Relationship between Participation in Early Head Start Program Components and Family Risk for Maltreatment

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Introduction

Early Head Start (EHS) is a national, federally funded early intervention program that provides multidisciplinary home-based and center-based services for children birth through three. Children enrolled in EHS experience a variety of risk factors for child maltreatment, including poverty, parental mental health difficulties, and developmental delays (e.g., Belsky, 1993). Child maltreatment poses a significant risk to children's healthy development and is associated with numerous detrimental outcomes, including cognitive, behavioral, and neurophysiological deficits (e.g., Cicchetti & Toth, 2000).

Home visitation has been identified as an effective strategy for reducing child maltreatment, through increased access to at-risk families with the aim of identifying individual needs and providing multidisciplinary, targeted, integrated services (Asawa et al., 2008; Daro & Cohn-Donnelly, 2002; Howard & Brooks-Gunn, 2009). EHS has been identified as a home visitation program that has promise for maltreatment prevention (Avellar, Paulsell, Sama-Miller, & Del-Grosso, 2013; Fantuzzo, McWayne, & Bulotsky, 2003; Green et al., 2014).

One mechanism through which EHS can prevent maltreatment is through the provision of program components that can address the various risk factors described above. Beyond the number of home visits and the availability of mental health support, EHS provides a comprehensive array of services for families, often through partnerships with community agencies as recommended in the Performance Standards (U.S. DHHS, 2009). This wide variety of services may vary by site but can include housing assistance, employment training, WIC, and domestic violence assistance.

While home visitation programs are an increasingly popular method of accessing families and delivering preventative, early intervention services, one consistent challenge in implementation has been engagement of families (Ammerman et al., 2006; McCurdy, et al., 2006; Korfmacher et al., 2008). Despite the ease of access that home visitation provides, families often participate inconsistently, infrequently, or for only a short period of time in offered services (Ammerman et al., 2006; McCurdy et al., 2006). As a result, it is currently unknown whether at-risk families are utilizing EHS services and if participation in those services reduces family risk level. The current study examines the relationship of participation in EHS program components with changes in presence of family risk for maltreatment.

Method

Participants

Participants were 316 families enrolled in an EHS home-based program in southeastern Nebraska. At enrollment, children ranged in age from 0 to 37 months (M = 11.33), 50% of children were male, 50% were European-American, and 43% of primary caregivers had less than a high school degree. Refer to Table 1 for additional child and caregiver demographics.

Table 1. *Participant Demographic Information for Early Head Start Families*

Child Age at Enrollment	
Average Age	11.33 months
Range	0 – 37 months
Child Race/Ethnicity	
European-American	50%
Hispanic/Latino	20%
African-American	15%
Asian/Pacific Islander	3%
Native American	2%
Multi- or Bi-Racial	10%
Child Gender	
Male	50%
Female	50%
Primary Language Spoken in the Home	
English	62%
Spanish	14%
Middle Eastern Language	18%
Other	6%
Caregiver Education	
Less than high school degree	43%
High school diploma/GED	24%
Some college/associates degree	19%
Greater than associates degree	4%

Measures

Family risk for maltreatment was measured by presence of parental mental health difficulties (*CES-D;* Radloff, 1977), lack of education, parental substance abuse, parental unemployment, child behavior problems, low birth weight, prenatal complications, child developmental disabilities, inadequate housing, domestic violence, income/poverty, and social isolation. These risk factors were identified by EHS Family Service Workers through a semi-structured interview designed to assess family strengths and need for services and support upon entry to the program and every 6 months thereafter across program participation to assess changes in level of functioning over time.

Participation in EHS was measured using number of home visits from a Family Service Worker (FSW), number of mental health services received, and number of services received through EHS. Services received through EHS include Emergency Crisis Assistance, Housing Assistance, Adult English as a Second Language (ESL), Adult Education, Employment Training, and Parenting Education.

Procedures

This study relied on secondary data analysis of archival data gathered by the local EHS home-based program, EHS Family Service Workers, and clinical case records from mental health consultants.

Family risk was measured at program enrollment (Time 1) and at the most recent assessment at the time of data analysis (Time 2). To measure change in risk across participation in EHS, a Modifiable Adversity Change Score (MACS) was calculated by assigning one positive point when a risk factor was assessed as present at T1 but not at T2 and one negative point when a risk factor was assessed as absent at T1 but present at T2. Thus, children with higher Modifiable Adversity Change Scores experienced greater reduction in risk across participation.

Table 2. *Summary of Multiple Regression Analysis for Variables Predicting Modifiable Adversity Change Score*

Predictor	*B*	*SEB*	β
Visits from a Family Service Worker	.00	.00	.07
Other services received through Early Head Start	.05*	.02	.13
Sessions with a Mental Health Consultant	-.04**	.01	-.15
Months Enrolled in the Program	-.00	.01	-.01
Constant	-.06		

Note: Months enrolled in the program is used as a control variable.
*$p < .05$.
**$p < .01$

Table 3. *Modifiable Adversity Change Scores (MACS) of Children Receiving Various EHS Services*

	Received EHS service			Did not receive EHS service		
	n	*M* MACS	*SD* MACS	*n*	*M* MACS	*SD* MACS
Mental Health Services	52	-.06	.94	264	.13	.63
Emergency Crisis Assistance	140	.21*	.60	176	.01	.74
Housing Assistance	56	.20	.62	260	.08	.70
Adult English as a Second Language Education	47	.30*	.78	269	.06	.67
Adult Education	71	.31**	.65	245	.04	.69
Adult Employment Training	35	.29	.71	281	.07	.69
Adult Substance Abuse Services	4	.00	1.41	312	.10	.68
Child Abuse Prevention Services	12	.00	.74	304	.10	.69
Domestic Violence Assistance	13	.08	.86	303	.10	.68
Assistance Obtaining Child Support	13	.08	.64	303	.10	.69
Parenting Education	256	.13†	.65	60	-.05	.83
Marriage Education	7	.86**	.90	309	.08	.67
WIC	278	.08	.70	38	.21	.58
Arrangement of Housing for Homeless Families	11	.18	.40	305	.10	.70

Note.
†$p < .10$, *$p < .05$, **$p < .001$

Results

A multiple regression model was completed with the Modifiable Adversity Change Score as the dependent variable and EHS components received as the independent variable. The employed measure of change in presence of family risk for maltreatment, Modifiable Adversity Change Scores, for the sample ranged from -3 to 3 (M = .10, SD = .69). The overall regression model was significant [F (4, 311) = 3.68, $p < .01$, r^2 =.045] and is summarized in Table 2. Children with higher Modifiable Adversity Change Scores tended to receive a higher number of services through EHS and tended to participate in fewer average sessions with a mental health consultant. No significant relationship was observed between number of home visits received and Modifiable Adversity Change Score.

The relationship between Early Head Start components received and changes in the total number of risk factors amenable to change present between Time 1 (i.e., enrollment in the program) and Time 2 (i.e., the most recent collection of measures) was examined. Bivariate analyses were performed in order to further explore the observed relationship between services received through Early Head Start and change in presence of risk. Analysis of Variance (ANOVA) was used to compare mean Modifiable Adversity Change Scores of families who did and families who did not receive specific EHS services (Table 3). Significantly higher Modifiable Adversity Change Scores were found among families who received Emergency Crisis Assistance [$F(1, 314) = 1.55$, $p = .01$], Adult English as a Second Language Education [$F(1, 314) = 5.29$, $p = .05$], Adult Education [$F(1, 314) = 5.71$, $p < .01$], and Marriage Education [$F(1, 314) = 2.98$, $p < .01$]. Marginally significant higher Modifiable Adversity Change Scores were found among families who received Parenting Education [$F(1, 314) = .003$, $p = .07$]. No other significant differences were found between families who did and families who did not receive specific EHS services.

Discussion

Families who received a greater number of services through EHS, such as Emergency Crisis Assistance and Adult Education, experienced greater reduction in risk for maltreatment across program participation. While parents living in poverty who are served by EHS often experience extreme stressors, such as being unable to afford food and clothing for their families, working long hours at jobs that do not provide a living wage, and very limited educational and employment opportunities, services provided by the program can prevent these stressors from leaving parents unable to effectively care for their children (Knitzer & Lefkowitz, 2006). The services associated at the bivariate level with reduction in risk (i.e., Emergency Crisis Assistance, Adult English as a Second Language, Adult Education, Marriage Education, and Parenting Education) were diverse but all aimed at reducing the stressors and disadvantages commonly associated with poverty. Results of this study provide preliminary evidence that the comprehensive services provided by EHS are capable of decreasing accumulation of risk factors for maltreatment.

While the number of services received through EHS was predictive of reduction in risk, the number of contacts with a mental health professional that families received through the program was predictive of increased risk for maltreatment. This may be due to the increase in risk assessed as present, as many of the factors comprising the Modifiable Adversity Change Score were assessed by a trained mental health care provider. Further, it is also possible that those families who were referred for and received mental health services were more likely than other families to experience an increase in a wide variety of risk factors for maltreatment.

This study provides evidence that data routinely collected as part of participation in EHS can be used to identify families that may be especially in need of the specific services observed as associated with prevention of child maltreatment and reduction in risk in this study (i.e., Adult Education, Adult English as a Second Language Education, Emergency Crisis Assistance, Marriage Education, Parenting Education), services designed to increase program engagement, or specialized intensive prevention services beyond those typically delivered though EHS. Thus, it appears that when families are able to identify specific areas in which they need assistance and receive helpful services through the program, maltreatment is less likely. These findings suggest that active referral to relevant services both through the EHS program and in the broader community might contribute to maltreatment prevention. EHS can use this information to further support Family Service Workers in providing services to families.