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Evaluation of an On-line Parenting and Divorce Course: Effects of Parent Knowledge and Skills among Court-mandated Parents of Divorce

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There are very few evidence-based parent education programs focused on divorce even though more and more state court systems are requiring them. This study builds the evidence-base by using a population of parents who were court-mandated to take a parenting class as part of their divorce proceedings. With over 800 parents in the study, we found the on-line parent education program increased parent knowledge of skills in effective communication and parenting immediately after the course, and parents retained their knowledge and skills 30-days after the course. Qualitative analysis indicated parent-reported changes in their behaviour after the course as well.

Keywords: parents and divorce; on-line parent education; parenting skills; program evaluation; longitudinal analysis

Introduction

Divorce is one of the most stressful life events for parents and children alike (Brotherson, White, & Masich, 2010). This stressful event is also very common in the United States. Almost half of marriages in the United States end in divorce (Bramlett &

Mosher, 2002). Further, upon divorce from a first marriage, divorce of a second marriage is even higher (Bramlett & Mosher, 2002).

Within this context, research has shown the consequences of divorce on parents, such as stress about financial stability (Grall, 2007) and psychosocial and mental well-being (Wood, Crane, Schaalje, & Law, 2005). Research also has shown the consequences of divorce on children and youth, such as decreases in academic achievement (Amato & Keith, 1991; Anderson, 2014; Brooks, 2006; Grych & Fincham, 1992; Jeynes, 2002), psychosocial and mental health (Kelly, 2000; Nunes-Costa, Lamela, & Figueiredo, 2009), physical health (Nunes-Costa et al., 2009), and increases in risky behaviours (Jeynes, 2001). To ease the transition of divorce, more states across the country are requiring parent education programs as part of divorce proceedings (Arbuthnot, 2002; Blaisure & Geasler, 1996), as judges are highly supportive of parent education programs to support children and youth (Fischer, 1998).

Typically, in the United States, parent education programs for divorcing parents occurs after the parents decide to separate or divorce. Therefore, the goal of parent education programs for divorcing parents is specific to teaching positive parenting behaviours so that parents and their children can better transition into a new family structure. These programs teach divorcing parents about how separation and divorce create stress on their children, such as children's perspective and the emotional impact of separation and divorce, and how to effectively parent and communicate with the ex-spouse and children. These programs can range in duration, from a one-hour lecture to a yearlong program, in delivery mode, from face-face to on-line, and in content, from emphasis on developing parenting skills to knowledge of child development. While there is some evidence of the effectiveness of such programs on parent knowledge and

behaviours, the evidence-base is limited and even more so for on-line programs. Given the current context of the global pandemic, this study addresses the need to access parent education programs for divorcing parents virtually.

In the United States, Certevia ® Education Program has been a provider of parent education programs since 1990. Certevia ® provides curriculum, instruction, and testing for programs mandated by a government entity in the United States, such as counties and states. One course they offer is a court-ordered parenting class for divorcing parents and never married parents. Certevia® Education Program's Parenting and Divorce (PaD) program was developed to meet state and county requirements for parent education programs for divorcing parents, including increasing parent knowledge, improving parenting skills, and improving child outcomes. The PaD program has either a face-face or a 100% virtual option. Given the lack of research evidence on on-line parenting programs for divorcing parents, this study is one of the first to research the effectiveness of a 100% virtual parent education program across two states in the United States.

The purpose of this study was to examine changes in parent knowledge of effective parenting skills and communication as a result of participation in an on-line parent education program. The external evaluation of Certevia® Education Program's Parenting and Divorce (PaD) program featured a longitudinal analysis of parent knowledge across three timepoints, at baseline, end-of-course, and 30 days after the course. The main research questions were:

- (1) What is the effect of an on-line parent education program on knowledge of parenting skills immediately after the course, and 30-days after the course?

- (2) Are there differential effects of an on-line parent education program on knowledge of parenting skills based on parent gender, race/ethnicity, and age?

The study examined change over time in parent knowledge across two domains:

- (1) Knowledge of impact of parent conflict, and (2) Knowledge of positive parenting.

Research has shown the importance of these two domains to parents' ability to provide positive co-parenting skills and behaviours (Brotherson et al., 2010; Shifflet & Cummings, 1999). These skills have been shown to help change behaviours of parents (Brotherson et al., 2010). There is some evidence that parent education program can have long-term impacts even after a year (Stallman & Sanders, 2014) and directly impact parenting behaviour (Brotherson et al., 2010; Shifflet & Cummings, 1999).

Effectiveness of Parent Education Programs for Divorcing Parents

Research has shown that it is not enough for parents to be involved in their children's lives to help mitigate stress and distress during divorce (Jeynes, 2002). Over the past twenty years, research has shown the positive effects of parent education programs among divorcing parents, though albeit limited (Arbuthnot, 2002; Grych & Fincham, 1992). These parent education programs feature developing parents' knowledge of the consequences of parent conflict on their children, such as via insight-oriented marital therapy techniques (Dunn & Schwebel, 1995; Wood et al., 2005), and parenting and communication skills, such as conflict management and effective co-parenting communication (Kelly, 2000, 2003; Sigal, Sandler, Wolchik, & Braver, 2011), to help mitigate sources of stress for children.

Overall, parent education programs provide learning opportunities for parents to improve their co-parenting communication and skills. Stallman and Sanders (2014)

conducted a randomized control trial of a 12-session group parent education program (equivalent to a year-long program). Among the sample of 204 parents who had been divorced for less than two years (with children ages 2-14 years old), parents were randomly assigned into a control group, a parent education group, or a parent education group with enhanced engagement (parents received 12 additional telephone calls to remind parents of the upcoming class). After a year, parents in the parent education program (regardless of the standard or enhanced engagement class) reported less parental distress and improvements in co-parent communication, as compared to the control group. While the study provides one of the few random assignment studies in this area, the parents recruited for the study were highly motivated to learn. The primary inclusion criteria for parents were parent concerns about coparental conflict, parenting in general, or child behaviours (Stallman and Sanders 2004). Indeed, these parents were self-motivated to take part in a year-long course, and the course provided valuable information for these parents to improve co-parent communication.

A more typical approach is a brief program or intervention. Blaisure and Geasler (1996) found that 95% of court-affiliated programs consisted of only one or two meetings with parents. Research has shown how a mere four-hour parent education program can have a positive effect on parent knowledge and behaviour (Arbuthnot & Gordon, 1996; Brotherson et al., 2010; Shifflet & Cummings, 1999). For example, Shifflet and Cummings (1999) tested a four-hour parent education program on a group of 39 parents, where parents in the treatment group had positive effects on parent self-reports of knowledge and behaviour of interparental conflict. More recently, Brotherson (2010) tested a four-hour divorce education program with 342 parents, where parents

reported significant knowledge gains through the class experience. Key features of these brief parent education program include:

- Duration: Between 1 to 6 hours of instruction;
- Delivery Mode: Between 1 to 3 class sessions focused on learning or support;
- Program Content: Knowledge building of divorce process, minimizing conflict, understanding children's needs and responses to divorce, and accessing resources; and
- Content Alignment: Content delivered to meet community needs and court system requirements (Brotherson et al., 2010).

Among court-affiliated brief parent education programs, studies have consistently found positive effects on parent knowledge (Arbuthnot & Gordon, 1996; Brotherson et al., 2010; Shifflet & Cummings, 1999). However, methodologically, sample sizes have been small with limited information about sustained long-term effects (e.g., retention of knowledge).

Evaluation of an On-Line Parent Education Program for Divorcing Parents

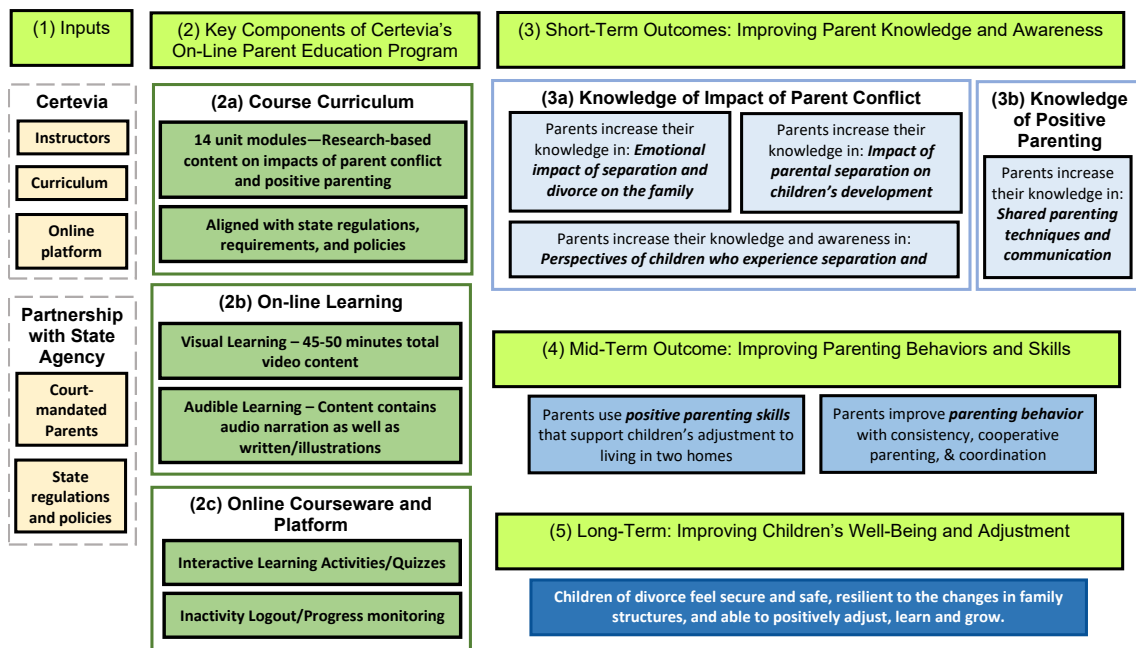
Certevia® Education Programs provide curriculum, instruction, and testing for County, State, and Nationally mandated programs. Among their programs is a court ordered parenting course for divorcing couples called Parenting and Divorce (PaD) course (Figure 1 logic model). The Parenting and Divorce (PaD) course has three key components, as shown in column 2 of Figure 1. The first is the course curriculum, which is research-based and aligned with state regulations, requirements, and policies. The course is 14-unit modules with research-based content on the impact of parental conflict on children and positive parenting. The second component is the on-line

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learning instruction that includes both visual instruction via 45-50 minutes of video content and audible learning of audio narration, written documents, and illustrations. The third component is the online courseware and platform, where there is interactive learning activities and formative quizzes, progress monitoring, and other online features to engage parents in the course and materials. These three key components make up the learning experience for parents. It is important to note that the on-line parent education program is longer than the 1 to 6-hour duration of a typical brief parent education program. However, because the program is on-line, parents can complete the 14-unit program at their own pace. The average time to complete the course is 7.5 hours of course time.

Short-term outcomes, shown in column 3 of Figure 1, include the knowledge and awareness gained by parents upon completion of the PaD course. The knowledge gained includes knowledge in two key domains: Knowledge of impact of parent conflict on the child(ren), and Knowledge of positive parenting. With this knowledge base, the parents are better equipped to improve and change their parenting behaviours. The long-term goal of the program is for parents to utilize the knowledge gained through the course to enact changes in their parenting behaviours, to use positive parenting skills to support children's adjustment to living in two homes, and to improve their parenting behaviour with consistency, cooperative parenting, and coordination. The goal, and the reason for the court-mandated action, is for the child(ren) to feel secure and safe, resilient to the changes in family structures, and able to positively adjust, learn and grow.

Figure 1: Logic model of the on-line parent education program



This study looks specifically at parents who were court-mandated to take a parent education program as part of their divorce court proceedings. Unique features of the study include a larger sample size of court-mandated parents across two states, a longitudinal approach with three time points of data, and qualitative analysis of open-ended questions to provide additional context from parents.

Materials and Methods

The study was an evaluation of the PaD program and used secondary data obtained from Certevia® Education Program. Therefore, the study was exempt from Institutional Review Board for the Protection of Human Subjects because of the evaluative nature of the study and the sole use of secondary data. The researchers did not collect data from study subjects, nor have access to personally identifiable information (PII) data. All PII information were stripped prior to obtaining programmatic data from Certevia® for analysis.

Sample

The sample included parents from North Carolina and Florida mandated by the courts to take a parent education course as part of their divorce proceedings. The sample was a sample of convenience with Certevia® providing the on-line program to these two states court systems during the time of the study. These parents took the PaD on-line course between March 2019 and August 2019. For the baseline assessment, 1,427 parents responded. For the end-of-course (EOC) assessment, there were 1,448 parents responding.

A total of 1,271 parents responded to both the baseline assessment and EOC assessment. These parents represent the analytic sample, and demographic characteristics of this sample are provided in Table 1. Of the 1,271 parents in the analytic sample, the majority were white, between the ages of 25 to 44, and from Florida. Approximately half were female, and half were male.

For the 30-day follow-up assessment, of the 1,271 parents who responded to the baseline and EOC assessment, 197 parents also responded to the follow-up assessment (Table 1). The follow-up sample was 54% female, 61% white and 28% black. Seventy-five percent of these parents were between the ages of 25 to 44, and 64% were from Florida.

Table 1: Demographic characteristics of the parents immediately after the course and 30-days after the course

Demographic Information	End-of-Course Sample (Total N = 1,271)		Follow-up Sample (Total N = 197)	
	Count (N)	Percent (%)	Count (N)	Percent (%)
Gender				
Female	616	48	107	54
Male	647	51	89	45
Race				
White	850	67	121	61
Black	237	19	56	28
Asian	41	3	5	3
Other	143	11	11	6
Ethnicity				

Hispanic	248	20	21	11
non-Hispanic	1,015	80	175	89
Age				
18-24 years of age	61	5	13	7
25-34 years of age	415	33	69	35
35-44 years of age	519	41	79	40
45-54 years of age	221	17	30	15
55-64 years of age	42	3	5	3
65 years and over	5	1	0	0
State				
North Carolina	181	14	71	36
Florida	1,090	86	126	64

Data Collection

The parent knowledge assessment was developed by the program developer and included 25 multiple choice items that covered the overall content of the on-line parent education program and across two domains. The parent knowledge assessment was developed by modifying extant survey measures on parent knowledge (Kiplinger & Browne, 2014; Gilmore et al, 2008; FRIENDS, 2011), aligning with key learning objectives of the PaD course, and ensuring robust psychometric properties of each domain by external researchers. Rather than directly using extant standardized measures of parent knowledge, the program developers and researchers developed a parent assessment that could be completed within 10-15 minutes to increase response rates, aligned to key components and learning objectives of the program, and included one open-ended question for research purposes.

The Knowledge of impact of parent conflict included three constructs: Emotional impact of separation and divorce on the family, Impact of parental separation on children's development, and Perspectives of children who experience separation or divorce. The Knowledge of positive parenting domain includes one construct of Shared parenting techniques and communication. The four constructs were measured with

between four to nine items. To pass the course (as part of their court-mandated requirement), parents must answer 18 or more items correctly (72% correct or above) on the 25-item assessment after completing the course.

For the purpose of the study, the course administrators administered the parent knowledge assessment to all participating parents at three time points:

- **Baseline.** When parents signed up for the on-line course, they were given the assessment of knowledge prior to any course materials. As part of the parent application for the course, parents also provided demographic information such as their gender, race/ethnicity, and age range.
- **End of Course (EOC).** Once parents completed all 14 units of the course, they were given the same assessment of knowledge (EOC).
- **30-day Follow-up.** Thirty days after the course, parents were asked to complete the same knowledge assessment as the baseline and EOC. This 30-day follow-up assessment was voluntary for parents, but they received an incentive for completing the assessment (a \$25 Amazon gift card).

In addition to the parent knowledge assessment, qualitative information was obtained from participating parents. At baseline, parents were asked “What do you want to learn from the on-line course?” At the end of the course, parents were asked to describe the most valuable information that they will take from this on-line course. Thirty days after completing the course, parents were asked “What information have you used in the past two weeks from the on-line course?”

Data analysis

Psychometric analysis of parent knowledge assessments

Data from all three administrations of the knowledge assessment were analysed to examine the psychometric properties of the assessment, establish the reliability, and for quality assurance. The psychometric analyses included both item analyses (e.g., response frequency, item difficulty, item discrimination) and total test score analyses (mean, standard deviation, standard error, Cronbach's alpha, frequency distribution). Mean item difficulty for the EOC administration of the assessment was .93, and reliability was moderate, ranging from .66 for the entire assessment to between .25 to .46 for the four constructs.

Longitudinal analysis of change over time in parent knowledge

Data were analysed to examine changes in test scores on the total test scores and on each of the four constructs from baseline to the end of course (EOC) and to the 30-day follow-up. Impacts were estimated using a paired t-test to test for significant change (or gain) in parent knowledge.

Qualitative analysis of parent-reported behavioural changes

The qualitative data, via the open-ended responses, was analysed by first creating a "start list" (Hill et al., 2005; Hill, Thompson, & Williams, 1997) based on the outcomes in the logic model (Figure 1), and then moved into core ideas and themes (Huberman & Miles, 1994; Miles & Huberman, 1984). While generalizability and replicability may not be critical issues, qualitative research strives to be believable. Qualitative researchers have used the term "trustworthiness" (Lincoln & Guba, 1985; Morrow, 2005), "believability" (Donmoyer, 1990), "transferability" (Denzin & Lincoln,

1994; Lincoln & Guba, 1985), and “extrapolation” (Patton, 1990; 2002) to note the value of qualitative research that goes beyond generalizability and replicability. Saldaña (2015) and Prasad (2018) both note the interpretive nature of coding qualitative data. Our approach to analysing the open-ended qualitative data was to strive for “trustworthiness” and “transferability” of the PaD parent education course experience on parent skills and knowledge by obtaining face validity from the program developers and instructors of the course. The “start list” for the qualitative analysis themes followed the domains of the parent assessment and logic model, such as parents increase knowledge of parent conflict and knowledge of positive parenting skills. The lead researcher created a longitudinal qualitative data file that included the open-ended response from each respondent and coded each response by the start list. In an iterative process, the lead researcher then reviewed the coded data to refine the start list into sub-codes. The lead researcher then reviewed the coded data to create draft themes that highlight behavioural change, such as parents indicating a change in their behaviour to the ex-spouse or child. The draft themes and evidence of qualitative data were discussed with the program developers and instructors prior to finalization of results. The themes and results were finalized after meeting face-validity of the program developers and instructors. Of particular interest was how parents self-report behavioural change due to the parent education course, focusing on the long-term outcomes of the logic model.

Positioning of researchers

The researchers were hired by Certevia® to conduct an external evaluation of their parenting education program. The purpose of the external evaluation was to build evidence of program effectiveness, and the evaluation had a firewall between the

researchers and their evaluation and the program developers. The researchers were outside consultants with expertise in social science research methodology.

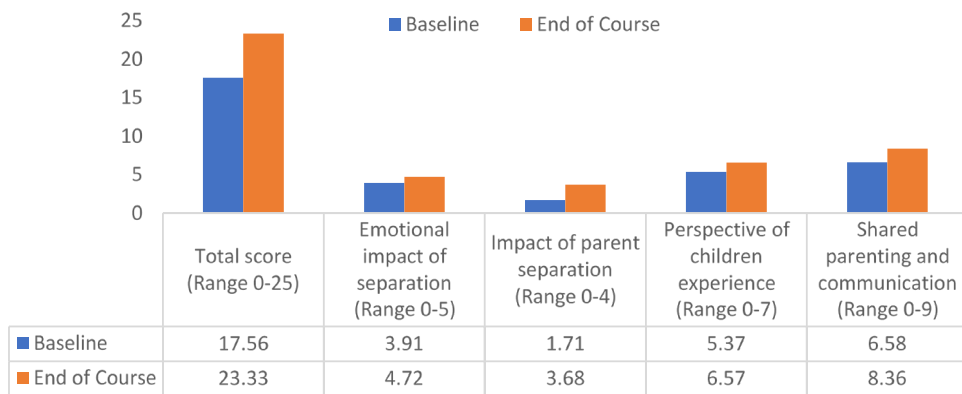
Results

Increase in parent knowledge immediately after the course

Analysis of the end-of-course (EOC) data showed that all but two parents passed the course by earning at least 70% correct on the EOC administration of the knowledge assessment. Comparisons of the baseline versus EOC scores for the total test and all subdomains showed statistically significant gains (Figure 2).

The EOC data was used to estimate gains across subgroups of parents. The subgroups included gender (males, females), race/ethnicity (whites, African Americans or Black, Hispanic, Asian, other races), and parent age range (18-24, 25-34, 35-44, 45-54, and 55-64 years of age). All subgroups showed statistically significant positive gains between baseline and end-of-course (all p-values < .001).

Figure 2: Change in parent knowledge from baseline to end-of-course assessment

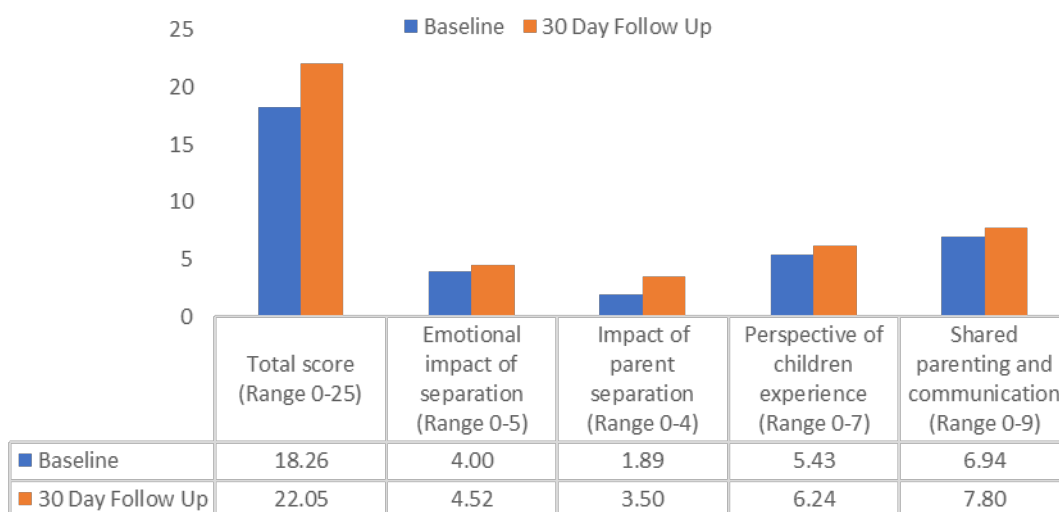


Retention of parent knowledge 30-days after the course

At the 30-day follow-up, 197 parents completed the assessment where scores from the follow-up were compared to scores from the baseline to estimate whether participants had retained statistically significant increases in knowledge. As with the analysis of baseline to EOC assessments, the analysis of baseline to follow-up were positive and statistically significant, indicating that these participants had retained the knowledge gained during the course (Figure 3).

Gains on the follow-up assessment were estimated across the same subgroups as the EOC assessment except parents between 55-64 years of age due to small sample size. In general, all subgroups showed statistically significant positive gains between baseline and 30-day follow up (p-values ranging from $< .001$ to $< .05$). For gender, all p-values were less than $.001$. For parents of other races, there were no statistically significant gains for Perspectives of children who experience separation or divorce. Other p-values for this subgroup ranged from $< .001$ to $< .05$. Across the age subgroups, gains on the follow-up assessment were positive and statistically significant with p-values ranges from $< .001$ to $< .05$. There were no statistically significant gains for parents ages 45-54 on Emotional impact of separation and divorce on the family. Other p-values for this age group ranged from $< .001$ to $< .05$.

Figure 3: Change in parent knowledge from baseline to 30-day follow-up assessment



Increase in positive parental behaviours 30-days after the course

The qualitative analysis created emergent themes from parent responses, showcasing the growth in positive parenting skills and ultimately, the use of those skills in their lives. The qualitative analysis focused on the 197 parents who completed the 30-day follow-up assessment. These parents completed open-ended responses at baseline, end-of-course, and the 30-day follow-up, allowing for an analysis of change over time from skill acquisition to skill use. The open-ended responses were coded into themes and sub-themes (Table 2).

Table 2: Qualitative theme definitions, examples, and analytic approach

	<i>Definition</i>	<i>Examples</i>	<i>Analysis approach</i>
Theme 1: Shifting the focus from the child or ex-spouse to themselves	Parent behavior change that went from external locus of control (e.g., about the children or ex-spouse) to internal locus of control (e.g., about themselves).	Parent 1 change over time: Baseline: “To co-parent the best way we can for our daughter. To do what is in the best interest for her.” End-of-course: “As co-parents, we need to do our best for the children.” 30-day follow-up: “There was lots of very useful information. I am trying to use some of the	Qualitative analysis focused on change over time across the three timepoints. This sequence was coded as “internal locus of control” with the 30-day follow-up quote that stated that the techniques were helpful to help “myself”. Shift from “our daughter” to “myself”.

	<i>Definition</i>	<i>Examples</i>	<i>Analysis approach</i>
Theme 2: Moving from vague parenting goals to specific skill use	Parent behavior change that when from vague positive parenting skills to specific parenting skills learned and used.	techniques to help myself deal with my child and the other parent.” Parent 2 change over time: Baseline: “How to be a good co-parent.” End-of-course: “Learning how to co-parent.” 30-day follow-up: “The information I have used in the last two weeks is ensuring to the child that what is happening is not their fault. The coparent and I have been using the techniques acquired from the class. For example, communicating positively and making mutual decisions.”	Qualitative analysis focused on change over time across the three timepoints. This sequence was coded as “specific parenting skill” with the baseline and end-of-course of being a “good co-parent”. In the 30-day follow-up, this parent identifies and names a positive skill—Communicating positively and making mutual decisions.
Theme 3: Using simple and easy to remember techniques	Parent behavior at 30-day follow-up that identifies specific skill used because of the parent education program.	Sub-code: “Breathe” Parent 3: “Taking a time to breathe and continue to be as flexible with the schedule as possible.” Parent 4: “Taking a moment to breathe and ensuring my daughter feels safe and secure in my home.” Parent 5: “Take a breath when you’re upset” Parent 6: “Take a breath in heated conversations”	Qualitative analysis focused on the 30-day follow-up with the start-code of “positive parenting skills.” From this start-code, the same words or phrases appeared across multiple parents. These were recoded into sub-codes. In this example, the sub-code was “Breathe”. Another sub-code was “Schedule” with multiple parents stating they are “flexible” or “communicate” about schedules.

Almost half of the parents (47%) noted that the course was helpful for learning positive parenting and communication, 20% about conflict resolution, and 17% about supporting their children. While 11% of parents noted general positivity about the course (e.g., “I liked all of it”), there were 5% of parents who noted that the course was not helpful. Among these parents who did not find the class useful, they provided reasons that made it very hard to co-parent, from domestic violence to custody issues.

Theme 1: Shifting the focus from the child or ex-spouse to themselves.

Interestingly, at baseline, almost all of the parents used their child(ren) as the reason for taking the on-line course. Examples from different parents such as “How to co-parent

for the sake of my son,” “How best to help my child,” “Keeping my child’s needs ahead of all else,” and “How to help my children cope with divorce” were common statements that reflected their focus on the well-being of the children with very little focus on their own well-being or their own parenting skills. At the end of the course, parents noted that they learned skills that helped them, such as positive co-parenting skills or positive communication with the ex-spouse. By 30-days after the course, parents continued to note their use of skills with the ex-spouse. In essence, the parents went from a focus on their children (“it’s about the kids”) to a focus on themselves as parents, clearly noting their parenting skills they have enacted with their children and ex-spouse.

For example, one parent’s growth is shown with these responses. At baseline, this parent (Parent A) stated that the purpose of taking the on-line course was to learn “how to help kids cope with separation.” At the end of the course, this same parent shifted to collaboration with the ex-spouse. By 30-days after the course, this same parent learned how to “take care about communication and discussions with the other parent.”

Another example shows the initial focus on the ex-spouse. At baseline, this parent (Parent B) wanted to learn “how to co-parent with a narcissist.” At the end of the course, this same parent stated learning “how to co-parent.” After 30 days of the course, the skill used by Parent B was “to agree or consult with the parent as much as possible and to be flexible.” The change in Parent B was going from outward facing (and almost impossible situation of “co-parenting with a narcissist”) to an inward facing approach (the parent’s own behavioural actions).

Theme 2: Moving from vague parenting goals to specific skill use. Among the 197 parents with the 30-day follow-up responses, there was a noticeable change from

broad parenting goals to the use of specific skills. At baseline, parents noted that they would like to learn positive parenting skills, positive ways to communicate to an ex-spouse, and ways to co-parent. For example, prior to the on-line course, one parent (Parent C) simply stated the goal was to learn “how to raise happy kids.” By the end of the course, this parent learned “co-parenting skills.” After 30 days, Parent C changed behaviour, noting a specific skill of “being flexible with the schedule with the coparent.” In another similar example, one parent (Parent D) stated, “I just want to be able to continue on the positive path we have set for ourselves and focus on the children.” This is a very vague statement. By the end of the course, Parent D honed in on learning co-parenting skills with the ex-spouse. By the 30-day follow-up, Parent D stated, “I have used coping with communication with my ex and remaining positive and flexible even if I did not agree.”

Theme 3: Using simple and easy to remember techniques. In using specific skills learned during the on-line class, it was notable that there were two common techniques that parents referred to as a technique they currently use. The first is breathing during potential conflict, where 11% of parents noted this specific skill used in the past two weeks at the 30-day mark. One parent noted, “I have remained calm in communication. I have taken time to breathe and not involve my child in adult decisions.” In showcasing the progression of learning skills to enacting skills, another parent highlights this change. At baseline this parent (Parent E) stated the goal of wanting to “work together” with the ex-spouse. By the end of the course, Parent D specified learning “effective communication.” By the 30-day mark, Parent D stated, “The information that was taught in the online class was to take a moment and breath rather than to respond in a negative manner. I also try to be cautious on what is being said in the household while

my child is there. I truly appreciate the information that was provided to ensure the best outcome for my child.”

The second was being flexible with their schedules, where 12% of parents noted this skill used in the past month at the 30-day mark. As one parent exclaimed, “Being flexible with the schedule has proven to be a GREAT practice!” Another parent (Parent E) showcases this growth, where at baseline, this parent’s goal was to learn “how to best help my child, and also how to best co-parent with my soon to be ex.” At the end of the course, Parent E stated learning how to “avoid conflict.” By the 30-day follow-up, Parent E is now “being flexible with the schedule with the coparent.” Also significant to note is Parent E’s reference to the “ex-spouse” at baseline to the “coparent” in the 30-day follow-up, suggesting a shift in understanding the changing roles from spouse to coparent.

Discussion

This study evaluated the effect of a court-mandated on-line parent education course on parent knowledge among parents going through divorce proceedings. The study had a large sample size of parents across three time points of data collection. Overall, the on-line parent education course was effective in increasing parental knowledge of positive parenting skills and of the detrimental impact of parent conflict. The positive effects were consistent across mothers and fathers. Qualitative data also indicated how parents used the knowledge and skills learned in the class, indicating a change in their long-term parenting behaviour.

Important contributions of this study include programmatic and methodological advancements. Programmatically, we found that on-line parent education courses can

work very well in providing parents with flexible self-directed learning as parents go through their divorce proceedings. Unlike face-face courses, an on-line platform provides multiple benefits to parents, including efficiency in taking the course on any digital device (mobile phone, laptop) and flexibility in taking the course at their own pace and on their own schedule. Similar to the personalized learning approach with students (Friend et al, 2017), the on-line parent education course became an anytime, anywhere personalized learning experience for parents, and its effects showed similar gains in parent knowledge and skills as face-face parent education programs (Arbuthnot & Gordon, 1996; Brotherson et al., 2010; Shifflet & Cummings, 1999).

Methodologically, the parents in this study were mandated by the court system to take a parent education course as part of their divorce proceedings. This meant that parents were most likely in a highly stressful situation of going through a divorce, and parents were motivated to take the course by way of the judge or court system requiring them to do so (external motivation) as opposed to self-motivation (internal motivation). Given this unique group of parents, the study had a large sample size and response rates across baseline and end-of-course was very high. The response rate for the end of course assessment was 89%, likely because parents needed to complete the assessment to pass the court-mandated course. Unlike face-face courses where instructors and parents can be burdened by an end-of-course survey, the on-line platform helped to make data collection seamless to program implementation. For example, as part of the application registration, the baseline assessment was administered. As part of the court-mandated divorce proceedings, parents had to pass the course. This meant that parents had to not only complete the course but complete the assessment to show a passing

grade. These course implementation features, coupled with the on-line platform, greatly improved data collection and response rates.

Study limitations

Court-mandated programs and courses have inherent methodological challenges, such as research design (e.g., comparison groups, program logic model) and data collection and availability (e.g., response rate). For the research design, the current study is an observational study of the treatment group. Meaning, there was no comparison groups of parents to compare effects or determine impacts of the program. We considered both experimental and quasi-experimental group designs. A randomized design was not feasible for the current study even though it is preferable for estimating casual effects. Because these parents were mandated by the court system to take a parenting course, researchers and program developers would have to work with the court system for parents to be randomly assigned to the program. A delayed program would be possible (control group parents would take the program after six months) but would need approval by the court system. A quasi-experimental design was not appropriate because all parents would be receiving the course and creating a post-hoc comparison group of parents would be difficult with lack of data and uniqueness of the treatment group (court-mandated parents going through divorce).

For data collection, we collected data at three timepoints, and response rates were lowest at the 30-day optional follow-up. One hundred-ninety-seven out of 1,271 parents completed the follow-up assessment, approximately 15% of the sample. Although a longer follow-up duration is desirable, increasing this duration likely would reduce the response rate even further. Estimates of retention of knowledge gained from

a smaller sample would then be hampered by small sample sizes and increased sampling error.

Significance and Implications to Policy and Future Research

Very little evidence of effectiveness is available for parent education program and curricula even though many state court systems require the use of evidence-based programs for parents of divorce. While more evidence-based programs are needed in this area, we make the following policy recommendations to support more evidence-based programming and areas for future research.

Training, professional development, and policies to encourage collaboration between the courts, program developers, and researchers. While many state and district courts require the use of evidence-based programs, we recommend training and development of staff working in the court system to increase understanding of the needs of research and encourage collaboration. To conduct rigorous evaluations to build evidence, collaboration is needed between program developers, researchers and evaluators, and the courts. To have the collaboration, the court system must understand the requirements of rigorous research and evaluation.

The evaluation results of this on-line course provide valuable information on the population of parents who took the course, looking at changes immediately after completion of the course and at a 30-day follow-up. This study not only builds the evidence-base of parent education programs and courses but also provides information about changes in and retention of parent knowledge given its longitudinal design.

Future research should explore alternative designs to the longitudinal design used in this study, such as a random assignment study by working with the court system

to have parents assigned via lottery to an on-line parent education program or to wait for 6 weeks without penalty to get into the program.

Continuous improvement and formative data of evidence-based programs to include culturally responsive and inclusive curriculum. The parents in the study were diverse, from different age groups, different race/ethnicity, and across two different states. Certevia® also provides parent education courses in Spanish (though the on-line program was only available in English for this study). In addition, the act of parenting can be challenging especially in the digital age with issues such as cyberbullying. Curriculum and parent programming must adapt to the challenges of parenting by partnering with researchers and evaluators to provide formative feedback and evidence-based continuous improvement feedback. Often called a “Researcher-Practitioner Partnership” (Coburn & Penuel, 2016), a continuous improvement approach could greatly benefit program developers refine and improve their programming (Bryk et al, 2016).

Future research should explore creating “Researcher-Practitioner Partnerships” (RPP) with program developers to test small-scale changes to a program or test differences in program delivery modality. For example, an RPP can test differences in implementation and parent outcomes of face-face or on-line parent education programs to determine how to make both modalities as effective as possible. Note that through the RPP, the focus is on improving both modalities, compared to solely a research focus on determining which modality is better than the other.

Family as the unit of analysis. Past research on parent education programs and courses, as well as this current study, focuses on the parent as the unit of analysis. However, qualitative researchers often use triangulation of data to validate findings

(Maxwell, 1998). In this same line of thought, research on parent education programs could benefit from examining the family as the unit of analysis, from the parents themselves, but also the interactions between divorced parents, stepparents, and children.

Future research should explore studying the family as a unit of analysis, where the research hypothesis would be whether parent education programs help to improve the family functioning as a whole (and not just changes in parents' knowledge or behaviour) and determine variations by age of the children (e.g., families with young children, families with adolescents). This is slightly different from a mediation analysis looking at the effect of a parent education program on parents and then on children, which still treats each unit as an individual. Rather, similar to a clinical approach to treat the family not just the individual, research and evaluation should treat the family as the unit to examine whether a parent education program has an impact on improving the functioning of the family. This, in turn, can lead to positive impacts on children.

Biographical Note

Dr. Ryoko Yamaguchi is an educational psychologist with expertise in research design and methods, including hierarchical linear models, survey design, and conducting rigorous (random assignment and quasi-experimental design) studies in field settings. Focusing on adolescent development and at-risk youth, she has been studying how schools can serve as a protective factor on student academic, social emotional, and behavioural outcomes.

Dr. Bruce Randel is a developmental psychologist with expertise in research design and methods, psychometrics, and analysis. With interests in causal inference, experimental design, cluster-randomized trials, quasi-experimental designs, he has conducted rigorous studies of formative assessment, vocabulary instruction, teacher mentoring, and online educational interventions.

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Conflict of Interest

There is no conflict of interest by the authors.

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