THE IMPACT OF PARENTS ANONYMOUS ON CHILD SAFETY AND PERMANENCY

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ABSTRACT

Introduction: Parent support groups are a widely adopted form of child abuse and neglect prevention. Parents Anonymous began as a family-strengthening organization and launched a parent support program that provides direct services to parents to improve parenting and coping skills, strengthen social connections, and build resiliency. A quasi-experimental design was used to examine the effectiveness of Parents Anonymous in improving outcomes in child safety and permanency in two large California counties.

Methods: We compared subsequent child welfare involvement outcomes between a sample of parents who received Parents Anonymous services to a sample who did not, all of whom had been involved in the child welfare system. The samples were identified using exact matching. A total of eight outcomes were evaluated using a binary logistic regression model: subsequent child welfare outcomes of referral, investigation, substantiation, or child removal within two post-treatment periods (six and 12 months). Program impact was assessed with a binary logistic regression model. For double-robust analysis, variables that were used in the matching process were also used in the impact analysis. The independent variables included treatment status, age of youngest child in days, income, number of prior investigations, and whether or not the index referral was substantiated for physical abuse. Baseline equivalence was established between the two samples prior to the impact analysis.

Results: Two outcomes were statistically significant ($p \leq .05$). A referral for child abuse or neglect and a substantiated child abuse or neglect finding were both significantly less likely in the treatment group than the comparison group at 12 months post-treatment. No other statistically significant results were identified in the analysis.

Conclusions: While there is more to learn about the program mechanisms of causality, the findings suggest that participation in Parents Anonymous may have a positive, long-term impact on improving child safety among parents involved in the child welfare system.

Keywords: Parent education, maltreatment, child welfare, child abuse, program evaluation

1.1 INTRODUCTION

Child abuse and neglect is a serious public health problem impacting 9.2 children per 1,000 in the United States. In 2018, an estimated 1,770 children died from preventable abuse and neglect, a rate of 2.39 per 100,000 children in the national population (U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, 2020). Research has shown that maltreatment victimization in childhood significantly increases the likelihood of maltreatment perpetration in adulthood (Springer et al., 2007), as well as the likelihood of negative health outcomes such as depression, anxiety, drug use, suicide attempts, and ill health (Norman et al., 2012). These and other long-term consequences warrant further research on the development of effective, prevention-focused interventions. Increasing the attention on safe, stable, and nurturing relationships can help end intergenerational continuity of child maltreatment by serving as direct protective factors during early adulthood (Schofield et al., 2013; Thornberry et al., 2013).

Stress within a household can disrupt or prevent safe, stable, and nurturing relationships and potentially lead to child maltreatment (Barnhart & Maguire-Jack, 2016). Support groups can decrease a variety of stress factors for parents,[1] such as strains on family resources, conflicts with children, and loss of personal time (Strozier, 2012). Parents often feel isolated from friends and family; support groups aim to increase the sense of social support and kinship while providing links to more formal social support networks; this can serve as a basic intervention strategy to mediate the impact of parental stress factors and increase life satisfaction (Lu et al., 2018).

[1] For simplicity, the role of "parent" in this study also may include non-parent primary caregivers.

Over 800,000 families are referred to parenting programs annually (Barth et al., 2016), which are a widely adopted form of child maltreatment prevention. The purpose of this study is to evaluate the effectiveness of the Parents Anonymous parent support program in improving child safety and permanency outcomes in child welfare. Parents Anonymous groups are a direct service intervention in which parents are encouraged to maintain support for one another outside of the group sessions to foster skill-building and resilience in the home environment.[2]

1.2 Program Description

The Parents Anonymous model is based on the core belief that parents are in the best position to help other parents through their shared experiences and can build on their strengths to address emotional concerns, develop leadership skills, and create a community for mutual support that will enhance personal growth and lead to improved family well-being. Parents Anonymous aims to build resiliency in all parents, children, and youth and decrease parental stress factors to mitigate the impact of and to prevent adverse childhood experiences (ACEs), which have been linked to chronic health problems, mental illness, and future victimization and perpetration (American Academy of Pediatrics, 2014). The program's strength-based goals are to: increase protective factors and reduce risk factors; improve family functioning; enhance the health and mental health well-being of parents; prevent and intervene in substance use disorders and domestic violence; mitigate the impact of and prevent adverse childhood experiences in the parents, children, and youth; initiate mutual support; develop parent

[2] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 2.1.1, p. 3.

leadership; foster shared leadership; and promote personal growth and change. Since 1969, Parents Anonymous has provided child abuse and neglect prevention and treatment programs to parents and children with the mission of improving outcomes for diverse families and communities through enhancing family functioning, resilience, and leadership. The organization reported to us that they incorporate trauma-informed care and an anti-racist, anti-sexist, and anti-classist approach to helping others. Today, the organization consists of an international network of hundreds of accredited affiliates.

Parents Anonymous groups are composed of parents, a parent group leader chosen by fellow participants, and a professional group facilitator, allowing group members to maintain their own focus and direction and providing them with a sense of ownership. Parents are more likely to feel intimidated when a direct service program component is managed by strangers, which can lead to disengagement from the service (Barnes et al., 2006). Research on parenting programs suggests that their effectiveness increases when providers take time to build trusting relationships with parents (Evangelou et al., 2011; Garbers et al., 2006; Gray, 2009). By focusing on mutual support through lived experiences and engaging in meaningful roles that allow participants to share leadership, the program aims to empower parents (and youth, who attend their own group) to make positive, sustainable changes for their families. Parent leaders and staff (i.e., group facilitators) work to create the outcome of shared leadership by collaboratively developing mutual goals and a shared vision. Meaningful shared leadership is reached when parents and staff establish strong connections and share responsibility, insight, and leadership in all areas that impact their families and communities, building a primary support system that may be lacking within members' own families and communities.

Rather than a 12-step model, Parents Anonymous groups rely on four therapeutic processes to help achieve positive outcomes for parents, children, and youth: mutual support, parent leadership, shared leadership, and personal growth and change. Parents receive a guidebook that details nurturing and parenting strategies, child development guidance, and a program outline. The group meetings use monthly themes for general focus, though discussions are directed by participants and focus on the nurturing and parenting strategies. Each two-hour group meeting opens with guided meditation and closes with a positive activity agreed upon by all members, and groups are offered in English and Spanish. Group facilitators offer clarification, interpretation, or didactic information to the group when needed. These facilitators complete trainings and must follow the best practice manuals (one for adult group facilitators and parent group leaders and one for child and youth group facilitators; Parents Anonymous Inc., 2015, p. 43).

The program's helpline and support services are available between weekly group meetings and include advocacy, service connections, parent partner support, and additional emotional support. The parents-as-leaders model encourages members to call each other or the parent group leader when they need extra support and feel like they may maltreat their children. These calls between meetings increase group communication and are intended to allow members to build trust outside of the group, extending the program's impact to the in-home environment. Group members are intended to serve as supports and models for similar lived experiences and are expected to interact with each other and learn from each other's feelings and experiences to build mutual support.

All participants must maintain confidentiality and follow the group guidelines to support each other without engaging in prejudicial or hurtful behavior toward one another (Parents Anonymous Inc., 2015, p. 63). Parents Anonymous seeks to maintain a culturally responsive group culture by acknowledging, respecting, and celebrating participants' ethnic, cultural, family lifestyle, sexual orientation, and religious differences (Parents Anonymous Inc., 2015, p. 50). Training, supervision, and model fidelity aim to ensure that all staff and program participants partake in cultural responsiveness. Groups take the approach of supporting an individual's experience by asking about their support needs, rather than determining such critical issues on their behalf. Parents Anonymous group locations are selected based on several criteria, and requirements include safety, lack of stigma, privacy, and confidentiality. Parents Anonymous uses first-person, strengths-based language and approaches for all individuals and does not partner with organizations that label parents as "abusers" or "clients" or use other potentially dehumanizing language.

Parents Anonymous is open and free of charge to any parent. Parents are directed to the program from several sources, though a large proportion are involved in child welfare and their children may be placed in out-of-home care by child welfare or juvenile justice agencies; other caregivers are also welcome. To become part of a group, participants must sign a consent form, attend a Building Family Strengths interview, and complete the National Outcome Survey. Designed by and for Parents Anonymous, the National Outcome Survey uses validated questions to gather information on demographics, parent and child ACEs, physical and mental health factors, and existing protective factors. There is no set dosage model for attendance unless participant attendance is mandated by child welfare.

The Parents Anonymous program manual provides clear guidance on the protocol required to implement the program and adhere to program fidelity; only nonprofit organizations (or in some circumstances, governmental agencies) may apply to become an affiliated Parents Anonymous program. Once approved as an affiliated program, trainings, manuals, toolkits, and other resources required to implement the program are available for purchase in English and Spanish. Additionally, Parents Anonymous conducts site visits and administrates validated fidelity tools at established programs annually and at new programs quarterly (Wilson et al., 2019). Parents Anonymous has developed specific tools for site visits for consistent fidelity assessment; separate tools exist for use by the site visitor, parent participants, and group facilitators.

1.3. SUMMARY OF RESEARCH ON PARENTS ANONYMOUS

A recent quasi-experimental study showed that Parents Anonymous had success in improving factors known to be associated with preventing child abuse and neglect (Ainsworth, 2019). This study found that participation was effective at increasing protective factors (i.e., parental resilience, social connections, concrete supports in times of need, and social and emotional competence), family functioning, and personal growth and change in parent participants as evidenced by significant interaction effects in mixed analysis of variances (ANOVAs). Parent participation was also found to be effective at increasing children's behavioral and emotional functioning (i.e., resilience, emotional health, temperament, social connections). However, these findings were based on pre- and post-test analysis with non-equivalent groups. Non-equivalent group design may pose a significant threat to internal validity and to whether

participation in Parents Anonymous is causal to improved protective factors and family functioning. When group assignment is not controlled or is not random, group characteristics are more likely to be dissimilar, allowing for any prior differences to affect the study's outcomes.

Longitudinal studies on Parents Anonymous have shown that program participation for six months significantly decreases certain risk factors in parents, such as parenting distress, parenting rigidity, psychological aggression toward children, life stress, intimate partner violence, alcohol use, and drug use (Polinsky et al., 2010; Polinsky et al., 2011). Program participation also improves protective factors, such as quality of life, emotional/instrumental social support, general social support, parenting sense of competence, and family function (Polinsky et al., 2010). Evaluations conducted during the program's early inception found significant decreases in the frequency of physical and verbal abuse immediately after group participation. Parent questionnaires found that 19% of parents in the group reported physically abusing their child almost every day before joining Parents Anonymous; this number dropped to 1% immediately after program participation (Behavior Associates, 1978). While the evaluation literature discusses various studies that found immediate effects from program participation, it is unclear how long these impacts last after program participation due to the studies' short timeframes.

Other research suggests that Parents Anonymous participants improve their problem-solving and parenting skills. An evaluation of child welfare treatment services found that Parents Anonymous was successful in reducing parents' likelihood to abuse their children in the future even when the program was taken in conjunction with other interventions (Cohn, 1979). Past research has found that Parents Anonymous also increases parent resilience by providing

parents with problem-solving skills and healthy coping mechanisms to manage stress. Parents reported an increased knowledge of parenting, such as effective ways to interact with and discipline their children, and increased knowledge of child development, such as appropriate expectations for themselves and their children (Borman & Lieber, 1986; Hunka et al., 1985).

While support groups generally create safe spaces, some participants may fail to respond to others respectfully, which can negatively impact trust in a group dynamic. Building those trusting relationships in support groups is an important aspect of Parents Anonymous, and participants who cannot control or positively express their anger may not benefit from this model. Parent group leaders are responsible for intervening and for counseling disruptive members toward more beneficial treatment programs for the protection of other members. Parents who are participating by child welfare mandate are more likely to have heightened stress factors and anger problems compared to voluntary participants, who report higher baseline scores for protective factors (Polinsky et al., 2011).

Because Parents Anonymous aims to reduce risk factors and increase protective factors associated with child maltreatment, this evaluation examined whether families differed in subsequent outcomes (e.g., maltreatment referrals, child welfare investigations, substantiated maltreatment allegations [maltreatment allegations that are founded/supported by child welfare], and child removals) by their program participation. We used a quasi-experimental design to examine the effectiveness of Parents Anonymous in improving outcomes in child safety and permanency—specifically, reducing subsequent child welfare referrals, investigations,

substantiations, and removals within six and 12 months of the program's end.[3] Given that peer parent programs are used nationally and relied upon for reducing and preventing child maltreatment, a quasi-experimental design is necessary to more accurately establish causality between participation in Parents Anonymous and improved child safety and permanency outcomes and to rule out the possibility that parenting and child outcomes improved on their own.[4] This study is intended to fill in the gap in research on the impact of Parents Anonymous involvement on reducing child maltreatment outcomes for families involved in the child welfare system.

2.1 METHODS

To evaluate the effectiveness of Parents Anonymous in improving child safety and permanency outcomes, we compared subsequent child welfare involvement outcomes for a sample of parents who received Parents Anonymous services to those for a sample who did not. We used exact matching to construct an appropriate comparison group with which to compare outcomes. All match variables and outcomes were collected from the child welfare administrative data system, measures assumed to be reliable by the Title IV-E Prevention Services Clearinghouse.[5]

[3] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, sections 2.2.1, p. 5; 4.1.4, p. 9; 4.1.5, p.10; 4.2, p. 16; and 5.3, p. 19.

[4] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 2.2.1, p. 5.

[5] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.2, p. 33.

Site Selection

Two large counties with a total of 49 active Parents Anonymous groups, provided at multiple locations, were selected for the study.[6] One county implemented the program in 2015 and the other implemented in 1969 with the inception of Parents Anonymous. Analyzing multiple locations with numerous staff and individual groups increases the generalizability of the findings and reduces the potential for bias, which could be introduced by limiting the study to a single provider or agency.[7] All parents in both the treatment and comparison groups were involved in "business-as-usual" child welfare services in these two counties during the four-year study period; Parents Anonymous was delivered in the usual practice setting during this time.[8] There were no known deviations to Parents Anonymous service delivery during the study period.[9]

2.2 End of Treatment Timeframes

The Parents Anonymous program can vary in length, without a clear end to treatment. We selected an end-of-treatment time point that corresponds to the stated delivery for the majority of services. The median treatment length in the Parents Anonymous sample was 152 days, or about five months. Thus, a standardized treatment length of 152 days was selected.

[6] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 2.2.2, p. 6.

[7] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.3, p. 37.

[8] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 6.2.2, p. 44.

[9] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 6.2.2, p. 44.

During this timeframe, participants should have covered most of the topics in Parents Anonymous and received the majority of services.[10] For the comparison group's start time, we began with the treatment group's median time from index referral to CWS until the Parents Anonymous start date, which was 134 days. The comparison group's constructed treatment start time was then the index referral date plus 134 days, and the constructed treatment end time was the index referral date plus 286 days.[11]

Subsequent child welfare involvement outcomes (referral, investigation, substantiation, and removal) were measured consistently for treatment and comparison groups: at six and 12 months after the designated treatment length period (i.e., 286 days from index referral for both groups).[12] Thus, the time between baseline (i.e., pre-test) and outcome (i.e., post-test), is identical for both groups. Outcome measures were defined using administrative data from the child welfare system for both treatment and comparison groups.

2.3 Defining Initial Sample Eligibility Pool

Parents Anonymous provided a list of parents who attended Parents Anonymous groups at some time during a four-year period from 2015 to 2018. Of the 578 parents in the file, 284 were matched to child welfare records in the two study counties. To be considered for the analysis, parents must have been the subject of at least one referral prior to the start of Parents

[10] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 6.2.3, p. 44.

[11] The constructed treatment start time (134 days after index referral) plus the standardized treatment length (152 days).

[12] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.2, p. 33.

Anonymous and the file must have information about the natural treatment start and end dates. Treatment start and end dates and an index referral were missing for one parent. For 22 parents, an index referral prior to treatment start was missing. This resulted in 261 parents in the Parents Anonymous group. From the child welfare database, we randomly selected 19,226 potential comparison parents who did not receive Parents Anonymous services and had at least one referral in either study county during the four years of the treatment sample selection. Parents in both groups had been investigated by their respective county child welfare systems.

These initial samples were further refined to exclude cases missing data pertinent to the match and to allow for complete cases analysis in the impact analysis.[13] In the treatment sample, 18 Parents Anonymous parents were missing county data and five were missing parent race/ethnicity. After excluding these 23 cases, 238 Parents Anonymous parents were available for matching. In the comparison population, 1,212 parents were missing race/ethnicity data and 770 comparison group parents were missing income data. No other data were missing from these groups. After excluding these 1,982 cases, 17,244 parents remained in the comparison group. No other data were missing from either group. Furthermore, some comparison parents had characteristics that deemed them ineligible for matching: 235 parents' youngest child was over 18 and two had children who were not born by the beginning of treatment. Because no parents in the Parent Anonymous group were American Indian/Alaska Native, 37 American Indian/Alaska Native parents were dropped from the comparison group. These exclusions

[13] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.4, pp. 37–38.

resulted in 238 Parents Anonymous parents and 16,970 comparison parents for consideration in the matching process.

2.4 Sample Match Variables

Because this study assessed the program's impact on events following the treatment period, there were no direct baseline measures of the outcomes. Consequently, we considered common precursors (i.e., pre-test alternatives) to subsequent child welfare involvement, as well as demographic characteristics, to pursue baseline equivalence when selecting the treatment and comparison populations.[14] Prior removals and prior investigations are common precursors of future referrals, substantiations, investigations, and removals (Courtney et al., 2005). Ensuring that the treatment and comparison populations have similar distributions of known precursors to the outcomes being measured reduces the impact of confounding.[15]

Family variables used for exact matching were child age, parent race/ethnicity, whether a child had been removed from the parent prior to the beginning of the intervention, whether the parent had been the subject of a child welfare investigation prior to the index referral, and substantiated general neglect on the index referral.[16] Child age was divided into four categories (0–3 years, 4–6 years, 7–12 years, and 13–17 years) and was categorized based on the youngest child linked to the parent. Income was calculated as the median income for the parent's zip

[14] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.7.1, p. 30.

[15] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.3, pp. 35–36.

[16] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.7.1, p. 30.

code. Additional variables to aid in comparability were whether the parent lived in a zip code in which a Parents Anonymous session took place, the parent's county of residence, and an indicator for time.

Table 1 provides an unweighted, descriptive profile of the eligible sample populations for the treatment and comparison groups prior to matching. Differences between the two populations were especially notable for child age and child welfare involvement variables. Parents who received Parent Anonymous group services were more likely to have younger children; they also were more likely to have a history of child welfare involvement (i.e., prior removal and investigation) and to have substantiated findings from the index referral. Prior child welfare involvement is a known risk factor for subsequent involvement. These fundamental differences between the two populations illustrates why it is important to identify a match that is representative of the treatment population to prevent confounding the intervention effect.[17]

Table 1

Profile of Initial Sample Eligibility Pool

Variable	Comparison *n* (%) or mean (*SD*) and (range) (*N* = 16,970)	Treatment *n* (%) or mean (*SD*) and (range) (*N* = 238)
Child age (youngest child)		
0–3	3,607 (21.3%)	112 (47.1%)
4–7	4,048 (23.9%)	70 (29.4%)
8–12	5,053 (29.8%)	33 (13.9%)
13–18	4,262 (25.1%)	23 (9.7%)
Income	$56,007 ($19,960) ($15,149 – $210,833)	$52,894 ($15,420) ($30,072 – $102,563)

[17] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.3, pp. 35–36.

Table 1

Profile of Initial Sample Eligibility Pool

Variable	Comparison *n* (%) or mean (*SD*) and (range) (*N* = 16,970)	Treatment *n* (%) or mean (*SD*) and (range) (*N* = 238)
Parent race/ethnicity		
Asian/Pacific Islander	519 (3.1%)	4 (1.7%)
Black/African American	2,961 (17.4%)	36 (15.1%)
Hispanic/Latinx	10,921 (64.4%)	164 (68.9%)
White	2,569 (15.1%)	34 (14.3%)
Child welfare involvement		
Prior removal (yes)	3,078 (18.1%)	124 (52.1%)
Prior investigation (yes)	9,237 (54.4%)	160 (67.2%)
Substantiated general neglect allegation	2,326 (13.7%)	127 (53.4%)
Substantiated physical abuse allegation	168 (1.0%)	8 (3.4%)
Zip code where PA session took place	2,883 (17.0%)	99 (41.6%)
Month index	36.8 months (14.1) (10–60)	33.7 months (12.4) (0–60)
Geography		
County 1	13,682 (80.6%)	217 (91.2%)
County 2	2,908 (17.1%)	19 (8.0%)
A zip code in both counties	380 (2.2%)	2 (0.8%)

2.5 Matching Method and Baseline Equivalence Assessment

Exact matching was used to balance the representation of covariates between the treatment and comparison groups. Exact matching finds one or more cases in the comparison group with the exact same combination of values for the variables being matched as a case in the treatment group. Because varying numbers of exact matches may be selected in the comparison group for cases in the treatment group, we weighted the variables in the comparison group to be representative of the treatment group. Using this method, perfect

baseline equivalence is achieved on the variables used in the match. We measured standardized mean differences between the two populations to assess baseline equivalence.[18]

There were 12,908 parents in the comparison group who did not have an exact match with parents in the treatment group and were excluded. Conversely, 24 parents in the treatment group did not have an exact match with parents in the comparison group and were also excluded. As a result of the exact matching, we identified 4,062 parents in the comparison sample and 214 parents in the treatment sample.[19]

3.1 Impact Analysis

This study assessed four outcomes pertaining to child safety and permanency at six and 12 months following the constructed treatment period (a total of eight outcomes): referral, investigation, substantiation, and child removal. We used the same samples in the impact analysis as in the baseline equivalence assessment. Therefore, there was no need to account for missing data because we excluded observations with missing data prior to the match and baseline equivalence assessment (i.e., complete case analysis).[20]

A binary logistic regression was conducted for each outcome. For double-robust analysis, we used the same variables in the impact analysis as in the matching process (Funk et al., 2011);

[18] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.7, p. 28.

[19] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 4.2, p. 16.

[20] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.9.4, pp. 37–38.

no endogenous variables were included in the model.[21] The independent variables included treatment status, age of youngest child in days, income, number of prior investigations, and whether the index referral was substantiated for physical abuse. The models were weighted to account for the multiple matches from the comparison group for each Parents Anonymous parent and ensure that the pre-test alternatives did not skew the results. To measure effect size of the binary outcomes (i.e., whether or not parents had a subsequent referral, investigation, substantiation, or child removal following treatment), we calculated the odds ratios and translated these to standardized mean differences using the Cox transformation methods (Sánchez-Meca, Marín-Martínez, & Chacón-Moscoso, 2003).[22]

4.1 RESULTS

4.2 Exact Match and Baseline Equivalence Analysis

We used standardized mean differences as the effect size unit in assessing baseline equivalence between the comparison and treatment groups. After weighting the comparison population to account for the varying number of matches from the comparison group to the Parents Anonymous group, the standard mean difference was 0.00 for each variable considered in the match (Table 2). Standardized mean effect sizes of less than 0.05 are considered equivalent.[23] Income and substantiated physical abuse both had standardized mean differences

[21] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, sections 5.8, p. 32; 5.9.1, p. 33.

[22] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.10.1, pp. 40–41.

[23] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.7, p. 28.

of greater than 0.00. However, in alignment with the Handbook protocol for establishing baseline equivalence, these differences (greater than 0.05 and less than 0.25) are in the adjustment range.[24] Therefore, they were included as covariates in the impact models.[25]

Table 2

Post-Match Weighted Descriptive Profile and Baseline Equivalence Assessment

Variable	Comparison *n* (weighted %) or mean (*SD*) and (range), weighted *N* = 4,062	Treatment *n* (%) or mean (*SD*) and (range) *N* = 214	Standard mean difference effect size
Child age (youngest child)			
0–3	1,860 (45.8%)	98 (45.8%)	0.00
4–6	1,215 (30.0%)	64 (30.0%)	0.00
7–12	588 (14.5%)	31 (14.5%)	0.00
13–18	399 (9.8%)	21 (9.8%)	0.00
Income	$51,979 ($17,618) ($15,149 – $194,151)	$53,199 ($15,611) ($30,072 – $102,563)	0.09
Parent race/ethnicity			
Asian/Pacific Islander	19 (0.5%)	1 (0.5%)	0.00
Black/African American	569 (14.0%)	30 (14.0%)	0.00
Hispanic/Latinx	2,999 (73.8%)	158 (73.8%)	0.00
White	475 (11.7%)	25 (11.7%)	0.00
Child welfare involvement			
Prior removal (yes)	2,088 (51.4%)	110 (51.4%)	0.00
Prior investigation (yes)	2,771 (68.2%)	146 (68.2%)	0.00
Substantiated general neglect allegation	2,088 (51.4%)	110 (51.4%)	0.00
Substantiated physical abuse allegation	50 (1.2%)	7 (3.3%)	0.12
Zip code where PA session took place	1,500 (36.9%)	79 (36.9%)	0.00

[24] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.7, p. 29.

[25] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 5.8, p. 32.

Table 2

Post-Match Weighted Descriptive Profile and Baseline Equivalence Assessment

Variable	Comparison *n* (weighted %) or mean (*SD*) and (range), weighted *N* = 4,062	Treatment *n* (%) or mean (*SD*) and (range) *N* = 214	Standard mean difference effect size
Month index	33.9 (12.3) 10–60	33.9 (12.3) 10–60	0.00
Geography			
County 1	3,720 (91.6%)	196 (91.6%)	0.00
County 2	304 (7.5%)	16 (7.5%)	0.00
A zip code in both counties	38 (0.9%)	2 (0.9%)	0.00

4.3 Outcome/Impact Analysis

Eight outcomes were considered in the analysis post-treatment.[26] Table 3 shows the frequency of outcomes among the initial sample pool (prior to being matched) for the comparison and treatment populations. Despite being higher risk, parents involved in Parents Anonymous had outcome rates similar to those of parents who were not.

Table 3

Outcome Frequencies of Comparison and Treatment Groups Prior to Match

Post-treatment outcomes	Comparison *n* (%) (*N* = 16,970)	Treatment *n* (%) (*N* = 238)
Six months		
Referral	1,717 (10.1%)	23 (9.7%)
Investigation	1,541 (9.1%)	22 (9.2%)
Substantiation	479 (2.8%)	5 (2.1%)
Removal	2,808 (16.5%)	39 (16.4%)

[26] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 4.2, p. 16.

Table 3

Outcome Frequencies of Comparison and Treatment Groups Prior to Match

Post-treatment outcomes	Comparison *n* (%) (*N* = 16,970)	Treatment *n* (%) (*N* = 238)
12 months		
Referral	2,571 (15.2%)	37 (15.5%)
Investigation	880 (5.2%)	10 (4.2%)
Substantiation	288 (1.7%)	7 (2.9%)
Removal	561 (3.3%)	18 (7.6%)

Table 4 provides the frequencies of each outcome for the comparison and treatment samples. Due to the one-to-many match, we weighted the comparison population to be more representative of the treatment population.

Table 4

Outcome Frequencies of Post-Match Comparison and Treatment Groups

Outcomes	Comparison *n* (weighted %) *N* = 4,062	Treatment *n* (%) *N* = 214
Six months		
Referral	549 (13.5%)	20 (9.3%)
Investigation	490 (12.1%)	19 (8.9%)
Substantiation	187 (4.6%)	4 (1.9%)
Removal	89 (2.2%)	7 (3.3%)
12 months		
Referral	933 (23.0%)	36 (16.8%)
Investigation	841 (20.7%)	34 (15.9%)
Substantiation	413 (10.2%)	9 (4.2%)
Removal	305 (7.5%)	18 (8.4%)

Using a binary logistic regression model, we assessed the program's impact on each outcome. Two outcomes were statistically significant ($p \leq .05$). A referral for child abuse or

neglect was significantly less likely in the treatment group than the comparison group at 12 months post-treatment, p = .034, adjusted odds ratio = 0.669. Substantiated child abuse or neglect was significantly less likely in the Parents Anonymous group than the comparison group at 12 months post-treatment, p = .005, adjusted odds ratio = 0.372 (Table 5). No other statistically significant results were identified in the analysis.

Table 5

Binary Logistic Regression Results

	Adjusted odds ratio	**Standard error**	***p* value**	**Standardized mean difference effect size (Cox transformation on adjusted OR)**
Six-month referral				
"(Intercept)"	0.081	0.146	<.001	–1.522
Group (treatment = 1; comparison = 0)	0.643	0.242	.068	–0.268
Age of youngest child	1.000	0.000	.452	0.000
Median income	1.000	0.000	<.001	0.000
Number of prior investigations	1.115	0.013	<.001	0.066
Substantiated physical abuse	0.496	0.522	.179	–0.425
12-month referral				
"(Intercept)"	0.266	0.123	<.001	–0.803
Group (treatment = 1; comparison = 0)	0.669	0.189	.034	–0.243
Age of youngest child	1.000	0.000	<.001	0.000
Median income	1.000	0.000	.539	0.000
Number of prior investigations	1.101	0.012	<.001	0.059
Substantiated physical abuse	0.464	0.425	.071	–0.465
Six-month investigation				
"(Intercept)"	0.060	0.151	<.001	–1.705
Group (treatment = 1; comparison = 0)	0.689	0.250	.135	–0.226
Age of youngest child	1.000	0.000	.074	0.000
Median income	1.000	0.000	<.001	0.000
Number of prior investigations	1.132	0.013	<.001	0.075

Table 5

Binary Logistic Regression Results

	Adjusted odds ratio	Standard error	*p* value	Standardized mean difference effect size (Cox transformation on adjusted OR)
Substantiated physical abuse	0.307	0.677	.082	–0.715
12-month investigation				
"(Intercept)"	0.225	0.128	<.001	–0.904
Group (treatment = 1; comparison = 0)	0.709	0.194	.077	–0.208
Age of youngest child	1.000	0.000	<.001	0.000
Median income	1.000	0.000	.332	0.000
Number of prior investigations	1.116	0.012	<.001	0.067
Substantiated physical abuse	0.535	0.425	.141	–0.379
Six-month substantiation				
"(Intercept)"	0.037	0.244	<.001	–2.005
Group (treatment = 1; comparison = 0)	0.377	0.515	.058	–0.592
Age of youngest child	1.000	0.000	.003	0.000
Median income	1.000	0.000	.357	0.000
Number of prior investigations	1.138	0.019	<.001	0.078
Substantiated physical abuse	0.107	2.040	.273	–1.356
12-month substantiation				
"(Intercept)"	0.305	0.197	<.001	–0.720
Group (treatment = 1; comparison = 0)	0.372	0.349	.005	–0.600
Age of youngest child	1.000	0.000	<.001	0.000
Median income	1.000	0.000	<.001	0.000
Number of prior investigations	1.121	0.015	<.001	0.069
Substantiated physical abuse	0.534	0.701	.371	–0.38

Table 5

Binary Logistic Regression Results

	Adjusted odds ratio	Standard error	*p* value	Standardized mean difference effect size (Cox transformation on adjusted OR)
Six-month removal				
"(Intercept)"	0.031	0.425	<.001	–2.101
Group (treatment = 1; comparison = 0)	1.438	0.418	.384	0.220
Age of youngest child	1.000	0.000	.597	0.000
Median income	1.000	0.000	.022	0.000
Number of prior investigations	1.217	0.021	<.001	0.119
Substantiated physical abuse	0.249	2.048	.497	–0.843
12-month removal				
"(Intercept)"	0.339	0.239	<.001	–0.656
Group (treatment = 1; comparison = 0)	1.171	0.258	.539	0.096
Age of youngest child	1.000	0.000	<.001	0.000
Median income	1.000	0.000	<.001	0.000
Number of prior investigations	1.096	0.016	<.001	0.056
Substantiated physical abuse	0.071	2.040	.195	–1.603

5.1 CONCLUSION

The findings suggest that participation in Parents Anonymous may have a positive, long-term impact on improving safety for children whose parents were investigated by the child welfare system. Specifically, parents involved in Parents Anonymous were significantly less likely to have a subsequent maltreatment referral or substantiated maltreatment finding at the 12-month follow-up period compared to parents who did not participate in Parents Anonymous. No other outcomes were statistically significant. Additionally, there were no unfavorable

outcomes that would suggest risks of harm due to program involvement.[27] These statistically significant results at 12 months post-treatment are "sustained favorable" outcomes.[28]

Considering that parents involved in Parents Anonymous were more likely to have known risk factors associated with subsequent child welfare involvement (i.e., prior child welfare investigation or child removal) compared to parents who did not receive group services, these results are encouraging. Had parents in Parents Anonymous not been involved with the program, we might expect them to have higher rates of subsequent child welfare involvement. With this context in mind, it is reassuring that services are targeted toward families who are most likely in greatest need of support.

While these results are encouraging, future research should be undertaken to evaluate the underlying mechanisms of why the program was associated with a reduction in referral and substantiation at 12 months post-treatment. These outcomes are hard to achieve, and deeper understanding of what reduces follow-up substantiations is important for the field. Based on prior research and what we know about the model of the program, the program may result in a direct behavioral change of reducing child abuse. Previous research has demonstrated a significant reduction in parents' reports of abusing their child immediately following Parents Anonymous program completion and an increase in knowledge of effective discipline and child interaction strategies. Perhaps the program works more indirectly to improve protective factors and reduce risk factors (e.g., ACEs) known to be associated with child abuse and neglect as

[27] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 6.2.1, p. 44.

[28] This method is consistent with the Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, Section 4.2, p. 16.

evidenced in other research, such as improving stress management and coping skills. Developing social connections also may help to sustain program benefits after participation and increase access to resources such as childcare and financial support. More research is needed to understand Parents Anonymous' impact on child safety and permanency and the causality of the positive outcomes demonstrated in this study.

5.2 Limitations

This study used a quasi-experimental design using exact matching methods to identify an appropriate comparison group. Although we controlled for important demographic characteristics and other variables known to have a strong correlation with the outcomes when we selected the comparison group, the difference in outcomes observed could have been associated with other factors that were not accounted for. A more robust design involving random assignment would help mitigate this potential bias. Another limitation is that each parent was evaluated independently. While we considered a clustered design for evaluation, it was not straightforward to group families together because parents often were linked by shared children or stepchildren.

Participation in Parents Anonymous is self-driven; parents are welcome to join a group at any time and attend for as long as they wish. The program does not have rigid requirements for treatment duration or dosage. As such, we were unable to definitively identify parents that had "completed" the program and instead used a constructed treatment period based on the median time between start and end dates. More information is needed on the dosage to better evaluate the program's long-term impact. This is particularly true considering one of the primary

objectives of the program is to prevent and mitigate the negative impacts of ACEs. Exposure to ACEs can have lasting, intergenerational consequences (Anda et al., 2005). While this study added to the knowledge base on longer-term program effects (i.e., 12 months post-treatment), we cannot be sure of *how* the program intervened to reduce future child welfare involvement. Future research should seek to address these questions.

REFERENCES

Ainsworth, A. (2019). *Parents Anonymous: Effectively preventing and treating child abuse and neglect by strengthening families—Evaluation brief: 2016–2019*. https://parentsanonymous.org/wp-content/uploads/2019/11/2019ParentsAnonymous_EvaluationBrief_Final.pdf

American Academy of Pediatrics. (2014). *Adverse childhood experiences and the lifelong consequences of trauma*. https://www.aap.org/en-us/Documents/ttb_aces_consequences.pdf

Anda, R., Felitti, V., Bremner, J., Walker, J., Whitfield, C., Perry, B., Dube, S., & Giles, W. (2005). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience*, *256*(3), 174–186. https://doi.org/10.1007/s00406-005-0624-4

Barnes, J., MacPherson, K., & Senior, R. (2006). Factors influencing the acceptance of volunteer home-visiting support offered to families with new babies. *Child & Family Social Work, 11*(2), 107–117. https://doi.org/10.1111/j.1365-2206.2006.00401.x

Barnhart, S., & Maguire-Jack, K. (2016). Single mothers in their communities: The mediating role of parenting stress and depression between social cohesion, social control and child maltreatment. *Children and Youth Services Review, 70*, 37–45. https://doi.org/10.1016/j.childyouth.2016.09.003

Barth, R. P., Landsverk, J., Chamberlain, P., Reid, J. B., Rolls, J. A., Hurlburt, M. S., Farmer, E. M. Z., James, S., McCabe, K. M., & Kohl, P. L. (2016). Parent-training programs in child welfare services: Planning for a more evidence-based approach to serving biological parents. *Research on Social Work Practice, 15*(5), 353–371. https://doi.org/10.1177/1049731505276321

Behavior Associates. (1978). *Overview of the Parents Anonymous Self-Help for Child Abusing Parents Project evaluation study for 1974–1976*. https://www.ncjrs.gov/pdffiles1/Digitization/48813NCJRS.pdf

Borman, L., & Lieber, L. (1986). *Self-help and the treatment of child abuse*. https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=131289

Cohn, A. H. (1979). Effective treatment of child abuse and neglect. *Social Work, 24*(6), 513–519. https://doi.org/10.1093/sw/24.6.513

Courtney, M., Dworsky, A., Piliavin, I., & Zinn, A. (2005). Involvement of TANF applicant families with child welfare services. *Social Service Review, 79*(1). https://doi.org/10.1086/426720

Evangelou, M., Coxon, K., Smith, S., & Chan, L. (2011). Seeking to engage 'hard-to-reach' families: Towards a transferable model of intervention. *Children & Society, 27*(2), 127–138. https://doi.org/10.1111/j.1099-0860.2011.00387.x

Funk, M. J., Westreich, D., Wiesen, C., Stürmer, T., Brookhart, M. A., & Davidian, M. (2011). Doubly robust estimation of causal effects. *American Journal of Epidemiology, 173*(7), 761–767. https://doi.org/10.1093/aje/kwq439

Garbers, C., Tunstill, J., Allnock, D., & Akhurst, S. (2006). Facilitating access to services for children and families: Lessons from Sure Start Local Programmes. *Child & Family Social Work, 11*(4), 287–296. https://doi.org/10.1111/j.1365-2206.2006.00436.x

Gray, B. (2009). Befriending excluded families in tower hamlets: The emotional labour of family support workers in cases of child protection and family support. *The British Journal of Social Work, 39*(6), 990–1007. https://doi.org/10.1093/bjsw/bcn023

Hunka, C. D., O'Toole, A. W., & O'Toole, R. (1985). Self-help therapy in Parents Anonymous. *Journal of Psychosocial Nursing and Mental Health Services, 23*(7), 24–32.

Lu, M.-H., Wang, G.-H., Lei, H., Shi, M.-L., Zhu, R., & Jiang, F. (2018). Social support as mediator and moderator of the relationship between parenting stress and life satisfaction among the Chinese parents of children with ASD. *Journal of Autism and Developmental Disorders, 48*(4), 1181–1188. https://doi.org/10.1007/s10803-017-3448-y

Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine, 9*(11). https://doi.org/10.1371/journal.pmed.1001349

Parents Anonymous Inc. (2015). *Ensuring evidence-based Parents Anonymous: The best practices manual for Parents Anonymous adult group facilitators and parent group leaders.* Claremont, CA: Author.

Polinsky, M., Pion-Berlin, L., Long, T., & Wolf, A. (2011). Parents Anonymous outcome evaluation: Promising findings for child maltreatment reduction. *OJJDP Journal of Juvenile Justice, 1*(1), 33–47. https://parentsanonymous.org/wp-content/uploads/2019/10/JournalofJuvenileJusticeVolume1Issue1Fall2011.pdf

Polinsky, M., Pion-Berlin, L., Williams, S., Long, T., & Wolf, A. (2010). Preventing child abuse and neglect: A national evaluation of Parents Anonymous groups. *Child Welfare, 89*(6), 43–62.

Schofield, T. J., Lee, R. D., & Merrick, M. T. (2013). Safe, stable, nurturing relationships as a moderator of intergenerational continuity of child maltreatment: A meta-analysis. *Journal of Adolescent Health, 53*(4, Supplement), S32–S38. https://doi.org/10.1016/j.jadohealth.2013.05.004

Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect, 31*(5), 517–530. https://doi.org/10.1016/j.chiabu.2007.01.003

Strozier, A. L. (2012). The effectiveness of support groups in increasing social support for kinship caregivers. *Children and Youth Services Review, 34*(5), 876–881. https://doi.org/10.1016/j.childyouth.2012.01.007

Thornberry, T. P., Henry, K. L., Smith, C. A., Ireland, T. O., Greenman, S. J., & Lee, R. D. (2013). Breaking the cycle of maltreatment: The role of safe, stable, and nurturing relationships. *Journal of Adolescent Health, 53*(4, Supplement), S25–S31. https://doi.org/10.1016/j.jadohealth.2013.04.019

U.S. Department of Health and Human Services, Administration on Children, Youth, and Families. (2020). *Child maltreatment 2018*. https://www.acf.hhs.gov/sites/default/files/cb/cm2018.pdf?mod=article_inline

Wilson, S. J., Price, C. S., Kerns, S. E. U., Dastrup, S. D., & Brown, S. R. (2019). Title IV-E Prevention Services Clearinghouse Handbook of Standards and Procedures, version 1.0 (OPRE Report #2019-56). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.