
- Articulate learning styles and needs of individuals with various developmental levels, emotional states, and of diverse backgrounds and experiences.
- Identify teaching techniques for use with individuals of diverse developmental levels and learning needs.
- Describe common fears, misconceptions and concerns of individuals in each developmental stage.
- Describe how children construct knowledge of their healthcare experience through interaction with other children, adults, and materials.
- Articulate fundamentals of psychological preparation found in child life literature.

Skill

- Assess knowledge level, misconceptions, previous experience, and unique sociocultural and learning needs.
- Determine realistic goals and objectives for learning in collaboration with family members and professionals, and identify an action plan to achieve these goals.
- Use accurate and developmentally appropriate teaching aids and techniques to increase knowledge and support emotional needs.
- Recognize verbal and non-verbal cues and adapt teaching accordingly.
- Use minimally threatening, developmentally supportive language.
- Describe sensory information, sequence, timing and duration of events.
- Facilitate planning, rehearsal, implementation, and evaluation of coping strategies.

II. Professional Responsibility

A. Competency

The ability to practice within the scope of professional and personal knowledge and skill base.

Knowledge

- Demonstrate an understanding of the scope of practice as defined by the appropriate state jurisdiction or regulatory organization.
- Demonstrate an understanding of the interconnections between scope of practice and practice setting.
- Take action to ensure personal responsibilities and professional competencies are maintained and do not fall below a level considered acceptable in the field of practice.
- Manage overlaps in scope of practice with other professions.

5

Skill

- Communicate the child life scope of practice accurately and effectively.
- Review scope of practice with peers and supervisors within practice setting.
- Coordinate care with the healthcare team and families based on specified scope of practice.
- Recommend appropriate professional consults or referrals when circumstances are beyond the scope of child life practice.

B. Competency

The ability to continuously engage in self-reflective professional child life practice.

Knowledge

- Recognize and describe how personal challenges and learning needs in knowledge and practice skills may impact service delivery.
- Identify resources and opportunities for professional development.
- Articulate reasons for and impact of under-involvement and over-involvement of professionals with children and families.
- Articulate the impact of one's own culture, values, beliefs, and behaviors on interactions with diverse populations.

Skill

- Include evidence-based practice in decisions about assessment, care, and evaluation.
- Implement a plan for professional development based on the needs of the population served and the knowledge and skill level of the child life specialist.
- Seek advanced practice mentors and peer supervision.

C. Competency

The ability to function as a member of the service team.

Knowledge

- Describe services and resources of other professionals and identify their roles and functions.
- Identify the unique contribution of the family and professionals in the provision of care.
- Articulate the organizational structure and function of the interdisciplinary team.
- Describe the impact of communication styles on groups and individuals.
- Identify the importance of advocacy in collaboration with the medical team.
- Recognize the integral role of patient and family within the interdisciplinary team.

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Skill

- Communicate concisely with other professionals, integrating theory and evidence-based practice to obtain and share pertinent information.
- Demonstrate respect for the viewpoints of other professionals.
- Coordinate child life services with families and professionals.
- Partner with the interdisciplinary team, including the patient and family, to integrate team goals into child life services.
- Create concise, objective and accurate clinical notes, documenting information pertinent to the plan of care.
- Instruct families in the culture of medicine and delivery of healthcare so that families can effectively self-advocate and navigate the healthcare system.
- Serve as an example by modelling the tenets of patient and family-centered care during interactions with patients, families, and staff.

III. Education and Supervision

A. Competency

The ability to represent and communicate child life practice and psychosocial issues of infants, children, youth, and families to others.

Knowledge

- Describe and integrate the basic concepts of public speaking and teaching methods appropriate to subject matter and audience.
- Identify classic and current literature on issues related to child life services in a manner meaningful to the audience.
- Articulate the process for engaging in evidence-based practice.
- Identify and articulate a definition of advocacy.

Skill

- Adapt approaches, media, and content according to audience need.
- Apply child life knowledge to contribute to the education of others.
- Maintain professional presentation of self, including careful attention to verbal and written communication, as well as personal appearance.
- Demonstrate effective advocacy for child life practice and psychosocial issues.
- Demonstrate the ability to partner with patients and families and share their unique perspectives in educating others on child life practice and psychosocial issues.

B. Competency

The ability to supervise child life students and volunteers.

Knowledge

- Discuss supervisory styles and their impact on others.
- Identify skills and knowledge necessary for others to complete assignments and tasks.
- Articulate student and volunteer program goals and expectations in the context of providing child life services.
- Identify adult learning needs.

Skill

- Provide comprehensive orientation to the setting, and policies and procedures of the work environment.
- Communicate expectations and roles clearly and concisely.
- Structure duties and assignments, matching ability to complexity of task.
- Provide regular feedback in a constructive manner.
- Assess and respond to diverse learning needs of students and volunteers.
- Recommend dismissal, after counseling, when performance does not match expectations.
- Evaluate student and volunteer programs and modify as needed.
- Provide a safe learning environment.

IV. Research Fundamentals

Competency

The ability to integrate clinical evidence and fundamental child life knowledge into professional decision-making.

Knowledge

- Describe research methodologies that are relevant to the child life field (qualitative, quantitative, mixed methods, evidence-based practice, and quality improvement).
- Articulate the role and purpose of research design.

Skill

- Access clinically pertinent information from a variety of sources (e.g. research articles, expert opinion, professional conferences).
- Engage in dynamic evaluation of clinical assessments, interventions, and outcomes.
- Share evidence-based rationales for assessments, plans, and interventions with colleagues, students, patients, and families.
- Critically evaluate and apply literature to practice.
- Demonstrate ability to write scholarly work.

V. Administration

8

A. Competency

The ability to develop and evaluate child life services.

Knowledge

- Identify program components that require assessment.
- Identify meaningful data for effective evaluation of child life services.
- Describe resources to assist in evaluation and development of services.

Skill

- Collect and report accurate and pertinent data in a timely manner.
- Recommend program improvements based on data and existing resources.
- Develop and prioritize the range of child life services.

B. Competency

The ability to implement child life services within the structure and culture of the work environment.

Knowledge

- Identify organizational structure and relevant policies and procedures.
- Articulate the mission and goals of the work environment.
- Identify methods for obtaining needed resources.
- Identify information necessary for effectively managing resources.

Skill

- Prioritize and organize workload for accurate and timely outcomes.
- Procure and maintain equipment and supplies in a cost-effective manner.
- Adhere to relevant policies and procedures.
- Advocate for just and equitable delivery of family-centered care in the work environment.
- Advocate for the inclusion of the patient and family voice in organizational decision making.
- Advocate for positive change.

November 1987
Revised and Approved November 2001
Revised and Approved November 2010

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Appendix 5: Ethics

8/10/2017 RE: Question about Masters Thesis - REB or QI?

Reply Reply All Forward

RE: Question about Masters Thesis - REB or QI?

Sancan Janice [sancan@HHSC.CA]

To: Sohanlal, Allison

Categories: []None (colored by Outlook 2003 Red flag)

Thursday, December 17, 2015 3:54 PM

Hello Allison,

My apology for the slow reply—I've had major computer access issues this week. I've checked also with the Chair, and we agree that this is QI work which is focusing on evaluation of current program assessment tools. You normally have access to this data, this is a local program, and you have outlined steps to protect the data confidentiality: removing names, adding ID codes, etc.. It was very helpful that you included your protocol—thank you for that.

You may proceed with this project as no ethics approval from us is required.
Thank you for checking with our office,
Janice

Janice Sancan
Research Ethics Officer
Hamilton Integrated Research Ethics Board (HiREB)
Suite 102 - 293 Wellington Street North
Hamilton, ON L8L 8E7

Tel: 905-521-2100 x 44574
Fax: 905-577-8378
Email: sancan@hhsc.ca
Web: www.hireb.ca

Appendix 6: Subtask Items with >30% NA Ratings

Domain	Task	Subtask Item Number	Subtask Item Description	Frequency of NA Scores by Subtask
Assessment	1	D	Prioritizes child life services based on comprehensive analysis of the needs of patients and families	2%
	2	C	Utilizes knowledge of human growth and development theory in identifying relevant developmental considerations for individual patients and families	6%
	3	B	Assesses key psychosocial and contextual factors, identifying strengths and vulnerabilities relevant in developing a plan of care	1%
Intervention	1	C	Coordinates child life programming with multidisciplinary and family goals as well as medical treatment plans and care giving schedules	3%
	2	A	Accurately assesses patients' and families strengths and preferences for participating in care and decision-making	2%
	3	B	In collaboration with family members and professionals, determines realistic goals and objectives for learning and identifies an action plan to achieve these goals	6%
	3	C	Adjusts teaching to the conditions, emotional states, developmental abilities, and cultural considerations of both the child and family	1%
	4	D	Facilitates planning, rehearsal and implementation of coping strategies as part of preparation	3%
	5	A	Accurately assesses children's and families' distress and coping levels and responses	1%
	5	B	Utilizes effective techniques to aid child and/or parent coping during procedures or stressful events with appropriate consideration given to developmental level and emotional state	2%
	5	C	Utilizes appropriate psychological pain management strategies	11%
	5	D	Supports parents to be present and provide support to their child during stressful events	4%
	5	E	Facilitates opportunities for play and other developmentally appropriate activities to decrease distress and increase effective coping	1%
	5	F	Plans and implements activities to aid immediate and long term coping and adjustment	6%
	6	A	Identifies goals for play activities based on individual assessment of children's conditions and developmental and psychosocial needs	1%
	6	B	Facilitates opportunities for therapeutic play that increase children's mastery and coping with healthcare experiences	2%
	6	D	Creates adaptive environments and activities for children whose access is restricted by a specific diagnosis or condition	5%

	7	A	Evaluates effectiveness of interventions based on outcomes achieved nad adjusts plan in response	2%
	7	B	Documents concisely, objectively, and accurately in the child's medical record, including developmental and psychosocial issues pertinent to the plan of care	20%
Professional Responsibility	1	C	Identifies relevant ethical concerns and participates in analysis of ethical issues to guide practice	8%
	2	A	Collaborates with family members and professionals to integrate interdisciplinary and family goals into child life services	7%
	2	B	Communicates effectively with team members through case conferences, rounds, and other informal and formal contacts pertinent to the needs of the child and family	4%
	2	C	Recommends referrals when the needs of the child and family are beyond the scope of child life practice	42%
	3	A	Provides comprehensive volunteer orientation in their assigned area and to the child life program	58%
	3	B	In collaboration with family members and professionals, determines realistic goals and objectives for learning and identifies an action plan to achieve these goals	31%
	3	C	Participates in giving and receiving volunteer feedback in a constructive manner	54%
	3	D	Demonstrates effective advocacy for psychosocial issues and the child life profession	9%
	3	E	Applies child life knowledge and evidence-based practice to contribute to the education and awareness of others within the setting and community	20%
	3	F	Communicates information effectively, integrating basic concepts of public speaking and teaching methods appropriate to subject matter and audience	38%
	4	A	Organizes and manages time effectively, balancing direct and indirect care responsibilities appropriately	2%
	4	B	Maintains supplies and equipment with attention to budgetary constraints	57%
	4	C	Collects, analyzes and reports accurate and pertinent data in a timely manner	42%
	4	D	Provides feedback relevant to continuing program improvement, identifying opportunities and needs to promote positive change	33%
	5	A	Participates actively in educational offerings throughout the internship, demonstrating clinical thinking skills and insight into application in practice	6%
	5	B	Uses current developmental theory and research to guide assessment of and identify rationale for child life plan of care	7%