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Evaluating Prevention Services in Child Welfare

Evaluation Approaches, Challenges, and Solutions

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Introduction

In 2018, 678,000 children in the United States were identified as victims of child abuse and neglect, with 146,706 children placed in foster care (Children's Bureau, 2020a). These rates of abuse and neglect have dire consequences for children, impacting their immediate safety and well-being and influencing them physically, psychologically, and behaviorally for decades (Child Welfare Information Gateway, 2019). Over the last several years, maltreatment rates have shown little change (Children's Bureau, 2020a; Child Trends, 2019) despite federal, state, and local efforts to improve outcomes for vulnerable children and families. This suggests even more robust efforts are required to improve child safety and prevent maltreatment occurrence and recurrence.

Over 25 years ago, the federal government began to fund child welfare prevention services through the Community-Based Child Abuse Prevention (CBCAP) program, providing resources to support collaborative community-based efforts to prevent child maltreatment. Program funding has continued to be reauthorized as recently as 2019. CBCAP grants also fund a cluster of Tribal and Migrant Discretionary Grant programs for prevention efforts to address the unique needs of these diverse populations (Children's Bureau, 2012). This renewed commitment to prevention is apparent in the Children's Bureau Vision Statement (Children's Bureau 2018c), which focuses on preventing maltreatment and unnecessary placements as a federal priority. The Family First Prevention Services Act aligned with this vision. It created new opportunities to address child safety and reduce entries into the child welfare and foster care systems by allowing state and tribal child welfare agencies to claim federal reimbursement for select mental health, substance abuse, in-home parenting, and kinship navigator services designed to reduce the issues leading to abuse and neglect (Children's Bureau, 2018a).

In alignment with this major federal legislation, the Children's Bureau recently developed new policies and resources to encourage the development of local initiatives to address the root causes of maltreatment.

- In 2018, the Children's Bureau issued an Information Memorandum (ACYF-CB-IM-18-05) which encourages child welfare systems to work with local partners to "plan, implement and maintain integrated primary prevention networks and approaches to strengthen families and prevent maltreatment and the unnecessary removal of children from their families" (Children's Bureau, 2018b). This memorandum describes the focus on primary prevention, key partners, and key components of primary prevention and family strengthening programs.
- In 2020, the Children's Bureau released the 2019/2020 Prevention Resource Guide, which provides information on strategies and resources for communities to develop prevention programs built upon a protective factors framework. The guide includes tools and strategies to

help community partners develop proactive prevention plans and tip sheets for parents and caregivers (Children's Bureau, 2020b).

As the Children's Bureau continues to encourage states and local communities to develop and implement prevention strategies that address the precursors to abuse and neglect, rigorous research is needed to document the effectiveness of these initiatives. This report summarizes findings from a selection of recent studies of child maltreatment prevention programs. The review is organized around four guiding questions.

1. What types of child maltreatment prevention programs have been studied?
2. What were the research methods used?
3. What were the methodological challenges encountered?
4. What are potential strategies for addressing these challenges?

To answer these questions, the authors conducted a literature review of recent studies[1] of child welfare prevention services. It began with a search using key search terms (see text box) of a bibliometric database[2] for published journal articles related to prevention programs. From this search, 53 published journal articles were identified; 12 additional sources were identified as grey literature[3] that provided additional context for the review process. The authors then catalogued the identified studies by reviewing titles and abstracts to determine whether to include them in a second review. A total of 20 articles were selected for full text review based on three inclusion criteria: (1) a focus on a child maltreatment prevention program or service; (2) inclusion of descriptions of key program components; and (3) identification of specific measured outcomes. The authors conducted a full review of the 20 articles and extracted information to inform the content of this report.

Search Terms

- Prevention
- Child maltreatment or abuse or neglect
- Child welfare
- Child health services
- Behavioral health
- Parent training

This report begins with a description of common types of prevention services followed by an overview of two conceptual prevention frameworks that provide a theoretical approach to child welfare maltreatment prevention programs and the literature review.

[1] The literature review included domestic and international articles published after 2000.
[2] The authors used the EBSCO research database (www.ebsco.com).
[3] Documents from the grey literature were included if they had an authored source, were endorsed by a public entity, and were static (e.g., a PDF file).

Defining Prevention Services in Child Welfare

Prior to examining the research on child welfare prevention programs, the levels of "prevention" in a child welfare context should be defined. The Children's Bureau has developed a general framework that includes three levels of prevention: primary, secondary, and tertiary (Child Welfare Information Gateway, n.d.a). These levels are similar across a variety of fields—including physical health (i.e., disease prevention), public health, mental health, substance abuse, and domestic violence prevention.

Primary prevention activities are directed at the general population and attempt to stop maltreatment before it occurs. All members of a community have access to and may benefit from these services. Primary prevention activities with a universal focus seek to raise the awareness of the general public, service providers, and decision-makers about the scope and problems associated with child maltreatment.

Examples: Public service announcements, parent education programs focused on child development, family support programs, public awareness campaigns

Secondary prevention activities are offered to populations with more imminent safety risks due to the presence of one or more risk factors associated with child maltreatment, such as poverty, parental substance abuse, young parental age, and parental mental health concerns. Programs may target services for communities or neighborhoods with a high incidence of any or all these factors.

Examples: Parent education programs targeting vulnerable populations, parent support groups, home visiting programs, respite care, family resource centers

Tertiary prevention activities focus on families in which maltreatment has already occurred (as determined by an indicated abuse or neglect report) and seek to reduce the negative consequences of the maltreatment and prevent recurrence.

Examples: Intensive family preservation programs, parent mentor programs, parent support groups for child welfare system-involved families, mental health services for families affected by maltreatment

The studies included all three types of prevention services and programs. Of the 20 reviewed, 5 studies examined primary prevention programs, 10 studied secondary prevention services, and 3 studied tertiary prevention programs. Two focused on programs providing the continuum of prevention supports. The studies included prevention programs in both rural and urban settings and were designed to serve a variety of clients, including parents in the general population, parents at higher risk for abuse and neglect, pregnant women, homeless families or those in transitional housing, low-income families, and substance-addicted caregivers.

While defining three types of prevention programs is useful from a theoretical standpoint, this review of existing literature suggests these categories are not mutually exclusive. Primary prevention programs are most different from the other two by often providing educational opportunities in group settings to increase knowledge and awareness and address broader community-level deficits. On the other hand, identifying a program as a secondary and tertiary prevention program is sometimes difficult because both are designed to work with individual clients. Categorizing a program as providing secondary or tertiary prevention depends on the characteristics of the client, not the program. For example, home visiting can be offered to a family at risk of maltreatment (i.e., secondary prevention) or to a family where abuse has already occurred with the intention of preventing subsequent abuse (i.e., tertiary prevention). In our review of existing literature, systematic differences in the way different types of prevention programs were evaluated was not found.

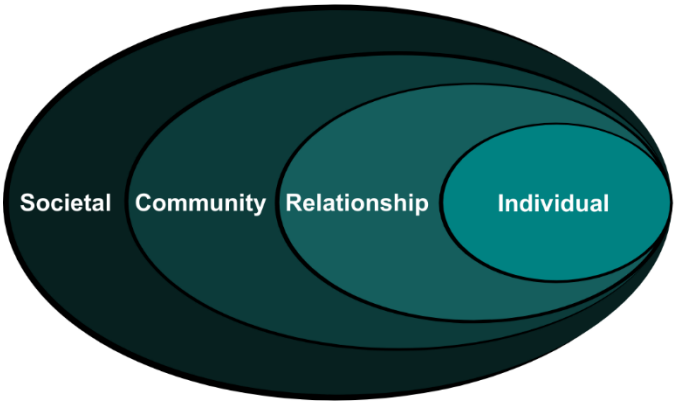
Conceptual Frameworks for Prevention Services

While the definitions of primary, secondary, and tertiary prevention help clarify the intended target populations for different types of prevention services, conceptual frameworks provide insights into why and how prevention services improve safety and reduce maltreatment risk. This section describes two conceptual frameworks that have been applied widely to prevention services in child welfare contexts.

Social-Ecological Framework

The social-ecological framework suggests “human development unfolds in a nested set of systems involving cultural, social, economic and political elements … These systems and their interactions can nurture or stifle optimal development” (Bronfenbrenner Center for Translational Research, n.d.). This framework, which has been applied in a variety of public health settings (e.g., adolescent pregnancy, suicide, and violence prevention programs), posits that prevention interventions address factors at the individual, relationship, community, and societal level (see exhibit 1 on next page). Applying it to child maltreatment prevention, the model suggests maltreated children are enmeshed within a tiered ecosystem of relationships that influence well-being; each of these ecosystems can play a role in enabling or preventing events such as child maltreatment or domestic violence.

Exhibit 1. Social-Ecological Framework



Individual
Identifies biological and personal history factors, such as age, education, income, substance use, or history of abuse, that increase the likelihood of becoming a victim or perpetrator of violence.

Relationship
Examines close relationships that may increase the risk of experiencing violence as a victim or perpetrator. A person's closest social circle–peers, partners, and family members–influences his or her behavior and contributes to his or her range of experiences.

Community
Explores the settings, such as schools, workplaces, and neighborhoods, in which social relationships occur and seeks to identify the characteristics of these settings that are associated with becoming victims or perpetrators of violence.

Societal
Looks at the broad societal factors, such as health, economic, educational, and social policies, that help create a climate in which violence is encouraged or inhibited and help to maintain economic or social inequalities between groups in society.

Protective Factors Frameworks

The identification and promotion of protective factors have become integral to developing programs designed to strengthen families within child welfare and related fields. "Protective factors are characteristics or strengths of individuals, families, communities, or societies that act to mitigate risks and promote positive well-being and healthy development. Most often, we see them as attributes that help families to successfully navigate difficult situations" (Center for the Study of Social Policy [CSSP], 2018). Several protective factors frameworks have been developed to guide the planning and implementation of maltreatment prevention programs, including the Center for the Study of Social Policy's (CSSP's) Strengthening Families and Youth Thrive approaches, the CDC's Essentials for Childhood, and the Healthy Outcomes From Positive Experiences (HOPE) framework.[4] The CSSP's Strengthening Families framework identifies six core characteristics and

Strengthening Families Framework: Core Elements

- Nurturing and attachment
- Knowledge of parenting and child development
- Parent resilience
- Concrete supports in times of need
- Social connections
- Social and emotional competence

[4] See Child Welfare Information Gateway (2020).

conditions (see text box on previous page) that families possess to effectively deal with stressors and reduce maltreatment risk (CSSP, 2018).

While these conceptual frameworks provide a theoretical foundation for designing, implementing, and evaluating maltreatment prevention programs, their implementation in actual practice settings can prove to be more complicated than the frameworks suggest. Many of the common challenges faced in evaluating child welfare and other human service programs are confounded when evaluating child welfare prevention services. The following sections provide an overview of the major categories of prevention programs documented through a selected review of literature, along with the research methods and tools used to evaluate implementation and effectiveness. This is followed by a more in-depth discussion of common methodological challenges described in the literature in the areas of research design, measurement, recruitment and retention, implementation, and program adaptation and replication.

Evaluating Prevention Programs

What Types of Child Maltreatment Prevention Programs Have Been Studied?

At its core, the prevention of maltreatment is about parenting and caregiver behavior: to prevent maltreatment is to eliminate neglectful, harsh, coercive, or violent behaviors by parents and caregivers toward children (Child Welfare Information Gateway, n.d.b). When viewed through the lens of an ecological framework, parent behaviors occur within community and societal contexts (e.g., neighborhood poverty, systemic racism) that define the set of available choices and resources. The constraints imposed by social and economic contexts may, however, be overcome by protective factors to help families deal with stressors and reduce the risk of maltreatment. There are also co-occurring risk factors associated with maltreatment, including substance use, mental illness, domestic violence, family structure and functioning, and child conduct disorders (Barth, 2009; Cox, Kotch, & Everson, 2003; Lowell & Renk, 2017). This underscores the dialogue within child welfare and other fields about where and how to intervene to achieve prevention outcomes: Should interventions be targeted directly at parent behavior, or is it necessary (or possibly even sufficient) to target the risk and protective factors or social contexts that influence parent behavior?[5] The programs described below illustrate the various points of intervention that are commonly the focus of prevention services.

The most common type of program is parenting/parent education, which was the focus of 11 studies. Parenting programs target the most proximal determinant of maltreatment—parenting behavior—with training, behavioral coaching, education about child development, and support to increase parent skills and knowledge of healthy parenting and to reduce coercive or harmful parenting practices. Examples of parenting programs studied and included are the Triple P-Positive Parenting Program (Schilling et al., 2019), Parent-Child Interaction Therapy (Chaffin et al., 2004; Chaffin et al., 2010; Thomas & Zimmer-Gembeck, 2012), Parents Anonymous (Polinsky et al., 2010), and Circle of Parents (Haskett et al., 2016).

Two studies evaluated community-level initiatives designed to prevent maltreatment. These programs intervene at the neighborhood or community level to improve community capacity, expand resources, and develop social capital and norms for child protection (Daro & Dodge, 2009). The two

[5] See Barth (2009) for a discussion of this issue and see Whitcombe-Dobbs & Tarren-Sweeney (2019) for a review of the evidence base for the use of parenting interventions to reduce child abuse and neglect.

studies evaluated the Durham Family Initiative, a partnership among health systems, mental health agencies, child protection agencies, government officials, and nonprofit providers of parenting services in Durham, NC (Rosanbalm et al., 2010); and Keeping Families Together, an adaptation of Communities that Care (CTC), a community-based coalition to promote health and avoid mental, behavioral, and emotional problems (Salazar, et al., 2016).

Other studies evaluated interventions to address family risk and protective factors. These programs assess family needs and provide resources, identify family strengths and develop action plans around them, and provide direct services or service referrals (e.g., for mental health and substance abuse treatment services). Examples of programs studied in this category include Solution-Based Casework (Antle et al., 2009); home visiting prevention programs for families at risk for maltreatment (Silovsky et al., 2011; MacMillan et al., 2005); Strong Start, a Wraparound system of care approach for mothers in recovery from substance use (Teel, 2016); and Head Start, a federally funded school readiness program targeted at low-income children, on maltreatment risk (Zhai et al., 2013). Although not a maltreatment prevention program by design, family participation in Head Start is associated with reduced child maltreatment (Green et al., 2014).

What Were the Research Methods Used?

The reviewed studies used a variety of methodological approaches with different levels of rigor to study the effects of maltreatment prevention programs, including experimental designs, quasi-experimental designs, longitudinal research designs, secondary data analysis, and implementation or process evaluations. The studies collected data using tools that assess parent and child behaviors, mental health, attitudes toward parenting, family functioning and resources, Child Protective Services (CPS) involvement, maltreatment occurrence or recurrence, and program implementation.

Study Designs

Of the 20 studies reviewed, eight employed random assignment of subjects to treatment and control groups. For example, in a study in Ontario, Canada, researchers randomly assigned child welfare-involved families to treatment and control groups and followed them for 3 years to evaluate the effects of nurse home visiting on maltreatment recidivism[6] (MacMillan et al., 2005).

In four studies, researchers used quasi-experimental evaluations. For example, in a study of the effects of a peer support group on prevention of child maltreatment among parents experiencing

[6] Families not in the treatment group received child welfare services as usual.

homelessness, the support group was available to parents living in certain housing units in a U.S. city (Haskett et al., 2016). Parents living in other units received services as usual. The researchers created equivalent treatment and comparison groups using propensity score matching to estimate the effects of the support groups on maltreatment risk.

Researchers in three studies used longitudinal research designs. As one example, in the Durham Family Initiative study, researchers used an interrupted time series design to estimate the effects of a countywide child maltreatment prevention initiative. Data from five other North Carolina counties with similar maltreatment rates and demographic characteristics (e.g., child population and poverty level) enabled researchers to conduct regression-based interrupted time series analyses on child welfare administrative data and hospital data from the counties (Rosanbalm et al., 2010).

Four observational studies used existing databases to better understand predictors of maltreatment. Using the national Fragile Families and Child Wellbeing Study dataset, for example, data from children who participated in Head Start and from matched cases who did not participate were compared to estimate the effects of the program on parenting and child maltreatment (Zhai, Waldfogel, & Brooks-Gunn, 2013).

Three studies were process evaluations of interventions to prevent child maltreatment. In one study of an evidence-based parent-training program, researchers interviewed providers implementing the program with diverse, child welfare system-involved families (Self-Brown et al., 2011). The purpose of the interviews was to determine what adaptations providers were making to the program to better serve families and to understand what additional modifications were needed.

Data Collection Methods and Instruments

Of the 20 studies reviewed, 13 included tools that measured parent behaviors. In seven studies, researchers measured parent disciplinary practices and potential for abuse, typically using self-report questionnaires (Álvarez et al., 2018; Chaffin et al., 2010; MacMillan et al., 2005; Polinsky, et al., 2010; Silovsky, et al., 2011; Thomas & Zimmer-Gembeck, 2012; Zhai, et al., 2013). Other parent behavior measures captured dyadic processes between parents and their children, often using observational approaches (e.g., Chaffin et al., 2010; Zhai et al., 2013).

Twelve studies measured aspects of parent mental health, parenting readiness, and attitudes toward parenting. Nine studies measured one or more indicators of parent mental health, such as depression (Thomas & Zimmer-Beck, 2012; Silovsky et al., 2011; Chaffin et al., 2004), stress (Abidin, 1990; Thomas & Zimmer-Gembeck, 2012), and addiction (Teel, 2016). Four studies included attitudinal measures such as attitudes toward parenting (e.g., Álvarez et al., 2018) and readiness for change (Chaffin et al., 2010).

Four of the reviewed studies included measures of child behaviors. There is evidence that some child traits, such as a difficult temperament and externalizing behaviors, are associated with family discord and increased risk of maltreatment (Kienberger Jaudes & Mackey-Bilaver, 2008; McElroy & Rodriguez, 2008; Roberts et al., 2018). Examples of indicators of child behavior included—

- Parent reports of a child's conduct disorder, aggression, attention problems, anxiety, and other observable behaviors (MacMillan et al., 2005)
- Child internalizing and externalizing symptoms (Thomas & Zimmer-Gembeck, 2012)
- Parents' perceptions of the intensity of their children's behavior problems and the extent to which they find the behaviors problematic (Thomas & Zimmer-Gembeck, 2012).

In nine studies, researchers measured family functioning or availability of supports. Examples of indicators included the adequacy of resources in the home, such as income, childcare, employment, and shelter (Silovsky et al., 2011); and family communication and support (MacMillan et al., 2005).

Eight studies used indicators of child maltreatment obtained from administrative data. These included rates of child protective services investigations, substantiation, and recidivism (Antle et al., 2009; Millett, 2019; Prinz et al., 2009; Rosanbalm et al., 2010; Schilling et al., 2019; Teel, 2016) and hospital emergency room admissions[7] (Prinz et al., 2009; Rosanbalm et al., 2010; Schilling et al., 2019).

Seven of the studies included measures of program implementation. These included process indicators such as client satisfaction (Haskett et al., 2016); program engagement and retention (Silovsky et al., 2011; Millett et al., 2016); and implementation fidelity, program adaptations, quality of service delivery, and participant responsiveness (Álvarez et al., 2018).

What Were the Methodological Challenges Encountered? What Are Potential Strategies for Addressing These Challenges?

Designing an evaluation of prevention services necessitates a series of decisions about program theory, methodology, and research strategies. However, the decision-making process is constrained by real-world challenges and obstacles that may prevent the use of the ideal or most rigorous

[7] For example, maltreatment-related diagnostic codes

methods and point instead to creative approaches to move through the evidence-building process. In this section we discuss four categories of methodological challenges encountered in the reviewed studies along with strategies for addressing them: design and measurement, recruitment and retention, program implementation, and adaptation and replication.

Design and Measurement

Attributing Effects to the Treatment

Challenge: Implementing a rigorous evaluation design for maltreatment prevention programs is difficult. While randomized controlled trials (RCT) are considered the gold standard of evaluation design, researchers often find them infeasible for various methodological, logistical, or programmatic reasons. Identifying a rigorous comparative design is especially challenging when an intervention is implemented community- or agency-wide and it is not possible to identify subjects who are unaffected by it.

Recommendation: When RCTs are not feasible, well-conceived nonexperimental designs and statistical techniques can be employed. Of the 20 studies reviewed, researchers in 14 studies had to address the challenge of trying to attribute outcomes to interventions when using a nonrandomized evaluation design. Some researchers sought to ameliorate the problem through the use of modeling techniques such as propensity score matching to minimize treatment assignment bias and approximate randomization in building a control group (e.g., Zhai et al., 2013; Haskett et al., 2016; Millett, 2019). Other researchers (e.g., Polinsky et al., 2010) assessed differences in the characteristics of groups of participants (e.g., differences in average age and in race/ethnic makeup) that might explain observed differences in outcomes.

Bias

Challenge: Evaluation findings may be unduly influenced by unanticipated bias. Prevention programs often focus on building awareness and knowledge. Several studies included measures of change in participant awareness of the issue targeted by the intervention, which may introduce unintended bias undermining the efficacy of the intervention.

- In the study of a nurse home visiting program in Ontario, researchers found a higher rate of maltreatment in the intervention group as compared to the control group, contrary to their hypothesis (MacMillan et al., 2005). While it is possible the treatment (nurse home visitations) somehow increased maltreatment, the researchers suggest the finding could have resulted from ascertainment bias. In other words, because the visiting nurses were adept at identifying medical problems or needs, they may have seen signs of abuse that might have gone unnoticed in comparison group families.
- In the RCT of a group-based parenting program for at-risk parents in Spain, researchers included a measure of parental sense of efficacy, which they hypothesized would increase as

parents moved through the program and improved their parenting skills (Álvarez et al., 2018). Instead, they found parental efficacy decreased as a result of the program. The researchers posited that parents learned from the program that parenting is more difficult than they realized and grew more aware of their own inadequacies. Similarly, in the evaluation of Parents Anonymous (Polinsky et al., 2010), researchers found no increase in parents' sense of competence and concluded that participation in the parenting group increased awareness of their own need for further improvement in this area.

Recommendation: In developing a research design, considering types of bias that may influence findings is imperative. Researchers need to be aware of the numerous ways bias can be created in the study design (e.g., biases in design, selection, response, observation) and in the analysis process (e.g., confirmation bias, attrition bias). One strategy for reducing bias is to maintain an "audit trail" by recording all details of the evaluation process in a memo (Fitzpatrick et al., 2011). This memo would document procedures, methodological decisions, and evaluators' personal reflections and developing insights, which together can shed light on how values and decisions may have introduced bias into a study. While some bias is difficult to avoid, thoughtful reflection on the findings and acknowledgement of when and how bias may have influenced study results are important.

Using Administrative Data

Challenge: Availability, relevance, and reliability of administrative data. Administrative data can be a good source of information on program enrollment and participation, as well as of sensitive information that might be underreported in self-report surveys (e.g., maltreatment substantiations). However, administrative data can present several issues with respect to availability, reliability, or relevance to a particular problem or research question.

- A concern in the evaluation of prevention services is the proper measurement of the primary outcome of interest: child maltreatment. Although child welfare administrative data (used in Chaffin et al., 2010; Silovsky et al., 2011; Teel, 2016; Millett, 2019; and others) can be a useful source of information on maltreatment, not all incidents of child maltreatment are reported to or investigated by CPS. Hospital admissions data were used in two studies (Prinz et al., 2009; Rosanbalm, et al., 2010), but as Chaffin et al. (2004) point out, child safety indicators are not necessarily valid proxies for child maltreatment.
- The inconsistent quality of child welfare program data across jurisdictions is another concern. In the study of the Parent Support Outreach program in several counties in Minnesota (Millett, 2019) researchers found wide county-level variation in screening and record keeping procedures. Such variations can potentially undermine data quality and reduce confidence in the results of a study.

Recommendation: Carefully consider which outcomes are important to measure and what data are available and suitable. The consideration of potential administrative data sources begins in the early stages of an evaluation through conversations with program staff and evaluators to

develop a theory of change and logic model that identify key short- and long-term outcomes of interest. Once administrative data needs are identified, early and ongoing conversations with the proprietors of the administrative data (e.g., child welfare information systems administrators and analysts) are necessary to determine their availability, accessibility, and relevance. Evaluators can also conduct early stage usability testing to work with agencies to improve data quality where possible.

Recruitment and Retention

Challenge: The complex social, emotional, and economic needs of vulnerable families. For secondary and tertiary prevention programs in particular, participants typically are at-risk families or ones in which maltreatment has already occurred. They often experience co-occurring challenges such as housing instability, unemployment and/or poverty, domestic violence, and substance use, which can complicate recruitment and retention. Several examples of recruitment and retention challenges in the reviewed studies are given below.

- Enrolling and retaining hard-to-serve parents can be challenging in the face of problems such as housing instability and inadequate transportation. In the study of a program to prevent maltreatment among families experiencing homelessness (Haskett et al., 2016), researchers had to overcome the challenge of engaging and retaining families who had high levels of residential mobility and personal stress.
- Families experiencing complex needs may be involved with multiple social systems, such as juvenile justice, mental health, and child welfare. In some instances, multiple family members may be involved in multiple systems, a challenge made worse without cross-system case coordination. This was noted by Teel (2016) in the evaluation of a Wraparound approach with pregnant mothers in recovery from substance use disorders. Expectant mothers who were recruited into the program sometimes had more than one child with an open child welfare case, a situation which made engaging the children's caseworkers with the mother's Wraparound team difficult. In addition, the child welfare agency did not have a formal agreement with the Wraparound team to facilitate cooperation and engagement. Involvement with multiple social service systems can also complicate data analysis and the determination of causal relationships because participants may receive services that affect outcomes of interest yet go unaccounted for in the evaluation.
- For high-risk families, participation in a prevention program may be compulsory, which may make them less motivated to fully participate (Chaffin et al., 2010). Conversely, voluntary programs (such as in Parents Anonymous studied by Polinsky et al., 2010) may introduce their own challenges, such as the possibility that parents who volunteer for the program are more likely to benefit if they are more trusting than nonvolunteers.

Recommendation: Participatory research methods and collaborations with community organizations serving the target population can strengthen efforts to recruit and retain hard-to-serve families. Research on this topic (Brannon et al, 2013) suggests the following specific recruitment and retention strategies:

- Co-locating prevention services with other services that families need to access (e.g. WIC offices)
- Simplifying and making informed consent documents culturally relevant
- Allowing participants to bring children to intervention sessions and providing meals and recreational activities for them
- Minimizing "no shows" by calling parents the night before scheduled sessions and providing an opportunity to reschedule
- Sending quarterly newsletters to participants and birthday cards to their children to keep them engaged over time
- Collecting names and telephone numbers at intake of two relatives or friends, not living with the family, so contacts can be made easier if the family moves

Program Implementation

Challenge: Inadequate understanding of program theory and of the integrity with which it was delivered. An important early activity in an evaluation is the articulation of a clear program theory that describes the hypothesized causal links between program activities and outcomes. Without a clear program theory combined with a thorough implementation evaluation, determining whether observed outcomes (both positive and negative) are due to the soundness and validity of the intervention and/or how well or poorly the intervention was implemented can be challenging. For example, in the formative evaluation of a new maltreatment prevention program for multiproblem families in Minnesota, researchers found the linear or stage-based theories of change used in most child welfare programs poorly explained the trajectories of the served families. Rather, the families experienced "discontinuous, disruptive, and disordered change"—moving out of and then back into crisis states (Millett et al., 2016).

Recommendation: A strong implementation evaluation can disentangle some of the complexities of evaluating maltreatment prevention outcomes. Effective prevention programs require both implementation integrity and intervention validity (Testa & White, 2014). Implementation integrity refers to an intervention being implemented as planned, while intervention validity refers to an intervention achieving its intended results (Permanency Innovations Initiative Evaluation Team, 2015). Combining implementation evaluation with outcome evaluation is a smart strategy for ensuring that both implementation integrity and intervention validity are assessed and for building confidence in outcome findings.

- Several studies included evaluations of program processes to better understand program effects. In the evaluation of the Durham Family Initiative (a multicomponent community initiative to prevent maltreatment), researchers conducted a survey of neighborhood residents to assess the community initiative activities—a helpful addition to the quantitative analyses of child welfare and hospital data to understand program outcomes (Rosanbalm et al., 2010). The randomized study

of a parenting program to prevent maltreatment in Spain also illustrates the value of including implementation measures (Álvarez, 2018). The researchers sought to understand why program attrition is common among high-risk families. They used qualitative methods to identify barriers to program participation and to examine the effect program implementation factors such as fidelity, quality of program delivery, and participant motivation and responsiveness have on participation.

Adaptation and Replication

Challenge: Striking a balance between fidelity to a proven program model and adapting it to address the needs of diverse families and communities. See examples below.

- Successful replication in new practice settings of a prevention program demonstrated to be effective in a different practice setting can be challenging. This is illustrated by two studies of Parent-Child Interaction Therapy (Chaffin et al., 2004; Chaffin et al., 2010), in which the intervention was tested for efficacy under controlled and favorable conditions by a university laboratory. Components delivered during the efficacy trials—such as transportation support, special incentives, doctoral and postdoctoral student trainees as therapists, freedom from billing issues, and careful attention to program fidelity—are resources that would not necessarily be available when the program is delivered by agencies in the field.
- The complexity of an intervention may also make it challenging to replicate. In the evaluation of the Durham Family Initiative in North Carolina, researchers credited the implementation of the community-wide preventive system of care with decreases in maltreatment (Rosanbalm et al., 2010). Its success would, however, likely be difficult to replicate in another location because of the involvement of a constellation of community leaders, private and public health systems, child protection agencies, government officials, and nonprofit providers of parenting and family prevention services, as well as the broader social capital of the Durham community and neighborhoods. In the absence of comparable resources, a similar program implemented in a different community may fail to achieve the same positive results, even if implemented with fidelity.

Recommendation: Pay careful attention to the implementation of core program components. Core program components are the “active ingredients” essential to achieve outcomes. These can be determined through a core components analysis (Office of the Assistant Secretary for Planning and Evaluation, 2013) and close communication with the original program developer and implementation team. To maximize program effectiveness, adaptations to avoid include reducing the number or length of sessions; reducing the level of participant engagement; removing key messages, topics, or skill building activities; altering the theoretical approach; and using fewer staff than recommended or untrained staff or volunteers (O’Connor, Small, & Cooney, 2007). More acceptable adaptations that may actually improve effectiveness include translating or modifying vocabulary, replacing images and cultural references in program materials with others that better reflect and resonate with the target population, and addressing obstacles to attendance and participation that are not content-related (e.g., addressing perceived cultural mismatches, providing transportation).

Summary and Conclusion

With increased understanding and recognition of the harmful impacts of child maltreatment resulting in involvement with the child welfare system and possible parent-child separation, the federal government and child welfare systems across the country have placed increasing emphasis on prevention of abuse and neglect. Prevention services may focus on primary, secondary, or tertiary prevention, and many are conceptually grounded in social-ecological and protective factors frameworks. A range of prevention models and intervention approaches include parent education, peer support programs, intensive-home services, therapeutic interventions, and structured case management. Evaluating these can pose several methodological challenges, which are described in the reviewed studies. The most common types of evaluation challenges and potential strategies for addressing them are included below.

- **Design and measurement.** Evaluators must overcome the challenge of attributing effects to prevention programs, especially when RCTs are not feasible. They must also address various types of bias and the quality, availability, and relevance of child welfare administrative data. These challenges can be addressed in the early stages of program implementation and evaluation when decisions can be made about rigorous alternatives to random assignment, identifying and addressing potential sources of bias, and identifying and accessing high-quality administrative data.
- **Study recruitment and retention.** Working with vulnerable families brings a set of challenges that can impact study recruitment and retention. High-risk families may be less available and more difficult to engage and retain because of co-occurring issues such as housing instability, unemployment or poverty, and substance use. They may also be less motivated to fully engage in a program if it is compulsory. Participatory research methods and a commitment to implementing proven recruitment and retention strategies (e.g., co-locating services, simplifying informed consent procedures) can help to overcome these obstacles.
- **Program implementation.** Evaluations of prevention programs can be hampered by poorly articulated theories of how the programs are expected to achieve intended outcomes and inadequate efforts to document implementation. These issues can be addressed by working with program stakeholders to develop a clear theory of why and how a program is expected to work, a logic model that translates the program theory into concrete and measurable outputs and outcomes, and a strong implementation evaluation that tracks implementation integrity and validity.
- **Adaptation and replication.** The need to balance fidelity to a proven program model with adaptations to better meet the needs of the target population is a common tension in evaluation. Prevention programs can be replicated with a new population or in new practice settings without undermining their effectiveness if core components are retained while adaptations are limited to program elements that support participation without changing essential content.

The challenges inherent in evaluating prevention programs can be daunting but are not insurmountable. The recommendations discussed can facilitate the design and implementation of high-quality evaluations that will further build the evidence base for effective interventions to prevent child maltreatment and mitigate its worst effects.

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Appendix

Studies Included in Review

Reviewed Study	Program type			Study design					Constructs measured							
	Parenting program	Community-level initiative	Intervention to address family risk and protective factors	Random assignment	Quasi-experimental	Longitudinal	Observational	Process evaluation	Parent behavior	Attitudes toward parenting	Parent mental health	Abuse potential	Child behaviors	Family functioning or resources	Child maltreatment	Program implementation or organizational outcomes
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Antle, B. F., Barbee, A. P., Christensen, D. N., & Sullivan, D. J. (2009). The prevention of child maltreatment recidivism through the Solution-Based Casework model of child welfare practice. *Children and Youth Services Review*, *31*(12), 1346–1351.			•		•											•
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Zhai, F., Waldfogel, J., Brooks-Gunn, J. (2013). Estimating the effects of Head Start on parenting and child maltreatment. *Children and Youth Services Review*, *35*, 119–1129.			•				•		•					•	•	