ARKANSAS FAMILY FIRST PREVENTION SERVICES ACT EVALUATION

Triple P Model

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Abstract

The Division of Children and Family Services (DCFS) supplies in-home parenting interventions for families entering child protective services. One intervention, Triple P – Positive Parenting Program® (Triple P) is a multi-tiered family support system designed to support parents of children birth through age 16 with behavioral and emotional problems. There are five levels of services in the model that vary from "light touch" parenting education to intensive interventions[1,2] and can be delivered in home, community, or clinical settings. Arkansas's Title IV-E plan provides Level 4, which supports families in need of crisis intervention. The Triple P model is provided by the University of Arkansas at Little Rock-MidSOUTH (MidSOUTH). MidSOUTH serves families with children from birth to age 18.

Researchers at the University of Arkansas for Medical Sciences, Department of Family and Preventive Medicine, Division of Research and Evaluation (UAMS-RED) have conducted a well-designed and rigorous outcomes evaluation for Triple P. *The major goals of this evaluation are to determine if Triple P is successful in improving child safety (i.e., reduced entry into foster care, reduced maltreatment recidivism), permanency, and family and child well-being.*

UAMS-RED's evaluation of Triple P in Arkansas used a quasi-experimental design. The general method for determining the success of Triple P on outcomes of interest was a retrospective cohort analysis. An intention-to-treat design was used to test differences in outcomes. When sample sizes were sufficient, an additional analysis was conducted using a subsample of participants who completed the intervention. To establish baseline equivalence of treatment and comparison groups, coarsened exact matching was performed. Coarsened exact matching (CEM) analysis is a technique used to match a comparison group to a group that received treatment in the absence of randomization.

Triple P enrollees were matched with children who were potential candidates for Triple P but did not subsequently enroll based on 1:1 coarsened exact match using the child's demographics, geographic and socioeconomic indicators, prior involvement with DCFS, and caregiver substance use. The comparison condition was treatment as usual, and families in the comparison group may have had other services available in their community. Data extracts from the official records of child welfare information for DCFS, Children's Reporting Information System (CHRIS), were used for all CEM characteristics and program outcomes.

In July 2020, MidSOUTH initiated Triple P services, which were fully implemented statewide by October 2020. There were 601 target children who were enrolled and discharged prior to October 31st, 2024, were identified in administrative data, and were eligible for matching. The outcomes examined in the current study include child safety and well-being outcomes. There were too few reunification cases (N=106) to examine child permanency outcomes.

Child safety research question 1 investigated whether children whose families received services from Triple P had fewer entries into foster care at 6-, 12-, 18-, and 24-months after participating in the intervention compared to a matched comparison sample. In both the intention-to-treat comparison and the subgroup analysis of those who completed the intervention, there were significantly fewer Triple P participants in foster care at 6 months post intervention. Longitudinally, children of families that completed Triple P were also less likely to

encounter a foster care placement at 18 months after the intervention than comparison children. There were not statistically significant differences in the observation periods of 12- and 24-months after the intervention, though the directionality of effects still favored an enrollment in Triple P compared to non-enrollment and there were two additional analyses in which group differences in the longer-term follow up windows approached significance.

Child safety research question 2 investigated whether children whose families were served by Triple P had fewer entries into foster care during the treatment period, compared to coarsened exact matched non-Triple P families. In the intention-to-treat analysis and the subgroup analysis of those who completed the intervention, families who participated in Triple P had a significantly lower rate of foster care placements during the treatment period than the matched comparison group.

Child safety research question 3 investigated whether families served by Triple P had fewer new true findings at 6-, 12-, 18-, and 24-months after participating in the intervention, compared to a matched comparison sample. There were no statistically significant differences in the prevalence of substantiated maltreatment referrals following treatment in either the intention-to-treat or the subgroup analysis of those who completed the intervention.

Child well-being research question 5 examined whether children whose families were served by Triple P had increased family functioning, as defined by the Family Advocacy and Support Tool (FAST),[3] from protective services entry to exit, compared to a coarsened exact-matched comparison sample. In the intention-to-treat analysis, a larger improvement in family functioning was seen in the Family Together FAST domain among the Triple P recipients, compared to the matched comparison.

Early evidence from this evaluation suggests that Arkansas's Triple P intervention has a positive impact on child safety, particularly family preservation, and family well-being. While we could not find existing studies of Triple P in reducing foster care placements, our family well-being finding is similar to those in existing studies which document Triple P's support of positive parenting practices.[4]

Study Description

The Division of Children and Family Services (DCFS) supplies in-home parenting interventions for families entering child protective services. Goals of the interventions are to prevent family separations or to speed up reunification when out-of-home placements are necessary. DCFS has implemented multiple models, one of which includes Triple P.

DCFS contracted with researchers at the University of Arkansas for Medical Sciences, Department of Family and Preventive Medicine, Division of Research and Evaluation (UAMS-RED), to conduct a well-designed and rigorous outcomes evaluation for Triple P. *The major goals of this evaluation are to determine if Triple P is successful in reducing the removal of children from the home into foster care, reducing maltreatment and subsequent maltreatment, and reducing future involvement with the child welfare system with the overall goals of improving child safety, permanency, and well-being.*

Triple P – Positive Parenting Program® (Triple P) is a multi-tiered family support system designed to support parents of children birth through age 16 with behavioral and emotional problems. There are five levels of services in the model that vary from "light touch" parenting education to intensive interventions and can be delivered in home, community, or clinical settings. The system uses research in social learning, cognitive behavioral science, and developmental theory to equip parents with skills to manage family issues independently.[1,2]

Triple P was included in Arkansas Five Year Title IV-E Prevention Plan Resubmission as the evidence-based parenting program.[5] The Title IV-E Prevention Services Clearinghouse has classified Triple P as a "promising" in-home parent skill-based program[6] and the California Evidence-Based Clearinghouse for Child Welfare (CEBC) categorizes it as "well-supported" with "medium" child welfare relevance.[7]

Intervention Condition

Triple-P provides materials for a wide range of interventions including public seminars on parenting tips, one-off discussion groups that cover common parenting issues, short-term care consultations, group and online coursework, one-on-one consultations for serious behavior problems, and two high-intensity programs that support families dealing with complex problems or child maltreatment. Interventions are divided into five levels described below. Arkansas's Title IV-E plan is limited to Level 4, which supports families in need of crisis intervention.

Level 4 delivers services to families of children with more severe behavioral difficulties. Arkansas' implementation of Level 4 services includes the Standard/Standard Teen/Standard Stepping Stones which are ten 1-hour sessions that occur weekly.[1,8]

Program Implementation

Triple P has one provider: the University of Arkansas at Little Rock-MidSOUTH (MidSOUTH). MidSOUTH began providing Triple in July 2020 and services were statewide by October 2020. MidSOUTH serves families with children from birth to age 18.

Triple P is administered across ten weekly one-on-one sessions. Each session lasts about an hour. Families may remain in the program for more than ten weeks if sessions are cancelled or if lessons are split into multiple sessions. An initial assessment is conducted apart from the ten sessions. In Arkansas, sessions are held in-person in the home if possible. Because of the pandemic, some sessions were held virtually.

MidSOUTH's Triple P Level 4 contract requires practitioners to meet the minimum job qualifications of a bachelor's level degree in Social Work, Psychology, Education, Human Services, Counseling, or a related field. Training occurs through a series of intensive workshops, typically 2 or 3 days in length. Once a practitioner has trained in core levels, they can take extension courses for additional programs such as Teen Triple P and Pathways. All practitioners implementing the Triple P program must be trained and accredited by authorized Triple P America trainers. Trainings are available online, via zoom, through open enrollment, or an agency-based format.

Following the core training days, all practitioners implementing Triple P participate in a one-day Pre-Accreditation Workshop. Pre-Accreditation Workshops aim to reduce practitioners' anxiety and apprehension around the Triple P accreditation process, reinforce all aspects of Triple P, and build their confidence in providing services. During the workshop, Triple P Trainers offer individualized feedback on skill development and guidance on relevant implementation issues. Providers practice specific competencies with their peers through role-play. There is also the opportunity to clarify and discuss program content.

After participating in the pre-accreditation day, a very high percentage of practitioners complete the accreditation process in a timely manner, without additional work to achieve the competency level required. For these reasons, a pre-accreditation workshop is essential for all Triple P providers. When practitioners are accredited and begin to deliver services, Triple P offers continuing help via implementation consultants who provide technical support, coaching, and consultation for agency planning and direction. There are Practitioner Manuals available for each level of Triple P that offer step-by-step guidance for providers.

CEBC explains the three main elements of the model that ensure fidelity:

1. "Session Checklists" assist practitioners in conducting the service as intended. Agencies may use these checklists as self-assessments or as formal evaluation tools.
2. Accreditation of Practitioners establishes baseline competencies and certification for Triple P providers. Practitioners must obtain a passing score on a written exam and demonstrate competencies in parent consultation through in-person, via zoom, or recorded observation.
3. Peer Support Networks help new agencies implement services using the Peer Assisted Supervision and Support (PASS) model of quality assurance. During PASS sessions, practitioners present cases to the group for the purpose of receiving feedback from other practitioners as well as receiving coaching and guidance about program implementation.

Based on data provided by MidSOUTH, 18 full-time staff members provided Triple P. These Triple P providers were predominantly female (94%). The racial and ethnic makeup of providers

was 12 White, 4 Black, and 2 Hispanic. All providers held at least a bachelor's degree, with 3 providers being master's prepared.

Implementation Fidelity

In Arkansas, Continuous Quality Improvement for Triple P is currently in development. Using data provided for this outcomes analysis, UAMS/RED observed the following regarding the enrollment duration:

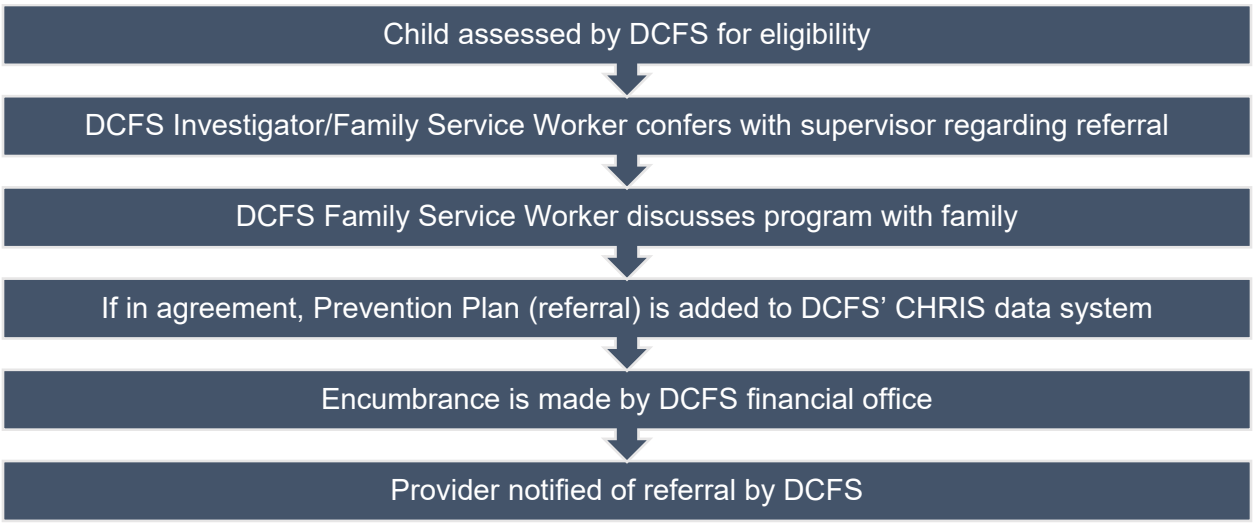
- The average length of enrollment amongst families that completed Triple P was 104 days. Although more than 10 weeks, this period begins at the initial program referral rather than the first session.
- The majority (85.4%) of families enrolled in Triple P completed the program.

Setting

In Arkansas, the Triple P model is implemented in families' homes. However, during the COVID-19 pandemic, sessions were delivered virtually for a period of approximately six months.

Referrals to Triple P are provided from DCFS staff (see Figure 2). After the referral by DCFS, a Triple P representative acknowledges receipt of the referral and notifies DCFS if/when a provider has been assigned.

Figure 2. DCFS Referral Process



Comparison Conditions

The comparison condition is treatment as usual. Families eligible to be included in the comparison group were those identified in CHRIS and these families may have received typical services available for the population in the study. According to the state of Arkansas' Title IV-E Prevention Program Plan for 2020-2024,[5] existing services include in-home parenting support (Intensive In-Home Services (IIHS)) and mental health interventions. In-home parenting support

programs include Family Centered Treatment, SafeCare, Intercept, and Family Centered Treatment.[9]

Prior to December 31, 2022, DCFS also funded the Intensive Family Services (IFS) Program in counties without IIHS; once IIHS became statewide, the program was discontinued.[9] At one point, IFS was offered in 20 counties (31% of the state) that did not have IIHS.[10] These programs are like IIHS programs in that they offer an array of services including time-limited intensive counseling, skill building, support services, and referrals to resources that target the needs of the family. Like IIHS, the primary intent of IFS is to prevent out-of-home placements of children; however, it is also used to support a reunification of children with their families. Services are available for 4 to 6 weeks and are provided in family homes or in alternative natural environment settings. DCFS procured contract providers throughout the state to offer IFS to referred families.

Medicaid funding is also used to provide substance abuse and mental health services. Mental health services include Parent-Child Interaction Therapy, Child-Parent Psychotherapy, and Functional Family Therapy, for example. Many DCFS clients are enrolled in Medicaid. DCFS also has small contracts for counseling services for those children and caregivers who do not have a healthcare coverage. These contracts are for counseling agencies and/or private licensed providers. Substance abuse treatment services and a support for motivational interviewing were being explored but were not a part of Arkansas' final prevention plan.[5]

Study Participants

In this study, all comparison families and Triple P participants had a child protective services case that was opened after June 1st, 2020. Follow-up continued through October 31st, 2024. Only families with cases that were open for at least 30 days were included.

In the current study, children and caregivers with dates of Triple P service between July 1, 2020, and October 31st, 2024, were eligible for inclusion (N=908 families). Children and caregivers without sufficient CHRIS records were excluded (see Figure 3): (1) Individual or case not found in CHRIS (N=216), (2) Incomplete CHRIS records for matching (N=53), and (3) program exclusions (N=38), which include duplicates, re-enrollments, extended enrollments (enrolled for more than 1 year) and non-starters. Non-starters were referred to Triple P but have no record of completing any sessions and were discharged within 14 days after their referral. Non-starters may remain in comparison but are removed from treatment group for analysis. After exclusions, 601 families remained eligible for matching.

Figure 3: Flow Diagram Depicting the Development of the Analyzable Triple P Population

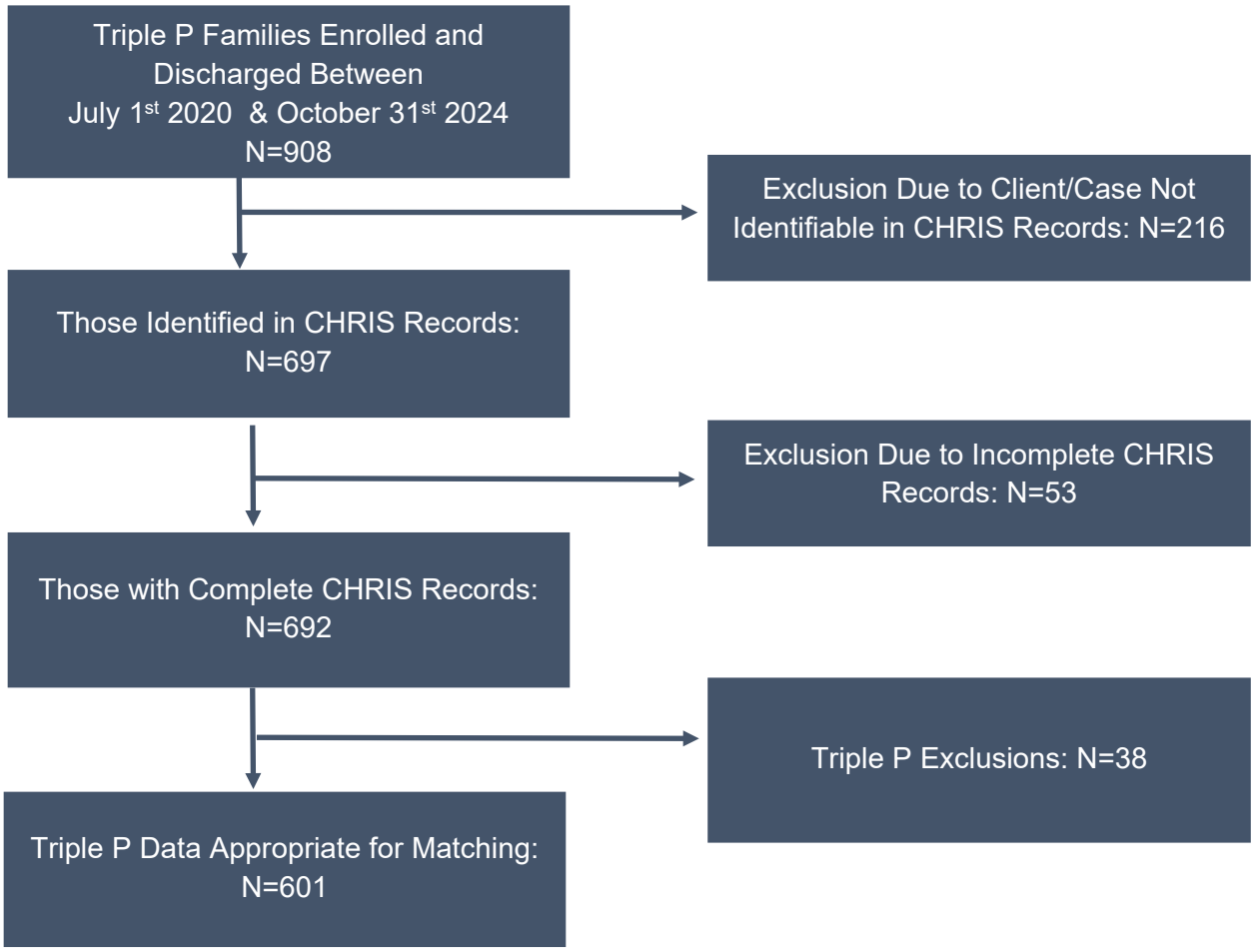


Table 2 provides the discharge reasons for the 601 families eligible for matching. The majority (85.4%) of families in Triple P completed the program. The resulting sample was sufficient to examine several outcomes for those who completed the intervention in addition to the intention-to-treat comparisons.

Table 2. Discharge Reasons for Triple P Participants

Triple P Discharge Reason	Frequency	Percent
Completed Triple P Program	513	85.4%
Moved and/or Lost Contact	19	3.2%
DCFS Service Disruption	23	3.8%
Family Requested Service End or Refused Services	20	3.3%
Other	26	4.3%
Total	**601**	**100%**

Study Design and Analysis

Design

UAMS-RED conducted a rigorous quantitative outcomes evaluation of Triple P in Arkansas using a quasi-experimental design. To measure program impact, we need to know what would have happened in the absence of program participation. To identify a comparison, group whose experiences can be analyzed against those of the treated children, coarsened exact matching was used. Coarsened exact matching establishes a comparison group of similar background as a treatment group when a randomization of groups is infeasible or unethical. This study was not pre-registered.

The general method for determining the success of Triple P on outcomes of interest was a prospective cohort analysis. An intention-to-treat design was used to test differences in outcomes at an individual level. An additional analysis was conducted using the subsample of participants who completed the intervention.

The official record of child welfare information for DCFS is maintained through CHRIS. Extracts of quantitative case data from CHRIS were used to measure all outcomes. CHRIS extracts are generated monthly. This study includes CHRIS data through October 31st, 2024. CHRIS includes family and child characteristics and case type as well as case outcomes and their relevant dates. The specific dates used in this evaluation include the date of a true finding and dates of child removal and/or reunification.

MidSOUTH provided service delivery data to DCFS. Records of enrollment (e.g., program start and end dates) and information about completion, including whether the family met program goals, were drawn at child/family-level from this dataset. For each case, prospective data from enrollment were analyzed to determine whether the outcome occurred within specified periods as described in the research questions. Triple P participant information used in this study was study includes data through October 31st, 2024.

Data collection and processing procedures did not differ between the treatment and comparison groups. For both treatment and comparison, only individuals with a child protective services case that opened after June 1st, 2020, were included. Families whose cases were open for less than 30 days were excluded from analyses to allow for completed a case plan.[11] Individuals in new foster care placements at the time the case was opened and those in foster care before and throughout the entire treatment window were excluded. Individuals that were missing variables used in the coarsened exact matching were excluded. Triple P included one child per family as the target child. In the comparison, one child per family was randomly selected prior to matching. Families enrolled in Triple P but without child information were excluded from treatment and comparison.

Because the comparison group does not have an enrollment date, the period for observing outcomes for the comparison group was computed based on the date the child protective services case was opened. The average length of program enrollment in Triple P was 104 days. To simulate a “program completion time” among the comparison group, a wait time of 104 days after the case was opened was added to approximate the length of time that it would have taken to complete Triple P. In addition, if program participants were in the program for less the

average length of time to complete the program, then their "treatment window" was extended to the average length of time (104 days).

Research Questions

The research questions were developed to assess impacts of the intervention related to child safety, permanency, and well-being:

Child Safety Outcomes

1. Will families served by Triple P have reduced entry into foster care at 6-, 12-, 18-, and 24-months following completion of the intervention as compared to a coarsened exact matched comparison sample?
2. Will families served by Triple P have reduced entry into foster care during the treatment period for Triple P and coarsened-exact matched non-Triple P families? This analysis will exclude families that started services as reunifications.
3. Will families served by Triple P have reduced true findings after program closure at 6-, 12-, 18-, and 24-months following completion of the intervention as compared to a coarsened exact matched comparison sample?

Permanency Outcomes

4. Will families served by Triple P as a reunification case have increased permanency at 6-, 12-, 18-, and 24-months following completion of the intervention as compared to a coarsened exact matched comparison sample?

Well-Being Outcomes

5. Will families served by Triple P have increased family functioning from entry to exit from protective services as compared to a coarsened exact matched comparison sample?
6. Will families served by Triple P as a reunification case have increased well-being from entry to exit from foster care compared to a coarsened exact matched comparison sample of children who were reunified with their families?

Coarsened Exact Match

In this single arm study, the Triple P enrollees were matched with children who were potential candidates for Triple P but did not enroll based on 1:1 coarsened exact matching (CEM). CEM is a non-parametric matching method that necessitates a two-step process. First, discretization of variables ("coarsening") is performed to transform continuous variables into meaningful yet manageable categories. Second, the treatment and comparison matches are made if they have identical values across all variables. If there is sufficient overlap between treatment and comparison groups that allow exact matching after coarsening, then CEM is considered to be potentially more bias reducing than matching methods that require modeling.[12] The CEM SAS macro was used to perform the matching.[13]

Variables to be matched include the child's demographics, geographic and socioeconomic indicators, caregiver substance use, and prior DCFS involvement. These variables were selected based on a review of the literature, availability in the CHRIS system and recommendations from the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures Handbook.[14] Specifically, the match variables included the child's

age, gender, and race/ethnicity, Rural-Urban Commuting Area (RUCA), the ZIP-code-level median household income, prior involvement with child welfare (investigations, open cases, and foster care placements), and caregiver substance use (see Table 3). Median household income was derived from assigning the family address a median household income based on the ZIP-code. Child age was divided into eight categories (<1, 1-2, 3-4, 5-6, 7-9, 10-12, 13-15, 16-18) and income was divided into four categories (<$30K, $30K-40K, $40K-50K, >$50K). All match variables were based on status when the case was opened.

To test the association of enrollment Triple P and outcomes, UAMS fit outcome-specific logistic models using the SAS proc logistic procedure. A difference-in-differences approach was used to assess well-being outcomes. An intent-to-treat design was used to test differences in outcomes. Additional sensitivity analyses were conducted for the subsample of participants who completed Triple P.

Table 3. Coarsened Exact Matching Variables

Child age	Median household income[a]
Child gender	Rural-Urban Commuting Area[a]
Race/Ethnicity	Prior DCFS involvement[b]
Caregiver substance use	
NOTE: a: based on ZIP-Code; b: Prior DCFS involvement is defined as investigations or case involvement within the 3 years prior to the analysis window and/or a foster care placement at any time.	

Baseline Equivalence

Coarsened exact matching was used to identify children in the comparison with equivalent baseline covariate values. After matching, each child in the matched comparison group has the same exact combination of covariates as a child in the matched treatment group.

For the Well-being outcomes, baseline equivalence for the FAST pre-test values were assessed using Hedge's *G* for continuous values as recommended in the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures Handbook.[14] Baseline ES between 0.05 and 0.25 indicate that statistical adjustments may be required. The difference-in-difference method was used to control for differences in the baseline FAST pre-test. Evidence of large differences (ES > 0.25) imply that the individuals in the intervention and comparison conditions were drawn from very different settings and are not sufficiently comparable for the review.

Missing Data

Listwise deletion was performed when there was any data element missing.

Sample Sizes and Attrition

Analytic sample sizes by condition (treatment/comparison) for each outcome at each measurement point (pre-CEM, post-CEM) are summarized in Table 4. Samples in this study included families who were enrolled and served in Triple P regardless of the duration, intensity,

and discharge reasons of services (intention-to-treat comparison). Additional analyses were conducted with a subsample of participants who completed the intervention (completed intervention comparison).

Table 4. Sample Sizes by Outcome

Outcomes	Pre-CEM		Post-CEM	
	Treatment	Comparison	Treatment	Comparison
Child safety outcomes: Research questions 1 and 2				
Foster care at 6 months following completion of the treatment	447	10,728	418	418
Subsample that completed the intervention	386	10,728	359	359
Foster care at 12 months following completion of the treatment	365	9,427	341	341
Subsample that completed the intervention	317	9,427	295	295
Foster care at 18 months following completion of the treatment	299	7,966	271	271
Subsample that completed the intervention	261	7,966	237	237
Foster care at 24 months following completion of the treatment	237	6,514	212	212
Subsample that completed the intervention	209	6,514	186	186
Foster care placement during treatment	494	12,102	464	464
Subsample that completed the intervention	421	12,102	393	393
Child safety outcomes: Research question 3				
True finding at 6 months following completion of the treatment	442	10,361	412	412
Subsample that completed the intervention	385	10,361	356	356
True finding at 12 months following completion of the treatment	355	8,945	329	329
Subsample that completed the intervention	311	8,945	286	286
True finding at 18 months following completion of the treatment	288	7,478	261	261
Subsample that completed the intervention	254	7,478	230	230
True finding at 24 months following completion of the treatment	225	6,110	200	200
Subsample that completed the intervention	200	6,110	177	177

Outcomes	Pre-CEM		Post-CEM	
	Treatment	Comparison	Treatment	Comparison
Well-being outcomes: Research question 5				
FAST measures	238	3,637	198	198
Subsample that completed the intervention	205	3,637	171	171

Measures

The official record of child welfare information for DCFS is maintained through CHRIS. Extracts of quantitative case data from CHRIS were used to measure all outcomes. CHRIS extracts are generated monthly. CHRIS data includes family and child characteristics, case assessments and outcomes, and their associated dates. The specific dates used in this evaluation include the date of a true finding and dates of entry into foster care. Observation windows for treatment group were defined as follows:

- 6-months-follow-up window: From the date of discharge to 6 months post discharge.
- 12-months-follow-up window: From the date of 6 months post discharge to 12 months post discharge.
- 18-months-follow-up window: From the date of 12 months post discharge to 18 months post discharge.
- 24-months-follow-up window: From the date of 18 months post discharge to 24 months post discharge.

For comparison cases, the date of discharge is replaced with 104 days, which is an average time of the length of treatment for those who completed Triple P.

Child Safety Outcomes

Child safety outcomes were measured using CHRIS records of foster care entry and true findings. To answer Research Questions 1 and 2, we examined foster care placements (a) during treatment and a comparable observation window for the comparison group, and (b) during each 6-month follow-up window. CHRIS records indicated when a child is removed from home and placed into foster care. Placements that lasted fewer than 7 days were excluded to account for 72-hour holds which may have occurred during holidays to account for state policy on this category of removal.[11] Foster care entry that occurred in one observation window and continued into subsequent observation windows was counted in the subsequent observation windows as well. For example, if a child entered foster care within 6 months of program completion and stayed under the care in the 12-months-follow-up window, this child was counted as a child under foster care in the 12-months-follow-up window. For each of these observation windows, a binary variable was created that indicates an entrance to foster care or continued foster care placement at any time. If a child was adopted out of foster care, then he or she was not included in subsequent follow-up windows.

Research Question 3 addresses true findings from allegations that occur post-intervention. A binary outcome was created to indicate whether an investigation yielding a true finding had occurred during the 6-, 12-, 18-, or 24-month follow-up window.

Permanency Outcomes

Permanency outcomes were measured in cases that began as reunification. We were unable to assess this outcome due to insufficient samples (N=113).

Well-Being Outcomes

Family Advocacy and Support Tool (FAST) assessments were used to answer Research Question 5. FAST assessments are designed for use with the entire family. DCFS uses the FAST tool within 30 days of protective services case initiation and completes the tool every 3 months.[11] The Arkansas FAST includes 50 indicators of family functioning in 4 domains:

1. *Family Together* includes 10 items that address collaboration and supportive relationships among family members, communication and role appropriateness, family conflict and safety, financial resources, housing condition, and residential stability.
2. *Caregiver's Status* includes 20 items that assess parenting and biopsychosocial resources.
3. *Caregiver Advocacy Status* includes 8 items that measure mastery to advocate for needed supports.
4. *Youth Status* includes 12 items that include multiple indicators of the child's status, including relationships with caregiver and others, health status, mental health status and adjustment to trauma, cognitive skills and educational status, and self-regulation and interpersonal skills.

FAST items identified as a 0 are often strengths that can be used in strength-based planning. Items rated a 1 should be monitored, and preventive efforts might be indicated. Items rated a 2 or 3 are actionable and should be addressed in the intervention plan. Average scores were computed for each domain. When multiple parents in the same household were assessed in the *Caregiver's Status* section, an average of their scores was computed. The *Youth Status* section was unique per individual and the *Family Together* and the *Caregiver Advocacy Status* domains were unique per household.

For an individual to be included in the FAST analysis cohort, they must have had at least three appropriately timed FAST assessments. The first FAST assessment used occurred closest to the date the case opened. The second FAST assessment occurred between 2 and 5 months after the case opened and the third FAST assessment occurred between 5 and 8 months after the case opened. In the final analyses, the first FAST was used as the pre-test and the third FAST was used as the post-test.

The Child and Adolescent Needs and Strengths (CANS) assessments were to be used to answer Research Question 6; however, we were unable to assess this outcome due to the small sample of cases that began as reunification (N=113).

Family Characteristics

Family characteristics were obtained from CHRIS administrative data and included in the analyses. Analyses included demographic information including child gender, race/ethnicity, and age, which was computed based on the individual's date of birth and the date the case opened. Caregiver substance use was retrieved from administrative data based on assessments taken either during the investigation before the case was opened or when the case was opened.

Two indicators, median household income and rurality/urbanicity, were created based on the family 5-digit ZIP-code. Median household income quartiles were derived from assigning the family address at the time of referral to a 5-digit ZIP-code level median household income obtained from the 2019 American Community Survey 5-Year Estimates.[15] The rural-urban commuting area code (RUCA) associated with family ZIP code was also used to create two categories to describe the area of the family residency: urban and rural.[16]

Prior involvement with child welfare including investigations or open cases, and foster care placements were computed and included as binary variables. If there were any investigations performed by DCFS or open cases in the three years prior to the case open date in this study, this was represented as a 1. Any history of foster care placements was represented as 1. If there was not any history of foster care placements and there were no investigations or open cases three years prior, then the prior involvement variable was a zero.

Baseline Equivalence

Tables A-1 to A-17 in Appendix A and Tables B-1 and B-2 in Appendix B provide the baseline characteristics of families served by Triple P and the potential comparison sample before and after coarsened exact matching is performed. Children with the same characteristics were matched based on gender, race/ethnicity, age, RUCA, income, prior involvement with child welfare including investigations or open cases, prior foster care, and caregiver substance use. Age and income were coarsened to eight and four categories, respectively.

Analyses of the well-being outcomes utilized the difference-in-differences method, thus time-invariant covariates were not included. Baseline equivalence of initial well-being scores is described in Table B-3.

Data Analysis and Findings

To test the association of Triple P enrollment and discrete outcomes addressed in Research Questions 1 through 3, logistic regression models were fitted using the SAS proc logistic procedure. A binomial distribution with a logit-link function was used and odds ratios were calculated. Odds ratios were converted to effect sizes using the Cox transformation.[17] A difference-in-differences approach was used to test the association of Triple P enrollment and the improvement in FAST scores addressed in Research Question 5.[18,19] A generalized linear regression model was fitted with the two primary predictor variables and their interaction term to compute the difference-in-differences estimate of the change in the FAST score by the treatment status. All statistical analyses were performed using the SAS 9.4.

Child Safety Outcomes

Research Question 1: Will families served by Triple P have reduced entry into foster at 6-, 12-, 18-, or 24-months following completion of the intervention as compared to a coarsened exact matched comparison sample?

Foster care placements were significantly less likely in the treatment group than the comparison group at 6 months post-treatment in both the intention-to-treat (Odds Ratio [OR]=0.42; 95% Confidence Interval [CI] = [0.19, 0.87], p=0.025) and the subgroup analysis of families that completed the Triple P program ([OR]=0.34; 95% Confidence Interval [CI] = [0.13, 0.77], p=0.015). The effect size (the Cox transformation of the odds ratios was -0.52 (95% CI= [-0.98, -0.07]) in the intention-to-treat analysis and -0.63 (95% CI= [-1.16, -0.09]) in the completer subgroup analysis. At 18 months post-treatment, there were significantly fewer foster care placements in the treatment group than the comparison in the subgroup analysis of families that completed the program ([OR=0.36; 95% CI=[0.13, 0.89]) and the effect size was -0.62 (95% CI=[-1.20, -0.04]). No other comparisons were statistically significant. Details are provided in Table 4.

Research Question 2: Will families served by Triple P have reduced entry into foster care during the treatment period for Triple P and a coarsened exact matched non-Triple P families?

In the intention-to-treat comparison, there was a significantly lower prevalence of foster care placements during the duration of the program among families enrolled in Triple P compared to the matched comparison group ([OR]=0.29; 95% [CI] = [0.09, 0.73], p=0.015). The effect size was -0.76 (95% CI= [-1.37, -0.15]).

Foster care placements during the treatment period were significantly less prevalent in families who completed the program compared to a matched comparison (Odds Ratio [OR]=0.06; 95% [CI] = [0.00, 0.32], p=0.008). The effect size was -1.66 (95% CI= [-2.89, -0.43]). Details are provided in Table 4.

Table 4. Triple P Treatment and Comparison Group Child Foster Care Outcomes

Follow-Up Time	N	Treatment n (%)	Comparison n (%)	Estimated Effect		
				Effect Size[a]	Odds Ratio (95% CI)	P-value
Intention-to-Treat Comparisons						
6-month follow-up	836	10 (2.4%)	23 (5.5%)	-0.52 (-0.98, -0.07)	0.42 (0.19-0.87)	0.025
12-month follow-up	682	12 (3.5%)	19 (5.6%)	-0.29 (-0.74, 0.16)	0.62 (0.29-1.28)	0.202
18-month follow-up	542	8 (3.0%)	17 (6.3%)	-0.48 (-1.00, 0.04)	0.45 (0.18-1.04)	0.072
24-month follow-up	424	7 (3.3%)	11 (5.2%)	-0.29 (-0.87, 0.30)	0.62 (0.23-1.62)	0.339
During treatment	928	5 (1.1%)	17 (3.7%)	-0.76 (-1.37, -0.15)	0.29 (0.09-0.73)	0.015

Follow-Up Time	N	Treatment n (%)	Comparison n (%)	Estimated Effect		
				Effect Size[a]	Odds Ratio (95% CI)	P-value
Completed Intervention Comparisons						
6-month follow-up	718	7 (2.0%)	20 (5.6%)	-0.66 (-1.19, -0.13)	0.34 (0.13-0.77)	0.015
12-month follow-up	590	8 (2.7%)	17 (5.8%)	-0.48 (-1.00, 0.04)	0.46 (0.18-1.04)	0.072
18-month follow-up	474	6 (2.5%)	16 (6.8%)	-0.62 (-1.20, -0.04)	0.36 (0.13-0.89)	0.036
24-month follow-up	372	6 (3.2%)	10 (5.4%)	-0.32 (-0.95, 0.30)	0.59 (0.20-1.61)	0.312
During treatment	786	1 (0.3%)	15 (3.8%)	-1.66 (-2.89, -0.43)	0.06 (0.00-0.32)	0.008
[a]The effect size is derived using the COX transformation.[17] A standardized mean difference (i.e., Cohen's d, Hedges' g. Glass's D) is commonly considered to be indicative of small, medium, and large effects if it is larger than 0.20, 0.50, and 0.80, respectively.[20,21]						

Research Question 3: Will families served by Triple P have reduced true findings after program closure at 6-, 12-, 18-, or 24-months following completion of the intervention as compared to a coarsened exact matched comparison sample?

There were no statistically significant differences in true findings (see Table 5) in either comparison (intention-to-treat or completed intervention subgroup).

Table 5. Triple P Treatment and Comparison Group True Finding Outcomes Differences

Follow-Up Time	N	Treatment n (%)	Comparison n (%)	Estimated Effect		
				Effect Size[a]	Odds Ratio (95% CI)	P-value
Intention-to-Treat Comparisons						
6-month follow-up	824	19 (4.6%)	22 (5.3%)	-0.09 (-0.48, 0.29)	0.86 (0.45-1.61)	0.631
12-month follow-up	658	12 (3.7%)	6 (1.8%)	0.43 (-0.17, 1.03)	2.04 (0.78-5.91)	0.160
18-month follow-up	522	4 (1.5%)	4 (1.5%)	0.00 (-0.85, 0.85)	1.00 (0.23-4.27)	1.000
24-month follow-up	400	2 (1.0%)	1 (0.5%)	0.42 (-1.04, 1.88)	2.01 (0.19-43.4)	0.570
Completed Intervention Comparisons						
6-month follow-up	712	16 (4.5%)	17 (4.78%)	-0.04 (-0.46, 0.39)	0.94 (0.46-1.90)	0.859
12-month follow-up	572	9 (3.2%)	5 (1.75%)	0.36 (-0.31, 1.04)	1.83 (0.62-6.01)	0.286
18-month follow-up	460	3 (1.3%)	3 (1.30%)	0.00 (-0.98, 0.98)	1.00 (0.18-5.45)	1.000
24-month follow-up	354	2 (1.1%)	1 (0.56%)	0.42 (-1.04, 1.88)	2.01 (0.19-43.5)	0.570

[a]The effect size is derived using the COX transformation.[17] A standardized mean difference (i.e., Cohen's d, Hedges' g. Glass's D) is commonly considered to be indicative of small, medium, and large effects if it is larger than 0.20, 0.50, and 0.80, respectively.[20,21]

Well-Being Outcomes

Research Question 5: Will families served by Triple P have increased family functioning from entry to exit from protective services as compared to a coarsened exact matched comparison sample?

For the intention-to-treat comparisons, there was a significant difference in change over time for the *Family Together* (β = -0.120, p = 0.032; Hedge's G = -0.195) scale where families who participated in Triple P had a more positive change in the *Family Together* FAST domain (reduced FAST scores) over time compared to the matched comparison. This was also significant in the subset analysis of families that completed Triple P (β = -0.138, p = 0.020; Hedge's G = -0.202). There was no significant difference in change over time for the other comparisons. Details are provided in Table 6.

Table 6. Treatment and Comparison Group Child Well-being Outcomes Differences

FAST Domain	Treatment Mean Diff (SE)	Comparison Mean Diff (SE)	Estimate (SE)	P-value	Effect Size[a]
Intention-to-Treat Comparisons (N=198 matched dyads)					
Youth Status	-0.030 (0.012)	-0.011 (0.008)	-0.067 (0.059)	0.255	-0.140
Caregiver's Status	-0.066 (0.010)	-0.044 (0.009)	-0.070 (0.054)	0.195	-0.164
Caregiver's Advocacy Status	-0.032 (0.012)	-0.018 (0.007)	-0.091 (0.091)	0.315	-0.104
Family Together	-0.095 (0.016)	-0.055 (0.013)	-0.120 (0.056)	0.032	-0.195
Completed Intervention Comparisons (N=171 matched dyads)					
Youth Status	-0.034 (0.013)	-0.009 (0.008)	-0.093 (0.063)	0.137	-0.178
Caregiver's Status	-0.069 (0.011)	-0.048 (0.011)	-0.077 (0.058)	0.190	-0.155
Caregiver's Advocacy Status	-0.027 (0.012)	-0.019 (0.008)	-0.086 (0.102)	0.403	-0.061
Family Together	-0.101 (0.016)	-0.059 (0.015)	-0.138 (0.059)	0.020	-0.202

[a]Effect size in the form of Hedge's G. A standardized mean difference (i.e., Cohen's d, Hedges' g. Glass's D) is commonly considered to be indicative of small, medium, and large effects if it is larger than 0.20, 0.50, and 0.80, respectively. The estimate is presented in the log scale.

Discussion

This study investigated the impacts of Triple P Level 4 services on child safety outcomes during services and at 6-, 12-, 18-, and 24-months post service completion. The study also examined change in DCFS staff ratings of family well-being using the FAST which were

conducted at the start and end of child welfare involvement. Overall, this evaluation found a significant positive impact of Arkansas's Triple P program on child safety and child well-being.

Children of families participating in Triple P were less likely to encounter a foster care placement during the intervention and at six months after the intervention than children in the matched comparison. This was true in both the intention-to-treat analysis and subgroup analysis. Longitudinally, children of families that completed Triple P were also less likely to encounter a foster care placement at 18 months after the intervention than comparison children. There were not statistically significant differences in the observation periods of 12- and 24-months after the intervention, though the directionality of effects still favored an enrollment in Triple P compared to non-enrollment. A lack of statistically significant findings in longer follow-up periods may be due to smaller sample sizes, rather than an indication of no long-term effects. Indeed, there were two analyses in which group differences in the longer-term follow up windows approached significance.

When we examined substantiated maltreatment referrals, there were no statistically significant differences between children enrolled in Triple P and the matched comparison group in any follow-up period. The directionality of effects indicated that the families that enrolled in Triple P generally had fewer true findings compared to a comparison group of families; however, the difference was negligible as evidenced by the lack of statistical significance.

For the intention-to-treat comparisons, there was a significant difference in change over time for the *Family Together* and families who participated in Triple P had a more positive improvement in the *Family Together* FAST domain (reduced FAST scores) over time compared to the matched comparison. There were no significant differences in change over time for the other comparisons, but families in Triple P experienced positive improvement in every FAST domain.

Strengths and Limitations

There are substantial strengths of this study. The first is the availability of the CHRIS administrative data for this evaluation. These data provide a large, statewide source of potential matches and the opportunity to examine the same outcomes in the absence of a randomized trial. Second, coarsened exact matching is an effective strategy that does not require a large sample as often needed for other confounding adjustment methods (e.g. fine stratification by propensity score) to reduce bias and model dependence, provided that data is appropriately categorized and the number of variables included in matching is small.[12,22,23] Here, a large comparison pool allowed us to retain over 90% of the original sample (except for the 24 month outcomes, which retained 89% and the fast outcomes, which retained 83%). CEM balances across the full joint distribution of all matching variables, while offering a simple and intuitive selection of the comparison group.[12]

The use of administrative data is a strength, but it is also a limitation. While there are mechanisms in place at the state level to ensure the correctness and completeness of data (e.g., area supervisors review candidacy with family service workers to ensure the appropriate candidacy reasons are included in the case files) the state has limited resources to conduct

ongoing validation, correction, and update of individual data elements. As such, there was some sample loss due to incomplete or missing data in CHRIS.

There are also limitations inherent in the use of a treatment as usual comparison condition. While the interventions available through Arkansas' Prevention Plan are not funded at a level to serve every family, it is possible that families selected for the comparison condition received in-home parenting or mental health services through their interaction with DCFS. Similarly, individuals in the treatment or comparison may have received additional supports through these other service mechanisms. As a result, it should be noted that the analyses presented may be a conservative estimate of Triple P's impact.[24]

It also is important to note that implementation closely coincided with the start of the COVID-19 pandemic. DCFS reported the pandemic increased staff turnover and, relatedly, the average caseload for FSWs statewide.[25] There were also noted delays in case closures and an increase in the number of children in foster care and fewer potential foster care placements. Because many program participants enrolled during the COVID pandemic, there was an additional variability in services due to potential use of telehealth. These processes may influence our evaluation outcomes, although are minimized through sample selection as these would similarly impact both the treatment and comparison groups.

Conclusions

Early evidence from this evaluation suggests that Triple P as implemented in Arkansas has demonstrated a positive impact on child safety, particularly family preservation, and family well-being. While we could not find existing studies of Triple P in reducing foster care placements, our family well-being finding is similar to those in existing studies which document Triple P's support of positive parenting practices.[4]

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Appendix A: Coarsened Exact Matching Outcomes

Table A-1. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 0-6 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=10,728)	Triple P Pre-match (N=447)	Post-match Pair (n=418*)
	n (%)	n (%)	n (%)
Child gender: Female	5,403 (50.4%)	209 (46.8%)	192 (45.9%)
Child age:			
<1	2,594 (24.2%)	2 (0.4%)	2 (0.5%)
1-2	1,387 (12.9%)	17 (3.8%)	16 (3.8%)
3-4	1,188 (11.1%)	40 (8.9%)	40 (9.6%)
5-6	1,017 (9.5%)	73 (16.3%)	67 (16.0%)
7-9	1,273 (11.9%)	122 (27.3%)	114 (27.3%)
10-12	1,180 (11.0%)	88 (19.7%)	83 (19.9%)
13-15	1,397 (13.0%)	80 (17.9%)	74 (17.7%)
16-18	692 (6.5%)	25 (5.6%)	22 (5.3%)
Child race/ethnicity:			
White	6,605 (61.6%)	277 (62.0%)	266 (63.6%)
Black	2,962 (27.6%)	129 (28.9%)	122 (29.2%)
Hispanic or Latino	768 (7.2%)	30 (6.7%)	22 (5.3%)
Other	393 (3.7%)	11 (2.5%)	8 (1.9%)
Median household income:			
<$30K	1,176 (11.0%)	60 (13.4%)	47 (11.2%)
$30K-40K	5,629 (52.5%)	250 (55.9%)	244 (58.4%)
$40K-50K	2,733 (25.5%)	92 (20.6%)	86 (20.6%)
>$50K	1,190 (11.1%)	45 (10.1%)	41 (9.8%)
RUCA: Rural	4,146 (38.6%)	224 (50.1%)	211 (50.5%)
Caregiver substance use: Yes	4,898 (45.7%)	97 (21.7%)	79 (18.9%)
Prior foster care placements: Yes	790 (7.4%)	45 (10.1%)	33 (7.9%)
DCFS involvement in the past 3 years: Yes	3,641 (33.9%)	204 (45.6%)	187 (44.7%)

*Triple P and comparison are identical on the presented categories. The total sample is N=836.

Table A-2. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 0-6 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=10,728)	Triple P Pre-match (N=386)	Post-match Pair (n=359*)
	n (%)	n (%)	n (%)
Child gender: Female	5,403 (50.4%)	185 (47.9%)	169 (47.1%)
Child age:			
<1	2,594 (24.2%)	2 (0.5%)	2 (0.6%)
1-2	1,387 (12.9%)	15 (3.9%)	14 (3.9%)
3-4	1,188 (11.1%)	37 (9.6%)	37 (10.3%)
5-6	1,017 (9.5%)	61 (15.8%)	56 (15.6%)
7-9	1,273 (11.9%)	107 (27.7%)	100 (27.9%)
10-12	1,180 (11.0%)	77 (19.9%)	72 (20.1%)
13-15	1,397 (13.0%)	66 (17.1%)	60 (16.7%)
16-18	692 (6.5%)	21 (5.4%)	18 (5.0%)
Child race/ethnicity:			
White	6,605 (61.6%)	237 (61.4%)	227 (63.2%)
Black	2,962 (27.6%)	112 (29.0%)	105 (29.2%)
Hispanic or Latino	768 (7.2%)	26 (6.7%)	19 (5.3%)
Other	393 (3.7%)	11 (2.8%)	8 (2.2%)
Median household income:			
<$30K	1,176 (11.0%)	49 (12.7%)	38 (10.6%)
$30K-40K	5,629 (52.5%)	214 (55.4%)	208 (57.9%)
$40K-50K	2,733 (25.5%)	84 (21.8%)	78 (21.7%)
>$50K	1,190 (11.1%)	39 (10.1%)	35 (9.7%)
RUCA: Rural	4,146 (38.6%)	199 (51.6%)	186 (51.8%)
Caregiver substance use: Yes	4,898 (45.7%)	82 (21.2%)	65 (18.1%)
Prior foster care placements: Yes	790 (7.4%)	38 (9.8%)	26 (7.2%)
DCFS involvement in the past 3 years: Yes	3,641 (33.9%)	173 (44.8%)	157 (43.7%)

*Triple P and comparison are identical on the presented categories. The total sample is N=718.

Table A-3. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 6-12 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=9,427)	Triple P Pre-match (N=365)	Post-match Pair (n=341*)
	n (%)	n (%)	n (%)
Child gender: Female	4,733 (50.2%)	179 (49.0%)	166 (48.7%)
Child age:			
<1	2,285 (24.2%)	2 (0.5%)	2 (0.6%)
1-2	1,217 (12.9%)	12 (3.3%)	11 (3.2%)
3-4	1,065 (11.3%)	30 (8.2%)	30 (8.8%)
5-6	899 (9.5%)	62 (17.0%)	58 (17.0%)
7-9	1,145 (12.1%)	98 (26.8%)	92 (27.0%)
10-12	1,070 (11.4%)	71 (19.5%)	66 (19.4%)
13-15	1,274 (13.5%)	71 (19.5%)	66 (19.4%)
16-18	472 (5.0%)	19 (5.2%)	16 (4.7%)
Child race/ethnicity:			
White	5,806 (61.6%)	235 (64.4%)	224 (65.7%)
Black	2,618 (27.8%)	97 (26.6%)	94 (27.6%)
Hispanic or Latino	683 (7.2%)	25 (6.8%)	17 (5.0%)
Other	320 (3.4%)	8 (2.2%)	6 (1.8%)
Median household income:			
<$30K	1,032 (10.9%)	50 (13.7%)	40 (11.7%)
$30K-40K	4,947 (52.5%)	210 (57.5%)	204 (59.8%)
$40K-50K	2,403 (25.5%)	69 (18.9%)	64 (18.8%)
>$50K	1,045 (11.1%)	36 (9.9%)	33 (9.7%)
RUCA: Rural	3,645 (38.7%)	186 (51.0%)	176 (51.6%)
Caregiver substance use: Yes	4,221 (44.8%)	75 (20.5%)	60 (17.6%)
Prior foster care placements: Yes	685 (7.3%)	36 (9.9%)	25 (7.3%)
DCFS involvement in the past 3 years: Yes	3,177 (33.7%)	164 (44.9%)	149 (43.7%)

*Triple P and comparison are identical on the presented categories. The total sample is N=682.

Table A-4. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 6-12 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=9,427)	Triple P Pre-match (N=317)	Post-match Pair (n=295*)
	n (%)	n (%)	n (%)
Child gender: Female	4,733 (50.2%)	158 (49.8%)	146 (49.5%)
Child age:			
<1	2,285 (24.2%)	2 (0.6%)	2 (0.7%)
1-2	1,217 (12.9%)	12 (3.8%)	11 (3.7%)
3-4	1,065 (11.3%)	28 (8.8%)	28 (9.5%)
5-6	899 (9.5%)	52 (16.4%)	49 (16.6%)
7-9	1,145 (12.1%)	86 (27.1%)	81 (27.5%)
10-12	1,070 (11.4%)	63 (19.9%)	58 (19.7%)
13-15	1,274 (13.5%)	58 (18.3%)	53 (18.0%)
16-18	472 (5.0%)	16 (5.0%)	13 (4.4%)
Child race/ethnicity:			
White	5,806 (61.6%)	202 (63.7%)	192 (65.1%)
Black	2,618 (27.8%)	85 (26.8%)	82 (27.8%)
Hispanic or Latino	683 (7.2%)	22 (6.9%)	15 (5.1%)
Other	320 (3.4%)	8 (2.5%)	6 (2.0%)
Median household income:			
<$30K	1,032 (10.9%)	42 (13.2%)	34 (11.5%)
$30K-40K	4,947 (52.5%)	180 (56.8%)	174 (59.0%)
$40K-50K	2,403 (25.5%)	64 (20.2%)	59 (20.0%)
>$50K	1,045 (11.1%)	31 (9.8%)	28 (9.5%)
RUCA: Rural	3,645 (38.7%)	167 (52.7%)	157 (53.2%)
Caregiver substance use: Yes	4,221 (44.8%)	66 (20.8%)	52 (17.6%)
Prior foster care placements: Yes	685 (7.3%)	30 (9.5%)	19 (6.4%)
DCFS involvement in the past 3 years: Yes	3,177 (33.7%)	138 (43.5%)	124 (42.0%)

*Triple P and comparison are identical on the presented categories. The total sample is N=590.

Table A-5. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 12-18 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=7,966)	Triple P Pre-match (N=299)	Post-match Pair (n=271*)
	n (%)	n (%)	n (%)
Child gender: Female	3,971 (49.8%)	152 (50.8%)	136 (50.2%)
Child age:			
<1	1,981 (24.9%)	1 (0.3%)	0 (0%)
1-2	1,055 (13.2%)	7 (2.3%)	6 (2.2%)
3-4	932 (11.7%)	23 (7.7%)	23 (8.5%)
5-6	775 (9.7%)	50 (16.7%)	47 (17.3%)
7-9	989 (12.4%)	88 (29.4%)	80 (29.5%)
10-12	906 (11.4%)	58 (19.4%)	51 (18.8%)
13-15	1,084 (13.6%)	65 (21.7%)	59 (21.8%)
16-18	244 (3.1%)	7 (2.3%)	5 (1.8%)
Child race/ethnicity:			
White	4,917 (61.7%)	190 (63.5%)	177 (65.3%)
Black	2,214 (27.8%)	81 (27.1%)	77 (28.4%)
Hispanic or Latino	575 (7.2%)	23 (7.7%)	14 (5.2%)
Other	260 (3.3%)	5 (1.7%)	3 (1.1%)
Median household income:			
<$30K	838 (10.5%)	41 (13.7%)	30 (11.1%)
$30K-40K	4,231 (53.1%)	171 (57.2%)	162 (59.8%)
$40K-50K	2,005 (25.2%)	63 (21.1%)	57 (21.0%)
>$50K	892 (11.2%)	24 (8.0%)	22 (8.1%)
RUCA: Rural	3,025 (38.0%)	154 (51.5%)	142 (52.4%)
Caregiver substance use: Yes	3,501 (43.9%)	60 (20.1%)	44 (16.2%)
Prior foster care placements: Yes	547 (6.9%)	29 (9.7%)	18 (6.6%)
DCFS involvement in the past 3 years: Yes	2,666 (33.5%)	140 (46.8%)	120 (44.3%)

*Triple P and comparison are identical on the presented categories. The total sample is N=542.

Table A-6. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 12-18 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=7,966) n (%)	Triple P Pre-match (N=261) n (%)	Post-match Pair (n=237*) n (%)
Child gender: Female	3,971 (49.8%)	134 (51.3%)	121 (51.1%)
Child age:			
<1	1,981 (24.9%)	1 (0.4%)	0 (0%)
1-2	1,055 (13.2%)	7 (2.7%)	6 (2.5%)
3-4	932 (11.7%)	22 (8.4%)	22 (9.3%)
5-6	775 (9.7%)	42 (16.1%)	40 (16.9%)
7-9	989 (12.4%)	78 (29.9%)	72 (30.4%)
10-12	906 (11.4%)	53 (20.3%)	46 (19.4%)
13-15	1,084 (13.6%)	53 (20.3%)	48 (20.3%)
16-18	244 (3.1%)	5 (1.9%)	3 (1.3%)
Child race/ethnicity:			
White	4,917 (61.7%)	165 (63.2%)	154 (65.0%)
Black	2,214 (27.8%)	71 (27.2%)	67 (28.3%)
Hispanic or Latino	575 (7.2%)	20 (7.7%)	13 (5.5%)
Other	260 (3.3%)	5 (1.9%)	3 (1.3%)
Median household income:			
<$30K	838 (10.5%)	34 (13.0%)	26 (11.0%)
$30K-40K	4,231 (53.1%)	147 (56.3%)	139 (58.6%)
$40K-50K	2,005 (25.2%)	58 (22.2%)	52 (21.9%)
>$50K	892 (11.2%)	22 (8.4%)	20 (8.4%)
RUCA: Rural	3,025 (38.0%)	138 (52.9%)	128 (54.0%)
Caregiver substance use: Yes	3,501 (43.9%)	54 (20.7%)	40 (16.9%)
Prior foster care placements: Yes	547 (6.9%)	26 (10.0%)	16 (6.8%)
DCFS involvement in the past 3 years: Yes	2,666 (33.5%)	117 (44.8%)	100 (42.2%)

*Triple P and comparison are identical on the presented categories. The total sample is N=474.

Table A-7. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 18-24 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=6,514)	Triple P Pre-match (N=237)	Post-match Pair (n=212*)
	n (%)	n (%)	n (%)
Child gender: Female	3,217 (49.4%)	128 (54.0%)	115 (54.2%)
Child age:			
<1	1,650 (25.3%)	0 (0%)	0 (0%)
1-2	901 (13.8%)	5 (2.1%)	5 (2.4%)
3-4	757 (11.6%)	19 (8.0%)	18 (8.5%)
5-6	639 (9.8%)	39 (16.5%)	34 (16.0%)
7-9	829 (12.7%)	70 (29.5%)	63 (29.7%)
10-12	767 (11.8%)	47 (19.8%)	41 (19.3%)
13-15	905 (13.9%)	54 (22.8%)	49 (23.1%)
16-18	66 (1.0%)	3 (1.3%)	2 (0.9%)
Child race/ethnicity:			
White	4,041 (62.0%)	150 (63.3%)	141 (66.5%)
Black	1,832 (28.1%)	65 (27.4%)	59 (27.8%)
Hispanic or Latino	446 (6.8%)	18 (7.6%)	10 (4.7%)
Other	195 (3.0%)	4 (1.7%)	2 (0.9%)
Median household income:			
<$30K	674 (10.3%)	30 (12.7%)	21 (9.9%)
$30K-40K	3,495 (53.7%)	142 (59.9%)	134 (63.2%)
$40K-50K	1,634 (25.1%)	49 (20.7%)	43 (20.3%)
>$50K	711 (10.9%)	16 (6.8%)	14 (6.6%)
RUCA: Rural	2,473 (38.0%)	125 (52.7%)	112 (52.8%)
Caregiver substance use: Yes	2,891 (44.4%)	49 (20.7%)	36 (17.0%)
Prior foster care placements: Yes	448 (6.9%)	22 (9.3%)	13 (6.1%)
DCFS involvement in the past 3 years: Yes	2,154 (33.1%)	111 (46.8%)	94 (44.3%)

*Triple P and comparison are identical on the presented categories. The total sample is N=424.

Table A-8. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care 18-24 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=6,514)	Triple P Pre-match (N=209)	Post-match Pair (n=186*)
	n (%)	n (%)	n (%)
Child gender: Female	3,217 (49.4%)	112 (53.6%)	101 (54.3%)
Child age:			
<1	1,650 (25.3%)	0 (0%)	0 (0%)
1-2	901 (13.8%)	5 (2.4%)	5 (2.7%)
3-4	757 (11.6%)	18 (8.6%)	17 (9.1%)
5-6	639 (9.8%)	34 (16.3%)	29 (15.6%)
7-9	829 (12.7%)	63 (30.1%)	57 (30.6%)
10-12	767 (11.8%)	44 (21.1%)	38 (20.4%)
13-15	905 (13.9%)	43 (20.6%)	39 (21.0%)
16-18	66 (1.0%)	2 (1.0%)	1 (0.5%)
Child race/ethnicity:			
White	4,041 (62.0%)	130 (62.2%)	121 (65.1%)
Black	1,832 (28.1%)	59 (28.2%)	53 (28.5%)
Hispanic or Latino	446 (6.8%)	16 (7.7%)	10 (5.4%)
Other	195 (3.0%)	4 (1.9%)	2 (1.1%)
Median household income:			
<$30K	674 (10.3%)	24 (11.5%)	17 (9.1%)
$30K-40K	3,495 (53.7%)	125 (59.8%)	117 (62.9%)
$40K-50K	1,634 (25.1%)	45 (21.5%)	39 (21.0%)
>$50K	711 (10.9%)	15 (7.2%)	13 (7.0%)
RUCA: Rural	2,473 (38.0%)	112 (53.6%)	100 (53.8%)
Caregiver substance use: Yes	2,891 (44.4%)	45 (21.5%)	34 (18.3%)
Prior foster care placements: Yes	448 (6.9%)	20 (9.6%)	11 (5.9%)
DCFS involvement in the past 3 years: Yes	2,154 (33.1%)	94 (45.0%)	78 (41.9%)

*Triple P and comparison are identical on the presented categories. The total sample is N=372.

Table A-9. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care During Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=12,102)	Triple P Pre-match (N=494)	Post-match Pair (n=464*)
	n (%)	n (%)	n (%)
Child gender: Female	6,124 (50.6%)	230 (46.6%)	215 (46.3%)
Child age:			
<1	2,949 (24.4%)	2 (0.4%)	2 (0.4%)
1-2	1,556 (12.9%)	21 (4.3%)	19 (4.1%)
3-4	1,330 (11.0%)	42 (8.5%)	42 (9.1%)
5-6	1,122 (9.3%)	78 (15.8%)	73 (15.7%)
7-9	1,409 (11.6%)	131 (26.5%)	123 (26.5%)
10-12	1,325 (10.9%)	96 (19.4%)	90 (19.4%)
13-15	1,529 (12.6%)	92 (18.6%)	87 (18.8%)
16-18	882 (7.3%)	32 (6.5%)	28 (6.0%)
Child race/ethnicity:			
White	7,421 (61.3%)	306 (61.9%)	296 (63.8%)
Black	3,330 (27.5%)	139 (28.1%)	133 (28.7%)
Hispanic or Latino	863 (7.1%)	34 (6.9%)	25 (5.4%)
Other	488 (4.0%)	15 (3.0%)	10 (2.2%)
Median household income:			
<$30K	1,349 (11.1%)	69 (14.0%)	56 (12.1%)
$30K-40K	6,380 (52.7%)	278 (56.3%)	271 (58.4%)
$40K-50K	3,034 (25.1%)	99 (20.0%)	93 (20.0%)
>$50K	1,339 (11.1%)	48 (9.7%)	44 (9.5%)
RUCA: Rural	4,736 (39.1%)	255 (51.6%)	239 (51.5%)
Caregiver substance use: Yes	5,609 (46.3%)	107 (21.7%)	90 (19.4%)
Prior foster care placements: Yes	887 (7.3%)	54 (10.9%)	42 (9.1%)
DCFS involvement in the past 3 years: Yes	4,126 (34.1%)	231 (46.8%)	213 (45.9%)

*Triple P and comparison are identical on the presented categories. The total sample is N=928.

Table A-10. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Foster Care During Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=12,102)	Triple P Pre-match (N=421)	Post-match Pair (n=393*)
	n (%)	n (%)	n (%)
Child gender: Female	6,124 (50.6%)	202 (48.0%)	188 (47.8%)
Child age:			
<1	2,949 (24.4%)	2 (0.5%)	2 (0.5%)
1-2	1,556 (12.9%)	19 (4.5%)	17 (4.3%)
3-4	1,330 (11.0%)	39 (9.3%)	39 (9.9%)
5-6	1,122 (9.3%)	66 (15.7%)	61 (15.5%)
7-9	1,409 (11.6%)	112 (26.6%)	105 (26.7%)
10-12	1,325 (10.9%)	83 (19.7%)	77 (19.6%)
13-15	1,529 (12.6%)	75 (17.8%)	70 (17.8%)
16-18	882 (7.3%)	25 (5.9%)	22 (5.6%)
Child race/ethnicity:			
White	7,421 (61.3%)	261 (62.0%)	251 (63.9%)
Black	3,330 (27.5%)	117 (27.8%)	111 (28.2%)
Hispanic or Latino	863 (7.1%)	28 (6.7%)	21 (5.3%)
Other	488 (4.0%)	15 (3.6%)	10 (2.5%)
Median household income:			
<$30K	1,349 (11.1%)	55 (13.1%)	43 (10.9%)
$30K-40K	6,380 (52.7%)	234 (55.6%)	228 (58.0%)
$40K-50K	3,034 (25.1%)	91 (21.6%)	85 (21.6%)
>$50K	1,339 (11.1%)	41 (9.7%)	37 (9.4%)
RUCA: Rural	4,736 (39.1%)	220 (52.3%)	205 (52.2%)
Caregiver substance use: Yes	5,609 (46.3%)	90 (21.4%)	74 (18.8%)
Prior foster care placements: Yes	887 (7.3%)	44 (10.5%)	32 (8.1%)
DCFS involvement in the past 3 years: Yes	4,126 (34.1%)	193 (45.8%)	176 (44.8%)

*Triple P and comparison are identical on the presented categories. The total sample is N=786.

Table A-11. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 0-6 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=10,361)	Triple P Pre-match (N=442)	Post-match Pair (n=412*)
	n (%)	n (%)	n (%)
Child gender: Female	5,224 (50.4%)	207 (46.8%)	190 (46.1%)
Child age:			
<1	2,486 (24.0%)	2 (0.5%)	2 (0.5%)
1-2	1,334 (12.9%)	17 (3.8%)	16 (3.9%)
3-4	1,151 (11.1%)	40 (9.0%)	40 (9.7%)
5-6	986 (9.5%)	72 (16.3%)	67 (16.3%)
7-9	1,244 (12.0%)	122 (27.6%)	112 (27.2%)
10-12	1,138 (11.0%)	87 (19.7%)	82 (19.9%)
13-15	1,347 (13.0%)	78 (17.6%)	72 (17.5%)
16-18	675 (6.5%)	24 (5.4%)	21 (5.1%)
Child race/ethnicity:			
White	6,387 (61.6%)	273 (61.8%)	262 (63.6%)
Black	2,837 (27.4%)	128 (29.0%)	120 (29.1%)
Hispanic or Latino	747 (7.2%)	30 (6.8%)	22 (5.3%)
Other	390 (3.8%)	11 (2.5%)	8 (1.9%)
Median household income:			
<$30K	1,121 (10.8%)	59 (13.3%)	47 (11.4%)
$30K-40K	5,429 (52.4%)	248 (56.1%)	241 (58.5%)
$40K-50K	2,652 (25.6%)	90 (20.4%)	84 (20.4%)
>$50K	1,159 (11.2%)	45 (10.2%)	40 (9.7%)
RUCA: Rural	4,012 (38.7%)	222 (50.2%)	209 (50.7%)
Caregiver substance use: Yes	4,694 (45.3%)	96 (21.7%)	76 (18.4%)
Prior foster care placements: Yes	732 (7.1%)	45 (10.2%)	32 (7.8%)
DCFS involvement in the past 3 years: Yes	3,464 (33.4%)	201 (45.5%)	183 (44.4%)

*Triple P and comparison are identical on the presented categories. The total sample is N=824.

Table A-12. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 0-6 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=10,361)	Triple P Pre-match (N=385)	Post-match Pair (n=356*)
	n (%)	n (%)	n (%)
Child gender: Female	5,224 (50.4%)	185 (48.1%)	169 (47.5%)
Child age:			
<1	2,486 (24.0%)	2 (0.5%)	2 (0.6%)
1-2	1,334 (12.9%)	15 (3.9%)	14 (3.9%)
3-4	1,151 (11.1%)	37 (9.6%)	37 (10.4%)
5-6	986 (9.5%)	61 (15.8%)	56 (15.7%)
7-9	1,244 (12.0%)	107 (27.8%)	98 (27.5%)
10-12	1,138 (11.0%)	77 (20.0%)	72 (20.2%)
13-15	1,347 (13.0%)	65 (16.9%)	59 (16.6%)
16-18	675 (6.5%)	21 (5.5%)	18 (5.1%)
Child race/ethnicity:			
White	6,387 (61.6%)	236 (61.3%)	225 (63.2%)
Black	2,837 (27.4%)	112 (29.1%)	104 (29.2%)
Hispanic or Latino	747 (7.2%)	26 (6.8%)	19 (5.3%)
Other	390 (3.8%)	11 (2.9%)	8 (2.2%)
Median household income:			
<$30K	1,121 (10.8%)	49 (12.7%)	38 (10.7%)
$30K-40K	5,429 (52.4%)	213 (55.3%)	206 (57.9%)
$40K-50K	2,652 (25.6%)	84 (21.8%)	78 (21.9%)
>$50K	1,159 (11.2%)	39 (10.1%)	34 (9.6%)
RUCA: Rural	4,012 (38.7%)	198 (51.4%)	185 (52.0%)
Caregiver substance use: Yes	4,694 (45.3%)	81 (21.0%)	62 (17.4%)
Prior foster care placements: Yes	732 (7.1%)	38 (9.9%)	25 (7.0%)
DCFS involvement in the past 3 years: Yes	3,464 (33.4%)	173 (44.9%)	155 (43.5%)

*Triple P and comparison are identical on the presented categories. The total sample is N=712.

Table A-13. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 6-12 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=8,945)	Triple P Pre-match (N=355)	Post-match Pair (n=329*)
	n (%)	n (%)	n (%)
Child gender: Female	4,505 (50.4%)	177 (49.9%)	163 (49.5%)
Child age:			
<1	2,158 (24.1%)	2 (0.6%)	1 (0.3%)
1-2	1,136 (12.7%)	12 (3.4%)	11 (3.3%)
3-4	1,010 (11.3%)	30 (8.5%)	30 (9.1%)
5-6	865 (9.7%)	60 (16.9%)	57 (17.3%)
7-9	1,098 (12.3%)	97 (27.3%)	89 (27.1%)
10-12	1,015 (11.3%)	69 (19.4%)	64 (19.5%)
13-15	1,210 (13.5%)	67 (18.9%)	62 (18.8%)
16-18	453 (5.1%)	18 (5.1%)	15 (4.6%)
Child race/ethnicity:			
White	5,502 (61.5%)	229 (64.5%)	217 (66.0%)
Black	2,464 (27.5%)	93 (26.2%)	89 (27.1%)
Hispanic or Latino	663 (7.4%)	25 (7.0%)	17 (5.2%)
Other	316 (3.5%)	8 (2.3%)	6 (1.8%)
Median household income:			
<$30K	960 (10.7%)	49 (13.8%)	40 (12.2%)
$30K-40K	4,678 (52.3%)	204 (57.5%)	195 (59.3%)
$40K-50K	2,300 (25.7%)	66 (18.6%)	61 (18.5%)
>$50K	1,007 (11.3%)	36 (10.1%)	33 (10.0%)
RUCA: Rural	3,448 (38.5%)	181 (51.0%)	171 (52.0%)
Caregiver substance use: Yes	3,954 (44.2%)	74 (20.8%)	57 (17.3%)
Prior foster care placements: Yes	612 (6.8%)	36 (10.1%)	23 (7.0%)
DCFS involvement in the past 3 years: Yes	2,950 (33.0%)	158 (44.5%)	141 (42.9%)

*Triple P and comparison are identical on the presented categories. The total sample is N=658.

Table A-14. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 6-12 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=8,945)	Triple P Pre-match (N=311)	Post-match Pair (n=286*)
	n (%)	n (%)	n (%)
Child gender: Female	4,505 (50.4%)	158 (50.8%)	145 (50.7%)
Child age:			
<1	2,158 (24.1%)	2 (0.6%)	1 (0.3%)
1-2	1,136 (12.7%)	12 (3.9%)	11 (3.8%)
3-4	1,010 (11.3%)	28 (9.0%)	28 (9.8%)
5-6	865 (9.7%)	51 (16.4%)	48 (16.8%)
7-9	1,098 (12.3%)	85 (27.3%)	78 (27.3%)
10-12	1,015 (11.3%)	62 (19.9%)	57 (19.9%)
13-15	1,210 (13.5%)	55 (17.7%)	50 (17.5%)
16-18	453 (5.1%)	16 (5.1%)	13 (4.5%)
Child race/ethnicity:			
White	5,502 (61.5%)	199 (64.0%)	187 (65.4%)
Black	2,464 (27.5%)	82 (26.4%)	78 (27.3%)
Hispanic or Latino	663 (7.4%)	22 (7.1%)	15 (5.2%)
Other	316 (3.5%)	8 (2.6%)	6 (2.1%)
Median household income:			
<$30K	960 (10.7%)	42 (13.5%)	34 (11.9%)
$30K-40K	4,678 (52.3%)	175 (56.3%)	166 (58.0%)
$40K-50K	2,300 (25.7%)	63 (20.3%)	58 (20.3%)
>$50K	1,007 (11.3%)	31 (10.0%)	28 (9.8%)
RUCA: Rural	3,448 (38.5%)	163 (52.4%)	153 (53.5%)
Caregiver substance use: Yes	3,954 (44.2%)	65 (20.9%)	49 (17.1%)
Prior foster care placements: Yes	612 (6.8%)	30 (9.6%)	17 (5.9%)
DCFS involvement in the past 3 years: Yes	2,950 (33.0%)	135 (43.4%)	118 (41.3%)

*Triple P and comparison are identical on the presented categories. The total sample is N=572.

Table A-14. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 12-18 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=7,478)	Triple P Pre-match (N=288)	Post-match Pair (n=261*)
	n (%)	n (%)	n (%)
Child gender: Female	3,727 (49.8%)	148 (51.4%)	133 (51.0%)
Child age:			
<1	1,854 (24.8%)	1 (0.3%)	0 (0%)
1-2	975 (13.0%)	6 (2.1%)	6 (2.3%)
3-4	870 (11.6%)	23 (8.0%)	23 (8.8%)
5-6	732 (9.8%)	48 (16.7%)	46 (17.6%)
7-9	941 (12.6%)	86 (29.9%)	77 (29.5%)
10-12	856 (11.4%)	57 (19.8%)	50 (19.2%)
13-15	1,015 (13.6%)	61 (21.2%)	55 (21.1%)
16-18	235 (3.1%)	6 (2.1%)	4 (1.5%)
Child race/ethnicity:			
White	4,603 (61.6%)	183 (63.5%)	170 (65.1%)
Black	2,066 (27.6%)	78 (27.1%)	74 (28.4%)
Hispanic or Latino	553 (7.4%)	22 (7.6%)	14 (5.4%)
Other	256 (3.4%)	5 (1.7%)	3 (1.1%)
Median household income:			
<$30K	762 (10.2%)	40 (13.9%)	30 (11.5%)
$30K-40K	3,958 (52.9%)	166 (57.6%)	156 (59.8%)
$40K-50K	1,896 (25.4%)	59 (20.5%)	54 (20.7%)
>$50K	862 (11.5%)	23 (8.0%)	21 (8.0%)
RUCA: Rural	2,822 (37.7%)	148 (51.4%)	137 (52.5%)
Caregiver substance use: Yes	3,230 (43.2%)	58 (20.1%)	42 (16.1%)
Prior foster care placements: Yes	473 (6.3%)	29 (10.1%)	17 (6.5%)
DCFS involvement in the past 3 years: Yes	2,432 (32.5%)	133 (46.2%)	114 (43.7%)

*Triple P and comparison are identical on the presented categories. The total sample is N=522.

Table A-15. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 12-18 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=7,478)	Triple P Pre-match (N=254)	Post-match Pair (n=230*)
	n (%)	n (%)	n (%)
Child gender: Female	3,727 (49.8%)	132 (52.0%)	120 (52.2%)
Child age:			
<1	1,854 (24.8%)	1 (0.4%)	0 (0%)
1-2	975 (13.0%)	6 (2.4%)	6 (2.6%)
3-4	870 (11.6%)	22 (8.7%)	22 (9.6%)
5-6	732 (9.8%)	41 (16.1%)	39 (17.0%)
7-9	941 (12.6%)	76 (29.9%)	69 (30.0%)
10-12	856 (11.4%)	53 (20.9%)	46 (20.0%)
13-15	1,015 (13.6%)	50 (19.7%)	45 (19.6%)
16-18	235 (3.1%)	5 (2.0%)	3 (1.3%)
Child race/ethnicity:			
White	4,603 (61.6%)	161 (63.4%)	149 (64.8%)
Black	2,066 (27.6%)	69 (27.2%)	65 (28.3%)
Hispanic or Latino	553 (7.4%)	19 (7.5%)	13 (5.7%)
Other	256 (3.4%)	5 (2.0%)	3 (1.3%)
Median household income:			
<$30K	762 (10.2%)	34 (13.4%)	26 (11.3%)
$30K-40K	3,958 (52.9%)	143 (56.3%)	134 (58.3%)
$40K-50K	1,896 (25.4%)	56 (22.0%)	51 (22.2%)
>$50K	862 (11.5%)	21 (8.3%)	19 (8.3%)
RUCA: Rural	2,822 (37.7%)	133 (52.4%)	124 (53.9%)
Caregiver substance use: Yes	3,230 (43.2%)	52 (20.5%)	38 (16.5%)
Prior foster care placements: Yes	473 (6.3%)	26 (10.2%)	15 (6.5%)
DCFS involvement in the past 3 years: Yes	2,432 (32.5%)	113 (44.5%)	96 (41.7%)

*Triple P and comparison are identical on the presented categories. The total sample is N=460.

Table A-16. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 18-24 Months Post-Treatment: Intention-to-Treat Analysis

	Comparison Pre-match (N=6,110) n (%)	Triple P Pre-match (N=225) n (%)	Post-match Pair (n=200*) n (%)
Child gender: Female	3,007 (49.2%)	124 (55.1%)	111 (55.5%)
Child age:			
<1	1,551 (25.4%)	0 (0%)	0 (0%)
1-2	828 (13.6%)	5 (2.2%)	5 (2.5%)
3-4	708 (11.6%)	19 (8.4%)	18 (9.0%)
5-6	600 (9.8%)	38 (16.9%)	33 (16.5%)
7-9	787 (12.9%)	68 (30.2%)	60 (30.0%)
10-12	723 (11.8%)	44 (19.6%)	38 (19.0%)
13-15	848 (13.9%)	49 (21.8%)	45 (22.5%)
16-18	65 (1.1%)	2 (0.9%)	1 (0.5%)
Child race/ethnicity:			
White	3,781 (61.9%)	142 (63.1%)	133 (66.5%)
Black	1,707 (27.9%)	61 (27.1%)	55 (27.5%)
Hispanic or Latino	431 (7.1%)	18 (8.0%)	10 (5.0%)
Other	191 (3.1%)	4 (1.8%)	2 (1.0%)
Median household income:			
<$30K	608 (10.0%)	30 (13.3%)	21 (10.5%)
$30K-40K	3,275 (53.6%)	135 (60.0%)	127 (63.5%)
$40K-50K	1,540 (25.2%)	45 (20.0%)	39 (19.5%)
>$50K	687 (11.2%)	15 (6.7%)	13 (6.5%)
RUCA: Rural	2,305 (37.7%)	118 (52.4%)	107 (53.5%)
Caregiver substance use: Yes	2,669 (43.7%)	46 (20.4%)	33 (16.5%)
Prior foster care placements: Yes	390 (6.4%)	21 (9.3%)	12 (6.0%)
DCFS involvement in the past 3 years: Yes	1,967 (32.2%)	105 (46.7%)	88 (44.0%)

*Triple P and comparison are identical on the presented categories. The total sample is N=400.

Table A-17. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for True Findings 18-24 Months Post-Treatment: Completed Intervention Analysis

	Comparison Pre-match (N=6,110)	Triple P Pre-match (N=200)	Post-match Pair (n=177*)
	n (%)	n (%)	n (%)
Child gender: Female	3,007 (49.2%)	110 (55.0%)	99 (55.9%)
Child age:			
<1	1,551 (25.4%)	0 (0%)	0 (0%)
1-2	828 (13.6%)	5 (2.5%)	5 (2.8%)
3-4	708 (11.6%)	18 (9.0%)	17 (9.6%)
5-6	600 (9.8%)	33 (16.5%)	28 (15.8%)
7-9	787 (12.9%)	61 (30.5%)	54 (30.5%)
10-12	723 (11.8%)	42 (21.0%)	36 (20.3%)
13-15	848 (13.9%)	39 (19.5%)	36 (20.3%)
16-18	65 (1.1%)	2 (1.0%)	1 (0.6%)
Child race/ethnicity:			
White	3,781 (61.9%)	124 (62.0%)	115 (65.0%)
Black	1,707 (27.9%)	56 (28.0%)	50 (28.2%)
Hispanic or Latino	431 (7.1%)	16 (8.0%)	10 (5.6%)
Other	191 (3.1%)	4 (2.0%)	2 (1.1%)
Median household income:			
<$30K	608 (10.0%)	24 (12.0%)	17 (9.6%)
$30K-40K	3,275 (53.6%)	119 (59.5%)	111 (62.7%)
$40K-50K	1,540 (25.2%)	43 (21.5%)	37 (20.9%)
>$50K	687 (11.2%)	14 (7.0%)	12 (6.8%)
RUCA: Rural	2,305 (37.7%)	106 (53.0%)	96 (54.2%)
Caregiver substance use: Yes	2,669 (43.7%)	42 (21.0%)	31 (17.5%)
Prior foster care placements: Yes	390 (6.4%)	19 (9.5%)	10 (5.6%)
DCFS involvement in the past 3 years: Yes	1,967 (32.2%)	90 (45.0%)	74 (41.8%)

*Triple P and comparison are identical on the presented categories. The total sample is N=354.

Appendix B: Baseline Equivalence for Child Well-being Outcomes

Table B-1. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Well-being Outcomes: Intention-to-Treat Analysis

	Comparison Pre-match (N=3,637)	Triple P Pre-match (N=238)	Post-match Pair (n=198*)
	n (%)	n (%)	n (%)
Child gender: Female	1,813 (49.8%)	106 (44.5%)	85 (42.9%)
Child age:			
<1	1,120 (30.8%)	1 (0.4%)	1 (0.5%)
1-2	537 (14.8%)	10 (4.2%)	8 (4.0%)
3-4	453 (12.5%)	21 (8.8%)	21 (10.6%)
5-6	320 (8.8%)	45 (18.9%)	37 (18.7%)
7-9	366 (10.1%)	59 (24.8%)	51 (25.8%)
10-12	322 (8.9%)	43 (18.1%)	36 (18.2%)
13-15	385 (10.6%)	45 (18.9%)	37 (18.7%)
16-18	134 (3.7%)	14 (5.9%)	7 (3.5%)
Child race/ethnicity:			
White	2,217 (61.0%)	150 (63.0%)	136 (68.7%)
Black	1,096 (30.1%)	67 (28.2%)	57 (28.8%)
Hispanic or Latino	207 (5.7%)	16 (6.7%)	3 (1.5%)
Other	117 (3.2%)	5 (2.1%)	2 (1.0%)
Median household income:			
<$30K	515 (14.2%)	34 (14.3%)	22 (11.1%)
$30K-40K	1,920 (52.8%)	147 (61.8%)	131 (66.2%)
$40K-50K	816 (22.4%)	35 (14.7%)	28 (14.1%)
>$50K	386 (10.6%)	22 (9.2%)	17 (8.6%)
RUCA: Rural	1,667 (45.8%)	145 (60.9%)	121 (61.1%)
Caregiver substance use: Yes	2,035 (56.0%)	60 (25.2%)	44 (22.2%)
Prior foster care placements: Yes	186 (5.1%)	25 (10.5%)	14 (7.1%)
DCFS involvement in the past 3 years: Yes	1,158 (31.8%)	110 (46.2%)	90 (45.5%)

*Triple P and comparison are identical on the presented categories. The total sample is N=396.

Table B-2. Triple P Treatment and Comparison Groups Background Characteristics, Pre- and Post-Coarsened Exact Matching for Well-being Outcomes: Completed Intervention Analysis

	Comparison Pre-match (N=3,637) n (%)	Triple P Pre-match (N=205) n (%)	Post-match Pair (n=171*) n (%)
Child gender: Female	1,813 (49.8%)	95 (46.3%)	76 (44.4%)
Child age:			
<1	1,120 (30.8%)	1 (0.5%)	1 (0.6%)
1-2	537 (14.8%)	9 (4.4%)	7 (4.1%)
3-4	453 (12.5%)	20 (9.8%)	20 (11.7%)
5-6	320 (8.8%)	39 (19.0%)	32 (18.7%)
7-9	366 (10.1%)	52 (25.4%)	45 (26.3%)
10-12	322 (8.9%)	36 (17.6%)	30 (17.5%)
13-15	385 (10.6%)	37 (18.0%)	30 (17.5%)
16-18	134 (3.7%)	11 (5.4%)	6 (3.5%)
Child race/ethnicity:			
White	2,217 (61.0%)	129 (62.9%)	117 (68.4%)
Black	1,096 (30.1%)	57 (27.8%)	49 (28.7%)
Hispanic or Latino	207 (5.7%)	14 (6.8%)	3 (1.8%)
Other	117 (3.2%)	5 (2.4%)	2 (1.2%)
Median household income:			
<$30K	515 (14.2%)	29 (14.1%)	18 (10.5%)
$30K-40K	1,920 (52.8%)	124 (60.5%)	112 (65.5%)
$40K-50K	816 (22.4%)	33 (16.1%)	26 (15.2%)
>$50K	386 (10.6%)	19 (9.3%)	15 (8.8%)
RUCA: Rural	1,667 (45.8%)	126 (61.5%)	107 (62.6%)
Caregiver substance use: Yes	2,035 (56.0%)	51 (24.9%)	36 (21.1%)
Prior foster care placements: Yes	186 (5.1%)	21 (10.2%)	11 (6.4%)
DCFS involvement in the past 3 years: Yes	1,158 (31.8%)	93 (45.4%)	78 (45.6%)

*Triple P and comparison are identical on the presented categories. The total sample is N=342.

Table B-3: Triple P Treatment and Comparison Group Family Well-Being Baseline Differences

FAST Domain	Treatment Mean (SD)	Comparison Mean (SD)	Baseline Effect Size[a]
Intention-to-Treat Comparisons (N=198 matched dyads)			
Youth Status	0.27 (0.34)	0.21 (0.26)	0.197
Caregiver's Status	0.31 (0.23)	0.28 (0.23)	0.130
Caregiver's Advocacy Status	0.17 (0.29)	0.16 (0.27)	0.036
Family Together	0.42 (0.36)	0.44 (0.40)	-0.031
Completed Triple P (N=171 matched dyads)			
Youth Status	0.27 (0.34)	0.22 (0.26)	0.160
Caregiver's Status	0.31 (0.24)	0.30 (0.23)	0.065
Caregiver's Advocacy Status	0.15 (0.26)	0.18 (0.28)	-0.097
Family Together	0.41 (0.36)	0.45 (0.41)	-0.101

[a]Baseline Effect Size is measured by Hedge's *G*.

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