

Maurer School of Law: Indiana University Digital Repository @ Maurer Law

Articles by Maurer Faculty

Faculty Scholarship

2013

Interdisciplinary Psychology and Law Training in Family and Child Mediation: An Empirical Study of the Effects on Law Student Mediators

Amy Applegate

Indiana University Maurer School of Law, aga@indiana.edu

Amy Holtzworth-Munroe

Indiana University - Bloomington

Brittany N. Rudd

Indiana University - Bloomington

Ann Freeman

Indiana University - Bloomington

Brian D'Onofrio

Indiana University - Bloomington

Follow this and additional works at: <http://www.repository.law.indiana.edu/facpub>

 Part of the [Legal Education Commons](#), and the [Psychology Commons](#)

Recommended Citation

Applegate, Amy; Holtzworth-Munroe, Amy; Rudd, Brittany N.; Freeman, Ann; and D'Onofrio, Brian, "Interdisciplinary Psychology and Law Training in Family and Child Mediation: An Empirical Study of the Effects on Law Student Mediators" (2013). *Articles by Maurer Faculty*. 2449.

<http://www.repository.law.indiana.edu/facpub/2449>

This Article is brought to you for free and open access by the Faculty Scholarship at Digital Repository @ Maurer Law. It has been accepted for inclusion in Articles by Maurer Faculty by an authorized administrator of Digital Repository @ Maurer Law. For more information, please contact wattn@indiana.edu.

Interdisciplinary psychology and law training in family and child mediation: An empirical study of the effects on law student mediators

Amy Holtzworth-Munroe¹, Amy G. Applegate², Brittany N. Rudd³, Ann Freeman⁴ and Brian D’Onofrio⁵

Abstract: There is growing interest in interdisciplinary training programs for law students. The goal of these programs is to prepare law students for the real world interdisciplinary settings they will face in their careers. However, there exists little research to provide evidence of the utility of such training. This study examined the effectiveness of an interdisciplinary psychology and law training program on law students using a multi-method approach (i.e., knowledge tests and focus group discussion). Findings suggest that interdisciplinary training of law students increased law students’ knowledge of law and psychology, was enjoyed by law students, and had a beneficial impact on law students’ educational experience.

Keywords: law student education, interdisciplinary law and psychology training

I. Background.

Interdisciplinary training in family law and psychology. In 1906, Freud lectured judges in Vienna on the practicality of psychology (Tapp, 1976). Since then, many ways to combine law and psychology have been developed, including the study of legal psychology, therapeutic jurisprudence, and joint degree programs. More specifically, a call for such integration in the area of *family law* was made in the Family Law Education Reform Project (FLER Project; Hafemeister, Ogloff, & Small, 1990; O’Connell & DiFonzo, 2006; Rachlinski, 1999; Tapp, 1976), which was co-sponsored by the Association of Family and Conciliation Courts (AFCC) and Hofstra Law School’s Center for Children, Families, and the Law.

The FLER Project was designed to teach law students the complexities of family law. Most importantly, students learn that contemporary family law cases often are not like the scenarios provided in their casebooks where seemingly all cases go to litigation. Modern family law is, instead, an interdisciplinary enterprise where psychologists, social workers, lawyer and non-lawyer mediators, and attorneys come together to serve a single purpose. This purpose, as outlined in the American Law Institute’s (ALI) Principles of the Law of Family Dissolution, is “to facilitate thoughtful planning by cooperative parents while minimizing harm to children,” often through alternative dispute resolution methods (ADRs), such as mediation (O’Connell & DiFonzo, 2006, p. 525). The implementation of FLER’s core principles has begun through a

¹ Department of Psychological and Brain Sciences, Indiana University, 1101 East 10th Street, Bloomington, IN 47405-7007, phone: 812-855-8159, holtzwor@indiana.edu

² Maurer School of Law, Indiana University Bloomington

³ Department of Psychological and Brain Sciences, Indiana University Bloomington

⁴ Department of Psychological and Brain Sciences, Indiana University Bloomington

⁵ Department of Psychological and Brain Sciences, Indiana University Bloomington

course at Hofstra School of Law (Schepard & DiFonzo, 2011), which stresses interdisciplinary models of contemporary family law practice and emphasizes ADR methodologies. Additional programs designed to integrate family law with other disciplines exist (Applegate, D'Onofrio, & Holtzworth-Munroe, 2009; Riley, Hartwell, Sargent, & Patterson, 1997; Seibel, Sutton, & Redfield, 1985). Indeed, it is believed that the interdisciplinary training of law students with other disciplines, such as psychology, can enable professionals to more effectively assist the families they serve (Applegate et al., 2009). Additionally, legal professionals, including family court judges, increasingly are being urged to implement evidence-based practices into their procedures (Holtzworth-Munroe, D'Onofrio, & Applegate, 2009). To do so, they need to understand enough about social science research methodologies to be able to interpret empirical evidence regarding which interventions are effective. Interdisciplinary training in psychology can aide in this process as well.

A major concern, however, is that there is little empirical evidence supporting the efficacy of such interdisciplinary training programs for law students.⁶ To our knowledge, there is only one empirical study of the impact of interdisciplinary training of law students. Colarossi and Fogery (2001) utilized a pretest-posttest control group design to evaluate the effectiveness of an interdisciplinary course on domestic violence for social work and law students. The study control group consisted of law and social work students who were taking other courses in their respective fields, not the interdisciplinary course, during the two semesters the study was conducted. Relative to students in the control group, students in the new training program had a significantly larger increase in knowledge concerning domestic violence, more positive views of interdisciplinary work, and a significantly larger decrease in belief in unfounded stereotypes about domestic violence (Colarossi & Fogery, 2001).

While the findings of this one study are encouraging, the need for additional research on the effects of interdisciplinary education on family law students is clear (Applegate et al., 2009). The training of law students as family mediators is a prime opportunity for such interdisciplinary training, as family mediation requires attention to both legal and psychological issues (Emery, Sbarra, & Grover, 2005). The current study was designed to gather data on the impact of an interdisciplinary law and psychology training program on law students serving as mediators in a law-school-based family mediation clinic.

Family Mediation. Family mediation is promoted as a way to increase efficiency in the dispute resolution process and improve party satisfaction among separating parents (Emery & Wyer, 1987; Benjamin & Irving, 1995; Kelly, 1996). In addition to the belief that mediation is less likely to result in further conflict than litigation, researchers and practitioners argue that parents know their children better than a judge and thus know what is best for their children (Emery, Otto, & O'Donohue, 2005). Also, parents may be more willing to stick to an agreement they mediated rather than one handed down to them by the court (Bautz & Hill, 1989; Emery, Matthews, & Wyer, 1991). As a result, mediation is a widely used family law intervention (Emery, Sbarra, & Grover, 2005).

The best study to date supports the notion that mediation of family disputes can have positive outcomes on re-litigation rates and level of inter-parental conflict (Emery, Laumann-Billings, Waldron, Sbarra, & Dillon, 2001). However, findings from methodologically strong studies of mediation are quite limited, and there is room to improve the impact of mediation on

⁶ While few studies of the interdisciplinary training of family law students exist, there are more studies of the training of clinicians in other fields such as clinical psychology (Hill, Charles & Reed, 1981) and medicine (Leung, 2002).

families (Beck, Sales, & Emery, 2004). In particular, there is interest in conducting mediation in a manner that helps parents focus on the best interests of their children. Two such interventions were introduced, by McIntosh, in Australia: Child Focused Mediation (CF) and Child Inclusive Mediation (CI)(McIntosh, Wells, Smyth, & Long, 2008). These interventions are designed to promote protective factors for children of divorce (e.g., lower interparental conflict, stronger parent-child relationships) by motivating parents to consider the needs of their children during mediation (McIntosh, 2000).⁷ In CF, this is done by talking to parents about relevant research and developmental issues (e.g., the impact of divorce and parental conflict on children) while helping parents consider how the general information applies to their family. In CI, a child consultant (usually a mental health specialist) interviews the child(ren) in the family and uses that information to customize feedback to the parents. These interventions have shown promise in an initial study. In that study, families participated in either CF or CI (McIntosh et al., 2008). A four-year follow-up demonstrated benefits to all families, with extra benefits accruing to families in the CI intervention (McIntosh, Long, & Wells, 2009). For example, parents in CF and CI reported lower levels of acrimony and conflict, as well as higher levels of satisfaction with parenting arrangements, over time.

CF and CI approaches to family mediation provide an opportunity for law students to receive interdisciplinary training in law and psychology, as these approaches require an understanding of legal and psychological issues and can directly involve both legal and mental health professionals (e.g., a lawyer mediator and a psychologist child consultant work together). The current study was designed to study the impact on law student mediators of interdisciplinary training in CF and CI mediation. We did so within the context of the Indiana University (IU) Child Informed Mediation Study (CIMS; for more details, see Ballard, Holtzworth-Munroe, Applegate, D'Onofrio & Bates, in press; Holtzworth-Munroe, Applegate, D'Onofrio, & Bates, 2010), a study designed to replicate and extend the McIntosh et al. (2008) study of CF and CI. The CIMS extends McIntosh's research by comparing CF and CI interventions to a mediation-as-usual (MAU) control group that did not involve a child consultant. In all three forms of mediation (MAU, CF, and CI) in CIMS, mediators conducted a mediation intake and decided if each case was appropriate for mediation. Two weeks later, the parties returned for mediation negotiations. In CF and CI cases, the session started with a parent feedback session, led by psychology graduate students who served as consultants. Following the parent feedback session in CF and CI, child consultants left and mediators proceeded to the negotiation phase of mediation, referring back to information provided by the child consultants if it was deemed helpful. While the McIntosh et al. study (2008) involved professionals, in CIMS, law students serve as mediators. Thus, in order to implement CIMS, the law and psychology faculty involved in the study developed an interdisciplinary training program for law students, consistent with recommendations made by AFCC regarding training of law students in family law (e.g., see the entire Oct. 2006 issue of *Family Court Review*; Applegate, D'Onofrio, & Holtzworth-Munroe, 2009). By conducting interdisciplinary training within the context of a research study on the effects of CI and CF versus MAU, law students also were able to directly observe how the studies that form the basis of evidence-based practice guidelines are conducted (Holtzworth-Munroe, D'Onofrio, & Applegate, 2009).

⁷ While CI and CF theoretically overlap, in practice cases are mediated using only one method or the other, not both.

II. Current study.

The current study is, to our knowledge, the first to evaluate the impact of interdisciplinary law and psychology training on law students learning family mediation. We were interested in objectively measuring knowledge gained and in assessing students' subjective reports regarding the impact of the interdisciplinary training. Our two primary outcome measurement instruments consisted of a knowledge test and focus group discussions with students.

We implemented two study design features to help assure that any observed positive outcomes were due to the interdisciplinary training rather than other factors. First, before we began the CIMS training, we gathered data for one semester. This "baseline" (or pre-interdisciplinary training) semester serves as a comparison group to the later, interdisciplinary training semesters. Second, each semester (baseline and during interdisciplinary training), we administered outcome measures at both the start and end of the semester; this method allowed us to observe changes over the semester.

We hypothesized that, as a result of the interdisciplinary training, law students would develop greater knowledge not only of family law but also of relevant psychological research findings on divorce (e.g., the impact of divorce on children) and program evaluation research methods (e.g., how to conduct studies of program effectiveness for evidence-based practice). Additionally, we hypothesized that law students would report that they benefited from the interdisciplinary training and enjoyed working with psychology graduate students through CI and CF mediation.

III. Methods.

A. Participants.

Study participants were 33 law students in their second or third year who were in a divorce mediation course at the Indiana University Maurer School of Law Viola J. Taliaferro Family and Children Mediation Clinic ("the clinic"). The baseline comparison group ($n = 8$) consisted of law students in the course one semester before the interdisciplinary training began, who did not participate in the new interdisciplinary training and did not learn CF or CI divorce mediation approaches, but were instead trained in MAU. The experimental group ($n = 25$) included law students over three semesters who received training in MAU as well as in the new interdisciplinary training and who served as mediators in CF and CI mediation cases as part of the CIMS.

Baseline versus Interdisciplinary Training for Law Students. During the baseline semester before the interdisciplinary training officially began, law students were enrolled in a 40+ hour intensive course that fulfilled training requirements to become state registered mediators (for more information, see Applegate et al., 2009). Once the law students were registered mediators, they began seeing cases at the clinic and conducting mediation as usual. New law student mediators usually were paired with a law student mentor who already had served as a mediator for a semester. Students met with the professor supervisor for weekly meetings and additional supervision as needed. During the baseline semester, law students did receive some interdisciplinary training, consistent with state requirements for mediators; most of this training consisted of guest lectures by psychology faculty or other mental health experts. These lectures focused on topics such as psychological issues clients might face and

psychological competence to mediate, how to screen for domestic violence, and how to deal with difficult families. In preparation for the guest lectures, law students during the baseline semester also read a few psychology articles. During the baseline semester, due to the current study, other exposure to psychology occurred, in the form of knowledge test administration (the knowledge test had psychology questions on it) and participation in student focus groups that included law and psychology students. Thus, the main difference between baseline semester and the later interdisciplinary training semesters was that law students did not learn CF and CI mediation and did not work with psychology graduate student child consultants in the CF and CI divorce mediation interventions.

The rest of the study (i.e., 3 semesters) involved the new interdisciplinary training program for law student mediators. Law students participating in the CIMS research received the training and supervision described above for the baseline semester. In the new, interdisciplinary training, psychology professors involved in CIMS provided additional training in program evaluation research methods (to help law students understand the CIMS study) and psychological research (to help law students understand the issues that the child consultant might discuss with parents) and assigned more psychology articles to be read. The mediators had additional interdisciplinary training as they learned CI and CF mediation. Specifically, psychology faculty taught classes in which they lectured and held discussions introducing CI and CF mediation interventions, and law student mediators sometimes participated in role-plays of CF and CI mediation with psychology students. Then, as part of CIMS, law student mediators participated in CF and CI mediations. This included providing psychology child consultants with information about the case, reviewing the child consultant's plans for presenting the parents with feedback about their children, being present during the CF and CI parent feedback sessions led by psychology graduate students, and using the information the child consultant presented during the negotiation phase of mediation (when it was deemed appropriate to do so). Also, at least twice each semester, law student mediators and psychology graduate student child consultants met for joint case round discussions to discuss particular cases they had seen and ongoing training issues.

B. Measures.

Possible interdisciplinary training effects were measured with two outcome measures: 1) knowledge tests; and 2) student focus group discussions. Both measures were given at both the beginning and end of each semester (i.e., before and after training). Students were informed that the knowledge tests and focus groups would not be factored into their course grade. They were encouraged to try their best on the knowledge test and to feel free to discuss what they wanted in the focus groups. These steps were taken, after consultation with the university's Institutional Review Board, to ensure that student mediators' study participation was voluntary and thus not part of course requirements or linked to course grades. We wanted to minimize student concerns regarding how their law professor would evaluate them.⁸

⁸ This procedure, particularly for the knowledge test, might have been a study weakness because any lack of significant study findings could be due to a lack of student motivation to study and do well on the test. On the other hand, this procedure might be a study strength, as the knowledge test at the end of the semester most likely reflects information students learned and retained, not just temporarily memorized to pass the test.

Knowledge test. The knowledge test consisted of 60 multiple-choice questions with two scales. There were 31 questions in the law scale (e.g., “In Indiana, the court may not grant the divorce of a couple until 60 days after one spouse first files for dissolution [divorce], True or False.”). The psychology scale was further divided into two subscales. Twelve questions addressed program evaluation research methods (e.g., “In order to keep subjects in your experimental and control groups comparable on the variables you think might affect the study findings, you must use: a. Generalization, b. Control of the independent variables, c. Random assignment, d. Double blind placebo conditions, e. Random selection from the population of interest”), and 17 questions addressed psychology research on divorce (e.g., “A recent review of child custody evaluations concluded all of the following except: a. Tests designed to address relevant custody questions are not based on scientific evidence, b. There are well established studies documenting whether infants/toddlers are harmed by overnight visits, c. Constructs frequently used to justify conclusions in evaluations, such as ‘parent alienation syndrome,’ have never been scientifically tested, d. Evaluators frequently use well-validated measures that aren’t relevant to the court decisions.”).⁹ To maintain student confidentiality, law students did not put their name or any identifying information on their knowledge tests and the test was administered by an assistant, not the faculty involved in this study.

Focus group discussion. Focus group discussions were held to gather information on students’ knowledge, attitudes, and feelings concerning divorce, mediation, research, and interdisciplinary training. Psychology professors acted as facilitators for the law student discussions to decrease the possible effects of social desirability (i.e., law students might filter their comments for fear of being negatively evaluated by their law professor, particularly if they were to criticize that professor). The facilitators prompted students’ discussion with a list of questions, but also followed the natural flow of the discussion, so that not every question was asked in every focus group.¹⁰

Focus group discussion coding. We developed a system for coding the content of focus group discussions. The same coding system was applied to pre-training and post-training discussions, allowing direct comparison of discussions at the beginning and the end of the semesters. Observation of the group discussions demonstrated that the discussions often contained particular themes; codes were written to capture those themes.

Within certain topics of conversation (i.e., divorce, mediation, and research), codes captured students’ knowledge/understanding of the topic (e.g., “Students appeared to have confidence in their understanding of mediation”), sources of information about the topic (e.g., “Students discussed personal experiences outside of their class and the IU clinic as a source of knowledge about divorce”), and attitudes/feelings concerning the category’s topic (e.g., “Students discussed research in a positive light”). Other codes assessed the students’ discussion of their training goals included professional goals (e.g., “Students discussed wanting to learn, or having learned about, practical skills for future careers”) and personal goals (e.g., “Students wanted to learn, or discussed having learned about, relevant issues for personal reasons such as influencing their own relationships”). Some codes captured the extent to which the students discussed interdisciplinary training; one code measured the acquisition of new information from their experience with interdisciplinary training (e.g., “Students expressed gaining, or having a better grasp of, the concept of divorce, mediation, research, and psychology”) and four codes

⁹ The knowledge test is available from the authors, upon request.

¹⁰ The focus group questions are available upon request to the authors.

measured behaviors related to the enjoyment of interdisciplinary training (e.g., “Students spoke of having positive feelings about the interdisciplinary training experience”), a desire for more or continued interdisciplinary training (e.g., “Students mentioned a desire for the integration of disciplines”), frustrations due to the interdisciplinary process (e.g., “Students felt interdisciplinary training was more complicated than it was helpful”), and suggestions for additional interdisciplinary training (e.g., “Students expressed a desire for more preparation for mediation and examples of ideal interdisciplinary mediation”). Each code captures a specific behavior of interest and is followed by several descriptors/examples that clarify the behavior being measured.

Codes are rated on a zero to three scale, as follows: 0 = “Students do not engage in the coded behavior,” 1 = “Students engage in the coded behavior only slightly/briefly,” 2 = “Students engage in the coded behavior to a noticeable or moderate degree, but not extensively,” and 3 = “Students engage in the coded behavior a lot or extensively.” Each code was assessed once for the entire group; in other words, codes were not assigned to individual students participating in the discussion.¹¹ Due to idiosyncrasies across focus group discussions, a check box was also used to indicate that facilitators did not ask about a topic and thus the group had not engaged in the behavior.¹²

C. Procedure.

Data collection. For the baseline semester, eight law students completed knowledge tests and participated in focus group discussions at the beginning and end of the Spring 2009 semester. In each of the following three semesters, a new group of law students (8 in Fall 2009, 8 in Spring 2010, and 9 in Fall 2010) received training in the CI and CF mediation interventions and specialized interdisciplinary training through the implementation of the CIMS. In each of these semesters, the law students completed the knowledge test and participated in a focus group discussion at the beginning and end of the semester.

Coding of focus group discussions. Five undergraduate coders were trained to code the focus group discussions. Focus group discussions were coded in a random order. All of the focus group discussions were coded by all coders and checked for inter-coder reliability. Coders were aware of reliability checks and given feedback on a weekly basis. To determine inter-rater reliability, we utilized interclass correlation coefficients (Shrout & Fleiss, 1979). The interclass correlation coefficients for the codes used in study analyses ranged from .44 to .84 ($M=.70$).¹³ For each code, the average rating across the coders was calculated.

For data reduction purposes, we formed several *a priori* defined subscales, each averaging data across a group of related codes, and checked their internal consistency using Cronbach's alpha. These subscales were utilized for data analysis and were defined as follows: Training Goals ($\alpha = .74$; two items) measured the extent to which law students' expressed professional and personal goals for the course. Confidence/Enjoy ($\alpha = .86$; four items) measured the level of confidence the law student's expressed regarding their understanding of divorce, mediation, and research and the level of their enjoyment of the interdisciplinary training.

¹¹ Given concerns about student comfort, individual students were not forced to be involved in the discussion, and the level of participation varied across students, making it impossible to assign all codes to all students.

¹² The full coding manual, which includes codes not used in the present study, is available from the authors, upon request.

¹³ Detailed inter-rater reliability data are available from authors upon request.

Information from the Current Course ($\alpha = .91$; four items) assessed the extent to which law students mentioned the current course as a source of their knowledge about divorce, mediation, and research. Interdisciplinary Training Information/Enjoyment ($\alpha = .71$; two items) measured the extent to which law students expressed their belief that they had acquired new information from, and enjoyed, the interdisciplinary training.

Themes from focus group discussions. To obtain additional qualitative data regarding law students’ experiences with interdisciplinary training, we re-watched recordings of the focus group discussions, identifying themes that emerged and selecting quotes that exemplify these themes.

III. Results.

The present study examine the hypotheses that interdisciplinary training would result in: 1) increases in law students’ knowledge test scores; and 2) positive changes in the law students’ attitudes and knowledge about interdisciplinary work, as observed in focus group discussions.

Table 1. Knowledge Test Scores by question type for baseline and interdisciplinary Semesters.

Subscale	Baseline Semester				Interdisciplinary Semester			
	Pre (SD)	Post (SD)	<i>t</i> (df)	<i>p</i> (<i>d</i>)	Pre (SD)	Post (SD)	<i>t</i> (df)	<i>p</i> (<i>d</i>)
Law	18.13 (2.39)	22.69 (2.22)	-3.95 (7)	.00 (1.98)	16.12 (3.19)	21.90 (2.48)	-7.15 (24)	.00 (2.02)
PERM	4.75 (1.16)	4.75 (1.67)	.00 (7)	.50 (0)	4.76 (1.42)	5.52 (1.56)	-1.80 (24)	.04 (0.51)
PRD	11.06 (1.97)	10.75 (2.37)	.29 (7)	.39 (0.14)	9.80 (1.88)	11.02 (1.85)	-2.31 (24)	.02 (0.65)

Note: The total possible points for Law was 31 points. The total possible points for PERM (Program Evaluation Research Methods) was 12 points. The total possible points for PRD (Psychology Research on Divorce) was 17. Pre (Pre-training); Post (Post-training).

Knowledge Tests. One-tailed independent samples *t*-tests were run on knowledge test data¹⁴. We also examined effect sizes. The effect sizes in this study measure the magnitude of the effect that the interdisciplinary training had on law student knowledge (See Table 1).¹⁵

¹⁴ Ideally, dependent *t*-tests and/or paired, repeated measures ANOVAs would have been run to directly link individual students’ pre- and post-semester scores, but because no identifying information was gathered from the students, we were unable to match the pre-training knowledge test scores to post-knowledge test scores for individual students. Thus, we were forced to treat the two test scores (i.e., pre- and post-semester) as independent of one another although in reality they are not. However, we used the actual number of students in the study, rather than the inflated number created by treating the pre-training and post-training tests as independent samples, when computing degrees of freedom in our analyses.

¹⁵ Comparisons of law students’ scores, at the beginning of the baseline and interdisciplinary semesters revealed that there were no statistically significant differences between the groups’ pre-training scores on law ($t(31)= 1.63, p=0.11, d=.71$), program evaluation research methods ($t(31)= -0.02, p=0.99, d=-.01$), or psychology research on divorce questions ($t(31)= 1.63, p=0.11, d=.65$). However, examining the means at the start of the semester, baseline semester law students’ scores were noticeably higher than the scores of the students in the interdisciplinary semester for law question and research on divorce questions, suggesting that the students during the baseline semester entered the course with more knowledge of family law and psychology research findings regarding divorce. Law students’ end of semester scores were also compared across the baseline and

Baseline semester. Law students had statistically significant increases in their law knowledge from the beginning to the end of the semester ($d = 1.98$) but not in their knowledge of program evaluation research methods ($d = 0$) or psychology research on divorce ($d=.14$)

Interdisciplinary semesters. From the beginning to the end of the interdisciplinary training semesters, law students had significant increases in their law knowledge ($d = 2.02$), with the magnitude of the effects comparable to the baseline group. In addition, they had statistically significant increases in their understanding of findings from psychology research on divorce ($d = .51$) and knowledge of program evaluation methods ($d = .65$).

Focus Group Discussions

Baseline semester. As there was only one group of baseline semester students, and discussion was coded at the level of the group, statistical analyses could not be run on the baseline semester scores. However, examination of Table 2 indicates that law students were less likely to discuss their goals for training at the end of the semesters than at the beginning. Their level of discussion on the other subscales increased from the beginning to the end of the semester, reflecting increased confidence in their knowledge of topics (divorce, mediation, research), expressing that they had acquired information from the current course, and having enjoyed interdisciplinary training (i.e., law students did receive some interdisciplinary training during the baseline semester).

Table 2. Focus group discussions for baseline and interdisciplinary semesters.

Coding Subscale	Baseline Semester		Interdisciplinary Semester			
	Pre	Post	Pre (SD)	Post (SD)	<i>t</i> (df)	<i>p</i> (<i>d</i>)
Training	2.10	.60	2.10 (.28)	1.25 (.35)	17.00 (1)	.02 (-2.65)
Confidence	1.73	2.80	1.35 (.22)	2.57 (.14)	-10.12 (2)	.00 (6.60)
Course	.55	2.65	0.67 (.36)	2.30 (.22)	-9.69 (2)	.01 (5.49)
Enjoyment	.60	2.40	1.25 (.21)	2.65 (.07)	-7.00 (1)	.05 (8.85)

Note: * = $p \leq .05$. ** = $p \leq .01$. *** = $p \leq .001$. Training (Training Goals); Confidence (Confidence and Enjoyment); Course (Information from the Current Course); Enjoyment (Interdisciplinary Training Information/Enjoyment); Pre (Pre-training); Post (Post-training).

Interdisciplinary semester. One-tailed dependent samples t-tests and effect sizes were conducted on focus group discussion across the three interdisciplinary semesters. See Table 2.

interdisciplinary semesters and no statistically significant differences were found between groups’ post-training scores on law ($t(31) = 0.80, p = 0.43, d = .34$), program evaluation research methods ($t(31) = -1.20, p = 0.24, d = -.48$), or psychology research on divorce questions ($t(31) = -0.34, p = 0.74, d = -.48$), although examination of the means suggests that students during the interdisciplinary semester ended with higher knowledge scores on the questions regarding program evaluation research methods and psychology research on divorce.

Law students discussed professional and personal training goals less at post-training than at pre-training ($d = -2.65$). Overall confidence in their knowledge of divorce, mediation, and research ($d = 6.60$) increased for law students from pre-training to post-training. The current course was discussed as a source of students' knowledge about divorce, mediation, and research more extensively post-training than it was pre-training ($d = 5.49$). Students expressed that they enjoyed the interdisciplinary training more at post-training than they did pre-training ($d = 8.85$).¹⁶

Themes from Focus Group Discussions

Similarities across baseline and interdisciplinary semesters. In general, law students in both baseline and interdisciplinary training semesters reported that they had gained practical skills applicable to future careers and felt positively about the mediation process as an alternative to litigation.

Prior to training in mediation, law students in both the baseline and interdisciplinary training semesters expressed excitement about the experiential learning component of their mediation clinic training. For example, at the start of the semester (pre-training), a baseline semester student said, "The thought of being able to be *so hands on* while a law student was really appealing. . .", and a student receiving interdisciplinary training stated, "*Practically*, this experience will be helpful for dealing with clients in the future. . .".

At the end of both the baseline and interdisciplinary training semesters, the law students were, indeed, pleased with their experiential training and believed that it would influence their future careers. A baseline student, at post-training, stated, "When you learn how to listen to people the way you do in mediation . . . the skill applies to other settings [like] when you are talking to your clients or when you are preparing for trial." Similarly, an interdisciplinary training law student, at post-training, noted, "I learned how to transition from advocate to neutral. It's a different approach where you shift your mindset to stay neutral. It was very helpful."

Prior to receiving training, both baseline and interdisciplinary law students expressed concerns about how courts handle custody decisions and the ability of judges to do so in a way that would benefit the child. For example, according to a baseline student at the start of the semester (pre-training), "Knowing the legal standards and the best interests' analysis and the enormous discretion the court has, I like the idea of taking lots of things into account. It's scary because judges are human beings too. They have a big docket and have to do the whole process and I don't think anyone could do a good job or make a good determination, but this is how we do it: judges decide. I don't know if that's the best decision." Similarly, an interdisciplinary training student, at pre-training, stated, "It seems like *mediation would be better than having some judge say what to do*. You're working together and you feel like you have more control over the outcome. It seems to me that they would be happier. They're divorced but it's better than walking into *a combative court proceeding*."

After receiving training in mediation (at the end of the semester), both baseline and interdisciplinary training law students were even more aware of the inherent difficulties, such as

¹⁶ Given the small sample size and nature of the data gathered, it may be controversial to analyze the focus group data with dependent samples t-test. Thus, we also examined the rank order changes for each subscale and each of the three interdisciplinary training semesters. We found the same pattern of results as we did for the dependent samples t-tests. For example, in each interdisciplinary training semester, the mean rank of training goals from pre-training to post-training changed in the negative direction and the mean rank for confidence and enjoyment changed in the positive direction from pre-training to post-training. These analyses are available from the authors upon request.

time constraints, of the court system for families going through divorce or separation. They continued to have concerns about the court's role in custody decisions. For example, one baseline semester student, at the end of the semester noted, "I'm more skeptical of decisions made by judges after the twenty minute hearing and reading the case file now. There have been mediations where I was thinking one thing for the first two or even four hours, but after several hours of conversation you discover these game changing facts. I don't think the judges are that much quicker about figuring these things out in their twenty minutes to have the whole picture and make a meaningfully informed decision." Indeed, at the end of the semester, both baseline and interdisciplinary training law students felt that mediation was a better option for their clients than court. For example, students stated, "...*When mediation works for a couple, it really works* and the outcomes are really good and you can tell that's really going to work for them," and "Every couple I had seemed to *really like the process a lot*. It seemed *really empowering* to them to have some control over decision making."

Differences across baseline and interdisciplinary semesters. Students' quotes revealed that students in interdisciplinary, but not baseline training, believed they had benefited from interdisciplinary training as they had become more aware of issues they had not previously considered. Also, students in the interdisciplinary training appreciated learning about a different discipline and receiving the real world experience of working with other professionals. These students endorsed ideas suggesting that they were more likely to work across disciplines in the future and carry what they learned in interdisciplinary training into their professional careers.

Before the start of training, both baseline and interdisciplinary students expressed a desire to learn more about research and relevant data. One baseline student, at the start of the semester, said, "*I'd like to know* how it plays out over time if a couple who divorces has high or low conflict ... How does conflict change over time?" Another baseline student, at pre-training, noted, "I don't know anything about research." Similarly, at the start of the semester, a student about to receive the interdisciplinary training stated, "I only know stereotypes probably because I've heard it on the news or *Maury*," and another interdisciplinary training student said, "*Learning how to evaluate* interventions based on psychological research *would be helpful...*".

At the end of training, baseline law students continued to have a desire for information about research. At the end of the semester, one baseline student stated, "*I want to know more* about the child inclusive mediation process ..." while another baseline semester student added, "*I'd like to see a study* that compares the long term durability of agreements reached through a very directive mediation style versus a more facilitative mediation style ...".

In contrast, post interdisciplinary training law students clearly had gained experience with research. On the one hand, they were grappling with some of the frustrations experienced in research. One interdisciplinary training student, at post-training, reported, "I think the most frustrating thing for me was the *random assignment*. I just kept on getting divorce mediation as usual ...", while another said, "I never realized *how reluctant people are to participate in research*. I was surprised by parents' resistance." But the law students who received interdisciplinary training also were quite positive about their exposure to research knowledge and training. For example, an interdisciplinary training student, at post-training, said, "*I learned a lot about research* on divorce and mediation... *I find myself referring to information given by the psychology faculty* when I'm talking to my parents. I tell people about mediation and random assignment ...", and another student who received interdisciplinary training said, "*I learned all my research knowledge* from the child feedback session." As a final example, an interdisciplinary training law student, post-training stated, "I liked that *the psychology department came in and*

told us ... the way the study works and how it is designed ... and this is what we're hoping to accomplish and yes there are flaws... I like that transparency and that honesty in what we were doing."

At the beginning of training, baseline law students made no mention of interdisciplinary training; however, by the end of the semester, they wanted such training in the future. Such statements, made by baseline semester students at the end of the semester, included: "I'd like to hear from *psychology faculty* a little bit more ..."; "The day we just sat down with psychology students (i.e., focus group discussion) it was good to see the difference in views between people."; and "I'd like to see *psychology students mediating with law students ...*". In contrast, at the start of the interdisciplinary training semesters, law students were excited about the interdisciplinary training that they were going to receive. One such student said, "*I'm psyched to be working with the psychology department. It's very different from what we do on a day-to-day basis. We do custody battles ...*", and another said, "*I'm excited to work together ...*".

And at the end of the training, law students in the interdisciplinary training semesters expressed how much they had enjoyed the interdisciplinary training. Example statements include: "Interdisciplinary training was really helpful. Sometimes we couldn't tell what it was because *it went hand in hand so well ... It was so intertwined that it just flowed. I'm appreciative to have had it. It definitely helped.*"; "It's nice to have the child feedback session so that what you're thinking in your head comes out through the child consultants."; and "Child consultants could get parents focused on the best interests of [the child]. Recently we did a child inclusive mediation and the parents ... were very emotional when [they learned about] their daughter's reaction to the divorce and how their actions [were impacting] their daughter ...".

V. Discussion.

A. Overview of Major Findings.

Theoretically, the field of family law would benefit from the development of interdisciplinary training programs for its students, and in recent years, such programs have been implemented. However, few of these programs have been empirically studied or validated. Thus, there is no guarantee that law students are indeed benefiting from the added training components. The goal of this study was to learn if law students receiving training in family mediation benefited from interdisciplinary training with psychology. The Child Informed Mediation Study (CIMS) incorporated interdisciplinary training of law students while conducting CI and CF mediation interventions (Ballard et al., in press).

The results provide evidence that interdisciplinary law and psychology training increases knowledge gained by law students. Law students experienced significant increases in their knowledge of relevant family law after both baseline training and interdisciplinary training. This is important because it demonstrates that adding a psychological component to law student training does not reduce the students' gains in relevant law information. The interdisciplinary training had the added benefit of increasing law students' knowledge of psychology research findings on divorce and program evaluation research methods, increases not seen among law students in the baseline semester. Such knowledge gains may help law students in real world future family law careers and in understanding the new evidence-based practice movement in law.

Analyses of focus group discussions also suggest that interdisciplinary training had a beneficial impact on the law students' educational experience. Analyses revealed significant differences from pre-training discussions to post-training discussions. Law students had greater confidence in their understanding of mediation and research after receiving interdisciplinary training. Getting to work with another discipline was also associated with gaining new information and enjoyment of the process for law students. This is similar to findings from medicine where the interdisciplinary training of medical doctors with nurses was reported as a valuable learning experience (Croen, Hamerman, & Goetzwl, 1984).

Unfortunately, we were unable to statistically compare the changes within baseline focus group discussions to the changes within interdisciplinary semesters. Visually, we see similar patterns of results for both types of training, but we are unable to statistically determine if the magnitude of change is equivalent across the two training methods. However, the qualitative student quotes, from the focus group discussions, provide further support for the benefits of the new, interdisciplinary training. While both baseline and interdisciplinary semester students described a desire for interdisciplinary training at the start of the semester, at post-training, students in the interdisciplinary semester also expressed that they thoroughly enjoyed the interdisciplinary training they received, felt they had obtained a better understanding of the complexities and difficulties inherent in psychological research, and felt that this knowledge would impact the way they would approach family law in the future.

B. Study Limitations and Future Studies.

A major limitation of this study was the small sample size. Data were collected for four semesters, only one of which was a baseline semester, limiting the number of students involved and the statistical techniques that could be used. To date, in this research area, it has been difficult for any one study to include large samples because training of clinicians is an intense experience that tends to occur in small groups and involves limited numbers of students each semester. Thus, for example, it took us two years to gather data from even our small sample. Given this issue, additional studies clearly are needed. The field needs to replicate research, with a goal of eventually being able to conduct reviews and meta-analyses across multiple smaller studies to examine whether there is converging evidence for the benefits of interdisciplinary training across studies.

As this clinical training opportunity was an elective course within the law school, we were unable to randomly assign the law students to the family mediation course or not. We also were unable to randomly assign students to receive training as usual or interdisciplinary training due to the limited number of students and faculty available to run such programs (e.g., we could not run both types of training simultaneously because there was only one law professor available to teach the program). The methodological weakness of lack of random assignment is a difficulty in this area of research; for example, Colarossi and Forgey (2001) were unable to randomly assign their participants to a control condition. While our baseline comparison group data was collected the semester prior to our interdisciplinary semesters (i.e., no random assignment), one strength of our study is that both our baseline and interdisciplinary semester law students received similar training in mediation (e.g., the same 40 hour mediation course taught by the same professor); the only difference for the interdisciplinary semester was the added interdisciplinary components, helping to isolate the effects of the new training. Additionally, it is unlikely that students in the baseline and interdisciplinary semesters would have differed in their

initial interest in interdisciplinary work, as at the time students asked to register for the course, they were unaware of the new interdisciplinary training. This builds confidence that our results are due to the interdisciplinary training rather than other factors.

Another limitation of this study was the inability to connect the pre-training and post-training knowledge test scores of individual students, which limited the types of statistical analyses we could conduct. In the future, assigning each student a research identification number could link knowledge tests from the beginning and end of the semester. This would allow researchers to examine the changes for individual students across the semester. Additionally, depending on the recommendation of Institutional Review Boards, future researchers should weigh the pros and cons of grading the student knowledge tests to maximize student preparation for the tests. Similarly, our focus group analyses were limited due to coding discussions at a group level. In the future, focus group discussions could be replaced with individual student interviews that could be coded at the level of the individual, increasing the sample size and allowing pre- and post-semester repeated measure statistical analyses. Doing so would also allow future researchers to examine varying effects of the interdisciplinary training across individual students; for example, perhaps some students liked it more than others and those students may have been more vocal in the focus group discussions, despite the facilitators' efforts to involve all students.

Interdisciplinary work and teaching had already begun during the baseline semester as a collaborative working relationship was established to plan the interdisciplinary project. This might explain, for example, why baseline semester students discussed how much they learned from interdisciplinary training. This finding suggests that a little interdisciplinary training may go a long way, as law students expressed appreciation for the little time they spent with psychology personnel during the baseline semester. It also highlights the difficulties of obtaining a "pure" baseline semester while the faculty are designing and implementing studies of interdisciplinary training; for example, during our baseline semester, psychology faculty were visiting the clinic and talking to the law professor, perhaps creating a positive "buzz" about interdisciplinary training.

C. Implications.

We found converging evidence, from both quantitative (knowledge test and focus group coding analyses) and qualitative (focus group quotes) data, of the positive effects of interdisciplinary training on law students. Opportunities to do research in a real world setting are rare and challenging. Such research requires decisions to be made that optimize internal validity (i.e., a tightly control study) instead of external validity (i.e., less control but more generalizability to other samples). While the nature of this research does not allow for the utmost methodological rigor, it is worthwhile as there are so few empirical studies of interdisciplinary training of law students. But interdisciplinary training should continue to be researched in different university settings and with different disciplines that cross paths in the real world.

The current study results also support calls for increased interdisciplinary training in other areas of teaching and learning. For example, while medical training has become more specialized, patient care is increasingly complex and thus requires medical experts to work well with interdisciplinary teams to provide optimal care; thus, it is the job of faculty to prepare medical students for their careers through interdisciplinary education (Hall & Weaver, 2001). Similarly, business schools emphasize integrating education across disciplines to teach students

how to apply their knowledge to the industries for which they will work upon graduation (Ducoffe, Tromley, & Tucker, 2006). And experts in the field of psychology recommend training clinicians in diverse interdisciplinary topics (Spirito et al., 2003). While interdisciplinary training is intuitively appealing, further research is needed to better understand the benefits and the best teaching methods. The current study is one of very few studies to attempt to do just that.

Acknowledgements

This work was supported by the Scholarship of Teaching and Learning Grant at Indiana University, Bloomington. The authors would like to thank Robin Ballard and Fernanda Rossi for their contributions to the research project, the undergraduate research assistants who coded the focus group discussions, and the law student mediators who participated in the project.

References

- Applegate, A.G., D'Onofrio, B.M., & Holtzworth-Munroe, A. (2009). Training and transforming students through interdisciplinary education: The intersection of law and psychology. *Family Court Review*, 47, 468-484.
- Ballard, R. H, Holtzworth-Munroe, A, Applegate, A. G, D'Onofrio, B. M, & Bates, J. E. (in press). A randomized controlled trial of child informed mediation. *Psychology, Public Policy, and Law*.
- Bautz, B.J., & Hill, R.M. (1991). Mediating the breakup: Do children win? *Conflict Resolution Quarterly*, 8(3), 199-210. doi: 10.1002/crq.3900080305
- Beck, C.J.A., Sales, B.D., & Emery, R.E. (2004) Research on the impact of family mediation. In J. Folberg, A.L. Milne, & P. Salem (Eds.), *Divorce and Family Mediation* (pp. 447-482). New York: The Guilford Press.
- Benjamin. M., & Irving. H.H. (1995). Research in family mediation: Review and implications. *Conflict Resolution Quarterly*, 13(1), 53-82. doi: 10.1002/crq.3900130107.
- Colarossi, L., & Forgey, M.A. (2001) Evaluation study of an interdisciplinary social work and law curriculum for domestic violence. *Journal of Social Work Education*, 42, 307-323. doi: 10.5175/JSWE/2006.200400497
- Croen, L. G., Hamerman, D., & Goetzel, R. Z. (1984). Interdisciplinary training for medical and nursing students: Learning to collaborate in the care of geriatric patients. *Journal of the American Geriatrics Society*, 32(1), 56.
- Ducoffe, S.J.S., Tromley, C.L., & Tucker, M. (2006). Interdisciplinary, team-taught undergraduate business courses: The impact of integration. *Journal of Management Education*, 30, 276-294.
- Emery, R.E., Laumann-Billings, L., Waldron, M.C., Sbarra, D.A., & Dillfon, P. (2001).

Child custody mediation and litigation: Custody, contact, and coparenting 12 years after initial dispute resolution. *Journal of Consulting and Clinical Psychology*, 69, 323-332. doi: 10.1037//0022-006X.69.2.323

Emery, R.E., Otto, R.K., & O'Donohue, W.T. (2005) A critical assessment of child custody evaluations: Limited science and a flawed system. *Psychological Science in the Public Interest*, 6(1), 1-29. doi: 10.1111/j.1529-1006.2005.00020.x

Emery, R.E., Matthews, S.G., & Wyer, M.M. (1991). Child custody mediation and litigation: Further evidence on the differing views of mothers and fathers. *Journal of Consultation and Clinical Psychology*, 59(3), 410-418.

Emery, R.E., Sbarra, D., & Grover, R. (2005). Divorce mediation: Research and reflections. *Family Court Review*, 43(1), 22-37.

Emery, R. E., & Wyer, M. M. (1987). Divorce mediation. *American Psychologist*, 42, 472-480.

Hafemeister, T.L., Ogloff, J.R., & Small, M.A. (1990). Training and careers in law and psychology: The perspective of students and graduates of dual degree programs. *Behavioral Sciences and the Law*, 8, 263-283. doi: 10.1002/bsl.2370080308

Hall, P., & Weaver, L. (2001). Interdisciplinary education and teamwork: A long and winding road. *Medical Education*, 35, 867-875. doi: 10.1046/j.1365-2923.2001.00919.x

Hill, C.E. (1981). A longitudinal analysis of changes in counseling skills during doctoral training in counseling psychology. *Journal of Counseling Psychology*, 28(5), 428-36.

Holtzworth-Munroe, A., Applegate, A.G., & D'Onofrio, B.D. (2009). Family dispute resolution: Charting a course for the future. *Family Court Review*, 47, 493-505.

Holtzworth-Munroe, A., Applegate, A.G., D'Onofrio, B., & Bates, J. (2010). Child informed mediation study (CIMS): Incorporating the children's perspective into divorce mediation in an American pilot study. *Journal of Family Studies*, 16, 116-129. doi: 10.5172/jfs.16.2.116

Kelly, J. B. (1996). A decade of divorce mediation research: Some answers and questions. *Family and Conciliation Courts Review*, 34, 373-385. doi: 10.1111/j.174-1617.1996.tb00427.x

Leung, W.C. (2002). Competency based medical training: Review. *BMJ: British Medical Journal*, 325(7366), 693.

McIntosh, J.E. (2000). Child-inclusive divorce mediation: Report on a qualitative research study. *Mediation Quarterly*, 18(1), 55-69. doi: 10.1002/crq.3890180106

McIntosh, J.E., Wells, Y.D., & Long, C.M. (2009) *Children beyond dispute: A four year follow up study of outcomes from Child Focused and Child Inclusive post-separation family dispute resolution*. Victoria, Australia: Family Transitions. Retrieved November 4, 2012 from <http://www.ag.gov.au/Publications/Pages/ChildrenBeyondDisputeApril2009.aspx>

McIntosh, J.E., Wells, Y.D., Smyth, B.M., & Long, C.M. (2008, January). Child-focused and child-inclusive divorce mediation: comparative outcomes from a prospective study of postseparation adjustment. *Family Court Review*, 46, 105-124. doi: 10.1111/j.1744-1617.2007.00186.x

O'Connell, M.E., & DiFonzo, J.H. (2006, October). The family law education reform project final report. *Family Court Review*, 44, 524-570. doi: 10.1111/j.1744-1617.2006.00107.x

Rachlinski, J. (1999). New law and psychology: A reply to critics, skeptics, and cautious supporters. *Cornell Law Review*, 85, 739-766.

Riley, P., Hartwell, S., Sargent, G., & Patterson, J.E. (1997) Beyond law and ethics: An interdisciplinary course in family and family therapy. *Journal of Marriage and Family Therapy*, 23, 461-476. doi: 10.1111/j.1752-0606.1997.tb01057.x

Schepard, A., & DiFonzo, J.H. (2011, October). Hofstra's family law with skills course: Implementing FLER (the family law education reform project). *Family Court Review*, 49(4), 685-699. doi: 10.1111/j.1744-1617.2011.01405.x

Seibel, R.F., Sutton, J.M., & Redfield, W.C. (1985). An integrated training program for law and counseling. *Journal of Legal Education*, 35, 206-212.

Shrout, P., & Fleiss, J. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420-428.

Spirito, A., Brown, R.T., D'Angelo, E., Delamater, A., Rodrigue, J., & Siegel, L. (2003). Society of pediatric psychology task force report: Recommendations for the training of pediatric psychologists. *Journal of Pediatric Psychology*, 28, 85-98.

Tapp, J.L. (1976). Psychology and the law: An overture. *Annual Reviews of Psychology*, 27, 1-48. doi: 10.1146/annurev.ps.27.020176.002043