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Adversity, Maltreatment, and Resilience in Young Children

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Abstract

Background—Much of the research on children in high risk environments, particularly those who have been maltreated, has focused on negative outcomes. Yet, much can be learned from some of these children who fare relatively well. The objective was to examine resilience in high-risk preschoolers, and to probe contributors to their adaptive functioning.

Methods—The sample of 943 families was from the Longitudinal Studies of Child Abuse and Neglect, a consortium of 5 sites, prospectively examining the antecedents and outcomes of maltreatment. Most of the families were at high risk for maltreatment, and many had been reported to Child Protective Services (CPS) by the time the children were aged 4 years. Standardized measures were used at ages 4 and 6 to assess the children's functioning in behavioral, social and

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developmental domains, and parental depressive symptoms and demographic characteristics. Maltreatment was determined on the basis of CPS reports. Logistic regressions were conducted to predict resilience, defined as competencies in all 3 domains, over time.

Results—Forty-eight percent of the sample appeared resilient. This was associated with no history of maltreatment (odds ratio = 1.50; 95% confidence interval [CI], 1.02–2.20; $P = .04$), a primary caregiver reporting few depressive symptoms (odds ratio = 2.19; 95% CI, 1.63–2.94; $P < .001$), ($P = .014$), and fewer children in the home ($P = .03$).

Conclusions—Almost half of the sample appeared resilient during this important developmental period of transition to school. This enables clinicians to be cautiously optimistic in their work with high-risk children and their families. However, more than half the sample was not faring well. Child maltreatment and caregiver depressive symptoms were strongly associated with poor outcomes. These children and families deserve careful attention by pediatric practitioners and referral for prevention and early intervention services.

Keywords

adversity; child maltreatment; competencies; resilience

RESILIENCE IS A broad concept that describes adaptive functioning, over time and in multiple domains, in a context of adversity.^{1,2} The development of resilience can also be viewed as an indication of successful adaptation in the context of the developmental tasks of childhood.^{3,4} As Shiner and Masten⁴ noted, resilience indicates that the child is meeting the expectations of society. Applied to school entry, resilience includes academic capability, the ability to follow rules of conduct, and the skills to function with peers. In this article, we refer to broad, successful adaptation as “resilience” and to positive functioning in a specific domain or age as “competency.” Variation in resilience is associated with several influences, such as differing early life adversities,⁵ childhood temperament and personality,⁴ and the social capital available in the home and community.⁶ It is also associated with family poverty.^{7,8}

Promoting resilience is critical for children who have experienced early adversities, including abuse and neglect. To develop effective interventions, there is a need for longitudinal research that can identify factors that promote resilience in high-risk environments. Most research on resilience and adversity in childhood has been cross-sectional and characterized by widely varying approaches to defining and measuring resilience. Relatively few studies have examined resilience prospectively with regard to early childhood adversity and maltreatment.^{9–18} Most prospective research on resilience has been conducted with school-age children, adolescents, or adults. Studies of adult functioning suggest that a subset of adults with a childhood history of adversity (eg, maltreatment, poverty, caregiver mental illness) show competency in at least some areas of functioning, at some point in time.^{19–21} Results of research with school-age children suggest that rates of resilience decline over time for youth who experienced early adversity.^{16,18} At the same time, individuals might “bounce back” from earlier maladjustment, experience stable resilience, or experience fluctuations in resilience.¹⁸

The present study was designed to identify competencies and resilience in young children in the context of different adversities, many having been maltreated, and to identify factors associated with resilience. The ages between 4 and 6 years are of particular importance for identifying patterns and predictors of resilience, as children navigate the critical developmental tasks around school readiness. We examined 3 broad domains that are important for being ready for school and that are affected by child maltreatment: behavior, social, and cognitive development.^{6,9,10,13–18} We then examined how family-level factors relate to children's resilience,²² with a focus on factors that might be affected by policy and practice. We hypothesized that family factors (maltreatment, caregiver depressive symptoms,^{23,24} caregiver employment status, household annual income, number of adults and children in the household⁶) are associated with resilience in early childhood.

Methods

Sample

The current research used pooled data from the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN), prospective studies of antecedents and consequences of child maltreatment and other adverse experiences.²⁵ LONGSCAN is a consortium of research centers that collaboratively developed and administered common protocols at 5 sites in different regions of the United States. Although each subsample consisted of families at high risk for maltreatment, they were deliberately varied to represent those either at risk for involvement with Child Protective Services (CPS) or who had already been involved with this agency. Inclusion in the present study required that the child and caregiver participated when the child was age 4 and 6 years. Of the original LONG-SCAN sample of 1354 families, 943 (70%) had complete data for these analyses. A comparison of excluded participants ($n = 411$) and those included ($n = 943$) revealed no differences in terms of sex, race/ethnicity, and maltreatment. Table 1 shows the characteristics of those included.

Procedure

The participants were recruited to LONGSCAN at either 4 or 6 years of age between 1990 and 1995; all were at some risk for maltreatment.²⁵ The Southwestern site included children placed in foster care by CPS, and the Northwestern site included children reported to CPS who were assessed to be at "moderate" risk for maltreatment. The Midwestern site included families reported to CPS, and matched neighborhood controls who had not been reported. The Eastern site recruited low-income, at-risk children from pediatric clinics. The Southeastern site recruited children considered at-risk at birth because of neonatal or sociodemographic problems, such as poverty.

The study group had a Measures Committee that carefully researched candidate measures that were developmentally appropriate, had good psychometric properties, and preferably had been used in similar populations. Each site collected data using age-specific common measurement protocols. Primary caregivers provided most of the information when the children were preadolescent, although a few measures were administered directly to the children (Table 2). Across sites, most primary caregivers were the child's biological parents. At the Southwestern site, however, 65% of the primary caregivers were foster or adoptive

parents. CPS data were obtained by each site from the local agency. Each site used procedures approved by their local institutional review board. Families were paid a nominal amount for their time and travel.

Measures

Competency was operationalized in each domain and at each age by considering the child's performance relative to standard norms for almost all measures. Because of the adversities these children had faced and that there is no "right" way to define competency (or resilience), we considered a child competent if performing "adequately" (eg, better than 1 SD below the mean, within the normal range) in the measures pertaining to specific domains. Resilience in contrast refers to competencies in all 3 domains, and over time.

Behavioral Domain—The Child Behavior Checklist uses caregiver report to assess problems in 8 areas: social withdrawal, somatic complaints, anxiety/depression, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior.²⁶ Scores were converted to T-scores with a mean of 50 and an SD of 10.²⁶ Total T-scores < 60 are considered to be in the normal range and this was used to define competency in the behavioral domain at ages 4 and 6 years.

Social Domain—Age 4 competency in the social domain was on the basis of the Battelle Developmental Inventory Screening Test (BDIST). The BDIST has 5 scales: personal-social skills, communication skills, adaptive behavior (including attention, eating, dressing, toileting, and personal responsibility), psychomotor ability, and cognition—the basis of the child's test performance and caregiver report.²⁷ Competency in the social domain at age 4 years required scores at least 1 SD below the mean on 2 of the 3 BDIST scales.

Age 6 competency in the social domain was based on 2 subscales from the Vineland Screener^{28,29} and a question from the Loneliness and Social Dissatisfaction Questionnaire.³⁰ The Vineland Screener is used to assess daily living skills and socialization, via caregiver report.^{28,29} Adequate functioning was defined as performing at or above 1 SD below the national mean for each of these subscales. If the child reported having lots of friends at school on the latter questionnaire, this was considered adequate functioning. Competency at age 6 years was defined as when the child showed adequate functioning on 2 of the 3 measures.

Developmental Domain—Age 4 competency in the developmental domain was assessed using the Battelle Psychomotor and Cognition Scales to assess competency in this domain at age 4; this was on the basis of scoring better than 1 SD below the mean on 1 of the 2 scales.

Age 6 competency in the developmental domain was assessed using the Wechsler Preschool and Primary Scale of Intelligence-Revised (WPPSI-R). The children completed the WPPSI-R Short Form Vocabulary and Block Design as a cognitive screener.³¹ Sattler³² reported that these sub-scales correlate 0.83 with the WPPSI-R total score. Competency was defined as scoring higher than 1 SD below the mean on 1 of the 2 subscales.

The definitions of competency within domains and ages, and the percent of children determined to be competent are summarized in Table 2. Additional measures of competency and resilience were defined in the following ways:

Competency according to age was defined as competency in all 3 domains at a specific age.

Competency according to domain was defined as competency at both ages within a specific domain.

Resilience was defined as competency at 5 of the 6 opportunities in the 3 domains at 2 ages.

Child Maltreatment: Maltreatment was coded as ‘yes’ if there was a CPS report involving the index child before age 4 years, regardless of substantiation. In the aggregate, research has not found significant differences in children’s outcomes related to substantiation.³³

Center for Epidemiological Studies-Depression Scale: The Center for Epidemiological Studies-Depression Scale³⁴ includes 20 items comprising 6 scales reflecting major dimensions of depression. The Center for Epidemiological Studies-Depression Scale was administered to the primary caregiver when the child was 4 and/or 6 years old. Caregivers were considered depressed if they scored >15, the range determined to be at risk for clinical depression, at either age.³⁴

Data Analysis

The major outcome variables were competency according to age, competency according to domain, and resilience. The data analysis involved several steps. First, we examined the association between child and family characteristics and resilience, using a Pearson chi-square test. Then, we fit multivariable logistic regression models to identify independent predictors of behavioral competency, social competency, developmental competency, and resilience. The potential predictor variables included all those listed in Table 1, with site, sex of child, and race/ethnicity as covariates. To be included, a variable had to be significantly predictive of at least 1 of the domains in the univariate analyses. There were 2 groups of moderately correlated variables, 1 for household structure (number of adults in the household, number of children in the household, caregiver age at the time of birth of the child) and 1 for economic factors (caregiver education, caregiver employment, annual household income). To avoid colinearity and to derive parsimonious models, we fit preliminary models to identify the most important predictors in each group. These models supported the deletion of caregiver age from the household group, and caregiver education from the economic group. Final logistic regressions were computed with the reduced number of predictors.

Results

Almost half of the children (48%) were classified as resilient, defined as “competent” on at least 5 of the 6 domains according to age. Table 3 shows the percent of children determined to be competent in each domain and age, and competency according to domain, competency according to age, and resilience. At age 4 years, only 29% of the children were competent in

all 3 domains. At age 6 years, 52% were competent. Developmental competency was most often present, followed by behavioral, with social competency being least frequent.

The unadjusted relations among the characteristics of the sample and resilience are presented in Table 1. Resilient children were less likely to have been maltreated and to have caregivers who were depressed, and were more likely to be from smaller households and to have employed caregivers.

Predicting Competencies and Resilience

Table 4 presents the findings from the regressions predicting the 3 competencies according to domain and resilience, adjusting for the covariates. Children whose caregiver had few depressive symptoms had >3 times greater odds of being competent in the behavioral domain and approximately twice the odds to be competent in the social domain as well as being resilient, after adjustment for other predictors. Some of the contextual variables were associated with competencies and resilience. Children whose caregiver was not employed were less likely to be socially competent and resilient, as were those in households with more children. Household income and the number of adults in the home were not significant predictors of competencies or resilience. Finally, several of the covariates were associated with competencies and resilience. Children in the Northwest site were less likely and those in the Eastern site were more likely to be resilient than those in Southwest site. Boys were less likely to be competent in the social domain. Black and Hispanic children were less likely than white children to be competent in some domains.

Discussion

The major finding was that almost half of the children from the LONGSCAN sample—defined according to risk for, or exposure to, child maltreatment—showed resilience in early childhood. Forty-eight percent of the maltreated children were resilient. This finding is consistent with earlier work highlighting that, despite the general focus on negative outcomes of maltreatment, resilience in children exposed to adversity and maltreatment is clearly possible and occurs quite frequently.^{18,20}

There were important variations in the patterns of competencies and resilience, according to child age and context. Specifically, many more children showed competence at age 6 years than at age 4 years, particularly with regard to social functioning. This might relate to several factors such as having had structured social interactions in school. There were also differences regarding their development. One possibility is that with age, children learned to cope with their maltreatment or other adverse experiences. For some, their maltreatment might also have either lessened as they got older, or, if no new maltreatment occurred, the passage of time and possible intervention allowed for recovery. Another possibility, however, is that the differences relate to the different measures used, because the assessments varied so that they would be developmentally appropriate.

Another key finding is that almost half of the caregivers had depressive symptoms in the clinical range. This presumably reflects the high-risk nature of the sample, with many families struggling to care adequately for their children, under difficult circumstances.

Depressive symptoms were associated with children being less likely to meet criteria for competence in the behavioral and social domains, and resilient. This finding is consistent with a large body of research in general and regarding high-risk children, which has found a key role for caregiver depressive symptoms in child well-being, especially in early childhood.^{23,24} Having a healthy parent who is not depressed is important to fostering resilience in young children.

A few other important predictors of competencies and resilience were noted, related to the social ecology of the family, particularly having an employed caregiver and fewer children in the home.²² Employment might have provided greater security and resources compared with families in which the primary caregiver was unemployed. This in turn might have improved families' and childrens' functioning. Fewer children in the home might also have lessened this burden of child-rearing. Such contextual variables can be construed as indicators of social capital.⁶ Using the LONGSCAN data set, Runyan and colleagues⁶ reported protective effects of social capital regarding children's behavior and development. Kotch and colleagues³⁵ also reported that social capital reduced the likelihood of child aggressive behavior.³⁵

Most importantly, maltreated children were less likely to show social competence and resilience. It is encouraging, however, that so many maltreated children were resilient. It is possible, however, that the sequelae might emerge at a later time,³⁶ particularly in girls.³⁷ Close monitoring by parents and pediatricians seems appropriate. Pediatricians can be cautiously optimistic that some maltreated children will adapt and function relatively well. It must be noted that the bar for competency was set relatively low. However, it is important not to lose sight of the many children who did not fare well. They and their families might need additional support to foster resilience.

In interpreting these findings, there are several limitations. First, a host of risk and protective factors are of possible importance, but any particular data analysis necessarily focuses on only a subset of these. Other factors, including genetics or psychosocial interventions might have influenced the outcomes. In addition, the definition of competencies and resilience naturally influences the findings. Researchers have defined these terms in very varying ways, making comparisons across studies difficult. Some define resilience in terms of meeting specific normative thresholds; alternatively, some define resilience in relation to others in the sample (eg, being above the 50th percentile). The 3 broad domains probed in our study are the ones most commonly examined, but others (eg, physical health and health behavior) are undoubtedly important.⁴

It is also necessary to note that the LONGSCAN sample is a high-risk sample, in terms of exposure to adversity including abuse and neglect, and related problems such as poverty and community violence. Unfortunately, such circumstances are hardly rare, but clearly there might be different predictors of resilience in different contexts. This article is focused on children at a relatively young age. " Sleeper effects " might emerge with later possible problems. Finally, it should not be construed that children who appeared resilient were unscathed by maltreatment and/or other adversities. It is likely that their functioning would have been still better had they been in better environments, without facing those challenges.

These caveats aside, the current findings add to a growing body of research on adaptive functioning in maltreated children.³⁷ They suggest that challenging and “high-risk” contexts do not guarantee poor outcomes. In particular, the effects of child maltreatment in our statistical model were relatively modest, especially when taking into account other risk factors. Thus, abused and neglected children are not inevitably impaired. Rather, even in the face of such adversities, children vary greatly in their competencies and resilience. It is noteworthy that the findings were generally consistent across the varying samples included in the LONGSCAN studies. There are important factors in the child’s family that explain a great deal of this variation, and more complex models should take into account maltreatment and also parent mental health, as well as other contextual factors. These findings also highlight the importance of parents’ depressive symptoms. Pediatrics is broadly concerned with promoting children’s health, development, and safety. This includes addressing prevalent psychosocial problems such as parental depression. Pediatricians have good opportunities to identify and help address such problems.^{38,39} Finally, there is a great need to learn more about how some children cope with adversities, and the factors that predict positive outcomes.^{40,41} Such inquiry can yield valuable information to guide clinical practice and interventions.

Conclusions

We established criteria for resilience, and almost half of this sample met them. This is encouraging for children who have experienced adversities, their families, and the professionals working with them. It is also evident, however, that many of the children, particularly those maltreated, did not fare well. They and their families need added support, early intervention, and monitoring. Caregiver depressive symptoms were alarmingly prevalent and associated with children being less likely to be resilient. Pediatricians can help identify and address this problem. Policies and programs that improve access to mental health care for such caregivers are much needed.

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What's New

Almost half the preschoolers in high-risk environments were resilient in behavioral, social and developmental domains; 42% of those maltreated were resilient. Resilience was associated with not having been maltreated, and caregivers having fewer depressive symptoms, fewer children, and being employed.

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Table 1.
Sociodemographic Characteristics and Resilience* (N = 943)

Characteristic	n (%) [†]	Percent Resilient	P [‡]
Site			<.001
East	176 (19)	65	
Midwest	156 (17)	50	
South	172 (18)	44	
Southwest	247 (26)	37	
Northwest	192 (20)	47	
Sex of child			.75
Male	461 (49)	47	
Female	482 (51)	48	
Race/ethnicity of child			.01
Black	513 (55)	48	
White	247 (26)	37	
Other (Native American, Asian/Pacific Islander, mixed)	124 (13)	40	
Hispanic	59 (6)	55	
Maltreatment (CPS report before age 4 years)			<.001
No	331 (35)	59	
Yes	612 (65)	42	
Number of adults in household (mean = 1.9; SD = 0.95)			.003
Single	468 (65)	43	
Multiple	251 (35)	55	
Caregiver education level (mean = 11.7; SD = 1.98)			.14
0–11 Years	396 (42)	45	
12 Years	546 (58)	50	
Caregiver depressive symptoms (CES-D mean = 12.56; SD = 10.9)			<.001
Low (CES-D <16)	502 (53)	56	
High (CES-D ≥ 16)	440 (47)	39	
Caregiver employment status			.001
Employed	275 (29)	60	
Unemployed	150 (16)	53	
Student	62 (7)	50	
Homemaker	395 (42)	41	
Retired, disabled, or other	60 (6)	37	
Caregiver age at birth of child (mean 28.1, SD = 10.3)			.92
Younger than 21 years of age	244 (26)	48	
21 Years of age	697 (74)	48	
Household annual income (median = \$10,000-\$14,000)			.16
<\$20,000	656 (71)	47	
\$20,000	268 (29)	52	
Number of children in the household (mean = 3.0, SD = 1.7)			.01

Characteristic	n (%) [†]	Percent Resilient	<i>P</i> [‡]
1 Child	154 (16)	57	
2–3 Children	505 (54)	47	
4–5 Children	204 (22)	49	
6 Children	77 (8)	34	

CPS indicates Child Protective Services; CES-D, Center for Epidemiological Studies-Depression.

* Resilience was defined as meeting criteria across the 3 domains at ages 4 and 6 y; at least 5 of the 6 opportunities.

[†]The n for demographic variables varied slightly because of missing data.

[‡]All probabilities reflect *P* values that are derived from a $2 \times k$ Pearson chi-square test from Resilient (2) \times Variable (*k*), with *k* = the number of levels of the variable under consideration.

Table 2.

Measures of Competency at Ages 4 and 6 Y* and the Number of Children Meeting Criteria (N = 943)

Domain	Age 4 Y		Age 6 Y	
	Measure	n (%)	Measure	n (%)
Behavior	Child Behavior Checklist	(n = 664; 70%)	Child Behavior Checklist	(n = 658; 70%)
	Battelle Adaptive Behavior Scale	(n = 664; 70%)	Loneliness and Social Dissatisfaction Questionnaire Item 8, 'Yes'	(n = 743; 79%)
Social	Battelle Personal Social Skills Scale	(n = 262; 28%)	Vineland Screener Daily Living	(n = 673; 71%)
	Battelle Communication Skills Scale	(n = 392; 42%)	Vineland Screener Socialization	(n = 633; 67%)
Development	Battelle Psychomotor Ability Scale	(n = 467; 50%)	WPPSI-R Vocabulary Scale	(n = 721; 77%)
	Battelle Cognition Scale	(n = 484; 51%)	WPPSI-R Block Design	(n = 645; 68%)

WPPSI-R indicates Wechsler Preschool and Primary Scale of Intelligence-Revised.

Numbers (%) represent participants who passed the threshold for competency on the measure.

* Parent or caregiver supplied information for the Child Behavior Checklist, the Vineland and some of the Battelle measures. All other data were collected from the child.

Table 3.

Children Found to be Competent in All 3 Domains at Ages 4 and 6 Y, at Both Ages in Each Domain, Across Domains at 4 and at 6 Y, and Resilient (N = 943)

Domain	Age 4 Y		Age 6 Y		At Both Ages	
	n	%	n	%	n	%
Behavioral	664	70	658	70	545	60*
Social	427	45	721	77	362	38*
Developmental	667	71	834	88	624	66*
Competent by Age	276	29 [†]	495	52 [†]	451	48 [‡]

*'At both ages' was defined as the child being competent in that domain at ages 4 and 6 y.

[†]'Competent by age' was defined as the child being competent in all 3 domains at that age.

[‡]Resilience was defined as the child being competent in 5 of the 6 opportunities across domains and ages.

Table 4. Multiple Logistic Regression Analysis of Models Predicting Competence in 3 Domains Across Ages and Resilience

Characteristic	Behavioral [†]	Social [‡]	Developmental [§]	Resilience
Site	<i>P</i> = .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001
East	1.71 (0.99–2.97)	3.11 (1.76–5.52) ***	4.29 (2.39–7.72) ***	3.60 (2.06–6.30) ***
Midwest	2.92 (1.74–4.93) ***	1.68 (0.98–2.88)	2.00 (1.20–3.33) **	2.34 (1.40–3.89) ***
Southeast	1.35 (0.80–2.27)	0.76 (0.43–0.34)	2.37 (1.38–4.06) **	1.17 (0.69–1.98)
Northwest	1.72 (1.11–2.66) *	1.81 (1.16–2.79) **	1.61 (1.04–2.49) *	1.80 (1.16–2.79) **
Southwest	Reference	Reference	Reference	Reference
Sex of child		<i>P</i> = .006		
Male	0.96 (0.73–1.28)	0.66 (0.50–0.89) **	0.79 (0.60–1.06)	0.94 (0.71–1.25)
Female	Reference	Reference	Reference	Reference
Race/ethnicity of child		<i>P</i> = .005		<i>P</i> = .014
Black	1.12 (0.76–1.62)	0.66 (0.45–0.96) *	0.57 (0.39–0.84) **	0.64 (0.44–0.92) *
Hispanic	1.09 (0.57–2.07)	0.27 (0.13–0.59) ***	0.80 (0.42–1.52)	0.50 (0.26–0.96) *
Other	0.68 (0.42–1.09)	0.68 (0.42–1.10)	0.86 (0.52–1.40)	0.51 (0.32–0.83) **
White	Reference	Reference	Reference	Reference
Maltreatment (CPS report before age 4 years)		<i>P</i> = .004		<i>P</i> = .04
No	1.17 (0.79–1.73)	1.78 (1.20–2.66) **	1.07 (0.71–1.61)	1.50 (1.02–2.20) *
Yes	Reference	Reference	Reference	Reference
Caregiver depressive symptoms	<i>P</i> < .001	<i>P</i> = .001		<i>P</i> < .001
Low	3.29 (2.44–4.43) ***	1.79 (1.20–2.66) ***	1.27 (0.94–1.72)	2.19 (1.63–2.94) ***
High	Reference	Reference	Reference	Reference
Employment status of caregiver		<i>P</i> = .04		<i>P</i> = .014
Other [¶]	0.78 (0.52–1.65)	0.66 (0.44–0.98) *	0.85 (0.56–1.30)	0.60 (0.40–0.90) *
Employed	Reference	Reference	Reference	Reference
Household annual income				
<\$20,000	1.07 (0.74–1.53)	0.76 (0.53–1.09)	0.88 (0.61–1.29)	0.91 (0.64–1.31)
\$20,000	Reference	Reference	Reference	Reference

Characteristic	Behavioral [†]	Social [‡]	Developmental [§]	Resilience
Number of adults in household				<i>P</i> = .051
Multiple	0.99 (0.72–1.35)	1.18 (0.86–1.63)	1.24 (0.90–1.71)	1.36 (1.00–1.86)
Single	Reference	Reference	Reference	Reference
Number of children in the household				<i>P</i> = .033
6	0.64 (0.34–1.21)	0.65 (0.33–1.27)	0.46 (0.24–0.85) [*]	0.40 (0.21–0.76) ^{**}
4–5	1.02 (0.64–1.64)	0.86 (0.53–1.37) ^{***}	0.68 (0.42–1.12)	0.78 (0.49–1.23)
2–3	0.77 (0.51–1.14)	0.97 (0.65–1.44)	0.74 (0.48–1.14)	0.68 (0.46–1.01)
1	Reference	Reference	Reference	Reference

CPS indicates Child Protective Services.

Data are presented as odds ratio (95 % confidence interval), except where otherwise noted.

^{*} *P* < .05.

^{**} *P* < .01.

^{***} *P* < .001.

[†] Competent in the behavioral domain at ages 4 and 6 y.

[‡] Competent in the social domain at ages 4 and 6 y.

[§] Competent in the development domain at ages 4 and 6 y.

^{||} Resilience required meeting criteria in 5 of the 6 opportunities; 3 domains at ages 4 and 6 y.

[¶] Includes unemployed, student, homemaker, retired, disabled, or other.