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The effect of Early Head Start on child welfare system involvement: A first look at longitudinal child maltreatment outcomes☆

Beth L. Green [a,*], Catherine Ayoub [b], Jessica Dym Bartlett [c], Adam Von Ende [c], Carrie Furrer [a], Rachel Chazan-Cohen [d], Claire Vallotton [e], Joanne Klevens [f]

[a] Center for the Improvement of Child and Family Studies, Portland State University, P.O. Box 751, Portland, OR 97207-07541, United States
[b] Harvard Medical School and Brazelton Touchpoints Center, Touchpoints Center, Division of Developmental Medicine, Boston Children's Hospital, 1295 Boylston Street, Suite 320, Boston, MA 02215, United States
[c] Brazelton Touchpoints Center, Division of Developmental Medicine, Boston Children's Hospital, 1295 Boylston Street, Suite 320, Boston, MA 02215, United States
[d] George Mason University, Department of Psychology, MSN 3F5, 4400 University Drive, Fairfax, VA 22030, United States
[e] Human Development & Family Studies, Michigan State University, 552 W. Circle Drive, 2G Human Ecology, East Lansing, MI 48824, United States
[f] Division of Violence Prevention, Centers for Disease Control and Prevention, 4770 Buford Hwy, MS F-64, Atlanta, GA 30341, United States

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ABSTRACT

The high societal and personal costs of child maltreatment make identification of effective early prevention programs a high research priority. Early Head Start (EHS), a dual generational program serving low-income families with children prenatally through age three years, is one of the largest federally funded programs for infants and toddlers in the United States. A national randomized trial found EHS to be effective in improving parent and child outcomes, but its effectiveness in reducing child maltreatment was not assessed. The current study used administrative data from state child welfare agencies to examine the impact of EHS on documented abuse and neglect among children from seven of the original seventeen programs in the national EHS randomized controlled trial. Results indicated that children in EHS had significantly fewer child welfare encounters between the ages of five and nine years than did children in the control group, and that EHS slowed the rate of subsequent encounters. Additionally, compared to children in the control group, children in EHS were less likely to have a substantiated report of physical or sexual abuse, but more likely to have a substantiated report of neglect. These findings suggest that EHS may be effective in reducing child maltreatment among low-income children, in particular, physical and sexual abuse.

1. Introduction

More than 676,500 children in the U.S. were abused and neglected in 2011 (U.S. Department of Health and Human Services [USDHHS], 2012). The prevalence of child maltreatment and its serious short- and long-term consequences for children's health (Anda et al., 2006; Leeb, Lewis, & Zolotor, 2011), development, and education (Bolger & Patterson, 2003; Veltman & Browne, 2001), as well as its societal costs (Fang, Brown, Florence, & Mercy, 2012) make finding effective strategies for child maltreatment prevention a research and policy priority (Whitaker, Lutzker, & Shelley, 2005). Although recent reviews (MacMillan et al., 2009a, 2009b; Mikton & Butchart, 2009; Reynolds, Mathieson, & Topitzes, 2009; Selph, Bougatsos, Blazina, & Nelson, 2013) have identified a few rigorously evaluated promising approaches, program effects have been inconsistent upon replication and difficult to take to scale. More rigorous research on scalable preventive interventions is needed to determine the most effective means of addressing this public health issue.

There is a general agreement that child abuse and neglect by caregivers occur as the result of multiple interacting risk factors at the level of the child, parent, family, and broader childrearing environment (Belsky, 1993; Chalk, Gibbons, & Scarupa, 2002; Institute of Medicine and National Research Council, 2013). Thus, preventive interventions may be more efficacious when they attend to both the family's social environment (e.g., social support, economic stability, housing, neighborhood conditions, parental mental health, community linkages and resources) as well as abusive and neglectful parenting behaviors (Child Welfare Information Gateway, 2012). Further, very young children (birth through age three) are most likely to suffer serious injury and death related to maltreatment, with children younger than three years of age accounting for 74% of maltreatment-related deaths (USDHHS, 2012). These very young children may be more vulnerable for a variety of reasons, including their inability to defend themselves, their small size, their relative social isolation, and the fact that infancy is a sensitive period of brain development that may be severely disrupted by trauma (Brodowski et al., 2008). Given the multifactorial etiology of child maltreatment and its high incidence among infants and toddlers (USDHHS, 2012), prevention programs that begin as early as possible and use a bioecological approach (Bronfenbrenner & Morris, 2006) addressing child and family well-being in addition to problematic parenting

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* Corresponding author.
E-mail address: beth.green@pdx.edu (B.L. Green).

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behaviors are especially promising. Early Head Start (EHS), a comprehensive, two-generation program providing parenting, educational, nutritional, health, and social services to low-income families with infants and toddlers (birth to age three years), represents a promising approach in preventing child maltreatment in this vulnerable age group.

1.1. Identifying effective child maltreatment prevention strategies

Child maltreatment prevention efforts have expanded considerably over the past three decades (MacMillan et al., 2009a, 2009b; Paxson & Haskins, 2009). A variety of approaches have been implemented to prevent child abuse and neglect, including parent education, home visitation, community-wide programs, media, and multi-component strategies (Mikton & Butchart, 2009). Many of these efforts have been found to have favorable program impacts on risk factors for child abuse and neglect, especially parenting behavior and maternal well-being, but fewer show success in directly reducing child maltreatment (Howard & Brooks-Gunn, 2009; Reynolds et al., 2009).

Home visiting has become one of the most popular approaches in preventing child maltreatment. In 2009, the U.S. Department of Health and Human Services launched the Home Visiting Evidence of Effectiveness (HomVEE) to review research on the efficacy of home visiting programs that serve families with pregnant women and children from birth to age five (Avellar, Paulsell, Sama-Miller, & Del Grosso, 2012). HomVEE identified 13 home visiting programs that met the USDHHS criteria for rigorous methodology and showed positive effects in promoting family, parent, and/or child well-being. Of these 13 programs, however, only five showed any evidence of reducing child maltreatment, and only two had replicable and sustained child abuse or neglect outcomes (Nurse-Family Partnership Program, Olds et al., 1997; Zielinski, Eckenrode, & Olds, 2009; and Healthy Families America, DuMont et al., 2008). EHS (Home Visiting Model) was included among the 13 meeting USDHHS criteria and was rated as having strong sustained outcomes for child development, positive parenting, and family self-sufficiency.

The HomVEE review, as well as other reviews of child maltreatment prevention efforts, documents a number of the methodological challenges in examining maltreatment outcomes in evaluation studies (Avellar et al., 2012; MacMillan et al., 2009a, 2009b; Mikton & Butchart, 2009; Reynolds et al., 2009). First, many studies lack adequate sample size to have sufficient power to detect the relatively infrequent occurrence of documented abuse or neglect (Howard & Brooks-Gunn, 2009; Reynolds et al., 2009). Second, there have been questions regarding the appropriateness of using documented or substantiated maltreatment reports as a primary outcome measure for maltreatment prevention research, both because it likely underrepresents the actual occurrence of maltreatment and because of the heightened surveillance by mandated reporters for children in the "treatment group" in the form of prevention service providers (Howard & Brooks-Gunn, 2009; Reynolds et al., 2009). Third, many studies of potentially promising prevention programs lack sufficient methodological rigor in terms of study design, and in particular, the child maltreatment prevention field lacks studies using randomized controlled trials (MacMillan et al., 2009a, 2009b; Mikton & Butchart, 2009). Finally, preliminary evidence suggests that long-term follow-up may be needed to fully understand child maltreatment prevention outcomes, which may not be detected until several years after the programs have ended (Zielinski et al., 2009). Such longitudinal studies are expensive and difficult to implement, and many potentially promising programs have not had ongoing longitudinal research that can examine their effectiveness over the life course.

EHS is one of the most widely implemented comprehensive early childhood development and family support services serving low-income infants and toddlers and their families. Results from the randomized controlled trial of EHS show favorable effects of the program for both children and their parents (Administration for Children and Families [ACF], 2002b; Love, Chazan-Cohen, Raikes, & Brooks-Gunn, 2013). However, prior to the current study, the effectiveness of EHS in preventing child abuse and neglect has never been tested. Building on the original large-scale randomized study, the current study addresses a number of the methodological challenges listed above and provides a first look at whether this popular and scalable prevention program prevents child abuse and neglect among low-income families.

1.2. The EHS program and the national EHS randomized controlled trial

EHS was authorized in 1994, with the first 68 grantees funded in 1995, and now serves over 110,000 children per year in a little over 1000 programs, making it one of the largest programs serving low-income infants and toddlers in the United States. EHS aims to promote positive development in children directly, by providing services to children from birth to three years of age, and indirectly, by providing supports to parents in their role as primary caregivers, as well as by promoting parent self-sufficiency and healthy family functioning. EHS programs use two primary service approaches: (1) home visiting, in which weekly 90-minute home visits are provided to families, coupled with group socialization activities; and (2) center-based child development services with at least two home visits per year. Many programs provide EHS services using both models.

Original Congressional authorization of EHS services mandated that the program be rigorously evaluated, and a randomized controlled trial referred to as the Early Head Start Research and Evaluation Project (EHSREP) was launched in 1996, at the same time the program began. In all, 3001 low-income families with a pregnant woman or an infant under the age of 12 months in 17 sites across different geographic regions of the U.S. were enrolled in the study (between July 1996 and September 1998) and randomly assigned to EHS or a control group. Control group participants could access any services in the community other than EHS. Data on the children and their families were collected at enrollment and when children were about 1, 2, 3, 5, and 10 years of age.

To date, findings from this randomized control trial suggest that EHS benefits families across a wide range of child, parent, and family self-sufficiency outcomes (ACF, 2002b; Love et al., 2013). Importantly for the field of child maltreatment, EHS showed effects on known risk factors for physical abuse or neglect (Stith et al., 2009). Specifically, at one or more data points, EHS parents were more emotionally supportive and less detached during play, less stressed and depressed, spanked less, and reported less family conflict and substance abuse in the household (Vogel, Brooks-Gunn, Martin, & Klute, 2013). A consistent pattern of larger positive impacts has been observed at each data collection wave for African American children and their families and for families at moderate demographic risk (Raikes, Vogel, & Love, 2013). Impacts also have varied by program approach, with long-term benefits being more evident in those programs that provided home-based services (Love et al., 2013). Given the support that EHS provides to parents and its positive effects on parental and family well-being, as well as parenting and child behaviors, we hypothesized that EHS also would decrease the risk of child maltreatment. The EHSREP provided a unique opportunity to rigorously test this hypothesis. This study, known as the Early Head Start Child Welfare Study (EHS CWS), represents an important first step toward understanding how a family's participation in EHS might impact a child's involvement in the child welfare system.

2. Method

2.1. Approach

To contribute to the evidence base on child maltreatment prevention, we obtained child welfare administrative data to retrospectively identify and describe child welfare involvement among a subset of participants in the national EHSREP. The current study utilized data for participants in 7 of the original 17 sites included in the EHSREP. Families were originally eligible for the EHSREP study if they: (1) met federal income requirements (at or below the Federal Poverty Level) for Early Head Start; and (2) mothers were pregnant or had a child under the age of 12 months. Families were randomly assigned at program enrollment by the national cross-site evaluation team (for details see ACF, 2002a, 2002b). This study uses an intent-to-treat design including all study participants randomly assigned at enrollment. We used administrative child welfare records to examine the likelihood, frequency, and timing of child welfare encounters for these children from the time of enrollment and random assignment (1996–1998) through December 31, 2009.

We selected the subsample of sites for this study based on: (a) the presence of a local EHS researcher with a history of working with the local or state child welfare agency; (b) geographic representation of sites in the United States; (c) ethnic/racial diversity in EHS populations served; (d) representation of both home-based and center-based EHS program models; and (e) availability of locally collected data that might be particularly useful in informing child abuse prevention outcomes. We contacted a representative from the state child welfare authority in seven states to determine the availability of electronic data for the proposed study period (January 1, 1996–December 31, 2009) their initial willingness to share individual-level data, and to identify procedures for developing a data-sharing agreement. One of the seven states contacted denied this request. As a result, this study used child welfare data from seven sites located in six states for a thirteen-year period (1996–2009). Portland State University's and Harvard University's Institutional Review Boards granted approval for data collection, as well as waivers for informed consent to access these data. Four of the six states required and granted state-operated Institutional Review Board approval.

The seven EHS programs included in this study are diverse in relation to service delivery models, community contexts, and populations served. One program provided only center-based services, four programs provided home-based services, and two programs provided a mix (some families received home based services while others received center-based services). Three of the programs are located in rural communities. Two of the programs served primarily Hispanic families, while three programs served primarily White families, and the remaining two sites served a more demographically diverse low-income population.