



ADVANCING HEALTH EDUCATION &amp; RESEARCH



ADVANCING HEALTH EDUCATION &amp; RESEARCH

AVA Research Reviews provides AVA members with recent published, peer-reviewed articles in a broad array of violence and abuse topics. The goal is to highlight and disseminate violence and abuse research in a timely fashion, and to enhance healthcare providers' practice by fostering the educational mission of AVA

### Editorial Board:

*Barbara Boat (Chair)*  
University of Cincinnati

*Megan Bair-Merritt*  
Johns Hopkins University

*Peter Cronholm*  
University of Pennsylvania

*Melissa Dichter*  
Philadelphia VA Medical Center

*Colleen Friend*  
California State University, LA

*Brooks Keeshin*  
University of Utah

*Susan Kelley*  
Georgia State University

*Phil Scribano*  
University of Pennsylvania

# AVA Research Review

## ADVANCING HEALTH EDUCATION & RESEARCH

**Review Title:** Expanded ACE Definitions

**Reviewer:** Robert Shapiro, MD, University of Cincinnati College of Medicine / Cincinnati Children's Hospital Medical Center

**Article:** Wade, R., Shea, J., Rubin, D. & Wood, J. (2014) Adverse childhood experiences of low-income urban youth. *Pediatrics*, 134: e13-e20.

### Introductory Comment:

Investigators and clinicians are using an individual's ACE score to predict risk for poor health outcomes. Modifications of the original ACE score have been proposed that incorporate community adversity measures in addition to the household measures from Felitti's and Anda's original definition. This paper helps to identify which community experiences may be adverse and how prevalent they are among low-income urban youth.

### Background:

A dose-dependent relationship has been firmly established between childhood adversity exposure and poor health outcomes. The Kaiser Permanente study, over 18 years ago, was the first to describe this link using 10 measures of household adversity (Felitti, Anda, Nordenberg et al. 1998). More recently studies have begun to identify the biologic processes that explain these outcomes such as epigenetic, immunologic and HPA axis changes. We lack, however, any marker that can accurately identify specific individuals who will be, or have been, affected by ACEs. Lacking this marker, an individual's adversity exposure is being used by some to identify risk for poor health outcomes.

It is reasonable to predict that the types of adversity experienced by low-income urban youth differ from the original ACE study. The Felitti

study examined the effects of household adversity exposure only among a mostly white, middle-class, well- educated and insured patient population. Recently researchers have begun to expand the ACE tool by adding community adversity questions such as exposure to community violence and economic hardship.

### **Aims/hypotheses of article:**

Current ACEs may not adequately cover the range of adverse experiences experienced by low income urban children. Through a series of structured focus groups, the investigators sought to identify and characterize the range of adversities and generate a list of the most stressful adverse experiences endorsed by this population.

### **Relevant Findings:**

The authors held 19 focus groups with 119 total participants, ages 18-26. The demographics of these groups were 55% male, 5% non-Hispanic white, 13% Hispanic white and 71% non-Hispanic black and 84% lived in neighborhoods where more than 20% of the residents lived at or below the Federal Poverty Level. The adversities they identified were classified into ten domains and are listed below in the order of the most frequent responses. Lines with “\*” denote adversities similar to the traditional ACE questions and “^” indicates the most frequently endorsed additional ACE questions. The focus group participants did not endorse divorce/separation or mental illness of a caregiver, both adversities included in the original ACE questionnaire. They also did not endorse psychological abuse specifically but did endorse lack of love and support in the family which may be similar to psychological abuse.

#### **Family relations (195)**

- \* Family members abusing alcohol and drugs (37)
- ^ Lack of love and support in the family (33)

- ^ Single-parent home (30)
- ^ Death and illness of family members (21)
- \* Violence in the home (20)
- ^ Poor parenting and lack of guidance (20)
- \* Criminal activity by family members (15)

#### **Community stressors (119)**

- ^ Neighborhood crime, violence and death (57)
- ^ Negative/adult behavior in the neighborhood (50)
- ^ Neighborhood non-violent crime (12)

#### **Personal victimization (72)**

- \* Child abuse (33)
- ^ Bullying (16)
- \* Child neglect (9)
- \* Rape (3)

#### **Economic hardship (67)**

- ^ Not enough money (35)
- ^ Lack of nonmonetary resources [hunger, homelessness, poor-quality clothing] (31)

#### **Discrimination (23)**

- ^ Stereotypes, racism, discrimination (23)

Additional adversities explored were related to peer relations, health and school, and to child welfare/juvenile justice and media/technology systems.

### **Conclusions:**

The authors suggest that the most common stressors described in their study should be included when measuring adversity among individuals growing up in a low-income urban environment. They acknowledge that more research is needed to determine the relative contribution of these additional experiences to health outcome.

**Limitations:**

The authors note that youth did not endorse discrimination based on sexual orientation or harsh parenting and believe that the focus group format might have discouraged discussion about more sensitive topics. Similar to other ACE studies, this study cannot directly link adversity exposures to poor health outcomes nor was there an attempt to measure the frequency of individual stressors or their intensity. However, given our understanding of the biologic effects of toxic stress on poor health outcomes, this association is worthy of consideration and further research.

**Reviewer's Comments:**

The relationship between adverse health outcomes and documentation of expanded adversities is a question that will need to be addressed by future research. Similarly, protective factors that potentially mitigate adversity exposure and the impact of adversity during specific developmental stages will need to be better defined. Although we still have much to learn about exposure to childhood adversity, we have good reason to act now to reduce

levels of adversity exposure during childhood, to help families provide a protective and nurturing home environment, and to educate communities on the importance of safe and supportive neighborhoods.

**Reference:**

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14, 245-258.