National Association of Counsel for Children

Child Welfare Law Specialist Evaluation

Methodological & Technical Report

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Purpose & Context

This report serves as a technical companion to the NACC *CWLS Evaluation* which was undertaken by the Participatory Action Research Collective (See Appendix A for more about PARC) in 2024 to evaluate the National Association of Counsel for Children's (NACC's) Child Welfare Law Specialist (CWLS) program. Please see that evaluation and the complementary Lived Experience Data Report for information about the history of the CWLS program, the purpose of the evaluation, statistical findings regarding group differences between certified CWLS and non-certified attorneys, as well as findings from extensive engagement with lived experience experts who participated in the evaluation.

This report serves to describe and highlight some of the more technical and methodological intricacies of the evaluation and the approaches taken to gather and analyze the data from focus groups, interviews, and surveys of former foster youth, parents with former child welfare system involvement, certified CWLS, and non-certified attorneys. It details methods and approaches for the engagement of lived experience participants and law professionals, qualitative and visual analysis techniques, and statistical methods. Some of the methodological information contained in the *CWLS Evaluation and the Lived Experience Data Report* is also included in this technical report to provide context. Likewise, some of the findings mentioned in this report are discussed more fully in the other reports. The three reports are intended to complement each other as component parts of this extensive project.

Evaluation Methods

Participatory Action Research (PAR) Approach

The evaluation used a mixed-methods, Participatory Action Research (PAR) approach. PAR approaches prioritize the perspectives and experiences of individuals most impacted by programs, services, and systems. PAR methods are intended to promote equity and power-sharing amongst participants and collaborative meaning-making and framing of evaluation findings.

There are numerous perspectives to consider in the evaluation of the CWLS credential, including clients, attorneys, peer advocates, judges, agency staff (e.g., case managers, investigators, agency attorneys, administration), community-based service providers, and individuals from interconnected systems. While perspectives are likely to differ between and among these groups, PAR methods help make sense of the data and anchor narratives in the perspectives of those most impacted.

For this study, the evaluation team sought to include a variety of voices and perspectives yet root all aspects of the evaluation in the convergent voices of youth and parents/caregivers. This evaluation centered those with child welfare system lived expertise in a number of ways, including:

1. Engaging in co-design with NACC's National Advisory Council on Children's Legal Representation (NACCLR) [*https://naccchildlaw.org/national-advisory-council-on-childrens-legal-representation/*] by identifying, discussing, and defining key evaluation constructs and research questions;
2. Engaging in bi-weekly collaboration with an evaluation oversight team consisting of an NACCLR member, NACC staff, and a Casey Family Programs representative;
3. Engaging individuals with lived expertise in all data collection efforts, both qualitative and quantitative;
4. Engaging individuals with lived expertise in meaning making of evaluation results; and
5. Retaining individuals with child welfare system lived expertise as primary researchers for the study.

Both quantitative and qualitative data approaches were used. Participatory visual approaches served as the evaluation anchor and functioned as an opportunity for co-design and collaboration with youth and families who have experienced child welfare legal proceedings. Participatory methods were also used in the collection of qualitative data from law professionals. Upon collection of all data types, the research team then synthesized, analyzed, and triangulated all quantitative, qualitative, and visual data.

Participatory and qualitative approaches consisted of:

- Ripple Effects Mapping (four virtual sessions) — A visual participatory approach
- Qualitative interviews
- Qualitative virtual focus groups

Quantitative approaches consisted of:

- Quasi-experimental case comparison approach
- Survey data collection and analyses
- Independent T-Tests
- Regression analyses
- Exploratory Factor Analyses

Qualitative Approaches

Ripple Effects Mapping

Ripple Effects Mapping is a participatory visual approach (Chazdon et al., 2017; Washburn et al., 2020) that was used to engage individuals with child welfare system lived expertise, child welfare attorneys and judges, and child welfare system professionals in a focus group setting. Ripple Effects Mapping (REM) is intended to engage all individuals that experience a program, either directly or indirectly, to discuss benefits, insights, experiences, and challenges. The method yields convergent data that centers the experiences of those most impacted. Participants engage in real-time meaning-making of the data, which ensures the use of anti-racist, equity-focused, power-sharing approaches that center the perspectives of those most impacted. This data then serves as the anchor for the evaluation and provides a roadmap and hierarchy for data analysis. This method was used to collect qualitative and visual evaluation data, while also being used to inform quantitative evaluation approaches.

Specifically, this method was deployed within the evaluation by engaging participants in dialogue while the facilitator visually mapped their experiences, yielding rich qualitative and visual data. Through this mind-mapping exercise, participants discussed experiences related to child welfare lived expertise, legal representation, client representation, CWLS credentialing, and overall reflections of the child welfare system, to generate insight about impact. REM data informed key aspects of the evaluation's focus, survey development, and qualitative evaluation insights. (Find more information in the Quantitative Approaches section below.)

Qualitative Interviews

In addition to the REM focus groups, the evaluation used qualitative interviews to explore and address research questions, to test emergent theories and hypotheses, and to examine and refine constructs alongside individuals with child welfare system lived expertise.

Qualitative Research Questions

Several high-level research questions guided the REM and qualitative interview data collection process and are listed below. It is important to note, however, that some questions could not be thoroughly examined using this approach. (One limitation of the approach was the reliance upon a retrospective sample of lived experience experts, meaning that youth and parent participants were speaking to past, rather than current, child welfare experience. Given the retrospective sample, most participants did not recall the names of their attorneys and did not know their attorney's certification status.)

Impact of the CWLS credential on children, parents, and families:

- How do children, parents, and families benefit from CWLS representation?
- What is the connection between the CWLS credential and client outcomes/experiences?
- What are the experiences of clients when represented by a CWLS-certified attorney and how do those experiences differ from those represented by attorneys that do not hold the credential?
- What are the experiences of children, parents, and families in relation to access to justice, treatment by others involved in legal proceedings, achievement of case goals, etc.?

Impact of the CWLS credential on attorneys and the field:

- How do child welfare attorneys benefit from the CWLS certification?
- In what ways might the certification promote a change in knowledge, attitudes, and/or behavior that contributes to high-quality child representation?
- What are the experiences of attorneys who have participated in the certification process?

- What are the personal and professional benefits of the certification?
- How do courts, agencies, and child welfare systems at large benefit from the credential?
- In what ways might the certification promote a change in knowledge, attitudes, and/or behavior for judicial decision-making?
- What are the perceptions of the CWLS credential among professionals in the field?
- What are the broader systemic and institutional impacts of the CWLS program?

Impact of the CWLS credential on equity:

- In what ways does the CWLS credential center and promote equity?
- How does the certification impact diverse attorney and client populations?
- In what ways does the certification promote a change in knowledge, attitudes, and/or behavior related to equity?
- How does the certification promote better outcomes for populations disproportionately at risk for adverse child welfare and justice system outcomes (e.g., Black, Indigenous, Latinx, Arab, and Asian, LGBTQIA+, disabled, linguistically diverse, economically disadvantaged, geographically varied)?

Quantitative Approaches

Survey Development and Participation

Consistent with the PAR approach, individuals with lived expertise were engaged not only as study participants, but also as co-designers, to help develop survey constructs and questions. Figure 1 details the participatory processes that were utilized to develop the lived expertise survey and inform the law professional survey.

Identification of Key Constructs

Survey constructs refer to the broader categories of phenomena captured by survey questions. Prior to developing survey questions, it is essential to examine and deconstruct the potential topics to prioritize for exploration. To determine the most essential items, individuals with lived expertise were engaged through the NACCLR, REM focus groups, and qualitative interviews. From these conversations, broad categories were determined, which included *cultural humility, showing empathy for the client and family members, and prioritizing individualization*.

Development of Survey Items

After identifying primary constructs, individuals with lived expertise were then engaged throughout the process of developing survey questions. Focus groups, qualitative interviews, and research team

FIGURE 1: *PAR Evaluation Activities and Approaches*

	EVALUATION ACTIVITY	APPROACH
1	Identify and determine key survey constructs	• NACCLR focus group • Lived expertise focus group • Research team meetings with individuals with lived expertise
2	Determine wording for survey items	• Lived expertise qualitative interviews • Research team meetings with individuals with lived expertise
3	Refinement of survey item wording	• Lived expertise qualitative interviews • Research team meetings with individuals with lived expertise
4	Lived Expertise Survey	• Deployed survey within populations of formerly involved youth and parents
5	Meaning making of, and building context for, emergent findings	• Lived expertise focus groups and qualitative interviews

meetings were used to phrase, examine, and edit survey question wording. Over a series of several months, the research team, in collaboration with individuals with lived expertise, refined and tested survey questions. (See Appendix D of the *NACC CWLS Evaluation* for the law professional survey items and Appendix D of the Lived Expertise Data Report for the lived expertise survey items.)

Sampling Approach for Individuals with Lived Expertise

The evaluation sought to prioritize the voices of individuals with lived expertise using a mixed-methods approach, which included survey and focus group/qualitative interview participation. While a variety of perspectives make up the child welfare system lived expertise population, the sampling approach primarily focused on individuals with prior experience as a youth or a parent in the child welfare system. Qualitative portions of the evaluation study also included kinship caregivers.

Focus group, interview, and survey participants were reached through a variety of channels, including:

- Advocacy organizations that serve individuals with child welfare system lived expertise;
- Members, affiliates, and organizational partners of NACC; and
- Child welfare law professionals with access to former clientele.

Recruitment flyers and information about the evaluation were sent out through the above channels. The recruitment materials provided links for participating in the lived expertise survey. For focus group or interview participation, lived experience experts were instructed to contact the research team for screening. In addition to survey, focus group, and interview recruitment, lived experience experts were also engaged through NACC's NACCLR which supported elements of evaluation co-design via group discussion and dialogue.

Sampling Approach for Law Professional Participants

To fully examine the impact of the CWLS certification, law professional participants were recruited from populations of CWLS-certified professionals and those who do not hold the credential. Recruitment for law professional participants was yielded from the following sources:

- The most current list of Child Welfare Law Specialists (2023);
- Members, affiliates, and organizational partners of NACC; and
- Child welfare law professional listservs, groups, and organizations.

Recruitment materials were disseminated across various channels inviting law professionals to participate in the survey using unique links based on certification status. For interest in participating in focus groups or interviews, law professionals were directed to contact the research team for screening.

Survey Dissemination Tracking Procedures

Upon development of the lived expertise and law professional surveys, survey items were imported into Qualtrics for dissemination. Unique survey links were used to track the dissemination and sampling channel. For example, the law professional survey was disseminated using two distinct URLs and QR codes: one for the CWLS population and another for non-certified channels. Similarly, lived expertise survey links and QR codes were differentiated; CWLS and non-certified law professionals could use distinct links to distribute the survey to their parent clients and former youth clients. Additional survey links were generated for the lived expertise survey that were distributed amongst advocacy organizations. These links were used to track dissemination, determine the efficacy of dissemination channels, and better understand the population of survey respondents overall.

Participation Incentives

Individuals with lived expertise were provided with participation incentives, dependent upon the type of engagement. Focus group or interview participants were provided a $50.00 Visa gift card. Survey participants, upon validation of responses, were provided a $25.00 Visa gift card. Law professionals were not provided any incentives for their participation.

Sampling Challenges

The lived expertise survey quota was exceeded after the first round of recruitment and the budget for participant incentives was exceeded. As such, the research team made the decision to end survey recruitment. While survey recruitment efforts often include additional sampling to address representation gaps, budget limitations restricted this effort.

Additional sampling challenges arose when the lived expertise survey was infiltrated with fraudulent responses in attempts to obtain the financial incentive — a phenomenon that is increasingly common due to AI advances. Over 6,000 questionable responses were received. To determine the legitimacy of the data, the research team independently validated each survey response using the following approaches:

- Internal controls via Qualtrics to detect bots (e.g., CAPTCHA scoring, examining IP addresses, flagging of multiple responses from same respondent, detection of the use of AI for survey responses, and flagging of ambiguous text).
- Post hoc controls including the use of R statistical computing software's RiP v. 1.2.0 package (*https://r-posts.com/a-new-release-of-rip-v1-2-0-for-detecting-fraud-in-online-surveys/*) to further flag fraudulent responses and independent validation of survey responses via the email provided by respondent (required for receiving the incentive).

A total of 6,167 responses were deemed fraudulent and omitted from the dataset. While this challenge increased the amount of time spent on data validation, effective preventative and post hoc strategies allowed validation of legitimate responses and ensured confidence in the final sample.

Finally, while the survey did ask respondents to provide the name of their attorney, few respondents could recall this information. This limited the evaluation's potential to directly compare lived expertise survey responses from those who were represented by a CWLS to those whose attorney was not CWLS-certified. Parents were more likely than youth to accurately recall the names of their attorneys, yet not enough data was generated across both groups to effectively conduct these comparisons.

Analytic Approaches

Qualitative Analytic Approach

Ripple Effects Mapping (REM), as discussed above, was also used as an analytical approach. REM yields both visual and narrative data, where dialogue and interactive mind-mapping discussions are captured visually, and subject to group meaning-making. Figure 2 shows how dialogue is captured in real-time in REM focus groups:

In addition to REM focus groups, qualitative interviews were conducted to accommodate those individuals who preferred not to engage in group dialogue. Qualitative interviews were also visually mapped in a process similar to REM, for the purpose of aggregating qualitative data and examining the directionality of data.

REM focus groups and qualitative interviews yielded both visual and qualitative data that were analyzed concurrently using thematic analysis (Braun & Clarke, 2006; Clarke & Braun, 2017). Three members of the

PARC research team applied inductive coding to participant narratives to generate an initial code book, using a group consensus approach. In the instance of coding discrepancies, the research team engaged in dialogue until consensus was reached. This process increases methodological rigor of qualitative coding and promotes accuracy of the findings. Upon the development of the initial code structure, the research team re-analyzed narrative data from each focus group and each interview a total of three times, making necessary changes to the code structure, as codes were expanded or collapsed. Consistent with PAR best practice, as much as possible, the words of lived expertise (client) participants, were used to form codes and themes.

Visual data were analyzed to understand directional relationships between themes (ripples). Narrative segments (phrases uttered during the focus group) were then color coded based on themes generated during the narrative analysis process. The visual data were then collapsed and combined wherever overlapping or redundant codes were identified and then further reduced until no code redundancies were present in the data. Visual data were then further analyzed by isolating themes and sub-themes to examine inter-theme relationships and directionality. The information was then used to provide further insight into qualitative themes, particularly related to directional relationships between themes.

FIGURE 2: *REM dialogue documentation.*

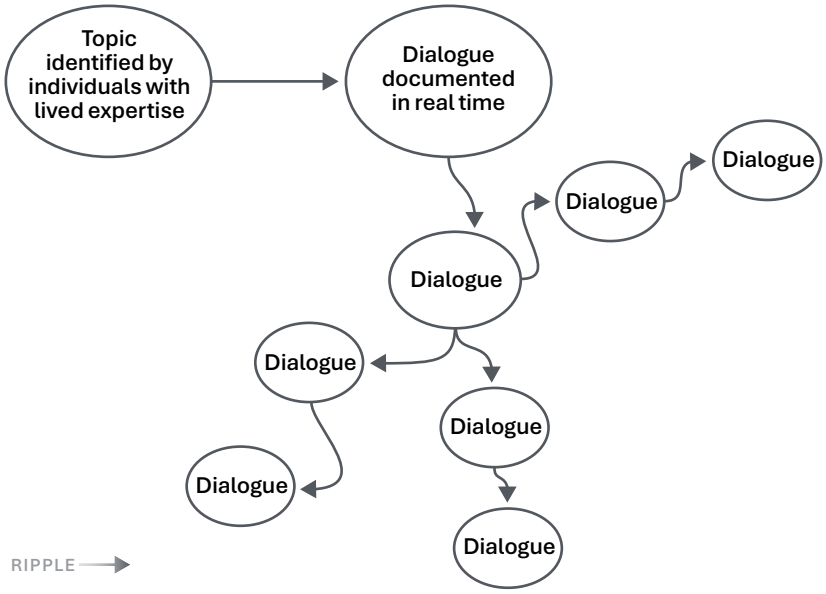

FIGURE 3: *REM coding process.*

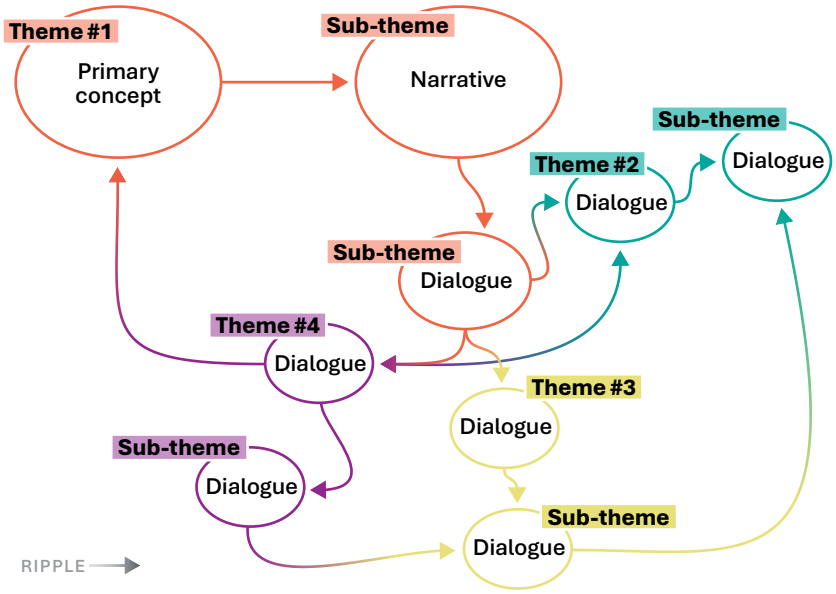

Figure 3 shows how narratives were thematically coded and subsequently color coded, and the ways in which ripples provided insight into the interconnected nature of themes:

Quantitative Analytic Approach

The survey of individuals with lived expertise was intended to develop survey constructs and questions that could serve as a companion to the law professional survey. Given that the lived expertise survey targeted a retrospective sample, the lived expertise survey data were not analyzed with the same procedure

as the law professional survey data. Instead, lived experience participants provided descriptive data, findings, and demographics. In contrast, law professional survey data were analyzed using more extensive analytic procedures, outlined in further detail in the next section of this report. The following table provides an overview of analytic approaches based on data type.

ANALYTIC APPROACH

TABLE 1: *Analytic approach by data type*

Data Type	Collection Approach	Analytic Approach
Participatory, qualitative, visual	Ripple Effects Mapping focus groups	Thematic Analysis
	Qualitative interviews	
Participatory, qualitative	Traditionally facilitated focus groups	
Quantitative	Descriptive survey: Lived Expertise	Demographics Descriptive statistics
	Quasi-experimental case comparison design: Law Professional Surveys	Demographics Descriptive statistics Independent T-Tests Regression analyses Factor analysis

Engagement Across Approaches

A total of 416 youth and parents with child welfare system lived expertise were engaged using REM focus groups, qualitative interviews, and surveys between May and October 2024. REM was used to generate qualitative insight about experiences and challenges with child welfare legal representation, while also generating data that heavily informed the development of the lived expertise and law professional surveys.

A total of 333 law professionals were ultimately engaged in the evaluation using REM focus groups, qualitative interviews, and surveys across seven months in 2024. REM and qualitative interview data were used to provide more detail about survey findings, particularly related to examining potential explanations for quantitative group differences.

Technical Discussion of Law Professional Survey Results: Legal Representation Quality Variables

Group Comparison Methods

Child welfare law professional survey participants were asked to respond to a wide variety of questions: demographics, certification status, sources of continuing education and training, types of law practiced, income, and motivation for working in this field. They were also asked a series of questions designed to assess the quality of legal representation — an essential focus of this evaluation. The results of all survey questions and group comparisons are discussed in depth in the *NACC CWLS Evaluation* report (see Appendix D of the *NACC CWLS Evaluation* for all law professional survey questions). Here, in this technical report, however, the PARC research team focuses on the statistical and technical methods used to analyze results regarding the legal representation quality variables in particular.

The representation quality questions sought to examine the presence and types of skill and quality differences that might exist between CWLS and non-certified attorneys. Attorneys were asked to self-rate the frequency with which these quality variables and skills were utilized by selecting from the following response options: "Every case, "most cases," "some cases," "never," and "N/A." Quality variables related to child welfare lawyering included legal advocacy skills, relationship-building, and statutory expertise. Additionally, the dataset included a composite measure of overall quality labeled *Quality_Aggregate*. The following table shows the survey item and corresponding variable label used for these analyses:

QUALITY VARIABLE LABELS

TABLE 2: *Variable labels (codes) and corresponding survey questions.*

Variable Label	Survey Item — *How often the attorney...*	Item
Meets_Clients	Meets with clients prior to legal proceedings	1
Remind_Clients	Reminds clients of meetings and court dates	2
Debrief_Clients	Debriefs with clients after legal proceedings	3
Understand_Reasons	Helps clients understand the reason(s) behind decisions	4
Wishes_Advocacy	Translates client wishes into legal advocacy	5
ChildDev_Advocacy	Applies knowledge of child development in legal advocacy	6
Individualize_Plans	Advocates for individualized case plans	7
Ask_Kin	Asks about family and fictive kin	8
Reframe_Narratives	Reframes negative narratives applied to the client	9
Articulate_POV	Helps tell the story from the client's point of view	10
Accommodations_Advocate	Advocates for the supports and accommodations needed to help the client be successful	11
Education_Advocate	Helps advocate for children's education (i.e., IEP access, school stability, records transfer, disciplinary matters)	12
Culture_Advocate	Advocates for meeting cultural or identity-related needs	13
Read_MHEval	Reviews mental health evaluations conducted in cases	14
Discuss_MHEval	Discusses mental health evaluations with clients	15
Utilize_MHEval	Utilizes mental health evaluations in legal advocacy	16

Variable Label	Survey Item — *How often the attorney...*	Item
RefStatute_Oral	References statutes and case law in oral advocacy	17
RefStatute_Written	References statutes and case law in written advocacy	18
Inquire_NAHeritage	Inquires with clients about whether they have Native American heritage	19
Use_ICPC	Advocates for placements across state lines using ICPC or other legal authority	20
File_Appeals	Files appeals (or refer them for appeal) when necessary	21
Object	Makes objections to the record when necessary	22
KinPlace_Advocate	Advocates for kinship placement	23

Treatment of Missing Data

To prepare the data for descriptive analysis, the data were cleaned and coded (i.e., converting text to numerical values). Given that the quality survey items were most pertinent to those practicing child welfare law as an attorney, the analyzed sample was reduced to include responses only from those who selected "attorney" as their role. Next, missing data were addressed by excluding responses with greater than 40% missing values across all survey items. For the remaining sample, missing values were addressed through single-value imputation (e.g., replacing the missing value with a mean score). For most quality variables, missing values were rare; however, for the variable *Reframe_Narratives*, one single missing value was imputed with a mean value of 2.23 based on prior exploratory analyses. The final dataset is comprised of responses from 202 participants, categorized by certification status, with 98 participants in Group 1 (CWLS) and 104 in Group 2 (non-certified attorneys).

Ensuring Data Reliability and Validity

All examinations of the data were conducted using R statistical software. To ensure data validity and reliability and prevent skewness, outlier detection was performed using boxplots and z-scores, with no extreme values exceeding ±3 standard deviations observed in any of the continuous variables. Lastly, to ensure comparability across variables measured on different scales, all continuous variables were standardized to z-scores prior to subsequent analyses.

Descriptive Statistics

Descriptive statistics were computed to summarize the characteristics of the sample and examine potential group differences. Measures of central tendency (means) and dispersion (standard deviations) were calculated for all quality variables, both for the entire sample and stratified by group membership. For categorical variables, such as Group Membership (1 = CWLS, and 2 = non-certified), frequencies and percentages were computed to describe the composition of the sample. Missing data patterns were also examined for each variable, both within the total sample and by group, to identify variables requiring imputation or further exploration.

The dplyr package in R was utilized for data manipulation, aggregation, and statistical computation. dplyr provides a streamlined approach for handling large datasets by using a grammar of data transformation functions, including mutate(), filter(), summarise(), and group_by(). To compute summary statistics such as the mean, median, standard deviation, and interquartile range (IQR), the dataset was processed using group_by() to segment the data by relevant categorical variables, followed by summarise() to derive summary measures. Outlier detection was conducted using two methods: The Interquartile Range (IQR) method and Z-score

thresholding. The IQR method identifies observations outside 1.5 times the IQR from the first and third quartiles. Z-score detection flags values beyond three standard deviations from the mean. These computations facilitated the identification and handling of outliers while maintaining data integrity.

Descriptive Statistics Results

The sample comprised 202 child welfare lawyers, with 98 (48.5%) identified as CWLS (Group 1) and 104 (51.5%) as non-certified attorneys (Group 2). The mean scores and standard deviations for the 23 quality variables were computed for the entire sample, as well as separately for both groups, to explore patterns of skills and competencies.

QUALITY VARIABLES MEANS AND STANDARD DEVIATIONS

TABLE 3: *Quality variables, means, and standard deviations.*

Variable		Group	
		CWLS	Non-Certified
Meets_Clients	Mean	2.43	2.43
	Std Dev	0.67	0.69
Remind_Clients	Mean	2.33	2.37
	Std Dev	0.76	0.76
Debrief_Clients	Mean	2.08	2.13
	Std Dev	0.79	0.78
Understand_Reasons	Mean	2.35	2.42
	Std Dev	0.72	0.68
Wishes_Advocacy	Mean	2.72	2.67
	Std Dev	0.53	0.56
ChildDev_Advocacy	Mean	2.54	2.25
	Std Dev	0.64	0.91
Individualize_Plans	Mean	2.51	2.51
	Std Dev	0.66	0.76
Ask_Kin	Mean	2.62	2.62
	Std Dev	0.59	0.62
Reframe_Narratives	Mean	2.37	2.24
	Std Dev	0.69	0.73
Articulate_POV	Mean	2.55	2.65
	Std Dev	0.66	0.54
Accommodations_Advocate	Mean	2.62	2.50
	Std Dev	0.56	0.66
Education_Advocate	Mean	2.16	2.07
	Std Dev	0.87	0.84
Culture_Advocate	Mean	2.02	2.01
	Std Dev	0.75	0.82

Variable		Group	
		CWLS	Non-Certified
Read_MHEval	Mean	2.48	2.49
	Std Dev	0.71	0.76
Discuss_MHEval	Mean	1.93	1.91
	Std Dev	0.81	0.85
Utilize_MHEval	Mean	2.07	2.01
	Std Dev	0.79	0.77
RefStatute_Oral	Mean	2.31	2.26
	Std Dev	0.80	0.76
RefStatute_Written	Mean	2.43	2.40
	Std Dev	0.81	0.76
Inquire_NAHeritage	Mean	2.27	2.30
	Std Dev	0.93	0.92
Use_ICPC	Mean	1.60	1.60
	Std Dev	0.83	0.83
File_Appeals	Mean	1.82	1.47
	Std Dev	0.97	0.95
Object	Mean	2.61	2.54
	Std Dev	0.58	0.71
KinPlace_Advocate	Mean	2.12	2.22
	Std Dev	0.71	0.74
Quality_Aggregate	Mean	2.30	2.26
	Std Dev	0.39	0.39

Group Comparisons

When stratified by group, CWLS demonstrated higher mean scores than non-certified attorneys across the following quality skills:

- Translates client wishes into legal advocacy (5)
- Applies knowledge of child development in legal advocacy (6)
- Reframes negative narratives applied to the client (9)
- Advocates for supports and accommodations needed to help client be successful (11)
- Helps advocate for children's education (IEP access, school stability, records transfer, disciplinary matters, etc.) (12)
- Advocates for meeting cultural or identity-related needs (13)
- Discusses mental health evaluations with client (15)
- Utilizes mental health evals in legal advocacy (16)
- References statute and case law in oral advocacy (17)
- References statute and case law in written advocacy (18)
- Files appeals (or refers for appeal) when necessary (21)
- Makes objections to the record when necessary (22)

No differences between CWLS and non-certified attorneys were found with the following:

- Meets with clients prior to legal proceedings (1)
- Advocates for individualized case plans (7)
- Asks about family and fictive kin (8)
- Advocates for placements across state lines using ICPC or other legal authority (20)

Non-certified attorneys demonstrated higher mean scores as compared to CWLS across the following skills:

- Reminds clients of meetings and court dates (2)
- Debriefs with clients after legal proceedings (3)
- Helps clients understand the reasons behind decisions (4)
- Helps tell the story from the client's point of view (10)
- Reviews mental health evaluations conducted in cases (14)
- Inquires with clients about whether they have Native American heritage (19)
- Advocates for kinship placements (23)

To further investigate trends across means and standard deviations by group, score distributions were visually inspected using boxplots, revealing consistent trends in variability across groups. To investigate group-wise trends in mean and standard deviation, we computed summary statistics using dplyr. The results provide insights into how central tendency and spread differed between groups. To investigate trends in means and variability, a line plot with error bars was created to assess whether group differences in means were meaningful and how variability differed across categories.

For variables such as *Meet_Clients* and *Debrief_Clients*, the boxplots showed slightly wider interquartile ranges for non-certified lawyers, suggesting less consistency in how these skills are practiced within this group. In contrast, CWLS demonstrated more consistent scoring patterns, particularly for procedural skills. These findings set the stage for further inferential analyses to explore the relationships between these variables and overall lawyer quality.

Independent Samples T-Test

Purpose

An independent t-test is a statistical method used to compare the average scores of two distinct groups to see if they are statistically significantly different from each other. These tests explore whether there are significant differences between groups, and how large or substantial the differences might be.

Procedure

Before conducting the t-test, assumptions were tested using a Normality Test and the Shapiro-Wilk test (shapiro.test()) to assess if the data in each group followed a normal distribution. The Levene's Test (leveneTest()) was also used to examine whether the two groups had equal variances. The independent samples t-tests were conducted to examine whether CWLS and non-certified attorneys significantly differed in their mean scores across the range of quality variables. For each quality variable, mean and standard deviations were calculated for both groups (see the above descriptive statistics table). Independent samples t-tests were then performed to test the null hypothesis that the two groups have equal mean scores for each variable. The analyses assumed unequal variances between the two groups and utilized Welch's t-test, which was performed to address potential unequal variances (heteroscedasticity).

For each quality variable, the t-test computed the t-statistic — the ratio of the difference between group means to the variability of the scores, and the p-value — the probability of observing the computed t-statistic under the null hypothesis of no difference. A p-value threshold of 0.05 was used to determine statistical significance.

Group Differences

Statistically significant differences were revealed in scores for *File_Appeals* t(200) = 2.63; p = .01, d = 0.37 and *ChildDev_Advocacy* t(200) = 2.66; p = .01, d = 0.37. While there were a variety of mean differences between CWLS and non-certified attorneys, these results indicate that when it comes to incorporating knowledge of child development and filing appeals, the differences between the two groups are substantial, cannot be explained by chance, and are greater than the .05 threshold. As such, based on the survey data, it can be concluded that in contrast to non-certified attorneys, CWLS report using knowledge of child development in legal advocacy and filing appeals (or referring for appeal) more than non-certified professionals, to a statistically significant degree.

There were no statistically significant variable differences in favor of non-certified attorneys. Although the remainder of the group differences were not statistically significant at the individual variable level, further analyses were warranted to determine whether statistically significant differences exist with clusters of variables.

Regression Analysis

Purpose

To investigate differences that would be evident across quality variable interactions, regression analysis was performed to identify the key skills and competencies that predicted overall lawyer quality. By analyzing the relationships between individual quality variables and *Quality_Aggregate*, the analysis sought to determine which specific skills contributed most to overall performance. In other words, the regression analysis was conducted to pinpoint specific skills that drive overall lawyer quality. By identifying which quality variables are most strongly associated with *Quality_Aggregate*, the analysis provides insights into competencies that might be making the biggest impact on overall performance, ultimately improving outcomes for children and families. Put another way, regression analysis was used to examine which quality skills are most closely related to overall quality, the strength of the relationships, and the potential for certain quality variables to predict overall child welfare representation quality.

Procedure

Regression analysis was used to examine the relationship between a dependent variable (Y) and an independent variable (X). A simple linear regression model was fitted to quantify the effect of XX on YY. The model follows the equation:

$$Y = \beta_0 + \beta_1 X + \epsilon$$

Where β_0 is the intercept, β_1 is the slope coefficient, and ϵ represents the error term.

The analysis used Ordinary Least Squares (OLS) regression to model the relationship between *Quality_Aggregate* (dependent variable) and all individual quality variables (independent variables). The OLS regression estimated regression coefficients and associated significance levels. Multicollinearity among the independent variables was assessed using Variance Inflation Factors (VIF). No significant multicollinearity issues were detected, allowing all quality variables to be retained in the model. For each independent variable, the regression estimated the standardized coefficient (β), t-statistic, and p-value to evaluate its contribution to *Quality_Aggregate*. A significance threshold of $p < 0.05$ was used to determine which variables were statistically significant predictors. The model fit was assessed using the R-squared value, which represents the

proportion of variance in *Quality_Aggregate* explained by the independent variables. The overall model significance was evaluated using the F-statistic and associated p-value.

Results

The regression analysis identified key skills and competencies that significantly predict the composite variable *Quality_Aggregate*, representing overall lawyer quality. The model, which included individual quality variables as predictors, explained 88.7% of the variance in *Quality_Aggregate* ($R^2 = 0.887$, $F = 97.17$, $p < 0.001$). This high R-squared value indicates that the predictors collectively provide a strong explanation for overall lawyer quality. The five best predictors of overall quality were:

- Discussing mental health evaluations ($\beta = 0.41$, $p < 0.001$)
- Advocating for the supports and accommodations needed to help the client be successful ($\beta = 0.34$, $p < 0.001$)
- Helping clients understand the reason(s) behind decisions ($\beta = 0.29$, $p = 0.002$)
- Referencing statutes and case law in oral advocacy ($\beta = 0.18$, $p = 0.035$)
- Advocating for individualized case plans ($\beta = 0.22$, $p = 0.014$)

Notably, some variables did not emerge as significant predictors, including *Wishes_Advocacy* ($\beta = 0.09$, $p = 0.089$) and *Articulate_POV* ($\beta = 0.07$, $p = 0.102$). While these variables are important components of child welfare law practice, their weaker associations with *Quality_Aggregate* suggest that other skills may play a more central role in determining overall quality.

For a more detailed discussion of these findings and group differences between CWLS and non-certified attorneys with respect to the best predictors of quality, please see the Legal Representation Quality Survey Items section of the *NACC CWLS Evaluation*.

Methodological Advancements in Measuring Child Welfare Legal Representation Quality: Findings from Exploratory Factor Analysis

Purpose

Factor analysis was performed to uncover latent dimensions that group related skills together. Factor analysis identifies these groups (factors) and tells us which questions (or variables) are most strongly related to each factor. Factor analysis served to identify statistical patterns and themes to identify broader categories of skills that matter most, and simplify the data by analyzing trends with categories of skills.

Methods

Factor analysis was conducted to identify latent constructs underlying all quality variables. These constructs represent broader dimensions of skills or competencies, reducing the complexity of the dataset while preserving key patterns. Factor extraction was performed on standardized data to ensure comparability across variables with different scales. The number of factors to extract was initially determined through exploratory methods, including a scree plot and cumulative explained variance, resulting in the selection of five factors. Factor loadings, which represent the contributions of each variable to the latent constructs, were examined to interpret the meaning of each factor. Variables with high loadings on a particular factor were considered representative of that dimension. The extracted factor scores for each participant were saved for subsequent analyses.

The general model applied for this analysis is as follows:

$$X_i = \lambda_{i1}F_1 + \lambda_{i2}F_2 + \ldots + \lambda_{im}F_m + \epsilon_i$$

Where X_i represents observed variables, λ_{ij} represents the factor loadings, F_j represent latent factors, and ϵ_i represent the error terms.

The extracted factor scores were then compared between CWLS and non-certified attorney groups using independent samples t-tests. Each factor score was treated as a dependent variable, with group membership as the independent variable. Welch's t-test was applied to account for potential differences in group variances. Significance was determined at the 0.05 level.

The original factor analysis was conducted to identify latent constructs underlying the quality variables, which measured lawyer competencies such as advocacy skills, client communication, and procedural expertise. Data were standardized to z-scores, ensuring comparability across variables measured on different scales. The number of factors to extract was determined through exploratory methods. Scree plot was used to examine the eigenvalues of the correlation matrix to identify the point where additional factors provided diminished returns in explaining the variance. Variance Explained Criterion was applied to extract factors until the cumulative variance exceeded the threshold of 70%.

The factor loadings were examined to determine the contributions of each variable to the extracted factors. Variables with loadings above 0.4 were considered significant contributors to a factor. Cross-loadings (where a variable significantly loaded onto multiple factors) were noted and addressed in interpretation. Two different models were tested: A Three-Factor Model and Five-Factor Model.

Factor Analysis

Three-Factor Model

Initially, three factors were extracted, capturing key dimensions of procedural advocacy, client-centered communication, and legal knowledge. The factor loadings were as follows:

THREE-FACTOR MODEL FACTOR LOADINGS

TABLE 4: *The three-factor model factor loadings with primary associated variables.*

Factor 1: Procedural Advocacy	Factor 2: Client-Centered Communication	Factor 3: Legal Knowledge
Accommodations_Advocate	*Understand_Reasons*	*RefStatute_Oral*
Object	*Wishes_Advocacy*	*RefStatute_Written*
Discuss_MHEval		

The three-factor model accounted for 72% of the total variance, indicating moderate quality. The three-factor model was limited, as this model produced factors with overlap and redundancies with the conceptual meaning, likely due to cross-loadings. The three-factor model also constrained the ability to capture more nuanced dimensions of child welfare legal representation quality. Some variables with moderate loadings on multiple factors made interpretation challenging. The original factor analysis extracted three factors based on exploratory techniques, including a scree plot and the variance explained criterion. However, this approach resulted in conceptual overlap between factors, with some variables exhibiting significant cross-loadings. To resolve these issues and better capture the complexity of lawyer competencies, a refined factor analysis was conducted using a more systematic approach to determine the number of factors and enhance interpretability. The refined analysis sought to improve conceptual clarity by capturing distinct dimensions of quality that might have been merged in the initial analysis. Model refinement also aimed to reduce the influence of variables that loaded onto multiple factors, and sought to extract additional factors to increase the cumulative explained variance.

Five-Factor Model

The refined analysis began with data standardization to z-scores, ensuring that all variables were comparable regardless of scale. The number of factors to extract was determined through parallel analysis and a re-examination of the scree plot. Parallel analysis involved generating eigenvalues from simulated random data and retaining only factors whose eigenvalues exceeded those from the simulated data. This process indicated that five factors were appropriate for extraction, as they accounted for a greater proportion of variance while minimizing redundancy.

An orthogonal (varimax) rotation was applied to the extracted factors to improve interpretability by simplifying the loading patterns. Varimax rotation was chosen under the assumption that the factors are independent, aligning with the goal of isolating distinct skill dimensions. Following rotation, variables with loadings greater than 0.4 were considered meaningful contributors to a factor, while variables with significant loadings on multiple factors were carefully examined and assigned to the most conceptually relevant factor. The following table illustrates the five distinct factors with the highest-loading variables.

FIVE-FACTOR MODEL FACTOR LOADINGS

TABLE 5: *Five-factor model with factor loadings and associated variables.*

Factor 1: Advocacy and Procedural Competence	Factor 2: Legal Knowledge and Statutory Expertise	Factor 3: Client-Centered Communication	Factor 4: Individualized Planning	Factor 5: Holistic Approaches
Accommodations_Advocate	*RefStatute_Oral*	*Understand_Reasons*	*Individualize_Plans*	*Education_Advocate*
Discuss_MHEval	*RefStatute_Written*	*Wishes_Advocacy*	*Ask_Kin*	*Read_MHE*
Utilize_MHEval				
Object				
Culture_Advocate				

The resulting five factors were interpreted based on their highest-loading variables.

To validate the refined factors, correlations were computed between the extracted factors and the original quality variables. Strong, intuitive relationships supported the validity of the factor structure. Additionally, the refined analysis increased cumulative explained variance from 72% in the original model to 85%, ensuring that the factors accounted for a substantial portion of the variability in the data. The factors show minimal correlations (values close to 0), suggesting that they are relatively independent dimensions. This independence is a strength of the factor analysis, as it means the factors capture distinct aspects of lawyer quality. The refined factors provided more nuanced and distinct dimensions of lawyer quality, enhancing their utility for informing training and policy development.

Five-Factor Model Group Differences

The factor analysis served as a data-reduction technique, grouping individual quality variables into broader latent constructs or dimensions. By identifying these distinct dimensions, the factor analysis simplified the dataset, reducing the redundancy among individual variables and providing a clearer framework for examining group differences between CWLS and non-certified attorneys.

A regression analysis was performed to determine if the five-factor model adequately predicted overall quality. The regression model using factors as predictors for overall quality achieved an R-squared of 0.990, explaining nearly all variance in the outcome.

Factor 1: Advocacy and Procedural Competence emerged as the strongest predictor of overall quality (*Quality_Aggregate*). Similarly, *Factor 5: Holistic Approaches* also significantly predicted overall quality. While the earlier regression model using individual variables identified specific skills (e.g., *Discuss_MHEval*, *Accommodations_Advocate*, *Understand_Reasons*) that strongly predicted overall quality, the five-factor model produces a more holistic view by capturing how clusters of related skills collectively impact overall quality. Together, these analyses illustrate both the granular and overarching drivers of child welfare representation quality, offering a comprehensive understanding of the skills and competencies that matter most.

Subgroup analyses involved calculating separate correlation matrices for the two groups: CWLS and non-certified, to examine whether the relationships among variables and factors differed by group. Additionally, boxplots and descriptive statistics of factor scores were generated for each group to explore differences in variability and central tendencies. Subgroup exploration was necessary to understand how certification status influences not only skill levels but also the relationships among those skills.

CWLS scored higher on four of the five factors:

- *Factor 1: Advocacy and Procedural Competence;*
- *Factor 2: Legal Knowledge and Statutory Expertise;*
- *Factor 4: Individualized Case Planning;* and
- *Factor 5: Holistic Approaches*.

Group differences for *Factor 3: Client-Centered Communication*, were small, yet slightly favored non-certified attorneys. A more detailed narrative of the five-factor model group differences, as well as limitations to the analysis, can be found in the Five-Factor Model of Child Welfare Legal Representation Quality section of the *NACC CWLS Evaluation*.

Conclusion

Factor analysis was used to simplify the dataset and group related skills into broader dimensions, which allowed for a more nuanced understanding of child welfare legal representation quality. The factor analyses revealed that lawyer competencies can be conceptualized along five distinct dimensions: Advocacy and Procedural Competence, Legal Knowledge and Statutory Expertise, Client-Centered Communication, Individualized Case Planning, and Holistic Approaches. These factors accounted for 85% of the variance in child welfare attorney quality, meaning that the five-factor model performs as a reliable and valid measure of child welfare attorney quality. Finally, factor analysis findings contribute to the broader advancement of the field by providing a framework for understanding legal representation quality. The identification of distinct dimensions of competence offers a foundation for future research and practice.

Appendix A: About the Evaluation Team

Participatory Action Research Collective

Research and Evaluation Consultants

Specializing in Preventative and Pre-Petition Evaluation and Engaging Individuals with Child Welfare System Lived Expertise

About Us

Participatory Action Research Collective (PARC) was founded by Stef Sloan, PhD, in 2022, to specialize in mixed-methods participatory action research and evaluation for child welfare law, justice, and family well-being initiatives. The team combines lived expertise and advanced evaluation methods to demonstrate preventative and pre-petition program outcomes and impact.

The PARC team includes researchers with experience in survey and instrument development and validation, advanced quantitative and statistical methods, visual participatory and qualitative methods, lived expertise engagement, data visualization, grant writing, facilitation, and reporting, and cost analysis. PARC team members also hold subject matter expertise in child welfare, child development, family systems, family trauma, protective factors, child maltreatment prevention, and child welfare forensic science. In addition, projects engage specialists in program design, report and graphic design, and strategic framing to ensure high-quality and effective dissemination of evaluation results.

The PARC team has conducted preventative and pre-petition evaluations for programs in a variety of states, as well as evaluated national child welfare law initiatives. Dr. Sloan and colleagues have also designed and implemented local preventative and pre-petition legal clinics, leveraged federal child maltreatment prevention funds to support program sustainability, and worked at the state and federal policy levels to advocate for the use of preventative and pre-petition legal services.

Appendix B: Ripple Effects Mapping, Participatory Action Research, and Data Collection Resources

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