Drinking and driving expectancies as a mediator of impulsivity’s influence on drinking and driving

D. H. Morris
University of Missouri - Columbia

H. R. Treloar
University of Missouri - Columbia

D. M. McCarthy
University of Missouri - Columbia

Follow this and additional works at: http://digitalcommons.wustl.edu/guzeposter2010

Part of the Medicine and Health Sciences Commons

Recommended Citation
http://digitalcommons.wustl.edu/guzeposter2010/14
Introduction

- Impulsivity is consistently linked to alcohol use and alcohol problems, such as drinking and driving.
- Recent work has identified four distinct components of disinhibition.
  - Urgency
  - Lack of Planning
  - Lack of Perseverance
  - Sensation Seeking

These impulsivity traits are uniquely associated with alcohol-related behaviors (Cyders, Flory, Rainer, & Smith, 2008; Smith, Fischer, Cyders, Annus, Spillane, & McCarthy, 2007). For example, sensation seeking is related to increased risk for drinking and driving (Jonah, 1997).

- Impulsivity traits also are correlated with alcohol expectancies and alcohol cognitions (e.g., attitudes, normative beliefs).
- Alcohol expectancies have been found to mediate the relationship between impulsivity and alcohol use (McCarthy, Miller, Smith, & Smith, 2001).
- Recently, we have developed a measure of drinking and driving expectancies (McCarthy, Pedersen, Thompson, & Leuty, 2006) and found these expectancies to be strongly associated with engagement in drinking and driving.

The current study tests drinking and driving expectancies as mediators of the association between impulsivity traits and drinking and driving behavior.

Method

Participants

- 917 college-age student drinkers (mean age = 18.81, SD = 1.05).
- 88.0% Caucasian, 5.4% African American, 2.7% Asian, and 3.9% mixed or other ethnicities.
- 55.7% women.

Measures

- Demographics.
- Alcohol Use. Drinker/nondrinker status and past month quantity and frequency of use.
- Drinking after alcohol use. Frequency of drinking and driving.
- Drinking and Driving Expectancies. Convenience, Control, Avoiding Consequences, Excitement Seeking (PEDD-Y, McCarthy et al., 2006).

Procedure

- Participants were recruited from introductory psychology courses using an online sign-up system.
- Written consent was obtained and questionnaire forms were completed in a group setting.

Results

- First, we tested whether the initial variables (impulsivity traits) were associated with the outcome variable (drinking and driving frequency) (see Table 1).
- We then tested whether the mediator variables (drinking and driving expectancies) were associated with impulsivity traits and drinking & driving (see Table 1).
- Excitement Seeking was not associated with drinking and driving frequency; therefore, it was removed from further analyses.

Discussion

- All drinking and driving expectancies, except Excitement Seeking, partially mediated the association between impulsivity traits and drinking and driving frequency.
- One way that individual differences in impulsivity can influence decisions about drinking and driving is by altering the development of expectancies about that behavior.

Table 1

<table>
<thead>
<tr>
<th>Correlations among study variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. D/D Freq.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Urgency</td>
<td>.20**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Premeditation</td>
<td>.19** .34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perseverance</td>
<td>.17** .38** .51**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sens. Seek.</td>
<td>.17** .15** .18** -.12**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Convenience</td>
<td>.45** .20** .13** .20** .11**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Control</td>
<td>.19** .13** .09** .17** .03 .55**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Avoid Conseq.</td>
<td>.33** .18** .11** .15** .08* .81** .47**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Excite. Seek.</td>
<td>-.06 .09** .00 .06 -.01 .36** .50** .41**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * p < .05; ** p < .01.

Table 2

<table>
<thead>
<tr>
<th>Indirect effects of impulsivity through drinking and driving expectancies on drinking and driving frequency</th>
<th>UPPS</th>
<th>PEDD-Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>.087**</td>
<td>.087**</td>
</tr>
<tr>
<td>Control</td>
<td>.023**</td>
<td>.028**</td>
</tr>
<tr>
<td>Avoid Consequences</td>
<td>.051**</td>
<td>.048**</td>
</tr>
<tr>
<td>Urgency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perseverance</td>
<td>.087**</td>
<td>.048**</td>
</tr>
<tr>
<td>Premeditation</td>
<td>.055**</td>
<td>.035**</td>
</tr>
<tr>
<td>Sensation Seeking</td>
<td>.048**</td>
<td>.028*</td>
</tr>
</tbody>
</table>

Notes: * p < .05; ** p < .01.

Acknowledgements

Supported by NIAAA Grant T32 AA 13526; PI Ken Sher.