A Prospective Longitudinal Examination of Child Maltreatment and Alcohol Use Across Early Adulthood

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Minnesota Longitudinal Study of Parents and Children
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Purpose of Research

- Examine the relation between child maltreatment and alcohol use in early adulthood
- Examine gender differences
Participants

● Original sample:
  ● 267 first-born children and their mothers
  ● At time of recruitment mothers were:
    • Obtained from public health clinics in Minneapolis
    • In their third trimester of pregnancy
    • Low-income
    • 58% single
    • 33% had not received a high school degree
    • Age range: 12 – 34 (M = 20.6; SD = 3.57)
    • 83% Caucasian, 12% African American
Measures: Child Maltreatment

- Prospective data from childhood indicating
  - Neglect
  - Physical abuse
  - Sexual abuse
Measures: Alcohol use in Early Adulthood

- Self Report
- Adult Health Survey
- Amount of use at ages 19, 23, & 26
Amount of Alcohol Used per Occasion at 19
Amount of Alcohol Used per Occasion at 23

- Abstain
- 1-2 drinks
- 3-4 drinks
- 5 or more

% of sample

- Men
- Women
Amount of Alcohol Used per Occasion at 26

- % of sample

- Men
- Women

- abstain
- 1-2 drinks
- 3-4 drinks
- 5 or more
Alcohol Use Across Early Adulthood: Total Sample

Significant quadratic change in Amount of Alcohol per Occasion, $F(1, 162) = 7.82$, $p = .006$
Alcohol Use Across Early Adulthood: Men

Men

<table>
<thead>
<tr>
<th>Age 19</th>
<th>Age 23</th>
<th>Age 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount per Occasion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>3.4</td>
<td>2.6</td>
</tr>
<tr>
<td>2.6</td>
<td>3.6</td>
<td>2.8</td>
</tr>
<tr>
<td>2.8</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>3.0</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>3.2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>3.4</td>
<td>3.6</td>
<td>3.6</td>
</tr>
</tbody>
</table>

- Red: maltreated
- Orange: not maltreated
Alcohol Use Across Early Adulthood: Women

Women

Significant quadratic change in Amount of Alcohol, $F(1, 79) = 4.08, p = .047$;
Significant difference between maltreatment groups in linear change in Amount of Alcohol, $F(1, 79) = 4.300, p = .041$
Results: Alcohol Use Across Early Adulthood

- Full sample
  - Significant quadratic change
  - Trend: Alcohol used at age 26 higher for maltreated group

- Men
  - Trend: quadratic change

- Women
  - Significant quadratic change
  - Significant linear change x maltreatment group
Heavy Drinking at Age 26:
Total Sample

- Men: 70% not heavy drinking, 30% heavy drinking
- Women: 80% not heavy drinking, 20% heavy drinking
Heavy Drinking at Age 26: Total Sample by Maltreatment Group

Χ² = 6.62, p = .01
Heavy Drinking at Age 26: Women by Maltreatment Group

![Bar chart showing the percentage of women in each group who are not heavy drinkers or heavy drinkers, differentiated by maltreatment status.](image-url)
Heavy Drinking at 26: Men by Maltreatment Group

% of Men in Group

\[ \chi^2 = 7.52, \, p = .006 \]
Measures: Life Stress at 26

- Self-report (interview) of stressful life events within past year
- Coder rated
  - 41 life events
  - weighted based on intensity of disruption: 0 (no disruption) to 3 (severe disruption)
- Total life stress scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>10.13</td>
<td>0.00</td>
<td>31.00</td>
</tr>
<tr>
<td>Women</td>
<td>10.42</td>
<td>1.00</td>
<td>31.00</td>
</tr>
</tbody>
</table>
## Data Analysis: Logistic Regression

<table>
<thead>
<tr>
<th>Measures</th>
<th>X²</th>
<th>B</th>
<th>SE B</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amt drink at 23</td>
<td>48.36***</td>
<td>-1.06</td>
<td>.20</td>
<td>.35</td>
<td>.23 - .51</td>
</tr>
<tr>
<td>Gender</td>
<td>.02</td>
<td>-.05</td>
<td>.46</td>
<td>.95</td>
<td>.38 - .23</td>
</tr>
<tr>
<td>Life Stress at 26</td>
<td>2.28</td>
<td>-.05</td>
<td>.04</td>
<td>.95</td>
<td>.88 – 1.02</td>
</tr>
<tr>
<td>Child maltreatment or not</td>
<td>5.57*</td>
<td>1.05</td>
<td>.46</td>
<td>2.87</td>
<td>1.17 – 7.01</td>
</tr>
</tbody>
</table>

Likelihood ratio $\chi^2$ test = 63.74 (4), $p < .001$; goodness of fit deviance $\chi^2$ test = 109.33 (129), $p > .05$; pseudo $R^2$ (Nagelkerke) = .468
Findings

- Significant predictors of heavy drinking at age 26:
  - Full sample:
    - Drinking behavior at age 23
    - Maltreatment in childhood or adolescence
  - Women:
    - Drinking behavior at age 23
  - Men:
    - Drinking behavior at age 23
    - Maltreatment in childhood or adolescence
Conclusions

- Patterns of use different for maltreated men and women
- Direct impact of child maltreatment on adult alcohol use, especially for males
Future Directions

- Possible mediators or moderators
- Examine factors influencing changes in patterns of alcohol use
- Different types of abuse