

# PERSONALITY AND DRINKING MOTIVES AS MECHANISMS OF FAMILIAL TRANSMISSION OF ALCOHOL USE DISORDER IN EMERGING AND YOUNG ADULthood

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## Introduction

- There is an abundance of empirical evidence and clinical observations indicating that alcohol problems tend to run in families.
- However, more research is needed on the mechanisms explaining how this process of transmission occurs.
- Previous research on mechanisms of familial transmission of alcohol problems identified personality and cognitive (expectancies) factors as important mediators of the association between family history and alcohol involvement among freshman college students (Sher, Walitzer, Wood, & Brent, 1991).
- To examine how these factors operate to predict alcohol involvement over time, freshman college students were followed for 16 years. The purpose of the present study was to determine the personality and cognitive-motivational factors involved in the transmission of alcohol use disorder (AUD) in both emerging and young adulthood.

## Method

- Data were taken from a prospective high-risk study on family history of alcoholism (FH) and other correlates of alcoholism (see Sher, Walitzer, Wood, & Brent, 1991, for a full description of the study). The baseline sample comprised of 489 freshmen (46% male, mean age = 18.2) from a large Midwestern University.

### Participants

- Half (51%) of the respondents in the initial pool were classified as FH positive (FH+), based on criteria described below.

### Measures & Procedure

- Respondents were prospectively assessed seven times over 16 years (Years 1, 2, 3, 4, 7, 11, and 16) by both interview and paper-and-pencil questionnaire.
- Over 84% of participants were retained over the first 11 years of the study and over 78% were retained through Year 16.

### Family History of Alcoholism (FH+).

- FH was measured at baseline using criteria from the Short Michigan Alcoholism Screening Test (SMAST; Selzer, Vinokur, & van Rooijen, 1975), adapted to measure paternal and maternal drinking problems (F-SMAST and M-SMAST; Crews & Sher, 1992), and the Family History-Research Diagnostic Criteria interview (FH-RDC; Enidcott, Andreasen, & Spitzer, 1978).
- A positive FH was coded if the biological father scored a 4 or more on the F-SMAST and met FH-RDC criteria for alcoholism.
- If no first-degree relative received a diagnosis of alcohol, drug abuse, or antisocial personality disorders, and there was no alcohol or drug use disorder in a second-degree relative, negative FH was coded.

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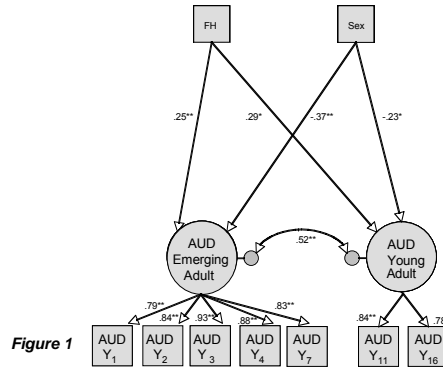


Figure 1

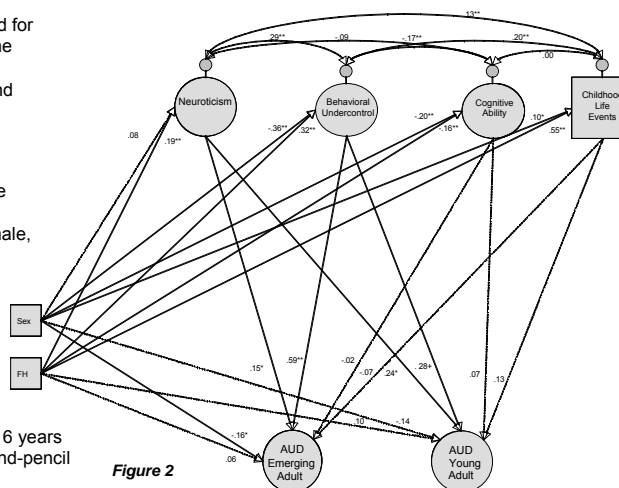


Figure 2

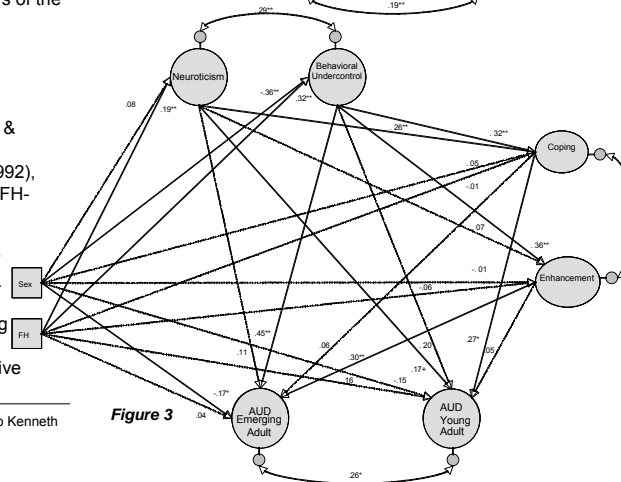


Figure 3

## Results

### Direct Effects Model

- A direct effects model was tested to determine a baseline path from family history to emerging adult and young adult AUD (see Figure 1). Sex was modeled as an exogenous predictor of AUD at both time points to control for gender effects. This model showed good fit to the data, ( $\chi^2(df=17)=23.095, p = .15, CFI = 1.00, TLI = 1.00, RMSEA = .03$ ).

### Model 2: Personality Model

- To test whether personality, cognitive ability, and childhood life events mediated the paths from family history to AUD during emerging and young adulthood, a second model was tested (see Figure 2). The model showed adequate fit to the data, ( $\chi^2(df=58)=100.917, p = .0004, CFI = .97, TLI = .97, RMSEA = .04$ ).

Model	Emerging Adulthood	Young Adulthood
<b>Model 2: Personality</b>		
FH -> N -> AUD	.03+	.05*
FH -> BU -> AUD	.19**	.09+
<b>Model 3: Personality And Drinking Motives</b>		
FH -> BU -> AUD	.14**	.06
FH -> BU -> E -> AUD	.04*	.01
FH -> BU -> C -> AUD	.01	.03*
FH -> N -> AUD	.02	.03
FH -> N -> E -> AUD	.00	.00
FH -> N -> C -> AUD	.00	.01+

Note: N = 487, N = Neuroticism; BU = Behavioral Undercontrol; E = Enhancement motives; C = Coping motives; AUD = Alcohol Use Disorder ++ =  $p < .10$ , \* =  $p < .05$ .

### Model 3: Personality and Drinking Motives Model

- The third and final model tested included the personality factors found to be significant mediators in Model 2 (i.e., Neuroticism and Behavioral Undercontrol), in addition to drinking motives (coping and enhancement) as additional mediators. This model showed adequate fit to the data, ( $\chi^2(df=50)=108.840, p < .0001, CFI = .95, TLI = .97, RMSEA = .05$ ). Path values for direct effects are shown in Figure 3.

### Indirect Effects from FH to Personality to Drinking Motives to AUD (Emerging and Young Adulthood)

- Indirect effects were tested within Mplus. Standardized effects are presented in the Table.

## Discussion

- Family history was associated with increased risk for AUD in both emerging and young adulthood.
- Behavioral Undercontrol primarily mediated the path to emerging adulthood AUD, whereas Neuroticism primarily mediated the path to young adulthood AUD.
- When year 1 drinking motives were added as mediators, it was found that enhancement motives partially mediated the path from Behavioral Undercontrol, whereas coping motives mediated the pathways to young adulthood AUD.
- These results suggest differential mechanisms from FH to AUD in emerging and young adulthood.