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ANXIETY SENSITIVITY AND ALCOHOL USE IN ADOLESCENT TWIN BOYS

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Introduction

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

- Different personality dispositions (e.g., anxiety sensitive), may tend to drink for 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 mediates 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 mediate 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. 86% of families identified from birth records were successfully contacted, and 76% of those successfully contacted were enrolled in this study (parent usually the mother, completed a brief screening interview). A diagnostic interview was completed with both twins and mother for 1045 families. The sample for this poster included only the younger twins, those 11-14 years of age (N=1157 individuals) for whom Questionnaire data containing AS are available.

Lifetime Drinking Measure

- **Continuing to Drink (CDrk):** beyond experimentation
  - **0:** has had a full drink of alcohol but has not continued to drink more frequently (< 6 or more occasions)
  - **1:** has had a full drink on more than 6 occasions (i.e., on 6 or more separate days)

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?”

Childhood Anxiety Sensitivity Index

(CASI; Silverman, Fleisig, Rabian, & Peterson, 1991)

- 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%tile
      - 1: 25th -50th%tile
      - 2: 50th-75th%tile
      - 3: >75%tile
    - Drinking Motives (EM, CM, PM, SM; binary variables):
      - 0: 0-50th%tile- low
      - 1: > 50th%tile-high
    - Anxiety Sensitivity & Drinking Motives

Prevalence % (n=1157)

Had 1 full drink	7.1
Had a full drink 6+ times: Whole sample Experimenters	 2.6 36.1

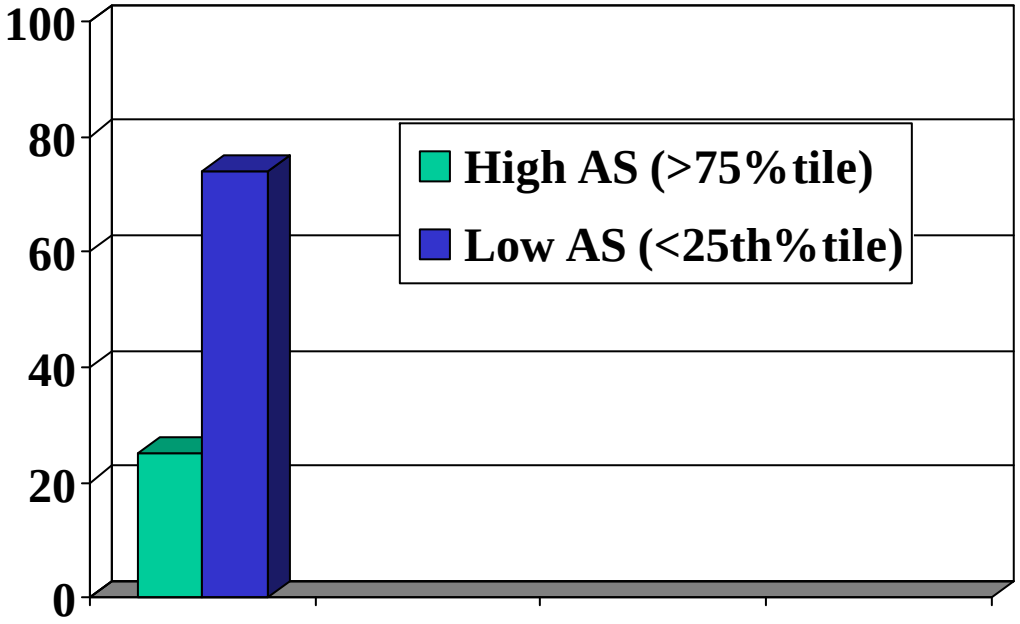
Associations with Continuing to Drink

Odds Ratios (and 95% Confidence Interval) with not continuing to drink as the comparison group

Unadjusted-Univariate	**Continuing to Drink Beyond Experimentation**
Anxiety Sensitivity	***.53*** (.34-.82)
Enhancement Motives (EM)	***3.7*** (1.0-13.5)

Adjusted-Multivariate	**Continuing to Drink Beyond Experimentation**
Anxiety Sensitivity	***.47*** (.29-.75)
Enhancement Motives (EM)	3.6 (.95-13.9)

% Continuing to Drink by Anxiety Sensitivity



Discussion

- Preliminary results suggest that Anxiety Sensitivity is significantly associated with reduced risk for drinking beyond experimentation in young adolescent twin boys, while enhancement motives for drinking may be associated with increased risk.

- Anxiety Sensitivity also appears to mediate the effects of enhancement motives on continuing to drink.

- Sensitivity to bodily sensations may act as a protective factor against developing a drinking habit amongst adolescent boys who have experimented with alcohol.

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