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: [https://digitalcommons.wustl.edu/guzeposter2010](https://digitalcommons.wustl.edu/guzeposter2010)

Part of the Medicine and Health Sciences Commons

**Recommended Citation**

[https://digitalcommons.wustl.edu/guzeposter2010/14](https://digitalcommons.wustl.edu/guzeposter2010/14)

This Poster is brought to you for free and open access by the 2010: Disentangling the Genetics of Alcoholism: Understanding Pathophysiology and Improving Treatment at Digital Commons@Becker. It has been accepted for inclusion in Posters by an authorized administrator of Digital Commons@Becker. For more information, please contact vanam@wustl.edu.
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, Annum, 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).

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

- Finally, we examined the significance of the indirect effect of the impulsivity traits through drinking and driving expectancies on drinking and driving frequency.
- These results suggest that the association between impulsivity traits and drinking and driving is at least partially mediated by expectancies (see Table 2).

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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>UPPS</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Urgency</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Perseverance</td>
</tr>
<tr>
<td>Premeditation</td>
</tr>
<tr>
<td>Sensation Seeking</td>
</tr>
</tbody>
</table>

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

Acknowledgements

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