

Impact of Early Caregiving Adversity Timing on Later Life Anxiety Symptoms in Children Ariel Katz, Anna Vannucci, M.S., Nim Tottenham, PhD Developmental Affective Neuroscience Laboratory, Columbia University



Introduction

- Children who experience early life adversities, such as abuse, neglect, and institutionalization have an increased risk for developing later childhood psychopathology, including anxiety (Harpur, Polek, & van Harmelen, 2015).
- A subcategory of early life adversity is caregiving related early adversities, or crEAs. These adversities include adoption, disrupted caregiving, and institutionalization.
- Researchers have found that the developmental **timing** of such adversities have significant effects on later life psychopathological outcomes (Dunn, McLaughlin, Slopen, Rosand, & Smoller, 2013). These timing variables include the age of first exposure to the adverse event, the developmental window of

Results

Results of the linear regression models indicate:

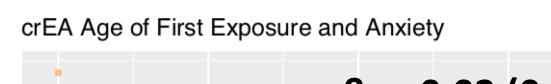
- crEA age of first exposure did not significantly predict anxiety (B = -0.02 (0.02), β = -0.05, p = .42)
- A *significant positive effect* between crEA developmental window of occurrence and anxiety (B = 0.05) $(0.01), \beta = 0.21, p = .003)$
- A significant negative effect between crEA recency and anxiety ($\mathbf{B} = -0.05 (0.02), \beta = 0.16, p = .01$) (Results shown in Figures 2-4).

Figure 1:

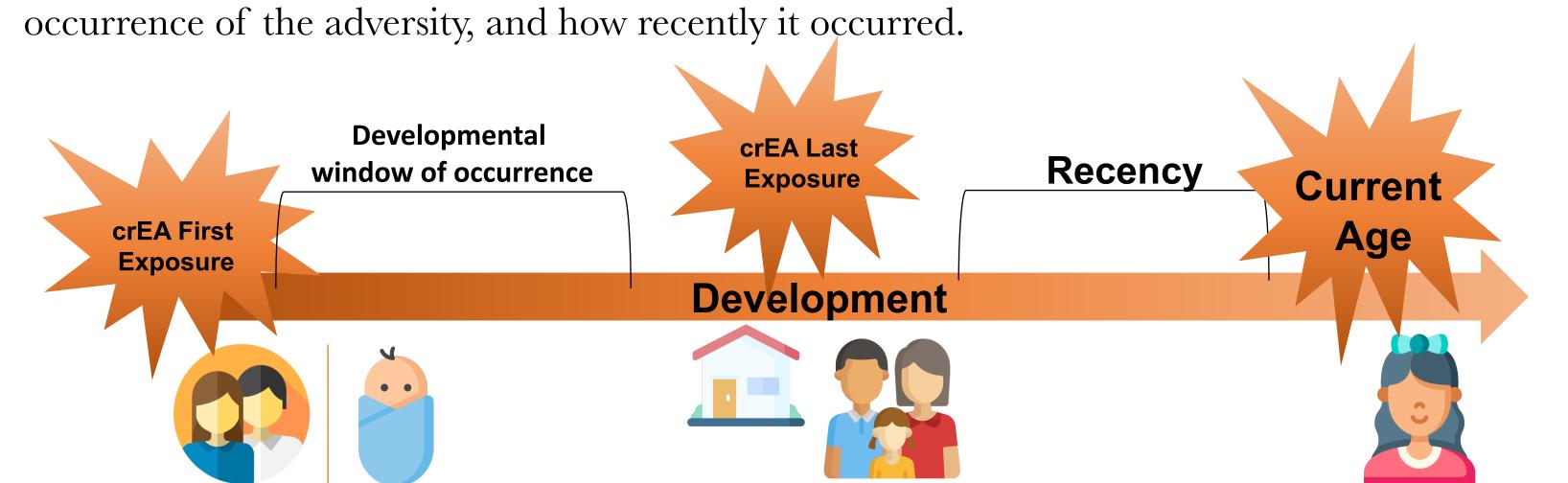
Figure 3:

Correlation showing Pearson's r for crEA timing Matrix and anxiety data:

Figure 2:



β = -0.02	(0.02), p = 0.34
N./	- 15 7 month



• Little is known about the effects of timing of **caregiving related early adversities** on **later childhood** psychopathology.

Objective: To examine the relationship between various timing variables of crEA and anxiety symptoms in children.

Methods and Materials

Participants

- Recruited for a longitudinal study of neurobehavioral development
- n = 255
- Ages 6-13 at baseline
- 136 females, 119 males

Social_Anxiety 0.09 0.03 -0.06 0.02 Generalized_Anxiety Separation_Anxiety 0.53 -0.23 0.07 Total_Anxiety crEA_Recency <u>-0.17 -0.14 -0.14 -0.19</u> 0.03 -0.02 Total_crEA -0.07 0.3 0.21 0.32 0.14 0 -0.02 <u>-0.5</u> <u>-0.21</u> <u>-0.21</u> <u>-0.18</u> <u>-0.17</u> <u>-0.15</u> <u>0.15</u> <u>0.02</u> crEA_Earliest 0.27 0.05 -0.8 0.1 -0.02 0.08 0.2 0.56 0.01 0.73 -0.46 0.4 -0.59 0.24 0.11 0.2 0.3 0.41 -0.01 crEA Window

crEA Developmental Window of Occurence and Anxiety

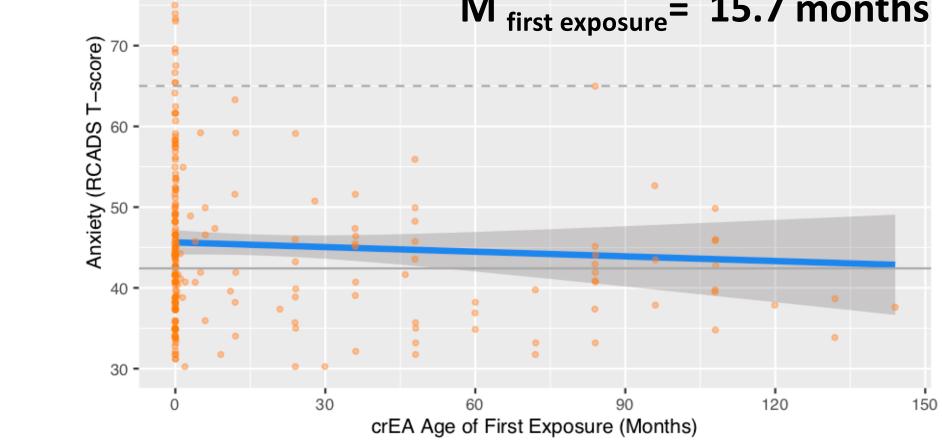


Figure 4: crEA Recency and Anxiety β = 0.05 (0.01), p = 0.004 $\beta = -0.05 (0.02), p = 0.02$ M _{recency} = 38.04 months 120 crEA Recency (Months)

M_{window} = 61.9 months

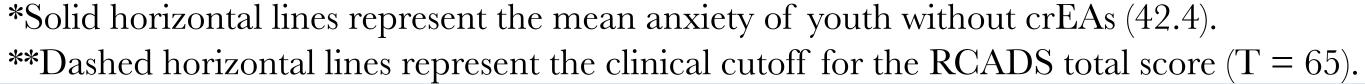
• Race: 10.5% Asian; 28.2% Black; 32.2% Caucasian; 11.3% Hispanic/Latinx; 17.6% other

- Caregiving-related early adversity measures:
 - Traumatic Events Screening Inventory- Parent Report
 - Caregiving History Interview
 - Maternal Maltreatment Classification Interview
- Anxiety: Revised Children's Anxiety and Depression Scale (RCADS) total anxiety subscale

Methods

Measures

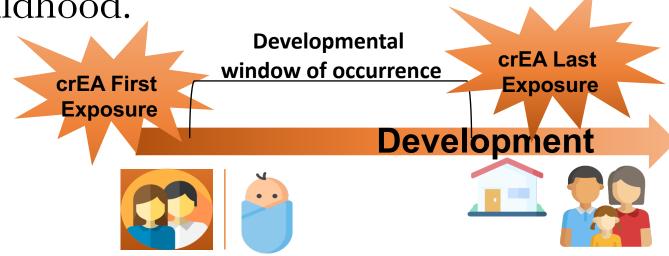
- Linear regression models were estimated for each timing variable:
 - Independent variables:
 - crEA age of first exposure
 - crEA developmental window of occurrence
 - crEA recency
 - Dependent variable: RCADS total anxiety score
 - Covariates: age, gender, and cumulative crEA score



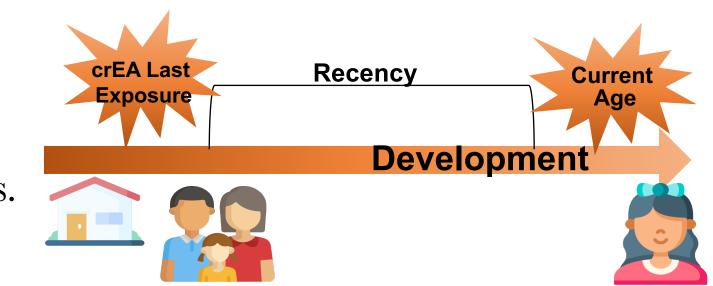
Discussion

- This study indicates that the developmental window of occurrence and recency of caregiving related early adversity (crEA) predict anxiety symptoms in later childhood.
 - Longer developmental windows of occurrence of crEAs are associated with higher anxiety symptoms later in childhood.

crEA Developmental Window of Occurence (Months)



• Children with **more recent** crEA experiences have an increased risk for higher anxiety symptoms.



• Future research should study the moderating effects of specific types of caregiving related early adversity, such as abuse, neglect, disrupted caregiving, and institutionalization, on later life anxiety.



1. Dunn EC, McLaughlin KA, Slopen N, Rosand J, Smoller JW. Developmental timing of child maltreatment and symptoms of depression and suicidal ideation in young adulthood: results from the National Longitudinal Study of Adolescent Health. Depress Anxiety. 2013;30(10):955-964. doi:10.1002/da.22102

2. Harpur, L., Polek, E., & Van Harmelen, A. (2015). The role of timing of maltreatment and child intelligence in pathways to low symptoms of depression and anxiety in adolescence. Child Abuse and Neglect, 47, 24-37. doi:https://doi.org/10.1016/j.chiabu.2015.05.019