

ASSESSING ADVERSE EXPERIENCES IN FROM INFANCY THROUGH EARLY CHILDHOOD: UNDERSTANDING ACES INFLUENCE ON PARENTING AND DEVELOPMENT IN HOME VISITING PROGRAMS

LORRAINE M. MCKELVEY, LEANNE WHITESIDE-MANSELL, NICOLA A. BURROW & SHALESE FITZGERALD

Background

The Adverse Early Childhood Experiences (ACE) study has prompted discussion about the negative impact of childhood trauma on long-term physical and emotional health. Preventing young children's exposure to adverse events presents a great public health opportunity to promote long-term wellness. As a result, there is a growing demand to assess childhood trauma in child and family service systems. It is the general aim of home visiting programs to support families to minimize the adverse experiences of their children. However, assessing children's exposure to these risks can be complicated for service providers.

When assessing ACEs, research conducted to date includes a retrospective report from adults of childhood experiences. Screening and assessing current family situations is needed to examine exposure to adverse experiences and toxic stress for children. The purpose of this study is to; 1) demonstrate the assessment of very young children's exposure to adverse experiences, and 2) examine parenting characteristics and behaviors associated with ACEs, and 3) and examine whether child psychosocial well-being is associated with ACEs.

Methods

We used data collected at enrollment (N=1282) to examine children's ACE scores. The majority of families (84%) were living at or below 100% of the federal poverty line. Primary caregivers were 28 years old (SD = 8). The majority were White (60%; another 22% were African-American and 16% of Hispanic ethnicity) and reported having a high school diploma or general equivalency (39%). Families were nearly equally divided in terms of being single (53%) or married/cohabiting (47%). Children were 33 months of age (SD = 20) and were nearly equally divided on gender (49% male).

Measures

The *Family Map Inventories* (FMI; Whiteside-Mansell et al., 2007) are a set of semi-structured interviews developed to assess important aspects of the family and home environment. We examined enrollment data collected with the Infant/Toddler (birth to 3 years) and Early Childhood (3 to 5 years) versions. *Adverse Childhood Experiences* were assessed using items identified that directly tap the constructs in the ACE studies. The original ACE measure allows for historical reports of risk, but the FMI-ACE to allows service providers to screen the current environment in which the child is developing and provide the ability to measure change in risk.

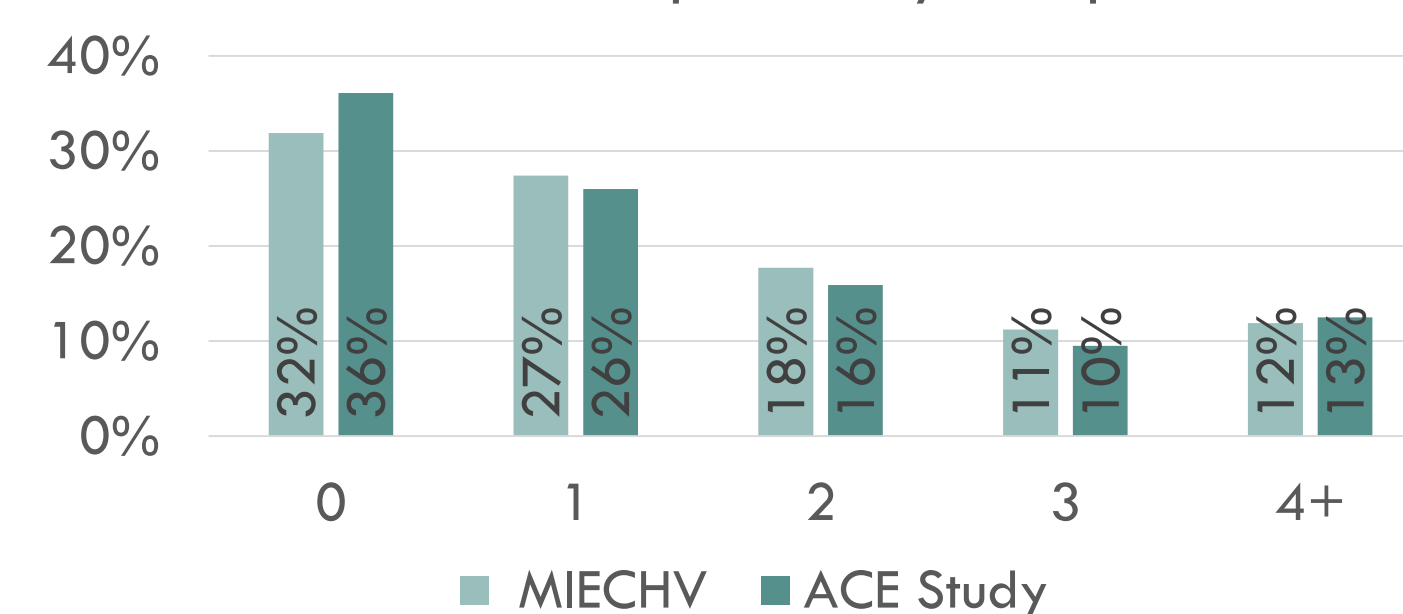
The *Adult-Adolescent Parenting Inventory* (AAPI-2; Bavolek, 1990) measures parenting behaviors and attitudes known to contribute to child abuse and neglect. Parenting attitudes are measured in five scales; Inappropriate Expectations for Children, Parental Lack of Empathy, Strong Belief in the Use of Corporal Punishment, Reversing Parent-Child Roles, and Oppressing Children's Power and Independence. Standard scores provide an index of risk for practicing abusive and neglecting parenting behaviors (3 or lower on a 1-10 scale).

The *Ages & Stages Questionnaires: Social-Emotional* (ASQ:SE; Squires, Bricker, & Twombly, 2002) was used to screen for children's social-emotional behavior problems. A developmental quotient (DQ) and cut-off scores indicating particular risk of developmental problems are provided.

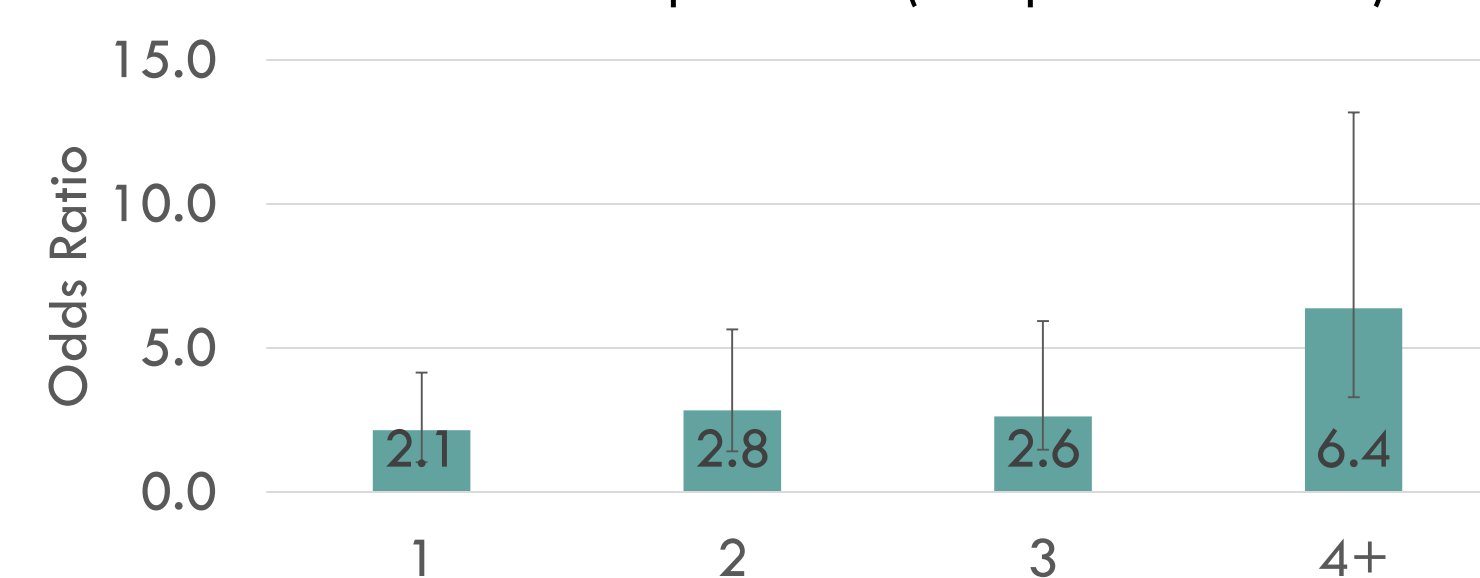
Results

Original Construct	Family Map Inventories-ACE Items: Percentages in Sample Compared to ACE Study	AR %	ACE % ^a
Emotional Abuse	Family Conflict: Lose Tempers and Yell in Anger (Often or Always). Discipline: Yell at Child (Often or Always)	7.4%	10.6%
Physical Abuse	Environmental Safety: Past Year Child Physically Hurt by Someone (\geq Once). Discipline: Spank with Object (\geq Rarely)	18.7%	28.3%
Sexual Abuse	Environmental Safety: Past Year Child Seen Drug or Sexual Activities (At least Once). Basic Needs: Open CPS Case	5.7%	20.7%
Emotional Neglect	Family Cohesion: Feel Close and Help and Support (Not Often or Always).	20.2%	14.8%
Physical Neglect	Basic Needs: Food Did not Last or Cut Meal Size/Skipped (True). Routines: Temporary Housing (Yes) or Observed Chaos.	33.4%	9.9%
Parental Separation	Self-Support: Parent Outside the Home. Basic Needs: Owed Child Support	30.9%	23.3%
Domestic Violence	Environmental Safety: Past Year You or Someone in Home Physically Hurt or Child Seen Someone Physically Hurt (\geq Once).	6.2%	12.7%
Substance Abuse	Health: Friends/Family with Drinking/Drug Problem in Home or CAGE (Yes) or Observed Concern	4.3%	26.9%
Mental Illness	Health: PHQ-2 Screen Positive or Observed Concern	15.4%	19.4%
Incarcerated	Basic Needs: Involved w/Legal System	10.9%	4.7%

Total ACE Exposure by Sample



Odds Ratios for Problem Social-Emotional Development across Adverse Childhood Experiences (Compared to None)



Parenting Differences by Adverse Childhood Experiences: ANCOVA and Pairwise Post-Hoc Comparisons

Construct	Number of Adverse Childhood Experiences					F-Test
	0	1	2	3	4 or more	
AAPI-2: Total	4.82 (0.08) ^a	4.81 (0.08) ^a	4.71 (0.10) ^a	4.63 (0.12) ^{ab}	4.36 (0.12) ^b	2.88*
Expectations	4.93 (0.09) ^a	4.87 (0.09) ^a	4.83 (0.12) ^a	4.68 (0.14) ^{ab}	4.43 (0.15) ^b	2.38*
Empathy	4.69 (0.11) ^a	4.80 (0.12) ^a	4.62 (0.15) ^a	4.53 (0.18) ^a	4.03 (0.18) ^b	3.29**
Corp Punish	4.55 (0.09) ^a	4.17 (0.10) ^a	4.19 (0.12) ^a	4.15 (0.15) ^a	3.98 (0.15) ^b	3.60**
Rev Roles	5.85 (0.12) ^a	6.17 (0.13) ^a	5.88 (0.16) ^a	5.93 (0.20) ^a	5.49 (0.20) ^a	2.25
Oppress Ind	4.13 (0.10) ^a	4.03 (0.11) ^a	3.98 (0.13) ^a	3.86 (0.16) ^a	3.92 (0.16) ^a	0.61
Parenting Stress	1.32 (0.02) ^a	1.46 (0.02) ^b	1.57 (0.03) ^c	1.70 (0.04) ^d	1.82 (0.04) ^e	47.17**
Obs Warmth	2.92 (0.02) ^a	2.92 (0.03) ^a	2.85 (0.03) ^b	2.81 (0.04) ^c	2.68 (0.04) ^d	8.46**

Notes: All analyses controlled for primary caregiver age, education and race and home visiting model. Estimated Marginal Means (SEs) in columns. Homogeneous groups indicated by superscripts on post-hoc comparisons. *p<.05; **p<.01.

Discussion

FMI-ACEs were found associated with concurrently measured parenting beliefs and behaviors, parenting stress, and observed warmth in parent-child interactions. Further, ACEs significantly predicted the likelihood of having an at-risk score on the Ages and Stages Questionnaire: Social-Emotional; children with at least 4 or more ACEs were over 6 times more likely than those with none to have ASQ:SE scores in the problematic range. Findings suggest that FMI-ACEs are associated with other parenting beliefs and behaviors, including observed parent-child interaction – and children's social-emotional development. The findings add to our understanding of the negative impact of trauma on children and families. Assessing these risks as they occur in a family-friendly manner provides a platform for home visiting programs to work with families to increase family strengths and reduce adverse experiences.