Improving Outcomes for Children Exposed to Violence

Safe Start Promising Approaches

Appendix H. Spokane, Washington: Circle of Security Intervention, Study, and Results

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Appendix H. Spokane, Washington: Circle of Security Intervention, Study, and Results

Introduction

The Spokane Safe Start program was a partnership between Washington State University and the Community Colleges of Spokane Head Start Program. The university conducted the research project and providing training and ongoing support, whereas Head Start provided the intervention services.

The Spokane Safe Start program served families in Spokane County, Washington. According to the U.S. Census Bureau's 2014 American Community Survey (U.S. Census Bureau, 2016), Spokane County had a population of 476,950 residents, 23 percent of whom were younger than age 18 and 6 percent of whom were younger than age 5. Approximately 86 percent of the population were white, 2 percent were black, 5 percent were Hispanic, and 7 percent were Native American, Asian, or other. The 2014 median household income was $50,432, which was slightly below the national average of $53,482, and about 10 percent of the population were living at or below the poverty threshold. Of families with children under the age of 18, 17 percent were living at or below the poverty threshold. In 2014, the violent crime rate in the city of Spokane was 307.9 per 100,000 residents, compared with the national average of 202.6 per 100,000 (City-Data.com).

The Spokane Safe Start program intervention was designed as a practice innovation to assess innovative practices to address children's exposure to violence in early-education settings. Spokane's Safe Start project involved universal staff development activities for all Head Start staff in social–emotional learning, trauma awareness and management, and crisis response, and an overview of the ARC intervention or the COS intervention. Head Start staff who were selected to provide intervention services received a more in-depth training in the specific intervention they would deliver. These interventions are based on developmental theory with some emerging evidence on their effectiveness in improving child-level outcomes. In this three-armed study, families were randomized to the ARC intervention, COS intervention, or the comparison condition. This program description focuses on the COS intervention. COS is a structured group intervention using attachment principles developed specifically for high-risk toddlers and preschoolers and their caregivers (Marvin et al., 2002). Originally, Spokane planned to expand on the regular Head Start services by offering COS to caregivers in weekly group sessions at the Head Start centers, in addition to regular Head Start programming. Later, Spokane switched to an individual format because of difficulties forming and maintaining groups.

The outcome evaluation reported here presents data relevant to the question of whether the Spokane Safe Start COS program, as implemented within this project, improves outcomes for CEV over and above Head Start classroom instruction and social service supports alone.

Spokane COS Safe Start

- **Intervention components:** Parent therapy (COS) and standard Head Start programming
- **Intervention length:** Eight weekly 90-minute sessions
- **Intervention Setting:** Head Start centers or clients' homes
- **Target population:** Head Start children who have experienced violence
- **Age range, in years:** 3–5
- **Primary referral sources:** Head Start centers

Intervention Summary

Referrals

Because the Spokane Safe Start program was conducted entirely within the Head Start system, all 201 referrals to the COS intervention came from Head Start. Head Start conducted an eligibility screening using modified ACE screening tools completed for the primary caregivers on their own experiences in childhood and then the experiences of the Head Start–enrolled child. Eligible children were those who had ACE scores of 2 or higher or had experienced DV in the home, had experienced community violence, or had child protective services involvement because of maltreatment (neglect, physical abuse, or sexual abuse). Initially, the screening completion rate was lower than expected, in part because of Head Start staff apprehension about the project. Spokane Safe Start conducted several training programs focused on education, awareness building, and inclusion with Head Start leadership and staff, including 16 hours of trauma-specific professional development. Head Start parents also received training twice a year. As a result, a majority of enrolled Head Start children were screened within the first few months of the start of the Head Start year.

Intervention Components

The COS intervention (Marvin et al., 2002) is a structured parent education program that focuses on helping participants understand basic principles of attachment and how to modify parenting behavior to meet their children's needs. Developed specifically for high-risk toddlers and preschoolers and their caregivers, COS uses common attachment assessment techniques and psychoeducation with behavior guidance to improve the quality of the caregiver–child dyad's relationship. The intervention is supported by a user-friendly conceptual graphic of attachment theory that is cognitively and emotionally accessible to the caregivers. This graphic, which caregivers are encouraged to keep displayed at home, figuratively illustrates the reciprocal relationship (i.e., the so-called circle of security) between a child's need for a "safe haven" to support exploration and a secure base to provide comfort and soothing. The goal of the

intervention is to improve the caregiver's recognition of and appropriate responding to these basic attachment needs. The COS model is emerging as an intervention with some evidence for its effectiveness in improving attachment status in pre/post quasi-experimental designs and randomized controlled studies (Hoffman et al., 2006; Cassidy, Ziv, et al., 2010; Cassidy, Woodhouse, et al., 2011). Although typically delivered in a group format, the Spokane COS intervention in the current study changed to an individual format partway through implementation because of difficulty forming groups with Head Start families. The COS intervention consisted of eight 90-minute sessions using standard video presentation and a manual-guided curriculum that supplemented the usual Head Start classroom instruction and social service supports.

Design Overview

The design of this study was an RCT, with randomization occurring at the family level and eligible children recruited after families were referred to the program. As noted above, Spokane's study tested two interventions, with families assigned to the ARC intervention group, the COS intervention group, or the comparison group. The COS intervention group received weekly 90-minute sessions for eight weeks in addition to Head Start services. Families in the comparison group received enhanced usual care, which meant that Head Start staff used their training in trauma-informed care while providing regular classroom instruction or Head Start social service supports. For both groups, we assessed child outcomes and contextual information at baseline, six, and 12 months. Chapter Two summarizes and Appendix A fully describes the measures used in this study. The measures were uniform across the national evaluation but prioritized within each site as to the relevance to the intervention under study. Given the nature of the Spokane COS Safe Start intervention, the outcomes were prioritized as shown in Table H.1.

Table H.1. Spokane Circle of Security Prioritized Outcomes

Domain	Source or Measure	Child's Age, in Years	Respondent
Primary outcome measures			
Social and emotional competence	SSIS cooperation, assertion, and self-control	3–5	Caregiver
Secondary outcome measures			
Child PTSD symptoms	TSCYC PTSD scale	3–5	Caregiver
Behavior and conduct problems	BITSEA problem scale	3	Caregiver
	Child behavior problems (BPI Total Scores and BPI Externalizing subscale)	3–5	Caregiver
Child depression	BPI Internalizing subscale	3–5	Caregiver
Family functioning	BERS-2 Family Involvement subscale	5	Caregiver
	APQ positive involvement, negative or ineffective discipline, and deficient monitoring	5	Caregiver
	FES Conflict scale	3–5	Caregiver
Violence exposure	JVQ child victimization experiences (total, child maltreatment, child assault, child sexual abuse, and child witnessing violence)	3–5	Caregiver
Caregiver mental health	PHQ-8 depression scale	3–5	Caregiver
Tertiary outcome measures			
Background and contextual	Attitudinal Barriers to Care	3–5	Caregiver
	ESI total stressors, resource problems, and personal problems	3–5	Caregiver
Violence exposure	Caregiver victimization (total, DV, and non-DV)	3–5	Caregiver
Caregiver mental health	PC-PTSD	3–5	Caregiver

Study enrollment took place between July 2012 and June 2015, with follow-up assessments completed at six and 12 months after enrollment on a rolling basis.

Analysis Plan and Power Calculations

We conducted descriptive analyses to summarize the sample baseline characteristics: age, gender, race or ethnicity, family income level, child's violence exposure, and the outcome variables. The randomized controlled design makes it unlikely that there were differences between intervention and comparison groups, but we tested for differences in child and caregiver characteristics between intervention and comparison group children using *t*-tests and chi-squared tests to ensure that this was the case. We also examined whether those who were lost to follow-up differed in any systematic way from those who were retained, using *t*-tests and chi-squared tests.

To assess the effect of the Safe Start intervention, we examined differences between children in the intervention and comparison groups at six months postbaseline. It is important to consider the power this study has for such an analysis. One way to describe power is by using the effect size difference between the two groups being compared. The effect size is a standardized measure of the strength of association between an intervention and an outcome and is defined as the average difference in an outcome between the intervention and comparison groups divided by the common SE. The effect size measure is commonly classified as small if it is about 0.2, medium if it is about 0.5, and large if it is about 0.8 (Jacob Cohen, 1988).

Although the evidence base was emerging, COS had only one study using an experimental design when Safe Start started. Given the enhancement of the comparison group and unknown efficacy of the COS intervention, we expected that the interventions might have a small effect. Table H.2 shows the enrollment by group, comparing the actual enrollment with the target enrollment needed for power, assuming an 80-percent retention rate. With total enrollment of 201, Spokane COS enrolled 32 percent of the sample size required to detect a small intervention effect. Spokane COS's overall six-month retention rate of 74 percent for the intervention group and 88 percent for the comparison group meant that it retained a total of 164 families in the study at six months, representing 32 percent of the retained sample required to have an 80-percent chance of detecting a small intervention effect. At 12 months, Spokane COS retained a total of 135 families in the study, representing 26 percent of the retained sample required to have an 80-percent chance of detecting a small intervention effect. Given the sample size here, there was sufficient power to detect a medium intervention effect of size 0.44 at six months and 0.49 at 12 months, according to Cohen's 1988 effect size classification.

Table H.2. Spokane Circle of Security Required Versus Actual Enrollment for a Small Effect Size

Requirement	Intervention Group	Comparison Group	Total
Enrolled sample needed for power	319	319	638
Total enrollment	97	104	201
Percentage of needed enrollment	30	33	32
Retained sample needed for power	255	255	510
Retained sample, six months	72	92	164
Percentage of needed retention, six months	28	36	32
Retained sample, 12 months	57	78	135
Percentage of needed retention, 12 months	22	31	26

Several factors other than overall sample size dampened statistical power. The range of children's ages meant that the full data were not available for some measures because not all children were in the age range eligible to complete that measure. Further, the corrections for the

multiple statistical tests being conducted also reduced power. The low power in this study must be kept in mind in interpreting results.

We examined differences between the intervention and comparison groups using an intent-to-treat approach, which includes in analyses all assigned to the intervention group, regardless of the amount of services received. As discussed in Chapter Two, comparisons between a comparison group and only those who complete services (or receive a predetermined amount of services) are likely to provide biased results given that those who do not engage in services or drop out prior to completion might differ systematically from those who remain. Ideally, analyses would take into account the type and amount of services received to account for dosage variability. We explore this issue of dose of intervention as described below.

To examine differences between the intervention and comparison groups using the intent-to-treat approach described above, we present baseline, six-month, and 12-month follow-up estimates of primary, secondary, and tertiary outcomes for both groups when the sample size is greater than or equal to five. We compare groups via chi-squared or *t*-tests at each time point, compare means within groups across time, and examine difference in differences to compare the two groups on changes over time between the baseline and the six- and 12-month assessments (when the sample size is at least ten per group). At both the six- and 12-month follow-ups, we conducted multiple linear regressions on the continuous outcomes and linear probability regressions on the dichotomous outcomes to test for the difference in differences via main effects and the interaction between intervention status and time after controlling for baseline characteristics (child age, child gender, child race and ethnicity, and child's exposure to violence). We selected these baseline characteristics to correct for any potential imbalance in the groups by relevant demographic characteristics. We do not present the adjusted models when the sample size is less than 20 per group.

To examine outcomes related to the as-treated sample, those families who took part in the intervention services offered, we examined the outcome means for families who took part in the intervention services offered, broken down into groups that received a low dose of the intervention (zero sessions), a medium dose (one to seven sessions), and a high dose (eight or more sessions) at six months and again at 12 months. Because children with more need are likely to receive more services, we would expect this selection scheme to possibly present an unforeseeable bias, with families more in need receiving more services. To account for this selection bias related to service dosage, we used the propensity score matching method to pair families in each dosage group with families with similar needs in the comparison group. The matching paired families based on similar baseline scores on the outcome measure of interest. The analyses then examined the difference in differences between the intervention and comparison groups for each dosage group at follow-up. Note that, in this analysis, the full comparison group is used in the matching of each of the dosage levels. We examine only primary outcomes with this method, in recognition that it is exploratory and preliminary. Further,

the power for the dosage analyses is reduced because of the smallness of the samples for the different dosage groups.

When conducting large numbers of simultaneous hypothesis tests, as we did in this study, it is important to account for the possibility that some results will achieve statistical significance simply by chance. The use of a traditional 95-percent confidence interval, for example, will result in one out of 20 comparisons achieving statistical significance as a result of random error. We therefore adjusted for false positives using the FDR method (Benjamini and Hochberg, 1995). We based our assessments of statistical significance on applying the FDR procedure separately to the primary, secondary, and tertiary outcome tests in this report (as reported in Tables H.8 and H.9) using an FDR of 0.05. In the discussion of results, we have also identified significant trends in the data, defined as those tests with *p*-values of less than 0.05 without adjusting for multiple significance tests. Although these results might suggest a practical difference that would be statistically significant with a larger sample, they must be interpreted with caution because we cannot rule out that the difference was due to chance because of the multiple significance tests being conducted.

Study Results

Enrollment and Retention

As noted above, Spokane COS enrolled a total of 201 families in the study, with 97 in the intervention group and 104 in the comparison group. In Table H.3, we present the number and percentage of all enrollees who were eligible for participation at each data collection time point. As shown, 74 percent of families enrolled in the intervention group were retained for the six-month caregiver assessment, with 88 percent retained in the comparison group. At 12 months, 59 percent of intervention group and 75 percent of comparison group families were retained for the caregiver assessment.

Table H.3. Retention of Enrollees Eligible to Participate in the Caregiver Assessments

Requirement	Six Months	12 Months
Intervention		
Received	72	57
Expected	97	97
Retention rate, as a percentage	74	59
Comparison		
Received	92	78
Expected	104	104
Retention rate, as a percentage	88	75

Baseline Descriptive Statistics

For the descriptive statistics, we provide the characteristics for the full sample enrolled at baseline. As shown in Table H.4, children who participated in the study were, on average, 4.6 years old (range 3–6), with 47 percent males and 53 percent females. The racial and ethnic background of families was majority white (61 percent) with 17 percent Hispanic, 1 percent black, and 21 percent identifying the child as other race or ethnicity. Families reported a range of family incomes, with 82 percent with income below $30,000, and an average exposure for the child to just under one type of violence in the past six months. We observed no statistically significant differences between the intervention and comparison groups at baseline.

Table H.4. Spokane Circle of Security Safe Start Baseline Sample Characteristics

	Combined		Intervention		Comparison		
Characteristic	***N***	**Mean (SD)**	***N***	**Mean (SD)**	***N***	**Mean (SD)**	**Test for Comparison *p*-Value**
Child							
Age	201	4.6 (0.7)	97	4.5 (0.7)	104	4.6 (0.7)	0.53
CR of violence exposure	200	0.9 (1.2)	96	0.8 (1.4)	104	0.9 (1.1)	0.49
		Percentage		**Percentage**		**Percentage**	
Child							
Gender							0.19
Male	94	47	50	52	44	42	
Female	107	53	47	48	60	58	
Race and ethnicity							—
Hispanic	35	17	17	18	18	17	
White	122	61	58	60	64	62	
Black	2	1	2	2	0	0	
Other	42	21	20	21	22	21	
Caregiver							
Family income level							0.49
Less than $10,000	75	38	39	41	36	35	
$10,001–20,000	55	28	28	29	27	26	
$20,001–30,000	35	18	13	14	22	21	
More than $30,000	35	18	16	17	19	18	
Relationship to child							0.35
Parent or guardian	197	98	96	99	101	97	
Other relationship	4	2	1	1	3	3	

NOTE: — = Cell is too small to show. Because of missing data, some numbers might not sum as shown.

In the sample of families who were retained in the study at six and 12 months, these characteristics were similar, with no significant differences between groups (data not shown). Comparison of those who were lost to follow-up and those who were retained at six months revealed one statistically significant difference between the two groups, with those retained being slightly younger than those lost to follow-up ($p = 0.03$; data not shown). There were no differences between the two groups at 12 months.

We also examined the Spokane COS sample at baseline on two outcomes (PTSD symptoms and caregiver depressive symptoms) to describe the level of severity on these indexes among families entering the project (Table H.5). At baseline, more than one-quarter of caregivers (26 percent) reported symptoms of PTSD in the significant range for their children (17 percent for boys and 33 percent for girls). Nine percent of caregivers reported their own depressive symptoms in the moderately severe or severe range.

Table H.5. Baseline Assessment Estimates for Spokane Circle of Security Families

	Combined		Boys		Girls	
Assessment	***N***	**Percentage**	***N***	**Percentage**	***N***	**Percentage**
CR of child PTSD symptoms (ages 3–5)						
Normal	127	66	65	72	62	61
Borderline	16	8	10	11	6	6
Significant	49	26	15	17	34	33
Caregiver depression						
None or minimal	71	35	36	38	35	33
Mild	74	37	38	40	36	34
Moderate	38	19	14	15	24	22
Moderately severe	12	6	4	4	8	7
Severe	6	3	2	2	4	4

Finally, we examined differences between the intervention and comparison groups at baseline for Spokane ARC's primary, secondary, and tertiary outcomes (see Table H.12). At baseline, there were no differences between groups for the primary, secondary, or tertiary child outcomes after adjusting for multiple comparisons (aside from two baseline outcomes that did not withstand the adjustment for multiple comparisons), indicating that the randomization resulted in balanced groups.

Table H.12 summarizes cross-sectional differences between the intervention and comparison groups at the six- and 12-month follow-up time points for Spokane ARC's primary, secondary, and tertiary outcomes. Again, the two groups did not differ from each other in terms of child

outcomes at six and 12 months (aside from three six-month and one 12-month outcome that did not withstand the adjustment for multiple comparisons).

Uptake, Dosage, and Process of Care

The program recorded family-level service data on the follow-up service survey and submitted the data at six and 12 months after the baseline assessment. Table H.6 shows the type and amount of services received for all families who were initially enrolled in the intervention group, regardless of whether they continued to participate in the ongoing research assessment. The data displayed in Table H.6 include services received by summing data from both time points that the program reported.

Table H.6. Services That Spokane Circle of Security Safe Start Intervention Families Received

	With Service		Number of Sessions		
Service	**Number**	**Percentage**	**Range**	**Mean**	**Median**
Baseline sample (*n* = 97)					
Individual sessions	50	52	0–8	3.4	1
Six-month analysis sample (*n* = 72)					
Individual sessions	45	63	0–8	4.2	4.5
12-month analysis sample (*n* = 57)					
Individual sessions	39	68	0–8	4.8	8

As shown in the top portion of Table H.6, 52 percent of the families in the intervention group received individual COS sessions, with an average of 3.4 sessions. Among only the 50 families who received at least one individual session, the average number of sessions was 6.5. The middle portion of Table H.6 shows the services received during the six months between baseline and the six-month assessment for the subgroup of intervention group families who participated in the six-month follow-up research assessment. These are the 72 families included in the intervention group in the outcome analysis sample for the Spokane COS program. As shown in Table H.6, about two-thirds (63 percent) of the families assessed at six months received individual sessions, with an average of 4.2 sessions. Among only the 45 families who received at least one individual session, the average number of sessions was 6.7. The bottom portion of Table H.6 shows the services received during the 12 months between baseline and the 12-month assessment for the subgroup of 57 intervention group families who participated in the 12-month follow-up research assessment. As shown in Table H.6, more than two-thirds (68 percent) of the families assessed at 12 months received individual sessions, with an average of 4.8 sessions. Among only the 39 families who received at least one individual session, the average number of sessions was 6.9. We did not collect service information on usual Head Start programming in either the intervention or comparison group.

On the caregiver follow-up assessment, we asked caregivers in the intervention group about their satisfaction with Safe Start services (Table H.7). The eight-item measure focused on the level of satisfaction with services received using a four-point Likert scale, with a higher score indicating greater level of satisfaction with services. Overall, caregivers who received Safe Start services were satisfied with different aspects of Safe Start services, with ratings ranging from a low of 3.2 (program met needs) to a high of 3.7 (would recommend program to a friend).

Table H.7. Satisfaction with Services That Spokane Circle of Security Safe Start Intervention Families Received: Six Months

Satisfaction	*N*	Mean	SD
Rate quality of service	38	3.5	0.80
Got the kind of service wanted	37	3.4	0.80
Program met needs	36	3.2	0.86
Would recommend to a friend	37	3.7	0.65
Satisfied with help received	37	3.4	0.87
Helped deal more effectively with problems	36	3.4	0.69
Satisfied with service	37	3.5	0.87
Would come back to program	37	3.5	0.90

Key Outcome Findings

We began by analyzing changes in mean scores over time both within the intervention and comparison groups and between the groups. For these analyses, we used an intent-to-treat approach that included all families allocated to the intervention, regardless of the level of service they received. The first set of columns of numbers in Table H.8 describes differences within groups between the baseline and the six-month assessment, with paired *t*-tests comparing each person's score at each follow-up wave with his or her own score at the baseline assessment and adjusting for multiple testing. At six months, for Spokane COS's primary outcomes measuring different aspects of the child's social–emotional competence, there was a statistically significant increase in the primary outcome variable of CR of child self-control for the comparison group only. For secondary outcomes, there were no significant within-group differences between baseline and six months. Among the eight tertiary outcomes, only the comparison group reported significantly fewer attitudinal barriers to care, resource problems, and caregiver PTSD symptoms.

Table H.8 also shows intervention effects over time using an intent-to-treat approach in which all families in the intervention are compared with all those in the comparison group, regardless of the actual amount of intervention received in the intervention group. Because any change in outcomes observed can potentially be the result of a time trend observed in all children

in the study, we used a difference-in-differences method to assess the unadjusted impact of the program. In the difference-in-differences models presented in the second set of data columns, there was no evidence of intervention effects associated with any of the primary, secondary, or tertiary outcomes (aside from two tertiary outcomes that did not withstand the correction for multiple comparisons). For the adjusted models that control for child age, child gender, child race and ethnicity, and caregiver report of violence exposure, there was also no evidence of intervention effects associated with any of the primary, secondary, or tertiary outcomes (aside from two tertiary outcomes that did not withstand the correction for multiple comparisons). The results in Table H.8 can also be discussed in terms of effect sizes for Spokane COS's primary outcomes. Within-group changes were small for the COS intervention for child cooperation (0.14 [–0.19 – 0.47]), assertion (0.10 [–0.23 – 0.44]), and self-control (0.18 [–0.18 – 0.53]). The adjusted between-group effect sizes were very small for child cooperation (0.05 [–0.14 – 0.23]), assertion (0.03 [–0.16 – 0.22]), and self-control (–0.03 [–0.22 – 0.16]), indicating again that the two groups did not differ much in terms of their improvement.

Table H.8. Changes in Means for Outcome Variables Between Baseline and Six-Month Assessment and Group-Level Comparison of Mean Changes

		Within-Family Mean Change[a]				Group-Level Comparison of Mean Changes					
						Unadjusted Model[b]			Adjusted Model[c]		
Outcome		***N***	**Estimate**	**SE**	***p*-Value**	**Estimate**	**SE**	***p*-Value**	**Estimate**	**SE**	***p*-Value**
Primary											
CR of child cooperation (ages 3–5)	Intervention	72	0.36	0.31	0.24	0.35	0.65	0.59	0.32	0.65	0.63
	Comparison	92	0.01	0.21	0.96						
CR of child assertion (ages 3–5)	Intervention	68	0.28	0.33	0.40	0.17	0.71	0.82	0.22	0.71	0.76
	Comparison	88	0.11	0.28	0.69						
CR of child self-control (ages 3–5)	Intervention	62	0.55	0.40	0.17	–0.32	0.87	0.71	–0.24	0.86	0.78
	Comparison	86	0.87	0.32	0.01[d]*						
Secondary											
CR of child PTSD symptoms (ages 3–5)	Intervention	65	–0.78	0.63	0.22	0.33	1.91	0.86	0.39	1.84	0.83
	Comparison	85	–1.12	0.88	0.21						
CR of child behavior problems (age 3)	Intervention	14	0.57	0.99	0.57	2.40	3.57	0.50	2.40	3.22	0.46
	Comparison	12	–1.83	1.56	0.26						
CR of child total behavior problems (ages 3–5)	Intervention	70	–0.76	0.53	0.15	–0.01	1.27	1.00	–0.04	1.24	0.97
	Comparison	92	–0.75	0.49	0.13						

Outcome		N	Within-Family Mean Change[a] Estimate	SE	p-Value	Group-Level Comparison of Mean Changes: Unadjusted Model[b] Estimate	SE	p-Value	Adjusted Model[c] Estimate	SE	p-Value
CR of child externalizing behavior problems (ages 3–5)	Intervention	70	–0.51	0.43	0.24	–0.21	0.95	0.82	–0.24	0.93	0.80
	Comparison	92	–0.30	0.32	0.35						
CR of child internalizing problems (ages 3–5)	Intervention	70	–0.24	0.20	0.22	0.20	0.48	0.67	0.20	0.47	0.68
	Comparison	92	–0.45	0.24	0.07						
CR of family involvement (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	4	—	—	—						
CR of positive involvement (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	4	—	—	—						
CR of negative or ineffective discipline (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	4	—	—	—						
CR of deficient monitoring (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	4	—	—	—						
CR of family conflict (ages 3–5)	Intervention	72	–0.27	0.21	0.20	–0.14	0.47	0.76	–0.16	0.46	0.72
	Comparison	92	–0.13	0.22	0.57						
CR of total child victimization experiences (ages 3–5)	Intervention	71	0.00	0.17	1.00	0.04	0.27	0.87	0.03	0.27	0.91
	Comparison	92	–0.04	0.13	0.73						
CR of child maltreatment (ages 3–5)	Intervention	72	–0.06	0.07	0.45	–0.03	0.10	0.73	–0.03	0.10	0.73
	Comparison	92	–0.02	0.05	0.66						
CR of child assault (ages 3–5)	Intervention	72	–0.06	0.08	0.50	–0.08	0.12	0.53	–0.09	0.12	0.45
	Comparison	92	0.02	0.06	0.73						
CR of child sexual abuse (ages 3–5)	Intervention	72	0.00	0.03	1.00	0.00	0.04	1.00	0.00	0.00	1.00
	Comparison	92	0.00	0.02	1.00						
CR of child witnessing violence (ages 3–5)	Intervention	72	0.01	0.07	0.84	0.05	0.12	0.71	0.05	0.12	0.71
	Comparison	92	–0.03	0.08	0.68						
CR of caregiver depression	Intervention	72	–0.34	0.57	0.55	–0.05	1.21	0.97	–0.08	1.12	0.94
	Comparison	92	–0.30	0.44	0.50						
Tertiary											
CR of attitudinal barriers to care	Intervention	72	–0.10	0.17	0.57	0.63	0.32	0.05[d]	0.59	0.32	0.07
	Comparison	92	–0.73	0.16	<0.01[d]*						

Outcome		N	Within-Family Mean Change[a] Estimate	SE	p-Value	Group-Level Comparison of Mean Changes: Unadjusted Model[b] Estimate	SE	p-Value	Adjusted Model[c] Estimate	SE	p-Value
CR of total stressors	Intervention	72	–1.38	0.77	0.08	0.48	2.08	0.82	0.16	1.96	0.94
	Comparison	92	–1.86	0.76	0.02[d]						
CR of resource problems	Intervention	72	–0.40	0.42	0.34	0.72	0.98	0.46	0.59	0.90	0.51
	Comparison	92	–1.12	0.37	<0.01[d]*						
CR of personal problems	Intervention	72	–0.97	0.53	0.07	–0.23	1.35	0.86	–0.43	1.31	0.74
	Comparison	92	–0.74	0.54	0.17						
CR of caregiver total number of traumatic experiences	Intervention	72	0.13	0.10	0.24	0.32	0.18	0.07	0.31	0.15	0.05[d]
	Comparison	92	–0.20	0.09	0.03[d]						
CR of caregiver experience of any non-DV trauma	Intervention	72	–0.03	0.05	0.57	0.04	0.07	0.58	0.04	0.07	0.59
	Comparison	92	–0.07	0.05	0.18						
CR of caregiver experience of any DV	Intervention	72	0.10	0.05	0.05	0.20	0.08	0.01[d]	0.18	0.07	0.01[d]
	Comparison	92	–0.10	0.04	0.03[d]						
CR of caregiver PTSD	Intervention	72	–0.03	0.15	0.85	0.42	0.33	0.20	0.39	0.31	0.21
	Comparison	92	–0.45	0.14	<0.01[d]*						

NOTE: * = the significant difference over time remains after adjustment for multiple comparisons. — = Cell is too small to show. Mean change estimates are not shown when the group size is fewer than ten, and comparisons are not shown when the group size is fewer than ten for either group. Adjusted model results are not shown when the group size is fewer than 20 for either group.

[a] Within-family mean changes between the baseline and six-month scores for each group separately.

[b] Group-level comparison of within-family mean changes from baseline to six months.

[c] Estimate of the difference between the two groups' within-family mean changes from baseline to six months, controlling for child age, gender, race and ethnicity, and violence exposure (baseline exposure plus exposure between baseline and six months).

[d] A significant paired *t*-test of differences over time ($p < 0.05$). In cells containing *0.05*, we have rounded the value to 0.05, but it is still less than 0.05.

Table H.9 shows some significant within-group changes in primary, secondary, and tertiary outcomes from baseline to 12 months. Among the primary outcomes measuring different aspects of the child's social–emotional competence, there was a significant increase from baseline to 12 months in the primary outcome variable of CR of child self-control for the comparison group only. There were no significant differences from baseline to 12 months for any of the secondary outcomes. Among the eight tertiary outcomes, there were significant improvements for both groups in caregiver total stressors and personal problems. From baseline to 12 months, only the comparison group improved on CR of attitudinal barriers to care, resource problems, total number of caregiver traumatic experiences, and caregiver PTSD symptoms. The difference-in-differences models (unadjusted and adjusted) showed no evidence of intervention effects on any of the primary, secondary, or tertiary outcomes at 12 months.

Table H.9. Changes in Means for Outcome Variables Between Baseline and 12-Month Assessment and Group-Level Comparison of Mean Changes

		Within-Family Mean Change[a]				Group-Level Comparison of Mean Changes					
						Unadjusted Model[b]			Adjusted Model[c]		
Outcome		*N*	Estimate	SE	*p*-Value	Estimate	SE	*p*-Value	Estimate	SE	*p*-Value
Primary											
CR of child cooperation (ages 3–5)	Intervention	57	0.09	0.32	0.78	–0.07	0.74	0.93	0.06	0.74	0.93
	Comparison	78	0.15	0.26	0.55						
CR of child assertion (ages 3–5)	Intervention	54	0.52	0.45	0.26	–0.04	0.81	0.96	0.21	0.82	0.80
	Comparison	73	0.56	0.33	0.09						
CR of child self-control (ages 3–5)	Intervention	48	0.35	0.48	0.46	–0.76	0.98	0.44	–0.48	0.93	0.61
	Comparison	71	1.11	0.35	<0.01[d]*						
Secondary											
CR of child PTSD symptoms (ages 3–5)	Intervention	55	–1.31	0.85	0.13	0.29	2.08	0.89	0.30	2.04	0.88
	Comparison	73	–1.60	1.21	0.19						
CR of child behavior problems (age 3)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	0	—	—	—						
CR of child total behavior problems (ages 3–5)	Intervention	57	–0.75	0.68	0.27	–0.47	1.50	0.75	–0.70	1.46	0.63
	Comparison	78	–0.28	0.53	0.60						
CR of child externalizing behavior problems (ages 3–5)	Intervention	57	–0.89	0.46	0.06	–0.65	1.07	0.55	–0.77	1.07	0.47
	Comparison	78	–0.24	0.39	0.54						
CR of child internalizing problems (ages 3–5)	Intervention	57	0.14	0.31	0.65	0.18	0.60	0.76	0.07	0.57	0.90
	Comparison	78	–0.04	0.27	0.89						
CR of family involvement (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	3	—	—	—						
CR of positive involvement (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	3	—	—	—						
CR of negative or ineffective discipline (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	3	—	—	—						
CR of deficient monitoring (age 5)	Intervention	0	—	—	—	—	—	—	—	—	—
	Comparison	3	—	—	—						

Outcome		N	Within-Family Mean Change[a] Estimate	SE	p-Value	Group-Level Comparison of Mean Changes: Unadjusted Model[b] Estimate	SE	p-Value	Adjusted Model[c] Estimate	SE	p-Value
CR of family conflict (ages 3–5)	Intervention	57	–0.53	0.28	0.06	–0.33	0.49	0.50	–0.37	0.48	0.44
	Comparison	78	–0.20	0.21	0.34						
CR of total child victimization experiences (ages 3–5)	Intervention	56	0.00	0.18	1.00	0.23	0.28	0.41	0.23	0.28	0.42
	Comparison	78	–0.23	0.14	0.09						
CR of child maltreatment (ages 3–5)	Intervention	57	–0.02	0.08	0.82	0.06	0.11	0.57	0.06	0.11	0.58
	Comparison	78	–0.08	0.05	0.11						
CR of child assault (ages 3–5)	Intervention	57	–0.04	0.09	0.69	0.02	0.12	0.89	0.00	0.12	0.98
	Comparison	78	–0.05	0.07	0.44						
CR of child sexual abuse (ages 3–5)	Intervention	57	0.02	0.03	0.57	0.03	0.04	0.42	0.03	0.04	0.41
	Comparison	78	–0.01	0.02	0.57						
CR of child witnessing violence (ages 3–5)	Intervention	57	–0.07	0.09	0.42	–0.03	0.13	0.81	–0.03	0.13	0.81
	Comparison	78	–0.04	0.08	0.62						
CR of caregiver depression	Intervention	57	–1.10	0.62	0.08	0.05	1.27	0.97	–0.19	1.21	0.88
	Comparison	78	–1.15	0.51	0.03[d]						
Tertiary											
CR of attitudinal barriers to care	Intervention	57	–0.33	0.18	0.07	0.56	0.32	0.08	0.55	0.31	0.08
	Comparison	78	–0.90	0.19	<0.01[d]*						
CR of total stressors	Intervention	57	–3.05	0.90	<0.01[d]*	–0.27	2.15	0.90	–0.42	2.03	0.84
	Comparison	78	–2.78	0.89	<0.01[d]*						
CR of resource problems	Intervention	57	–1.19	0.48	0.02[d]	–0.05	0.99	0.96	–0.08	0.91	0.93
	Comparison	78	–1.14	0.44	0.01[d]*						
CR of personal problems	Intervention	57	–1.86	0.63	<0.01[d]*	–0.22	1.43	0.88	–0.34	1.38	0.81
	Comparison	78	–1.64	0.61	0.01[d]*						
CR of caregiver total number of traumatic experiences	Intervention	57	–0.18	0.10	0.10	0.07	0.14	0.62	0.06	0.13	0.65
	Comparison	78	–0.24	0.10	0.01[d]*						
CR of caregiver experience of any non-DV trauma	Intervention	57	–0.09	0.05	0.06	0.00	0.06	0.97	0.00	0.06	0.98
	Comparison	78	–0.09	0.04	0.03[d]						
CR of caregiver experience of any DV	Intervention	57	–0.04	0.05	0.48	0.05	0.07	0.44	0.05	0.07	0.44
	Comparison	78	–0.09	0.05	0.07						

Outcome		Within-Family Mean Change[a]				Group-Level Comparison of Mean Changes					
						Unadjusted Model[b]			Adjusted Model[c]		
		N	Estimate	SE	*p*-Value	Estimate	SE	*p*-Value	Estimate	SE	*p*-Value
CR of caregiver PTSD	Intervention	57	–0.33	0.17	0.05	0.31	0.35	0.38	0.26	0.35	0.46
	Comparison	78	–0.64	0.16	<0.01[d]*						

NOTE: * = the significant difference over time remains after adjustment for multiple comparisons. — = Cell is too small to show. Mean change estimates are not shown when the group size is fewer than ten, and comparisons are not shown when the group size is fewer than ten for either group. Adjusted model results are not shown when the group size is fewer than 20 for either group.
[a] Within-family mean changes between the baseline and 12-month scores for each group separately.
[b] Group-level comparison of within-family mean changes from baseline to 12 months.
[c] Estimate of the difference between the two groups' within-family mean change from baseline to 12 months, controlling for child age, gender, race and ethnicity, and violence exposure (baseline exposure plus the average of exposure at 6 and 12 months).
[d] A significant paired *t*-test of differences over time ($p < 0.05$).

Safe Start Service Dosage and Changes in Primary Outcomes

To examine any intervention effects that Safe Start service dosage has on outcomes, we divided the intervention families into three dosage groups because families tend to receive different amounts of services. Divided into three levels, the variable defines a low dosage as no COS sessions, a medium dosage as one to seven COS sessions, and a high dosage as eight or more COS sessions. Because children and families with more need are likely to receive more services, we would expect a selection bias, with higher-need families receiving more services. To account for this selection bias, we used the propensity score matching method to pair families in each dosage group with families with similar needs in the comparison group. The matching paired families based on baseline scores on the outcome measure of interest. The analyses examined the difference in mean score changes between the intervention and comparison groups for each dosage group, after controlling for the number of case management contacts. Note that, in this analysis, the full comparison group is used in the matching of each of the dosage levels.

At six months, the propensity score matching analyses for the primary outcomes measuring difference aspects of child social–emotional competences (cooperation, assertion, and self-control) comparing the three groups on changes in mean score between baseline and six months revealed one statistically significant difference between the intervention and comparison groups for the low-dosage group (Table H.10). Children in the low-dosage matched comparison group improved significantly on child self-control when compared with children in the intervention group who received no COS sessions.

Table H.10. Changes in Means, by Dosage Group, for Primary Outcome Variables Between Baseline and Six-Month Assessment

Primary Outcome	Dosage	Group	*N*	Baseline		Six Months		Difference in Differences
				Mean	SD	Mean	SD	
CR of child cooperation (ages 3–5)	Low	Intervention	25	11.56	2.27	11.40	2.69	–0.16
		Comparison	25	11.20	2.58	11.20	2.66	
	Medium	Intervention	10	9.90	3.67	10.30	3.13	–1.20
		Comparison	10	9.10	2.18	10.70	3.47	
	High	Intervention	25	10.64	3.35	11.44	3.15	0.84
		Comparison	25	11.08	2.78	11.04	2.84	
CR of child assertion (ages 3–5)	Low	Intervention	27	14.26	2.96	14.26	2.98	–0.11
		Comparison	27	14.22	3.26	14.33	2.70	
	Medium	Intervention	9	13.33	4.42	13.00	4.50	—
		Comparison	9	13.33	3.32	13.56	4.00	
	High	Intervention	20	13.90	2.38	14.35	2.11	0.80
		Comparison	20	14.80	2.78	14.45	2.78	
CR of child self-control (ages 3–5)	Low	Intervention	24	9.50	3.02	9.29	3.41	–1.67*
		Comparison	24	9.00	3.98	10.46	3.55	
	Medium	Intervention	9	9.56	4.36	12.22	4.84	—
		Comparison	9	9.78	3.99	10.22	3.93	
	High	Intervention	21	8.95	3.88	9.67	4.12	–0.76
		Comparison	21	9.24	3.08	10.71	3.35	

NOTE: Data are not shown for outcomes when cell size is less than five for the group. Comparisons were not tested when the group size is less than ten for either group. * = Statistically significant (p-value < 0.05). — = Cell is too small to show.

At 12 months, the propensity score matching analyses for the primary outcomes measuring the caregiver's report of child cooperation, assertion, and self-control revealed no statistically significant difference between the intervention and comparison groups in any of the dosage categories (Table H.11).

Table H.11. Changes in Means, by Dosage Group, for Primary Outcome Variables Between Baseline and 12-Month Assessment

Primary Outcome	Dosage	Group	*N*	Baseline		12 Months		Difference in Differences
				Mean	SD	Mean	SD	
CR of child cooperation (ages 3–5)	Low	Intervention	12	11.17	1.99	11.92	2.31	0.08
		Comparison	12	10.92	1.68	11.58	3.58	
	Medium	Intervention	7	10.29	3.73	9.00	3.61	—
		Comparison	7	10.14	2.04	10.86	1.46	
	High	Intervention	27	10.89	2.82	11.22	3.61	0.44
		Comparison	27	10.85	3.16	10.74	3.57	
CR of child assertion (ages 3–5)	Low	Intervention	14	13.93	3.43	15.14	3.25	0.21
		Comparison	14	14.86	2.38	15.86	2.11	
	Medium	Intervention	7	14.00	4.08	12.86	4.56	—
		Comparison	7	10.86	2.91	11.57	3.26	
	High	Intervention	27	13.37	2.73	14.19	2.70	–0.07
		Comparison	27	13.37	2.91	14.26	3.23	
CR of child self-control (ages 3–5)	Low	Intervention	11	9.55	3.93	11.55	3.80	0.27
		Comparison	11	9.27	3.72	11.00	3.07	
	Medium	Intervention	6	9.67	4.32	9.67	5.28	—
		Comparison	6	11.67	3.14	12.50	2.43	
	High	Intervention	22	10.23	2.99	9.59	4.38	–1.77
		Comparison	22	9.91	3.07	11.05	3.23	

NOTE: Data are not shown for outcomes when cell size is less than five for the group. Comparisons were not tested when the group size is less than ten for either group. — = Cell is too small to show.

Conclusions

Spokane's Safe Start program added the COS intervention to usual Head Start services and was evaluated in an RCT comparing the COS therapy sessions plus Head Start services with a comparison group that received Head Start services only. In the study, the Safe Start program recruited 201 families and retained 164 of them at six months, representing an 82-percent retention rate. The families in the study were largely white (61 percent) and impoverished (72 percent with family incomes less than $30,000), with more than one-quarter (26 percent) of children scoring in the clinical range for PTSD symptoms and 28 percent of caregivers reporting moderate to severe depressive symptoms. Initially, Spokane struggled to engage families in the COS group session, but participation increased after changing to an individual-based format. Overall, for service uptake, 52 percent of the intervention group families received the COS therapy sessions, with somewhat more of those retained in the six- and 12-month samples taking

part in the COS individual sessions (63 percent for six-month sample, 68 percent for 12-month sample). Satisfaction with the intervention services was high.

In this trial, we expected a small effect size because of the robust services offered within the usual Head Start services that both groups received. Despite very strong retention, the Head Start program had limited capacity to recruit the large sample needed to detect a small effect. In addition, Spokane tested two interventions, which further reduced the program's ability to recruit adequately large samples to detect a small effect. Given the final enrollment and retention, there was power to detect only a medium effect of around 0.44 at six months and 0.49 at 12 months. Intent-to-treat analyses showed that mean scores in the intervention and comparison groups were in the expected direction across all outcome measures, but, overall, there was no evidence of intervention effects at six or 12 months for any of the outcomes because the comparison group experienced similar improvements over time, with small between-group effects. Examination of families who received low, medium, and high doses of the COS intervention revealed one statistically significant difference at six months between families in the intervention group and comparable families in the comparison group. Children in the low-dosage matched comparison group improved significantly on child self-control when compared with children in the intervention group who received no COS sessions.

In sum, the study was not powered to detect the small differences that might be expected with this set of intervention activities, so the study cannot determine whether there is such an effect. More research would be needed to determine whether these activities can produce small improvements in child and family outcomes over and above the usual services that Head Start offers.

Table H.12. Comparison of Means for Spokane Circle of Security Outcome Variables

		Baseline				Six Months				12 Months			
Outcome		***N***	**Mean**	**SD**	**Difference**	***N***	**Mean**	**SD**	**Difference**	***N***	**Mean**	**SD**	**Difference**
Primary													
CR of child cooperation (ages 3–5)	Intervention	97	11.27	2.97	0.59	72	11.47	3.04	0.77	57	11.61	3.35	0.74
	Comparison	104	10.68	2.78		92	10.71	2.85		78	10.87	2.96	
CR of child assertion (ages 3–5)	Intervention	94	13.85	3.31	–0.25	70	13.91	2.94	–0.27	54	14.30	3.28	–0.34
	Comparison	100	14.1	3.27		91	14.19	2.96		76	14.63	3.02	
CR of child self-control (ages 3–5)	Intervention	91	9.34	3.44	0.34	67	10.55	4.29	0.74	52	10.46	4.41	0.55
	Comparison	99	9.00	3.39		91	9.81	3.70		75	9.91	3.51	
Secondary													
CR of child PTSD symptoms (ages 3–5)	Intervention	93	37.17	6.82	–2.19	68	35.93	6.46	–2.88[a]	57	35.53	7.43	–2.99[a]
	Comparison	99	39.36	10.39		90	38.81	10.19		78	38.51	8.90	

Outcome		Baseline				Six Months				12 Months			
		N	Mean	SD	Difference	*N*	Mean	SD	Difference	*N*	Mean	SD	Difference
CR of child behavior problems (age 3)	Intervention	18	11.33	9.69	0.67	14	10.21	7.94	1.38	0	—	—	—
	Comparison	12	10.67	6.44		12	8.83	5.61		0	—	—	
CR of child total behavior problems (ages 3–5)	Intervention	97	10.81	4.92	–1.58[a]	70	10.39	5.43	–1.32	57	9.93	6.60	–2.11
	Comparison	104	12.39	6.37		92	11.71	6.27		78	12.04	6.55	
CR of child externalizing behavior problems (ages 3–5)	Intervention	97	8.37	3.76	–0.64	70	8.24	4.37	–0.51	57	7.37	4.76	–1.39
	Comparison	104	9.01	4.39		92	8.75	4.39		78	8.76	4.63	
CR of child internalizing problems (ages 3–5)	Intervention	97	2.44	2.02	–0.94[a]	70	2.14	1.56	–0.81[a]	57	2.56	2.49	–0.72
	Comparison	104	3.38	2.55		92	2.96	2.57		78	3.28	2.69	
CR of family involvement (age 5)	Intervention	1	—	—	—	0	—	—	—	25	23.32	4.84	0.75
	Comparison	4	—	—		4	—	—		42	22.57	3.71	
CR of positive involvement (age 5)	Intervention	1	—	—	—	0	—	—	—	25	63.40	8.37	–2.29
	Comparison	4	—	—		4	—	—		42	65.69	6.81	
CR of negative or ineffective discipline (age 5)	Intervention	1	—	—	—	0	—	—	—	25	19.28	4.05	–1.10
	Comparison	4	—	—		4	—	—		42	20.38	4.41	
CR of deficient monitoring (age 5)	Intervention	0	—	—	—	0	—	—	—	25	8.52	1.16	–0.28
	Comparison	4	—	—		4	—	—		41	8.80	1.40	
CR of family conflict (ages 3–5)	Intervention	97	3.07	2.16	0.21	72	2.90	2.10	0.39	57	2.53	2.03	0.38
	Comparison	104	2.86	2.25		92	2.51	2.14		78	2.14	1.87	
CR of total child victimization experiences (ages 3–5)	Intervention	96	0.81	1.39	–0.12	72	0.79	1.14	–0.07	57	0.74	1.14	0.07
	Comparison	104	0.93	1.08		92	0.86	1.16		78	0.67	1.21	
CR of child maltreatment (ages 3–5)	Intervention	97	0.18	0.56	0.02	72	0.13	0.33	–0.01	57	0.14	0.44	0.05
	Comparison	104	0.15	0.39		92	0.13	0.42		78	0.09	0.33	
CR of child assault (ages 3–5)	Intervention	97	0.30	0.58	0.05	72	0.24	0.54	–0.05	57	0.23	0.42	0.02
	Comparison	104	0.25	0.46		92	0.28	0.6		78	0.21	0.49	
CR of child sexual abuse (ages 3–5)	Intervention	97	0.02	0.14	–0.01	72	0.03	0.17	0.00	57	0.04	0.19	0.02
	Comparison	104	0.03	0.17		92	0.03	0.18		78	0.01	0.11	
CR of child witnessing violence (ages 3–5)	Intervention	97	0.24	0.59	–0.06	72	0.25	0.55	0.03	57	0.14	0.52	–0.08
	Comparison	104	0.30	0.62		92	0.22	0.49		78	0.22	0.57	
CR of caregiver depression	Intervention	97	7.20	5.70	0.49	72	6.59	5.94	0.22	57	5.46	5.10	0.06
	Comparison	104	6.70	4.75		92	6.36	5.23		78	5.40	5.02	

Outcome		Baseline				Six Months				12 Months			
		N	Mean	SD	Difference	*N*	Mean	SD	Difference	*N*	Mean	SD	Difference
Tertiary													
CR of attitudinal barriers to care	Intervention	97	1.16	1.40	–0.28	72	1.08	1.39	0.32	57	0.77	1.31	0.32
	Comparison	104	1.44	1.63		92	0.76	1.33		78	0.45	0.92	
CR of total stressors	Intervention	97	38.53	9.69	–0.75	72	36.57	9.34	–0.32	57	34.72	8.41	–1.01
	Comparison	104	39.28	8.84		92	36.89	9.57		78	35.73	8.56	
CR of resource problems	Intervention	97	13.84	4.77	–0.15	72	13.13	4.37	0.53	57	11.98	3.52	–0.41
	Comparison	104	13.98	4.26		92	12.60	4.17		78	12.4	3.9	
CR of personal problems	Intervention	97	24.69	6.20	–0.61	72	23.44	5.94	–0.85	57	22.74	5.79	–0.60
	Comparison	104	25.30	5.76		92	24.29	6.39		78	23.33	5.57	
CR of caregiver total number of traumatic experiences	Intervention	97	0.33	0.70	–0.09	72	0.42	1.06	0.21	57	0.09	0.43	–0.04
	Comparison	104	0.42	0.69		92	0.21	0.57		78	0.13	0.47	
CR of caregiver experience of any non-DV trauma	Intervention	97	0.12	0.33	–0.07	72	0.07	0.26	–0.03	57	0.02	0.13	–0.01
	Comparison	104	0.19	0.4		92	0.10	0.30		78	0.03	0.16	
CR of caregiver experience of any DV	Intervention	97	0.10	0.31	–0.06	72	0.21	0.41	0.14[a]	57	0.05	0.23	–0.02
	Comparison	104	0.16	0.37		92	0.07	0.25		78	0.08	0.27	
CR of caregiver PTSD	Intervention	97	1.63	1.49	0.04	72	1.42	1.52	0.31	57	1.05	1.46	0.17
	Comparison	104	1.59	1.51		92	1.11	1.41		78	0.88	1.31	

NOTE: * = the significant difference between groups remains after adjustment for multiple comparisons. — = Cell is too small to show. Data are not shown for outcomes when the cell size is fewer than five for either group. Comparisons were not tested when the group size was fewer than ten for either group.

[a] A significant paired *t*-test of differences between groups ($p < 0.05$). In cells containing *0.05*, we have rounded the value to 0.05, but it is still less than 0.05.