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THE ROLE OF FAMILY CONFLICT AS A MODERATOR OF ALCOHOLISM OUTCOMES AMONG OFFSPRING OF ALCOHOLICS

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Abstract

Objective: To examine family conflict as an environmental factor that may moderate the impact of high genetic risk for alcoholism on alcohol-related outcomes among offspring.

Method: Mother-child conflict was tested as a potential moderator of AUD among offspring at high genetic-high environmental risk for alcoholism and offspring at high genetic-low environmental risk for alcoholism.

Results: The influence of mother-child conflict (as reported by mother and by offspring) on the likelihood of offspring development of AUDs varied as a function of genetic and environmental risk status.

Conclusions: Findings suggest that family conflict has a greater impact on likelihood of AUD development among offspring at high genetic-high environmental risk than among offspring at high genetic-low environmental risk for alcoholism.

Background Literature

In their twin family study of alcoholism, Jacob et al (2003) demonstrated that family environment plays a significant role in the development of alcohol use disorders (AUDs) among offspring at different degrees of genetic and environmental risk for alcoholism. Specifically, a comparison of offspring at high genetic and high environmental risk (that is, children of alcoholics) with offspring at high genetic and low environmental risk (i.e. offspring of unaffected fathers with alcohol-dependent monozygotic co-twins) revealed that a low-risk environment serves to moderate the impact of high genetic risk on the development of AUDs in offspring.

The association of parental alcoholism with high-risk environments, such as high levels of family conflict, is well documented in the literature. Children of alcoholics (COAs) are more likely to be exposed to marital conflict and to report conflict in their relationships with their parents (Filstead, McElfresh, & Anderson, 1981; Reich, Earls, & Powell, 1988). In turn, marital and parent-child conflict have been linked consistently to negative outcomes, including increased likelihood of developing alcohol-related problems (Tarter, 2002). The current study examined familial conflict as it relates to offspring AUD to determine the degree to which this component of the family environment may serve to moderate alcohol outcomes among high-risk offspring.

Hypotheses

- Families in which fathers met for lifetime diagnosis of AUD were expected to report higher levels of conflict than families with unaffected fathers whose monozygotic (MZ) co-twins met AUD diagnosis. That is, a main effect for parent-child conflict by risk group was predicted.
- High parent-child conflict vs. low parent-child conflict was expected to be associated with higher rates of AUD in offspring.
- The impact of parent-child conflict on the development of AUDs among offspring was expected to differ between offspring at high genetic-high environmental risk group (COAs) vs. offspring at high genetic-low environmental risk (offspring of unaffected fathers with alcohol-dependent MZ co-twins). Specifically, it was hypothesized that level of conflict would have a greater impact on outcomes among high genetic-high environmental risk offspring than high genetic-low environmental risk offspring.

Method

Participants

- 13-26 year old offspring of male members of the Vietnam Era Twin (VET) Registry, identified as concordant or discordant for lifetime diagnoses of DSM-III-R Alcohol Dependence (AD) or Alcohol Abuse (AA)
- 749 offspring of
 - 1) fathers with a history of AD or AA (**high genetic, high environmental risk**)
 - 2) unaffected fathers with AD MZ co-twins (**high genetic, low environmental risk**)

Procedure

- A structured psychiatric interview was administered to fathers, mothers, and offspring.
- Mothers and offspring reported on family conflict in self-administered questionnaires assessing the quality of parent-child dyadic relationships.

Method (2)

The following information was collected from fathers, mothers, and offspring through the *SSAGA-II* interview (Bucholz et al., 1994), a psychiatric interview designed to assess for genetic linkage in the study of alcoholism:

Alcohol-Related Behaviors

Alcohol dependence and alcohol abuse

Family history of alcohol abuse/dependence

Nicotine dependence, cannabis dependence
and substance abuse

Psychiatric Status

Major depression and mania

Anxiety disorders

Antisocial personality disorder

Conduct disorder

Oppositional defiant disorder

Family Conflict

Quality of Relationships Inventory (QRI; Pierce, Sarason, & Sarason, 1991) Conflict subscale (range = 5-20) was used to assess conflict in parent-child relationships when offspring were 16 years of age.

Results

- As reported in Jacob et al (2003), offspring of fathers with lifetime AUD evidenced higher rates of AUDs than offspring of unaffected fathers whose cotwins were positive for AD.
- T-tests revealed no significant group differences in mother-child conflict as reported by mother or by offspring.

(See Table 1)

- Chi-Square tests revealed a significant association between offspring outcomes and risk group status when mother's report of mother-child conflict was high ($X^2=5.79$; $p<.05$) and a trend in the same direction when offspring report of mother-child conflict was high ($X^2=3.44$; $p=.06$).
- In contrast, there was no association between risk group status and offspring outcomes when mother-child conflict was low by mother report ($X^2=1.31$; $p>.05$) or by offspring report ($X^2=1.16$; $p>.05$).

Results (2)

A logistic regression analysis was conducted to test the interaction between paternal AUD status and mother-child conflict in predicting offspring AUD, controlling for the following covariates:

- Paternal CD, antisociality, drug abuse, depression, dysthymia, generalized anxiety disorder, panic disorder, and post-traumatic stress disorder
- Maternal AD, alcohol abuse, and depression

The analysis yielded the following results:

- The addition of the interaction between risk group status and mother-child conflict improved significantly the model's prediction of offspring AUD ($X^2(1) = 23.40$; $p < .01$ for offspring report and $X^2(1) = 11.21$; $p < .01$ for mother report). That is, mother-child conflict moderated the relationship between risk group status and AUD outcome.

Conclusions

- The influence of mother–child conflict (as reported by mother and by offspring) on the likelihood of offspring development of AUDs varied as a function of the offspring’s genetic and environmental risk status for alcoholism.
 - In the high genetic and high environmental risk group, high mother-child conflict was associated with a higher likelihood of offspring AUD and low mother-child conflict was associated with a lower likelihood of offspring AUD.
 - In the high genetic and low environmental risk group the level of mother-child conflict did not influence offspring AUD outcome.

(See Figure 1 and Figure 2)

Table 1. Offspring AUD and Mother-Child Conflict by Risk Group Status

| | Father AUD Status | |
|-------------------------|--------------------------------------|--------------------------------------|
| | AD or AA | Unaffected, AD MZ Cotwin |
| Offspring AUD | 33.9% | 18.1% |
| QRI Conflict | | |
| <i>Mother Report</i> | 10.03 (S.D. = 3.15) | 9.04 (S.D. = 2.77) |
| <i>Offspring Report</i> | 11.63 (S.D. = 3.65) | 10.78 (S.D. = 3.06) |

Discussion

- Contrary to expectation, levels of mother-child conflict did not differ by risk group.
- The association between risk group status and offspring alcohol outcome was unique to offspring from families in which mother-child conflict was high. No relationship between risk group status and likelihood of AUD diagnosis was found in low-conflict families.
- Most importantly, the current study supported the contention that mother-child conflict moderates the impact of genetic risk for alcoholism among offspring at high genetic-high environmental risk vs. offspring at high genetic-low environmental risk.
- The current study identifies low mother-child conflict as one component of the family environment that serves a protective role for offspring of fathers with lifetime AUD diagnoses.

Discussion (2)

- The moderating role of mother-child conflict in offspring AUD outcomes in offspring of alcoholic fathers has important implications for prevention efforts. Targeting familial conflict, specifically mother-child conflict, in alcoholic families may lessen the heightened risk for developing AUDs that is associated with COA status.

Limitations of the study

- The range of scores on the QRI conflict subscale was restricted, which may reflect a low sensitivity to detecting subtle aspects of parent-child conflict.
- Findings from the study are limited in comparing only offspring at high genetic risk for AUD development. A more complete understanding of the role of familial conflict in the risk for developing alcohol-related problems necessitates the inclusion of offspring at low risk for developing AUDs and/or high risk for the development of other psychiatric disorders.

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