Relationships Between Early Life Experiences and Health Risk Behaviors in Adulthood

Luis Alan Martinez, Veronica Davis, Christine Garver-Apger, PhD

The Psychiatry Undergraduate Research Program and Learning Experience (PURPLE), Research Education Core, Psychiatry Research Innovations (PRI) 1 Department of Psychiatry, University of Colorado Anschutz Medical Campus

Background:

Adversity

- Adversity in childhood has been linked to higher prevalence of a range of chronic diseases, as well as mental disorders. 1-3

Benevolence

- Positive childhood experiences may act as a protective factor during development, and are associated with more favorable developmental trajectories. 9

ACEs → Healthy Behaviors

BCEs → Healthy Behaviors

Sex Differences

- Physical, psychological, and behavioral adaptations to adversity often differ between men and women

Study Objectives:

Hypothesis: As exposure to ACEs increases and exposure to BCEs decreases, the odds of current smoking, poor sleep, poor dietary and exercise habits increase significantly.

Research Question 1: Do different aspects of early childhood uniquely predict adult behaviors?

Research Question 2: Do the above relationships differ between men and women?

Methods:

Survey Battery: ACE, BCE, Three HRB surveys

Early Life Adversity

Adverse Childhood Experiences Survey (ACE) Benevolent Child Experiences (BCE)

Health Risk Behaviors

Exercise: IPAQ Sleep: PSQI, PROMIS-SF Diet: FNPA

Demographics

<table>
<thead>
<tr>
<th>Number of Participants</th>
<th>161</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>44.7%</td>
</tr>
<tr>
<td>Female</td>
<td>55.3%</td>
</tr>
<tr>
<td>Not Listed/Not Disclosed</td>
<td>1.8%</td>
</tr>
<tr>
<td>White/Non-Hispanic</td>
<td>90.7% 146</td>
</tr>
</tbody>
</table>

Results:

- Positive correlations between ACEs and poor sleep quality and sleep impairment scores (.338, <.01; .192, <.05)
- Negative associations between BCEs and poor sleep quality and sleep impairment scores (-.322, -.244, <.01)
- Childhood unpredictability, low SES, and violence were all associated with poorer sleep quality and increased sleep impairment
- No significant associations were found between BCEs and ACEs and Physical Activity and Dietary Habits
- No evidence of any significant sex differences between these interactions

Conclusions:

- Partially replicated previous findings related to adverse childhood experiences and poor health behaviors
- ACEs and BCEs were both positively and negatively correlated with poor sleep quality and sleep impairment (respectively)
- Age at first nicotine use was correlated with adverse childhood experiences
- No significant correlations for exercise and physical activity variables and their relationship to ACEs and BCEs
- We found no evidence of sex differences

Limitations:

- Limited Generalizability due to:
  - Small Sample Size (N=161)
  - Highly Educated Sample (70% Held 4 year Degrees)
  - Race Demographics (91% White)
  - Self-selected and self-reported bias

Future Directions:

- Further exploration of unique childhood experiences
- Neurodevelopmental mechanisms (stress functioning, emotional regulation, cognitive adaptations)
- The WHY
- Further exploration of potential sex differences

Acknowledgements:

Dr. Christine Garver-Apger, Lily Luis, Emmyl Parks
Dr. Douglas Novins, Chair of PMHI, Dr. Neil Epperson, Chair of Department of Psychiatry, Dr. Dominic Martinez, Dir. Office of Inclusion and Outreach, CCTSI

PURPLE mentors

Apgar, Lily Luo, Emmaly Parks

Degrees

Luis Alan Martinez, Dir. Office of Inclusion and Outreach, CCTSI

Dr. Douglas Novins, Chair of PMHI, Dr. Neill Epperson, Chair of Department of Psychiatry, Dr. Dominic Martinez, Dir. Office of Inclusion and Outreach, CCTSI

Apgar, Lily Luo, Emmaly Parks

FNPA

Apgar, Lily Luo, Emmaly Parks

FNPA