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Reducing Risk:

Families in Wraparound Intervention

Brevard C.A.R.E.S. wraparound intervention reduces the occurrence of verifiable child maltreatment by applying core principles of wraparound with Family Team Conferencing to voluntarily enrolled families at risk for child maltreatment.

The intervention goes well beyond the traditional approach toward at-risk children and families, which is often characterized by systematic case management of multiple services in hopes of finding the "right" service array.

In contrast, the Brevard C.A.R.E.S. intervention actively engages the family in identifying and owning its strengths, natural supports, and vision of family success, while facilitating the family and its team to move toward that vision.

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Reducing Risk: Families in Wraparound Intervention

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This study used a relative risk (RR) regression method to explore the extent to which children of caregivers in the Brevard C.A.R.E.S. (Coordination, Advocacy, Resources, Education and Support) wraparound intervention experienced a reduction of maltreatment 6 months post completion. Brevard C.A.R.E.S. is a wraparound intervention designed to reduce and prevent child maltreatment in identified at-risk families of children 0–17 years old. The study of 308 children included 131 whose caregivers completed the intervention and a comparison group of 177 similarly situated children. The study found that children whose caregivers completed the intervention experienced less verified maltreatment than children in the comparison group. These findings have implications to enhance systems of care in the community that seek family interventions to support child maltreatment prevention.

IMPLICATIONS FOR PRACTICE

- This intervention actively engages a family in identifying and owning its strengths, natural supports, and vision of family success, while facilitating a Family Conferencing Team to move toward that vision.

The classic approach to child welfare has predominantly involved removing a child from a troubled home and neighborhood to the foster care system, which can cause long-term trauma to the child (Doyle, 2008; Lee, Bright, Svoboda, Fakunmoju, & Barth, 2011; Walker & Bruns, 2007). This clinical and legal protocol, rising to the level of social policy, has produced diminishing returns and resulted in large numbers of children who have aged out of welfare programs. The cost to society grows at exponential rates as this vulnerable population disproportionately suffers chronic mental illness, structural poverty, and crime (Heckman, 2006).

This study focuses on an intervention in Brevard County, Florida, that uses a wraparound approach early during family stress and/or crisis to prevent a child's entry into the child welfare and dependency care systems. *Wraparound* is a definable planning process that results in a unique set of community services and natural supports that are individualized for families and children and strive for positive outcomes (Bruns, Suter, Burchard, Leverentz-Brady, & Force, 2004; Bruns, Walker, & The National Wraparound Initiative Advisory Group, 2008).

System of Care Shifts

Brevard Family Partnership replaced the state's traditional child welfare operation with a community-based system of care, leading to the development of the study's intervention: a wraparound model that is strength-based and family-driven. The intervention is implemented while keeping at-risk children in their homes and communities, striving to prevent their system entry. Brevard's wraparound model shifted service delivery from a deficit-laden focus—separating the child from the family—to a focus on building family strengths. Thus the unit of analysis in this study is the child within the family situated in the community, rather than the child in relationship to the protective services system. Figure 1 contrasts the wraparound model and traditional child welfare services and approaches.

Background

Starting in 1998, the Florida legislature mandated the privatization of child welfare and related services to a community-based care model. Brevard County stakeholders responded with the development of a system of care anchored in a wraparound intervention, Brevard C.A.R.E.S. (Coordination, Advocacy, Resources, Education and Support). Florida's Title IV-E Waiver provided funding for such interventions, yielding a multimillion-dollar reduction in out-of-home care costs as communities like Brevard reinvested these savings in aggressive front-end prevention and diversion efforts, expanding child welfare capacity and fostering agency improvements (Armstrong et al., 2009).

Brevard C.A.R.E.S. provides prevention services, including the wraparound intervention, in Brevard County on Florida's central east coast. With one of the country's highest home foreclosure rates and the downsizing of the military and aerospace industries, Brevard's approximately 550,000 residents (U.S. Census Bureau, n.d.) experience high unemployment and serious economic challenges affecting both the traditionally poor and families slipping out of middle class.

Patricia Nellius-Guthrie of Brevard Family Partnership designed, piloted, and implemented the Brevard C.A.R.E.S. wraparound model intervention in April 2005 after a local coalition of stakeholders prioritized aggressive front-end prevention and diversion to improve child safety and reduce the number of children entering the dependency system. The intervention's wraparound approach was intended to reach families before the stressors they experience meet the threshold of abuse and neglect.

The intervention was formally defined by the National Wraparound Initiative (NWI). Bruns et al. (2008) with the NWI developed standards for conducting high-quality and high-fidelity wraparound supporting measures of success. The intervention aims to assist families to identify and develop a system of formal and informal supports in the community and within family structures, and it maintains that even the most challenged parents and/or primary caregivers have the potential to make necessary changes.

In the intervention, families partner with and are guided by a cadre of service provider professionals credentialed in various disciplines, including mental health, substance abuse, and behavioral analysis. Weekly meetings link the family to formal and informal supports, including teachers, coaches, clergy, neighbors, friends, sponsors, service providers, and extended family, to stabilize immediate problems and build on family strengths to rear their children successfully.

Wraparound and Child Welfare Outcomes

Studies examining the effectiveness of wraparound models have reported a wide range of outcomes. Some found little to no connection between family and youth outcomes and the provision of wraparound services as compared with "treatment as usual" (Bickman, Smith, Lambert, & Andrade, 2003). Others suggest a moderate link between family participation in wraparound and desired outcomes in emotional, behavioral, academic, or other areas (Clark, Lee, Prange, & McDonald, 1996). Still other research argues that strong associations exist between quality implementation of wraparound processes or ser-

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vices and subsequent family success (Pullman et al., 2006). Bruns and Suter (2009) suggested that outcome discrepancies could be related to infidelity in the implementation of wraparound. Such observed discrepancies may be explained by methodological variation within the studies analyzed, disparities between chosen outcome indicators, and impact relative to practice setting and community context (Hyde, Burchard, & Woodworth, 1996; Myaard, Crawford, Jackson, & Alessi, 2000; Pullman et al., 2006). In terms of child welfare outcomes, recent studies have focused on varying outcome indicators such as rates of placement change, reduction of risk behavior, and increases in school attendance, all differences that make cross-study comparisons difficult (Clark et al., 1996; Mears, Yaffe, & Harris, 2009; Pullman et al., 2006). Specific to child welfare and wraparound, studies have found that, compared with youth in traditional child welfare programs, youth in wraparound programs experience significantly fewer placement changes, fewer days as runaways, fewer days incarcerated (for the relevant subset), and more older youths in a permanency plan at follow-up (Clark et al., 1996). Using a matched comparison research design, researchers found that after 18 months, 27 of the 33 youth (82%) who received wraparound moved to less restrictive environments, compared with 12 of the 32 comparison group youth (38%); family members provided care for 11 of the 33 youth in the wraparound group compared with only six in the comparison group. Other positive outcomes for the wraparound cohort included increased school attendance, fewer school disciplinary actions, and higher grade-point averages (Bruns, Rast, Peterson, Walker, & Bosworth, 2006; Rast, Bruns, Brown, Peterson, & Mears, 2007).

Other research using the Child and Adolescent Functional Assessment Scale, such as Mears et al. (2009), has found that youth in the wraparound group showed significantly greater improvement than youth receiving traditional child welfare services. Youth in the wraparound group also showed significantly greater movement toward less restrictive residential placements as assessed by the Restrictiveness of Living Environment Scale. And, while more wraparound youth experienced a placement change, this was due to more youth in the wraparound group moving to less restrictive placements during the study period.

To date, there remains a paucity of studies. Nevertheless, the above studies suggest that wraparound models are moving in the right direction and that key child welfare outcomes can be achieved. They fit a theoretical model of change, which suggests that system change with family strengthening as a guiding approach can lead to significant successes for families and their children. It is important, however, to note the limitations of the current research on wraparound models (including interventions) and child welfare outcomes. Research studies are needed with the capacity to (a) focus research on front-end wraparound diversion programs, (b) examine child-level outcomes for specific family types, and (c) support knowledge development in wraparound evidence research and the child welfare research base.

The Current Study

Our study uses a relative risk (RR) regression method to explore the extent to which children with family members in the Brevard C.A.R.E.S. intervention can experience a reduction of risk of child maltreatment recidivism 6 months after receiving the intervention. The RR regression method reveals how risk is decreased or increased from an initial level, allowing risk to be measured readily and clearly. In application, an RR of 0.5 shows that the initial risk has been halved. By contrast, the odds ratio (OR) regression method relates to an event happening by simply stating the number of those who experience the event divided by the total number of people at risk of having that event (Davies, Crombie, & Tavakoli, 1998).

The RR regression method best answered our research question, and its conclusions are more applicable than OR regression. While the general form of RR and logistic regression are similar, RR regres-

Figure 1. *Comparison of wraparound and traditional child welfare models.*

Area	Wraparound model	Traditional child welfare services model
Consensus, coordination, and collaboration—across systems	Care Coordinators integrate all aspects of care, bringing all parties to the table to devise a single customized, outcome-based plan.	Families with cross-system involvement encounter multiple plans with which families must comply.
Case planning	Individualized and customized family-team planning process use key wraparound principles and the Family Team Conferencing approach.	Caseworkers develop plans based on system mandates and make formal determinations of type of child maltreatments to identify services.
Service array	Flexible support and continuum of services purchased on an as-needed basis with family acuity driving service delivery.	Prescriptive service delivery—traditional and categorical in nature, which is less customized for families.
Utilization management	Services are centrally authorized by Care Coordinators who have real-time access to services and community resources as alternatives to paid services.	Services are purchased and secured on a first-come, first-served basis; community resources and alternatives are utilized less frequently.
Funding	Payment structure is based on a unit rate with swift flexible fund authorization and management in order to maximize use of alternative funding streams and community resources.	Funding sources are limited for use only by eligible populations and require multilevel approval processes.
Outcomes	Individualized family-centered outcomes that begin with the initial assessment, care plan, authorization, and monitoring of services until the family graduates or completes program.	Typically provided through a state-automated information system where predetermined algorithms produce aggregated performance data (e.g., maltreatment and re-abuse rates).

Note. This chart was developed by the staff of Brevard C.A.R.E.S. after receiving training in the National Wraparound Initiative's guiding principles (Bruns et al., 2008).

sion has underlying fundamental differences with respect to estimation. In particular, Agresti noted that in using small cell proportions within RR regression, "it is not possible to construct 'exact' confidence intervals for association measures that are not functions of the odds ratio" (Agresti, 1992, p. 135).

Our study is a secondary data analysis that matches state administrative data on child welfare to Brevard C.A.R.E.S. administrative data on the program participants. Specifically, the study tracked whether or not a child experienced verified child maltreatment within 6 months after family members completed the program. The study compares children whose families completed the Brevard C.A.R.E.S. intervention with similarly situated nonparticipants.

Our primary research question is: When compared with children of similarly situated non-Brevard C.A.R.E.S. participants, are the children of the families that complete the C.A.R.E.S. intervention more or less likely to be maltreated 6 months after exiting the program? We hypothesized that children linked to families that complete the intervention would have reduced incidents of maltreatment, defined as experiencing verified child maltreatment as monitored by the Florida Safe Families Network, 6 months after program completion of the intervention.

The comparison group comprised families that were referred to Brevard C.A.R.E.S. but did not participate in the intervention. Participation and enrollment in Brevard C.A.R.E.S. were voluntary, and families were under no obligation to participate. However, the referral process provided information about the family history and reason for referral.

For all referrals, including families that did not participate in the intervention, Brevard C.A.R.E.S. staff conducted a risk assessment. Each family was assigned one of three intake levels based on the circumstances of the referral, the level of need, and complexity. Staff assessed family history, prior child welfare involvement, past interventions, status of final findings of maltreatment indicators, and the age and developmental needs of the children.

Intake Level III family referrals were the highest priority for the intervention, often with more than 10 prior maltreatment reports with the state and the highest acuity. Intake Level II referrals focus on families with 5 to 10 prior abuse reports with the state. Intake Level I referrals include families with no history or low history of prior abuse reports.

The risk assessment was designed to prioritize and guide the intervention, not as a research tool; however, its thoroughness made it the best choice for the primary independent variable. The Brevard C.A.R.E.S. database also included referral source, reason for referral, number and average age of children, household structure, location in county, and duration of participation. These variables were used to ensure that, while this was a convenient sample and not randomized, the two populations were similar enough to be comparable.

The study was based on secondary analysis and was completed after the participants had completed the intervention, which precluded any human contact; therefore it was deemed exempt from an institutional review. However, to ensure participants anonymity, Brevard C.A.R.E.S. staff removed all identifying personal data before the database was shared with the researchers. All revisions and additions to the database requested by the researchers were made by the staff.

Methods

Intervention Details

As described in detail below, the intervention examined in the current study allowed families to receive the wraparound model that strives for high fidelity to key guiding principles (Walker & Bruns, 2007). Approximately 75% of families served are referred from the Florida child welfare system, while the remaining families are referred through the community, including families that self-refer. The intervention targets various families, including "primary prevention families" in the general community who self-refer to decrease likelihood of maltreatment ever occurring; "secondary prevention families" with one or multiple risk factors (e.g., poverty, substance abuse); "tertiary prevention families" with current verified maltreatment and for whom the intervention is an alternative to traditional child welfare system involvement; and families transitioning from the child welfare system that choose wraparound for their aftercare support. The top five reasons for referrals were parenting support, ungovernable youth, domestic violence, mental health, and substance abuse.

Any family living in the service area of Brevard County who serves as a primary caregiver of at least one child under age 18 is eligible to voluntarily enroll in the intervention, which lasts an average of 120 days. Each family is assigned a facilitator and a family support partner to help them develop an individualized plan for their own goals. A coach/supervisor consults and ensures wraparound fidelity. The initial family meeting includes an informal assessment leading to the family's expression of how "Life will be better when…" as the basis going forward.

At the heart of the intervention is Family Team Conferencing, with an individualized and unified family team that enlarges the circle of support around the family beginning with a wraparound plan outlining the family's needs, challenges and barriers, action steps toward resolution, person(s) responsible, time frame, and outcome(s). Care Coordinators are wraparound practitioners and resource experts able to authorize services on a unit basis via a utilization management system. Family acuity dictates duration and frequency of services. Creative planning and unconditional support allow for "whatever it takes" to help the family. Incremental successes and a graduation ceremony are celebrated. A transition plan sustains families at exit.

The intervention's core principles include *family voice and choice*, wherein family and youth/child perspectives are intentionally elicited and prioritized; planning is grounded in family members' perspectives; and the team provides options that reflect family values and preferences. The intervention is also team-based; the wraparound team consists of individuals agreed upon by the family and committed to them via informal, formal, and community support and service relationships. It features natural supports, actively pursuing full participation from the family members' own networks of interpersonal and community relationships. A wraparound plan reflects activities and interventions that draw on sources of natural support.

Another approach of the intervention is collaboration: Team members work cooperatively and share responsibility for developing, implementing, monitoring, and evaluating the family's plan. The plan reflects a blending of team members' perspectives, mandates, and resources. It guides and coordinates each team member's work toward meeting the team's goals. The intervention is community-based, ensuring service and support strategies take place in the most inclusive, responsive, accessible, and least restrictive settings possible, and that safely promote child and family integration into home and community life.

The intervention is individualized: To achieve the goals outlined in the wraparound plan, the team develops and implements a custom-

ized set of strategies, supports, and services. It is strengths-based, with process and wraparound plans that identify, build, and enhance the capabilities, knowledge, skills, and assets of the child and family, their community, and other team members. Persistence is an important value in the intervention: Despite challenges, the team works toward the wraparound plan goals until everyone agrees that the formal intervention (wraparound model) is no longer required.

Further, the intervention is outcome-based, with the team linking goals and strategies to measurable success indicators, monitoring progress in terms of these indicators, and revising the plan accordingly. Finally, it is culturally competent: The wraparound team demonstrates respect for and builds on the values, preferences, beliefs, traditions, norms, and culture of the child, youth, family, and their community. The practitioner demonstrates an understanding of his or her own worldviews and those of the family while avoiding stereotyping and misapplication of scientific knowledge (Bruns et al., 2008).

Comparison Group Has No Intervention

Because program participation and enrollment in the Brevard C.A.R.E.S. intervention was voluntary, the comparison group did not participate in the intervention. All of the outcome data examined in the study remain associated with families that were program eligible to participate and receive the intervention. In other words, all of the children included in the study were linked to families that met the Brevard C.A.R.E.S. program eligibility. With this in mind, our study compares children of similarly situated nonintervention participants with children in families who completed the intervention, while focusing on one outcome indicator: occurrence of verifiable child maltreatment within 6 months after participants exited the intervention.

Study Design

Data Sources and Variable

The data for this study came from the C.A.R.E.S. de-identified participant database for all children referred to and participating in the program after July 1, 2009, and whose cases were closed by January 1, 2010. The data were analyzed only after the 6-month outcome data were available. Data were cleaned to identify any incomplete or inaccurate data, ensuring that administrative data on a child had appropriate and accurate data for every variable. The database included demographic information on the children and families including the type of reported abuse and services received. The study's variable was monitored—whether or not children had experienced verified maltreatment (within 6 months)—with data from the Florida Safe Families Network. All cases were coded as *verified maltreatment* or *no verified maltreatment*.

No verified maltreatment included cases where no maltreatment was reported as well as where maltreatment was reported but not verified. *No verified maltreatment* was also used as a binary dependent variable in the regression analysis.

Sample

The sample size was 308, including 131 children with at least one primary caregiver who completed the C.A.R.E.S. intervention during the study period. The data were collected in July 2011. We compared the participants with 177 children with at least one primary caregiver who did not participate in the intervention. The sample came from a pool of 1,118 children whose parents who had opportunity to receive and/or complete the intervention during the time period. This sample was a convenient one, selected from all eligible parents who could have participated due to a self-referral, a child protective investigator referral, a referral received from a community resource, or a 211 telephone call (for persons experiencing a crisis or in need of assistance).

Analyses

The intervention is designed to reduce the risk of child maltreatment. The analytical model chosen follows this goal, utilizing a general linear model (GLM) to estimate risk ratios of the two groups. The regression model estimates risk ratios (Wacholder, 1986) and can be referred to as log-binomial (Blizzard & Hosmer, 2006). Results from this model estimate the probability of an occurrence of an event, such as determining whether the intervention reduces the risk of maltreatment for children with at least one primary caregiver who completes the intervention.

The risk ratio was estimated using the data analysis software Stata 11. Based on the nature of the intervention and the research question, the RR regression model allows for examination of the ratio of the probability of verified maltreatment occurring with children whose family member completes the intervention versus those who do not. Relative risk analyses (prevalence ratios) are a natural and familiar summary of association between a binary outcome—in this case, whether or not there is verified child maltreatment—and an exposure or intervention.

The dependent variable is the outcome of verified maltreatment, while the primary independent variable is the intake level. The latter was chosen to ensure that children in the two groups faced similar levels of risk for future maltreatment and to mitigate some of the potential differences between the groups. The intake level information was integrated into the study's database at three different tiers to determine priority, with Intake Level I posing the lowest risk of future maltreatment and Intake Level III the highest risk. The families' history of prior reports, level of need, severity of maltreatment, and notoriety determined the intake level.

Relative risk (RR) is a GLM with a log link and variance function $[V(\mu) = \mu(1 - \mu)]$ (McCullagh & Nelder, 1989). Unlike the standard logistic regression model, the relative risk model requires constraints to ensure that fitted probabilities remain in the interval [0,1]. While binary data is often estimated by logistic regression, the study used relative risk regressions because they provide a more useful summary of association between a binary outcome and an exposure or intervention (Carter, Lipsitz, & Tilley, 2005; Cummings, 2009).

With binary data, the GLM model used is as follows: log link: $\log(Y) = \text{constant} + \beta^*X + \text{error}$. Relative risk ($RR$) is a ratio of the probability (P) of the event occurring in the exposed group versus a nonexposed group and is computed as follows: $RR = P$ (no-maltreatment C.A.R.E.S.) / P (no-maltreatment non-C.A.R.E.S.).

The desired outcome was not to be maltreated, rather than to be maltreated. Therefore, the dependent variable was coded as 0 in cases where a verified maltreatment was reported and 1 when no verified maltreatment was reported. The data collection window allowed for examination of the 6-month outcome (no-maltreatment vs. maltreatment) for both groups. Most cases fell into the no verified maltreatment category and were coded 1.

Results

Comparative Data

The children were linked to at least one caregiver who either received the intervention (Group 1) or did not receive the intervention (Group 2).

Maltreatment reported within 6 months. Of the 308 children in the sample, 30 had verified maltreatment within 6 months after completion of the Brevard C.A.R.E.S. intervention (10%). That means that 90% of the children, whether their families were in Group 1 or Group 2, had no verified maltreatment within 6 months (See Table 1).

Maltreatment reported within 6 months by group. When the sample was divided into children with a primary caregiver who completed the intervention (Group 1) and children with a primary caregiver who did not complete the intervention (Group 2), 131 children were in Group 1, while 177 were designated to Group 2. Although the frequency of verified maltreatment was low for both groups, it was more commonly reported among Group 2, who accounted for 21 of the 30 cases, or 70% of the verified child maltreatment. The focus of the positive outcome is that 93% of Group 1 (completed the intervention) had no verified maltreatment reported, compared with 88% for Group 2 (see Table 2).

Maltreatment reported within 6 months by intake levels. When the sample was analyzed by intake levels, 286 of the 308 children, or 93%, were designated with Levels I or II (low to moderate risk) at intake. Of these 286 children in Levels I and II, a total of 262, or 92%, experienced no verified maltreatment, while 16 of the 22 children in Level III (highest risk), or 73%, reported no verified maltreatment. Although there are fewer children in Level III that had verified maltreatment reported, the percentage is higher by 19% due to the small sample size (see Table 3).

Results from the GLM regression. After adjusting for intake level, using the GLM regression analysis, children with at least one primary caregiver who finished the intervention (Group 1) were more likely *not* to have reports of later maltreatment, compared with children with a caregiver who did not finish the intervention (Group 2): risk ratio 1.10, 95% confidence interval 1.04 to 1.17. In these data, children linked to Group 1 had a greater risk of no reported maltreatment: 10% greater (95% confidence interval, 4% greater risk to 17% greater risk). This finding was statistically significant beyond $p < .05$ and $p < .01$ (see Table 4).

Results of this study add to the evidence that wraparound programs such as the Brevard C.A.R.E.S. intervention can positively and significantly impact children. Put simply, comparing 100 youth whose primary caregiver completed the C.A.R.E.S. intervention to 100 youth with caregivers who are referred but do not complete the intervention, on average 10 more C.A.R.E.S. intervention "completers" will have no reported maltreatment. While not definitive, these initial findings indicate that the program is successful, especially as an early intervention program.

Discussion

First and foremost, this study links program effect to verified maltreatment as the most powerful outcome for such an intervention, a measure that has not been fully applied in previous studies of wraparound. The RR model used for the study reports the probability of nonmaltreatment as a result consistent with comprehensive and intensive early intervention designed to produce the absence of risk in the family at the community level.

Focusing on youth-level outcomes, Bruns and Suter (2009) had monitored and analyzed seven controlled, peer-reviewed studies examining the provision of wraparound services. Unlike those seven, our study uses maltreatment as the outcome variable. Few studies have examined the secondary data that states routinely collect to manage maltreatment risk. Our study is unique in this regard, contributing to the wraparound field by adding a new dimension for analysis.

Brevard C.A.R.E.S. wraparound intervention reduced the occurrence of verifiable child maltreatment 6 months postcompletion by applying core principles of wraparound with Family Team Conferencing to voluntarily enrolled families at risk for child maltreatment. The intervention goes well beyond the traditional approach toward at-risk children and families, which is often characterized by systematic case management of multiple services in hopes of finding the "right" service array. In contrast, the Brevard C.A.R.E.S. intervention actively engages the family in identifying and owning its strengths, natural supports, and vision of family success, while facilitating the family and its team to move toward that vision.

The results indicate that the intervention can reduce the probability of later child maltreatment. To the extent that the Brevard C.A.R.E.S. wraparound intervention can promote and support family stability and strengthen families resulting in child safety, it offers a promising approach to primary prevention and diversion in child welfare.

Limitations

The major limitation of the study is that the comparison group was a convenient sample; the study used existing secondary data that did not influence the selection process. As a result, it is possible that participants had greater motivation to make positive changes in their lives than nonparticipants. However, the study team attempted to mitigate selection bias by measuring maltreatment risk at intake with a three-level system**.** Our new study, currently underway, uses random assignment research procedures to further support rigorous sampling methodologies. Additionally, a minor limitation is that the study tracked only legally verified maltreatment because it was less biased than reported maltreatment. Other maltreatment may have occurred but not been verified.

Implications for Practice and Future Research

This study showed an association with strong effect on family function in proximate terms. Families with no maltreatment for 6 months can be viewed as no longer in crisis.

The professionals delivering the intervention place strong emphasis on high fidelity to a family-centered technique. Now that the program has demonstrated effectiveness at 6 months, more research is needed to better understand the proper dosage, how supports should be organized, and how professionals may need to provide continued support to sustain the family's skills and progress. New areas of inquiry raised by this study's results include more in-depth exploration of how the program works, use of pre- and postassessments to track skills gained through the wraparound intervention, and examination of how these skills affect participants' behavior over time.

For the size of our national investment in high-fidelity wraparound, little remains known about effective dosage, the clustering effect for supports in different kinds of families, or the trajectory of intensity resulting from the order in which the supports are delivered. In applying wraparound intervention to early prevention,

Brevard actually reconfigured the system of care to provide more formal and informal community supports in the home. This approach proved surprisingly effective at strengthening families and reducing the risk of child maltreatment.

Little previous research on the wraparound approach compares the effectiveness of voluntary versus mandated participation. Future studies should explore better fitting such a model for patterns associated with trust, as well as variables that report strengths sensitive to cultural constructions.

For future research, we would hypothesize that significant positive results can be anticipated when families receive the supports they need, as determined by each family. These supports serve to strengthen and connect relationships in the community to meet each family's unique needs, empowering them with social and emotional skills, and educational and financial resources to counter their challenges in times of crisis.

Table 1. *Verified Maltreatment Reported Within 6 Months (Postcompletion of Brevard C.A.R.E.S. Intervention)*

Verified maltreatment	Frequency (N = 308)	%
Yes	30	10
No	278	90

Table 2. *Verified Maltreatment Reported Within 6 Months by Group With Frequency and Percent*

Verified maltreatment	Group 1: C.A.R.E.S. (n = 131)	Group 2: Non-C.A.R.E.S. (n = 177)
Yes	9 (7%)	21 (12%)
No	122 (93%)	156 (88%)

Table 3. *Verified Maltreatment Reported Within 6 Months by Family Intake Level of Risk With Frequency and Percent*

Verified maltreatment	Intake Levels I & II (n = 286)	Intake Level III (n = 22)	Total (N = 308)
Yes	24 (8%)	6 (27%)	30 (10%)
No	262 (92%)	16 (73%)	278 (90%)

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Table 4. *Results From the General Linear Model (GLM) Regression: No Verified Abuse by Group (C.A.R.E.S.) Adjusting for Intake Level*

					95% CI	
No verified maltreatment	Risk ratio	*SE*	z	$P > \|z\|$	Lower	Upper
C.A.R.E.S.	1.103387	.0352	3.08	0.002	1.04	1.17
Level I + II	1.337156	.1759	2.21	0.027	1.03	1.73

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