Drinking motives and continuing to drink in adolescent twin boys: Investigating the moderating effects of anxiety sensitivity

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DRINKING MOTIVES AND CONTINUING TO DRINK IN ADOLESCENT TWIN BOYS:

INVESTIGATING THE MODERATING EFFECTS OF ANXIETY SENSITIVITY

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Introduction

• Adolescents drink alcohol for a variety of reasons
  – excitement and fun (enhancement)
  – pressure from peers to drink (conformity)
  – to manage negative mood (coping)
  – to help them socialize (social; Cooper, 1994).

• Different personality dispositions (e.g., anxiety sensitive), may tend to drink for very particular reasons, perhaps less for social reasons and more for coping related reasons (Stewart, Samoluk, & MacDonald, 1999).
Introduction

• Anxiety Sensitivity (AS) is a personality disposition involving a specific fear of anxiety-related bodily sensations (McNally, 1996).

• Many studies have found a relation between AS and alcohol use (Stewart et al., 1995, 2001), and between AS and coping (Stewart, Samoluk, & MacDonald, 1999) and conformity (Stewart, Zvolensky, & Eifert, in press) motives for alcohol use
  – individuals higher in AS might expect alcohol use to take away fear of bodily sensation, or the actual sensations

• However, the extent to which AS interacts, or moderates the effects of drinking motives on actual alcohol drinking behavior remains to be explored in young adolescents.
Aim

- The *aim* of this study is to examine the extent to which AS would moderate the effects of drinking motives (social, coping, enhancement, conformity) on continuing to drink beyond experimentation (CDrk).
Sample

Population-based cohorts of like-sex male twins, 11-20 years of age (born 1982-1991) were ascertained through Missouri Birth Records, and new cohorts of 11-year old pairs continue to be recruited. To date, 76% of families identified from birth records have been successfully contacted, and 91% of those successfully contacted have been enrolled in this study (parent usually the mother, completed a brief screening interview). A diagnostic interview has been completed with a least one twin from 810 families and in 85% of these families interviews with both twins were completed. The sample for this poster included only the younger twins, those 11-14 years of age (N=675 individuals) for whom Questionnaire data containing AS are now available.
Lifetime Drinking Measure

• Continuing to Drink (CDrk): beyond experimentation
  – 0: has never had a full drink of alcohol or just experimented (1-2 times), but has not continued to drink beyond experimentation
  – 1: has had a full drink more than 3 times
Self-Reported Drinking Motives
(20 item Drinking Motives Questionnaire; Cooper, 1994; scaled from never=0 to almost always=5)

• Enhancement Motives (EM): e.g., “How often do you drink because it’s exciting?”, “How often do you drink to get high?”

• Coping Motives (CM): e.g. “How often do you drink because it helps you when you feel depressed or nervous?”, “How often do you drink to forget your worries?”

• Conformity Motives (PM): e.g. “How often do you drink because your friends pressure you to drink?”, “How often do you drink to be liked?”

• Social Motives (SM): “How often do you drink because it helps you enjoy a party?”, “How often would you say you drink to be sociable?”
Self-Reported Personality
(CASI; Silverman, Fleisig, Rabian, & Peterson, 1991)

Childhood Anxiety Sensitivity Index

- 18-item self-report measure, adapted from the Anxiety Sensitivity Index (ASI; Peterson & Reiss, 1992), examining reactivity to physical anxiety symptoms

- on a scale of none (0), some (1), or a lot (2) to questions such as “It scares me when my heart beats fast”
Statistical Analysis

- **Logistic Regression**
  - **Dependent Variable**: Continuing to drink beyond experimentation
    - Binary: 0: no, 1: yes
  - **Independent Variables**:
    - Anxiety Sensitivity (ordinal variable, interquartile ranges):
      - 0: 0-25\(^\text{th}\)%tile
      - 1: 25\(^{\text{th}}\) - 50\(^{\text{th}}\)%tile
      - 2: 50\(^{\text{th}}\) - 75\(^{\text{th}}\)%tile
      - 3: >75\(^{\text{th}}\)%tile
    - Drinking Motives (EM, CM, PM, SM; binary variables):
      - 0: 0-50\(^{\text{th}}\)%tile - low
      - 1: > 50\(^{\text{th}}\)%tile - high
    - Anxiety Sensitivity X Drinking Motives
<table>
<thead>
<tr>
<th>Had 1 full drink</th>
<th>10.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a full drink 3+ times:</td>
<td></td>
</tr>
<tr>
<td>Whole sample</td>
<td>5.6</td>
</tr>
<tr>
<td>Experimenters</td>
<td>50.7</td>
</tr>
</tbody>
</table>
**Associations with Continuing to Drink**

Odds Ratios (and 95% Confidence Interval) with not continuing to drink as the comparison group, main effects & significant multivariate interaction effects, after controlling for AS and drinking motives.

<table>
<thead>
<tr>
<th></th>
<th>Continuing to Drink Beyond Experimentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Sensitivity</td>
<td>n.s.</td>
</tr>
<tr>
<td>Enhancement Motives (EM)</td>
<td>5.1 (1.6-16.6)</td>
</tr>
<tr>
<td>Coping Motives (CM)</td>
<td>3.7 (1.2-11.5)</td>
</tr>
<tr>
<td>Conformity Motives (PM)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Social Motives (SM)</td>
<td>2.9 (1.04-7.9)</td>
</tr>
<tr>
<td>Anxiety Sensitivity X EM</td>
<td>.34 (.12-.98)</td>
</tr>
</tbody>
</table>
% Continuing to Drink by Interquartile levels of Anxiety Sensitivity: high vs. low enhancement drinking motives (EM)
Discussion

• Preliminary results suggest that enhancement, coping and social motives for drinking all increase risk for drinking beyond experimentation in young adolescent twin boys.

• Anxiety Sensitivity appears to moderate the effects of enhancement motives on continuing to drink.
  - Although the result are preliminary, descriptively they suggest that lower levels of anxiety sensitivity coupled with low enhancement motives for drinking are significantly protective against continuing to drinking beyond experimentation.
  - In other words, a calm disposition is protective when the individual is not motivated to drink for excitement, but a risk factor if they do drink for enhancement purposes.
Acknowledgements

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