FAMILY PREDICTORS OF ADOLESCENTS’ E-CIGARETTE AND TOBACCO USE

Symposium accepted to be presented at the Association for Psychological Science (May 2020)
Conference cancelled due to COVID-19 pandemic
TOBACCO USE

- Smoking tobacco is the leading cause of preventable death worldwide.
- Most adult smokers begin smoking during adolescence.
- New surge of adolescent e-cigarette users (NIDA, 2020)

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### Monitoring the Future Study: Trends in Prevalence of Various Drugs for 8th Graders, 10th Graders, and 12th Graders; 2019 (in percent)*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Time Period</th>
<th>8th Graders</th>
<th>10th Graders</th>
<th>12th Graders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Vaping</td>
<td>Lifetime</td>
<td>24.30</td>
<td>[41.00]</td>
<td>45.60</td>
</tr>
<tr>
<td></td>
<td>Past Year</td>
<td>20.10</td>
<td>35.70</td>
<td>40.60</td>
</tr>
<tr>
<td></td>
<td>Past Month</td>
<td>12.20</td>
<td>[25.00]</td>
<td>[30.90]</td>
</tr>
<tr>
<td>JUUL</td>
<td>Lifetime</td>
<td>18.90</td>
<td>32.80</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Past Year</td>
<td>14.70</td>
<td>28.70</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Past Month</td>
<td>8.50</td>
<td>18.50</td>
<td>16.30</td>
</tr>
</tbody>
</table>

* Data in brackets indicate statistically significant change from the previous year. Previous MTF Data ➤
PREVENTION

• Understanding factors that contribute to adolescents’ tobacco use has both short- and long-term individual and public health implications

• Family processes can either serve as risk or protective factors for tobacco use
SYMPOSIUM

- Three empirical studies that investigate relationships between diverse family factors and adolescents’ tobacco use
  1. Study 1 - bidirectional longitudinal associations between adolescents’ vaping and family conflict
  2. Study 2 - timing of vape initiation during adolescence as a function of parent’s marital status
  3. Study 3 - cross-sectional and longitudinal relationships between cigarette use and family cohesion and adaptability
STUDY 2: CROSS-SECTIONAL AND LONGITUDINAL ASSOCIATIONS BETWEEN FAMILY COHESION AND ADAPTABILITY WITH ADOLESCENT’S TOBACCO USE

Ashley R. Adams
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Christine M. Ohannessian
BACKGROUND

• Family systems theory highlights the importance familial relationships for positive adjustment outcomes (Cox & Paley, 1997)

• Poor relationship quality with parents has been positively linked with adolescent tobacco use (Picotte et al. 2006; Rajesh, Diamond, Spitz, & Wilkinson, 2015)
CURRENT STUDY

• Gaps in extant literature include
  – Examine longitudinal relationships
  – Novel family relationship constructs

• Investigated whether adolescents’ perceptions of closeness and flexibility within the family predicts concurrent and later tobacco use
METHOD

• Data drawn from the Adolescent Adjustment Project (Ohannessian, 2009)

• Surveyed adolescents from Mid-Atlantic States in the Spring of 2007 and 2008
  – Mage = 16.02; SD = .69; 41% female

• Adolescents’ self-reported past six-month cigarette use frequency and perceptions of family cohesion and adaptability
RESULTS

- Family cohesion and adaptability were cross-sectionally associated with lower cigarette use

<table>
<thead>
<tr>
<th></th>
<th>Family Cohesion</th>
<th>Family Adaptability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IRR</td>
<td>SE</td>
</tr>
<tr>
<td>White</td>
<td>3.42</td>
<td>0.62</td>
</tr>
<tr>
<td>Age</td>
<td>1.74</td>
<td>0.16</td>
</tr>
<tr>
<td>Female</td>
<td>1.24</td>
<td>0.17</td>
</tr>
<tr>
<td>Family Factor</td>
<td>0.93</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. Results from Poisson regression analyses.
RESULTS

- Controlling for previous cigarette use, family adaptability, but not family cohesion, was associated with lower cigarette use one year later.

<table>
<thead>
<tr>
<th></th>
<th>Family Cohesion</th>
<th>Family Adaptability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IRR</td>
<td>SE</td>
</tr>
<tr>
<td>Previous Tobacco Use</td>
<td>9.54</td>
<td>1.52</td>
</tr>
<tr>
<td>White</td>
<td>2.29</td>
<td>0.52</td>
</tr>
<tr>
<td>Age</td>
<td>1.32</td>
<td>0.13</td>
</tr>
<tr>
<td>Female</td>
<td>0.92</td>
<td>0.14</td>
</tr>
<tr>
<td>Family Factor</td>
<td>0.99</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. Results of Poisson regression analyses. Previous tobacco use and controls were assessed at T2 whereas tobacco use outcome was assessed at T3.
DISCUSSION

• Supports past research and theory suggesting positive family relationships are protective for adolescents’ adjustment outcomes

• Although perceptions of closeness and flexibility within the family were concurrently associated with lower tobacco use, only flexibility was associated with lower tobacco use one year later
  – Adolescents feel supported while searching for autonomy?
  – Family adaptations to developmental changes positively experienced by adolescents?
IMPLICATIONS

• Extends extant research about links between family factors and adolescent tobacco use
  – Longitudinal associations
  – Novel family constructs

• Important information for family-based intervention programs
QUESTIONS?

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