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Drinking Trajectories in Men at High-risk for Alcoholism

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Introduction

- ◆ The risk for alcoholism does not perfectly predict drinking outcome, and individuals at high-risk may not develop the disorder.
- ◆ We investigated the drinking trajectories of men at high-risk for alcoholism in an 11 - year follow up of subjects from the St. Louis sample of the Epidemiological Catchment Area (ECA) study.

Introduction

- ◆ Previous results showed that excessive drinking at index strongly predicted DSM-III-R alcoholism (alcohol abuse or dependence) at follow up.
- ◆ However, 47.1% of high-risk men with index, excessive drinking had no follow-up alcoholism, and 24.1% of high-risk men with no, index, excessive drinking had follow-up alcoholism.

Introduction

- ◆ We were particularly interested in the characteristics of the high-risk men in the four drinking trajectories defined by the presence or absence of index, excessive drinking and the presence or absence of follow-up alcoholism.

Methods

- ◆ The men were drawn from the household sample of the ECA project and were between the ages of 18 and 50 at intake
- ◆ All subjects received the DIS at intake and at one year later
- ◆ No subject had DSM-III alcoholism at either time
- ◆ 252 men participated in the 11 year follow-up evaluation

Methods (continued)

- ◆ At index, the subjects were divided into those at low and high risk for alcoholism.
- ◆ The high risk subjects had:
 - either heavy or problem drinking
 - a family history of alcohol problems
 - a high risk score derived from a logistic regression equation of seven risk factors associated with problem drinking
- ◆ The low risk had none of the above.
- ◆ Only the high-risk men were used in this analysis.

Methods (continued)

- ◆ We divided these high-risk men into four groups with respect to index, excessive drinking (ED) and follow-up, DSM-III-R alcoholism (ALC).
 - 85 had no index excessive drinking and no follow-up alcoholism
 - 27 had no index excessive drinking and follow-up alcoholism

Methods (continued)

- 56 had index excessive drinking and no follow-up alcoholism
- 63 had index excessive drinking and follow-up alcoholism
- ◆ We analyzed the psychosocial and clinical variables with respect to these four categorizations.

Results

- ♦ **The no excessive drinking-no alcoholism group had:**
 - **the highest percentage of African-Americans**
 - **the highest percentage of men raised Protestant fundamentalist**
 - **the highest percentage of men with problem drinking in their first degree relatives**
 - **a low percentage of men with marijuana use disorder.**
- ♦ Logistic regression revealed that ethnicity and marijuana use disorder were significantly associated with membership in the no excessive drinking-no alcoholism group. Being raised Protestant fundamentalist tended to be associated ($p < 0.06$).

Results (continued)

- ◆ **African-Americans were more likely to endorse:**
 - being raised Protestant fundamentalist
 - having a first degree relative with problem drinking
 - having marijuana use disorder
- ◆ **The two groups in which the men developed alcoholism had the the highest percentages of marijuana use disorder.**

Conclusions

- ◆ Marijuana use disorder was associated with the development of alcoholism.
- ◆ African-American ethnicity was associated with having no, index, excessive drinking and no, follow-up alcoholism despite African-Americans having a stronger family history of problem drinking and more marijuana use disorder than Caucasians.
- ◆ African-Americans were more likely to report being raised Protestant fundamentalist than Caucasians in this study and have been reported to have a later onset of problem drinking than Caucasians in others. Perhaps this and other cultural traditions protected African-Americans from the familial problem drinking and marijuana use disorder risk factors.

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**Table 1. High-risk Men
Follow-up Demographics**

	ED (-) Alc (-) (n=85)	ED (-) Alc (+) (n=27)	ED (+) Alc (-) (n=56)	ED (+) Alc (+) (n=63)
Age	42.7 (0.8)	39.6 (1.4)	44.1 (1.0)	42.2 (1.0)
Ethnicity				
Caucasian a)	50.6%	74.1%	64.3%	73.0%
African-American	48.2%	25.9%	33.9%	27.0%
Other	1.2%	0%	1.8%	0%
Never Married	16.5%	29.6%	7.1%	14.3%
Married	62.4%	63.0%	67.9%	66.7%
Divorced, separated or widowed	21.2%	7.4%	25.0%	19.0%

**Table 1. High-risk Men
Follow-up Demographics (continued)**

	ED (-) Alc (-)	ED (-) Alc (+)	ED (+) Alc (-)	ED (+) Alc (+)
	(n=85)	(n=27)	(n=56)	(n=63)
Years of education b)	14.1 (0.2)	14.1 (0.4)	13.0 (0.3)	13.8 (0.3)
Professional status				
Professional c)	30.1%	11.5%	18.8%	12.1%
Managerial	12.3%	3.8%	6.2%	12.1%
Technical	17.8%	30.8%	22.9%	19.0%
Sales, clerical, or blue collar	39.7% (73)	53.8% (26)	52.1% (48)	56.9%

a. $p < 0.03$

b. $p < 0.02$

c. $p < 0.05$

**Table 2. High-risk Men
Index Psychosocial Data**

	ED (-) Alc (-) (n=85)	ED (-) Alc (-) (n=27)	ED (+) Alc (+) (n=56)	ED (+) Alc (+) (n=63)
Religion of rearing				
Catholic	23.8%	33.3%	30.4%	30.2%
Protestant	72.6%	66.7%	60.7%	65.1%
Jewish	1.2%	0%	1.8%	1.6%
Other	2.4%	0%	7.1%	3.2%
Raised Protestant fundamentalist a)	36.5%	22.2%	17.9%	23.8%
Religious teaching against alcohol	30.6%	33.3%	33.9%	41.3%

a. $p < 0.08$

**Table 3. High-risk Men
Index Drug Use and Family History**

	ED (-) Alc (-) (n=85)	ED (-) Alc (-) (n=27)	ED (+) Alc (+) (n=56)	ED (+) Alc (+) (n=63)
Marijuana use disorder a)	2.4%	18.5%	10.7%	13.1% (61)
Any drug use disorder b)	2.4%	18.5%	10.7%	12.7%
First degree relative with problem drinking c)	21.2%	3.7%	7.1%	11.1%

a. $p < 0.02$

b. $p < 0.03$

c. $p < 0.03$

**Table 4. High-risk Men
Follow-up Drug Use and Family History**

	ED (-) Alc (-)	ED (-) Alc (+)	ED (+) Alc (-)	ED (+) Alc (+)
	(n=85)	(n=27)	(n=56)	(n=63)
DSM-III-R marijuana use disorder a)	14.1%	33.3%	14.3%	30.2%
Any drug use disorder b)	15.3%	37.0%	14.3%	32.3%
First degree relative with problem drinking c)	50.0%	54.2%	29.6%	43.3%

a. $p < 0.02$

b. $p < 0.01$

c. $p < 0.08$

**Table 5. High-risk Men
Family History, Religion, and Marijuana Use
disorder by Ethnicity**

	Caucasian	African-American
	(n=146)	(n=85)
First degree relative with problem drinking a)	35.0% (143)	59.7% (77)
Raised Protestant fundamentalist b)	16.6% (145)	44.0% (84)
Marijuana use disorder c)	16.6% (145)	28.6% (84)

a. $p < 0.0004$

b. $p < 0.0001$

c. $p < 0.03$

Table 6: Correlates of No Excessive Drinking and No Alcoholism

Analyses of Maximum Likelihood Estimates Full Model (N = 236)

Variable	df	Parameter Estimate	Standard Error	Wald X ²	P > X ²	Odds Ratio
Intercept	1	1.1284	0.2240	25.3866	<0.0001	-
Family history of problem drinking	1	-0.1684	0.2888	0.3398	0.5599	0.845
Ethnicity	1	-0.7077	0.3061	5.3473	0.0208	0.493
Fundamentalist	1	-0.4304	0.3177	1.8355	0.1755	0.650
