Rural-Urban Differences in Protective Factors in Respondents exposed to adverse childhood experiences (ACES)

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Background

Adverse Childhood Experiences (ACEs)

- Traumatic events that occur in a child’s life between birth and 18 years of age.
- ACE exposure linked to risky health behaviors and chronic health conditions in adulthood.
- ACE exposure may also result in an intergenerational cycle of experiences.
Background

- Yet, exposure to ACEs does not guarantee poor long-term health for every exposed child
- Development of resilience, such as a safe, stable, and nurturing relationship (SSNRs)
- With nearly thirteen million children currently living in rural America, the examination and prevention of ACEs in this population is important
Research Question

- What is the impact of the presence of a protective adult during childhood on adult physical and mental health among respondents to the SC Behavioral Risk Factor Surveillance System (BRFSS)?
- Sample: Respondents to the 2016 South Carolina BRFSS (n=7,790; rural n=2,004)
Measures of childhood adversity

ACES asked about in the CDC/BRFSS
- Household mental illness
- Household substance abuse (alcohol)
- Household substance abuse (drugs)
- Household incarceration
- Parental separation/divorce
- Household domestic violence
- Emotional abuse
- Physical Abuse
- Sexual abuse
Protective Factor

- For how much of your childhood was there an adult who made you feel safe and protected?"
- These questions were further categorized into three levels
  1) little to never of the time
  2) some to most of the time
  3) all of the time.
Health Outcomes

Self-reported:

Poor or Good Health

Low to moderate versus frequent mental distress
Covariates

- Sex, age, race/ethnicity, educational attainment, and income
- Chosen based on the Andersen behavioral model
Rural-Urban Differences

- Rural-urban differences in the presence of a protective adult were not significant.
- The study was further delimited to rural respondents, as rural children experience:
  higher levels of poverty,
  have more limited access to care coordination,
  health care,
  and social services than their counterparts in urban areas.
Sample Demographics (n=2,004)

- Female (52.2%)
- Non-Hispanic White (63.6%)
- Fifty years of age or older (18.3%)
- Over half (55.5%) of the respondents had a high school education or less.
- (31.0%) of the sample made less than $25,000 a year
- Twenty-percent (22.2%) of respondents reported poor health; 16.4% of the sample reporting frequent mental distress.
## Results

<table>
<thead>
<tr>
<th>Protective factor</th>
<th>Poor Health</th>
<th>Frequent Mental Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Point Estimate</td>
<td>95% CI</td>
</tr>
<tr>
<td>Model 1: Exposure to four or more ACES</td>
<td>1.60</td>
<td>1.56-1.63</td>
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<tr>
<td>Model 2: Exposure to four or more ACES and had an adult who made you feel safe and protected <em>some to most of the time</em></td>
<td>0.28</td>
<td>0.27-0.30</td>
</tr>
<tr>
<td>Model 3: Exposure to four or more ACES and had an adult who made you feel safe and protected <em>all of the time</em></td>
<td>0.34</td>
<td>0.32-0.37</td>
</tr>
</tbody>
</table>
Conclusions

- First study to examine the presence of a protective adult during childhood on adult physical and mental health among rural individuals exposed to ACEs.
- Presence of a protective adult in may moderate the long-term effects on mental and physical health for those exposed to high numbers of ACEs.
Limitations

- Cross-sectional
- Self-reported
- May be influenced by recall bias
Creating resilience among rural families

- Protective factors can be part of the prevention/intervention strategy to reduce these intergenerational effects
- Two-generation approach to policies and programs for rural families