

Having an adverse childhood experience (ACE) of low income produces a significant effect on the presence of a diagnosis of diabetes.

The Effects of Adverse Childhood Experiences on Developing Diabetes Using Path Analysis

Kayla Killingsworth, BS, Jane Sutcliff, BS, Craig Marker, PhD

INTRO

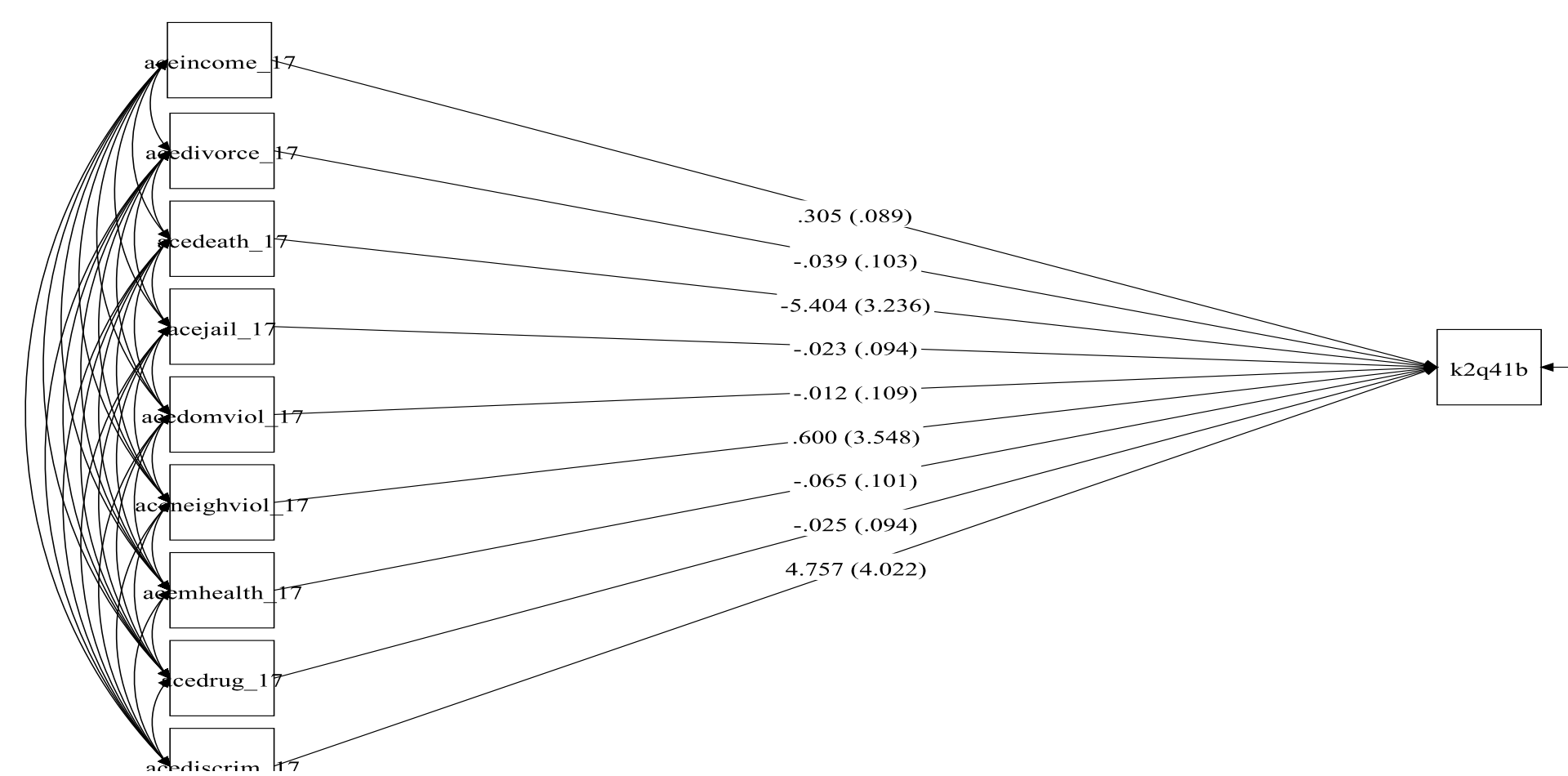
- Childhood trauma is an ongoing problem that has many debilitating consequences, including poor outcomes of both mental and physical health.
- A systematic review of the literature found a strong relationship between ACEs and chronic illness and that there is a dose response relationship.
- Our hypothesis was two-fold:
 - (I) one or more ACE's will predict the development of diabetes and
 - (II) various types of ACE's will yield different effect sizes in predicting the development of diabetes.

METHODS

1. N = 21,599 children ages 0-18 with a diagnosis of diabetes
2. Collected from the 2017 National Survey of Child Health
3. Path analysis conducted to assess whether certain types of traumatic experiences in childhood could predict the development of diabetes.

RESULTS

- The only significant direct effect on the presence of diabetes was experiencing low income ($B = 0.305$, $p = 0.001$).
- A small effect size was seen in the relationship between low income and diabetes (*Cohen's d* = 0.0465).



DISCUSSION

- These findings show the importance of assessing for adverse childhood experiences in primary healthcare settings so that brief interventions can be provided to help in the prevention of development of chronic illnesses.
- It is important to further evaluate details and potential moderators such as resiliency, social support, and family support.

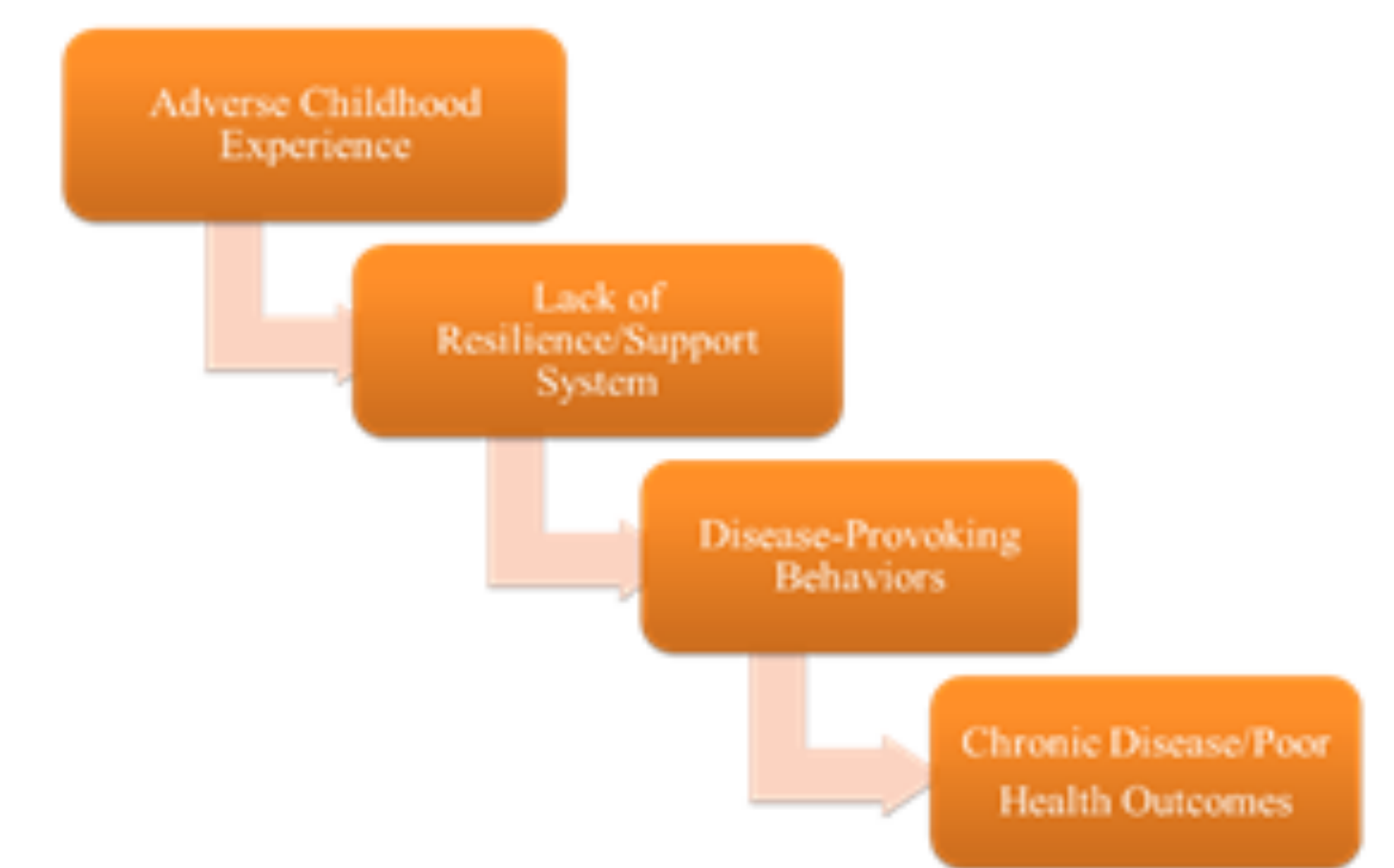


Figure A. The proposed model of the relationship between ACEs and chronic illness.

ACE Variable	Cohen's d	Standardized Beta
Income	0.0465*	0.305, $p = 0.001$
Divorce	-0.0051	-0.039
Death	-0.0227	-5.404
Jail	-0.003	-0.023
Domestic Violence	-0.0015	-0.012
Neighborhood Violence	0.0023	0.062
Mental Health	-0.0087	-0.176
Drug	-0.0036	-0.003
Discrimination	0.016	0.493

Table 1. Cohen's d effect size with ACE variables on developing diabetes.

