The effects of parental alcoholism and childhood conduct disorder symptoms on early-, middle-, and late-adolescence-onset alcoholism in young adults

L. W. Fox  
Washington University School of Medicine in St. Louis

L. J. Bierut  
Washington University School of Medicine in St. Louis

W. Reich  
Washington University School of Medicine in St. Louis

Kathleen K. Bucholz  
Washington University School of Medicine in St. Louis

J. Constantino  
Washington University School of Medicine in St. Louis

See next page for additional authors

Follow this and additional works at: http://digitalcommons.wustl.edu/guzeposter2005

Part of the Medicine and Health Sciences Commons

Recommended Citation
http://digitalcommons.wustl.edu/guzeposter2005/2

This Poster is brought to you for free and open access by the 2005: Alcoholism and Comorbidity 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 engeszzer@wustl.edu.
The effects of parental alcoholism and childhood conduct disorder symptoms on early-middle, and late-adolescence-onset alcoholism in young adults


1Department of Psychiatry, Washington University School of Medicine, St. Louis, MO, 2Indiana University School of Medicine, Indianapolis, IN, 3University of Iowa School of Medicine, Iowa City, IA, 4University of Connecticut School of Medicine, Farmington, CT, 5University of California at San Diego School of Medicine, La Jolla, CA, and 6SUNY Health Science Center at Brooklyn, Brooklyn, NY.

The purpose of this study is to examine the effects of parental alcoholism and the symptoms for DSM-III-R conduct disorder (CD) on the development of alcoholism in a sample of 2520 young adults participating in the Collaborative Study on the Genetics of Alcoholism (COGA).

Previous studies have shown that parental alcoholism is a significant risk factor for the development of alcohol dependence in offspring (Bucholz et al., 2000; Kuperman et al. 1999; Schuckit, 1998). In addition to alcohol dependence, children of alcoholics are at greater risk for behavioral disinhibition manifested in externalizing disorders (Reich et al., 1993). Externalizing disorder, particularly CD and attentional personality disorder (ASP), are the strongest risk factors of alcohol dependence (Kessler et al., 1997). Twin research has suggested that much of the covariation between alcohol dependence and antisocial behavior is due to a common genetic risk factor (Buitelaar et al., 1998).

Evidence suggests that externalizing behaviors such as CD are antecedent to rather than a result of alcohol use and abuse in adolescents. Kuperman et al. (2001) concluded that disruptive behavior diagnoses typically occur as three to four years of substance abuse that, in turn, precedes the diagnosis of alcohol dependence in adolescence. A study of the transitions in drinking in adolescent females (Bucholz et al. 2000) found that conduct problems, as well as smoking and marijuana use, were consistent promoters of transitions to more severe drinking classes.

The goal is to determine which, if any, of the CD symptoms were antecedent to the onset of alcoholism and whether such symptoms augment the risk of parental alcoholism on the risk of alcoholism in young adult offspring.

The characteristics of the sample are shown in Table 1. Subjects in the three alcohol-dependent groups were more likely to be male, white, and have one or two alcoholic parents. Comorbidity rates were significantly greater in all three alcohol-dependent groups compared to the base rates in the no-alcohol-dependent group. Subsequently, the early-adolescence-onset group had greater rates of comorbid diagnoses than subjects in the middle-adolescence-onset and late-adolescence-onset groups. There were substantially greater rates of smoking, marijuana use, and drug dependence in the alcohol-dependent groups with the early-adolescence-onset group exhibiting the highest rates. Non-alcohol substance dependence was also significantly greater in the early-adolescence-onset group.

The lifetime rates as well as the rates prior to onset of alcohol dependence for the 11 CD symptoms are shown in Figure 1. The rates in the early-adolescence-onset group were very similar to those in the NO ALC group with nearly all the CD symptoms antecedent to the availability of alcohol. In the middle-adolescence-onset group, the majority of the CD symptoms occurred prior to the onset of alcoholism. However, there were no smoking, marijuana use, and drug dependence symptoms that occurred following the alcohol use and abuse symptoms. Other than truancy and physical fighting, the rates of CD in the LA group were very low compared to the other groups, and nearly all was subsequent to the alcoholism.

The results of the multinomial logistic regression of alcohol-dependence group membership is given in Table 2. Having two alcoholic parents significantly increased the odds of being in the early-adolescence-onset and middle-adolescence-onset groups but not in the late-adolescence-onset group. Running away and non-contraceptive theft were significant risk factors for all three groups while substance use and other antisocial behaviors were significant risk factors for the early-adolescence-onset and middle-adolescence-onset groups. The effects of CD symptoms were greatest in the early-adolescence-onset group and decreased in each later-onset group.

The collaborative study on the Genetics of Alcoholism (COGA) (Principal Investigator: H. Begleiter; Co-Principal Investigators: L. Bierut, H. Edenberg, V. Hesselbrock, B. Porjesz) includes nine different centers where data collection, analysis, and storage take place. The nine sites and Principal and Co-Investigators are: University of Connecticut (V. Hesselbrock); Indiana University (H. Edenberg); University of Minnesota (J. Kramer, S. Kuperman); University of North Carolina at Chapel Hill (J. Nurnberger Jr., M.P. Conneally, T. Foroud); University of Iowa (R. Crowe, S. Kuperman); SUNY Health Science Center at Brooklyn, Brooklyn, NY.

In memory of Theodore Reich, M.D., Co-Principal Investigator of COGA since its inception and one of the founders of modern psychometrics, we acknowledge his immeasurable and fundamental scientific contributions to COGA and the field.