The purposes of this study were to identify factors that would ameliorate the risk for substance abuse problems among children of alcoholics (COA), and to explore mechanisms of protection, particularly the Stress-Buffering model. Protective factors for children of alcoholics were examined in a controlled study (N=386). Three possible models are reviewed. Logistic regression was used to predict alcohol and drug dependence diagnoses based on COA status, demographics, family background, parental psychiatric status, and moderators in three domains: parenting/family environment, child personality, and contextual supports. Results show that COA status, male gender, early substance involvement, and living in a single-parent home all significantly increased the odds of being diagnosed with alcohol or drug abuse or dependence in young adulthood, with COA status being the strongest predictor. In addition, family environment, child self-esteem, active coping, maternal social support to child, and positive activity involvement all moderated the effects of COA status. However, these factors generally exhibited a stronger influence on substance abuse/dependence among controls. Implications of findings are discussed. COAs are more likely to become substance abusers themselves and to exhibit a range of other maladaptive outcomes. (EMK)
Protective Factors for Children of Alcoholics:
Parenting, Family Environment, Child Personality, & Contextual Supports

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Abstract

This study examined protective factors for 187 children of alcoholics and 199 controls. Logistic regression was used to predict alcohol and drug dependence diagnoses based on COA status, demographics, family background, parental psychiatric status, and moderators in three domains: parenting/family environment, child personality, and contextual supports. Results showed that COA status, male gender, early substance involvement, and living in a single parent home all significantly increased the odds of being diagnosed with alcohol or drug abuse or dependence in young adulthood, with COA status being the strongest predictor. In addition, family environment, child self-esteem, active coping, maternal social support to child, and positive activity involvement all moderated the effects of COA status. However, these factors generally exhibited a stronger influence on substance abuse/dependence among controls. Implications of these findings are discussed.
Introduction

There is a large body of literature examining children of alcoholics as a group at risk for negative psychological outcomes. Research in this area shows that children of alcoholics are more likely to become substance abusers themselves and to exhibit a range of other maladaptive outcomes, including antisocial behavior, depression, association with deviant peers, etc. (Chassin, Rogosh, & Barrera, 1991). There is also an increasing interest in identifying individual and environmental factors that may moderate the relationship between parental alcoholism and maladaptive outcomes.

In his seminal work on resilience and protective factors for at-risk children, Michael Rutter (1985) defined protective factors as those influences that ameliorate or alter the individual’s response to an environmental hazard that would normally result in maladaptive outcomes. Among the factors he identified, the availability of personal bonds, child personality features (such as self-esteem), and an appropriate degree of environmental structure and control were highlighted as particularly important. In terms of researching resilience, Garmezy (1985) suggests that researchers begin by identifying children at risk who demonstrate good coping and proceed to investigate the correlates of their adaptive functioning.

Purpose of this Study

♦ Identify factors that would ameliorate the risk for substance abuse problems among children of alcoholics. Prospective analyses were used to examine protective influences in the following domains: parenting and environment, child personality, and contextual supports.

♦ Explore mechanisms of protection, particularly the Stress-Buffering model.
Theoretical Models

1. **The Stress-Buffering Model** (Figure 1) According to Cohen and Wills (1985), stress-buffering effects are indicated by intervening mechanisms (i.e., protective factors) that decrease the positive relationship between stressful circumstances and maladaptive psychological outcomes. Statistically, the stress-buffering mechanism is evident when there is a significant interaction between the stress variable and the moderator or protective factor, such that the presence of the protective factor reduces the relationship between the stress variable and the outcome at high levels of stress. In addition, the moderator is not independently related to either stress or the outcome variable.

2. **The Direct Effects Model** (Figure 2) posits direct relationships between both the risk variable and the moderator with the outcome, such that risk increases maladaptive outcomes and the protective factor decreases maladaptive outcomes. There is no significant interaction between risk status and the protective factor.

3. **The Stress Deterioration Model** (Figure 3) also posits direct relationships between both the risk variable and the moderator with the outcome. In addition, there is a negative relationship between risk status and the protective factor, such that risk leads to a diminution of protective influences.

Methods

Participants in this study were a community sample of 386 adolescents and their families. Participants were surveyed during three consecutive years, beginning when the adolescents were 10-16 years old; a young adult follow-up was conducted when the participants were 17-23 years old. All data were collected via computer-assisted interviews in the participants’ homes. Alcohol and drug abuse problems were diagnosed using the DSM-III Diagnostic Interview
Schedule with participants and their parents.

Sample Characteristics

- 187 children of alcoholic fathers; 199 demographic controls
- Ages range from 10 to 16 at Wave 1 (Mean = 13); 17 to 23 at Wave 4 (Mean = 20)
- 55% males
- 23% Hispanic; 77% non-Hispanic Caucasians
- 37% young adults diagnosed with alcohol problems at Wave 4
  (50% of COAs; 26% of Controls)
- 13% diagnosed with drug problems at Wave 4
  (18% of COAs; 9% of Controls)

Measures

COA Status

- Paternal alcoholism (0 = Control; 1 = COA)

Covariates

- Child gender
- Child age
- Average of Parental years of education
- Parent psychiatric diagnosis
- Number of biological parents living in the home
- Child alcohol or drug use at Wave 1

Protective Factors

Parenting/Family Environment:

- Parental monitoring - three items assessed parents’ awareness of child behavior and whereabouts during the past 3 months. (α range .65 to .84)
Parenting consistency - five items assessed parents’ consistency in their day-to-day discipline of the child during the past 3 months (CRPBI; Schaefer, 1965). (α range .72 to .84)

Family conflict - a five-item scale assessed the amount of negative affect, verbal, and physical conflict between family members during the past 3 months (Bloom, 1985). (α range .67 to .74)

Family organization - a six-item scale assessed the extent to which families maintained a regular schedule or routine and could count on promises being kept by family members (Bloom, 1985). (α range .54 to .70)

Child Personality:

Self-esteem - seven items assessed targets’ tendency to feel satisfied with themselves or to engage in self-derogation (Rosenberg, 1979). (α range .80 to .86)

Perceived control - three items assessed targets’ perceived control over their lives vs. beliefs that events were a matter of chance or under others’ control (Newcomb & Harlow, 1986). (α range .73 to .74)

Coping style - six items assessed target’s tendency toward behavioral/active coping (α range .57 to .63); seven items assessed cognitive/avoidant coping (Wills, 1986). (α range .65 to .67)

Contextual Supports:

Maternal social support - six items assessed the level of social support provided to the child by the mother during the past 3 months (Furman & Buhrmester, 1985). (α range .76 to .78)

Positive activity involvement - nine items assessed the extent to which targets were involved in activities outside of the home and obtained a sense of pride or self-worth
from those activities. (α range .65 to .67)

Outcome Measures

♦ Wave 4 Alcohol problems (0 = no diagnosis; 1 = DSM-III abuse or dependence diagnosis)

♦ Wave 4 Drug problems (0 = no diagnosis; 1 = DSM-III abuse or dependence diagnosis)

Data Analysis

Data analyses were conducted using hierarchical logistic regression to predict the participants' odds of being diagnosed with alcohol or drug dependence. Demographics, family background, and parental psychiatric status were entered on the first step as covariates in the models. COA status and the moderator variable (e.g., child report of family organization) were entered on the second step. In order to test for moderation, interaction terms for COA status and each moderator variable were entered into the models on the third step. Significant interaction effects were probed using procedures recommended by Aiken and West (1991). Simultaneous regression models were estimated, representing high and low values of COA status and the moderator variable.

Results

♦ One-way ANOVAs revealed a pattern of significant relationships between COA status and many of the protective factors, such that COA status was related to detriments in these protective influences (See Table 1).

♦ When all other variables were accounted for, COA status, male gender, early substance involvement, and living in a single parent home all significantly increased the odds of being diagnosed with an alcohol or drug problem in young adulthood. Of the variables included in the models, being the child of an alcoholic was the strongest predictor of young adult drug or alcohol abuse/dependence.
In the parenting/family environment domain, significant interactions were observed between COA status with family organization and family conflict when drug diagnosis was the criterion. Significant interactions were also observed with family organization and alcohol diagnosis. The pattern of these interactions suggested that family organization and family conflict exhibited a stronger influence on substance dependence among controls. (See figure 4 for example).

In the child personality domain, child self-esteem interacted with COA status, such that it exhibited a stronger influence on drug dependence among controls. An identical pattern was observed with active coping and alcohol diagnosis. (See figure 5).

Of the contextual supports, significant interactions were observed for both maternal social support and positive activities. Maternal social support followed the same pattern as was observed for variables in the parenting and child personality domains (See figure 6). Positive activity involvement was the only measure that showed a pattern in which the observed influence was greater for COAs (See figure 7).

With the exception of positive activity involvement, each of the protective factors with significant interactions also showed main effects on alcohol or drug dependence, even after controlling for all other variables in the models and their interactions.

Conclusions

Using a broad definition of protective factors as any condition that reduces the relationship between risk status and negative outcome, we can conclude that the variables examined in this study served as protective factors for children of alcoholics. Although the magnitude of effect was greater for controls, the odds of alcohol and drug dependence among COAs were also reduced when the protective factors were operating.

Findings from this study indicated little support for the Stress-Buffering model, but were
more indicative of the Stress Deterioration or Main Effects models. As indicated by the Stress Deterioration model, COA status was related to deficits in protective mechanisms, which reduced the risk for maladaptive outcome, and there was a significant relationship between COA status and outcomes after the influence of the moderators was statistically controlled. This suggests the possibility of a mediated pathway that would account for part of the relationship between COA status and substance abuse/dependence. Future studies will need to examine Stress Deterioration and other models that may represent the relationship between COA status and young adult outcomes more accurately than the Stress-Buffering model.

For children of alcoholics, there was a special protective effect related to early involvement in positive activities outside of the home. Children who were involved with outside activities and experienced a sense of pride or self-worth from those activities were less likely to be diagnosed with alcohol abuse or dependence in young adulthood. These findings suggest a need to study “stressor specific” moderators. In the case of children whose risk is caused by circumstances within the home, protective factors within the home may not be potent enough to moderate the negative influence of familial dysfunction. Contextual supports outside of the home may be particularly important for these children. Further research in this area may have important implications for directing the emphasis of preventive interventions with children of alcoholics.
References


Table 1. Protective Factors Means by COA Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean COAs (N = 187)</th>
<th>Mean Controls (N = 199)</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parenting/Family Environment</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mom Monitoring</td>
<td>-.19</td>
<td>.24</td>
<td>F = 21.97, p &lt; .001</td>
</tr>
<tr>
<td>Dad Monitoring</td>
<td>-.15</td>
<td>.21</td>
<td>F = 15.34, p &lt; .001</td>
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<tr>
<td>Mom Consistency</td>
<td>-.003</td>
<td>.13</td>
<td>n.s.</td>
</tr>
<tr>
<td>Dad Consistency</td>
<td>-.16</td>
<td>.29</td>
<td>F = 23.76, p &lt; .001</td>
</tr>
<tr>
<td>Family Conflict</td>
<td>-.09</td>
<td>.21</td>
<td>F = 10.91, p &lt; .001</td>
</tr>
<tr>
<td>Family Organization</td>
<td>-.10</td>
<td>.20</td>
<td>F = 11.95, p &lt; .001</td>
</tr>
<tr>
<td><strong>Child Personality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>-.05</td>
<td>.13</td>
<td>F = 3.71, p = .055</td>
</tr>
<tr>
<td>Perceived Control</td>
<td>-.09</td>
<td>.18</td>
<td>F = 10.65, p &lt; .001</td>
</tr>
<tr>
<td>Active Coping</td>
<td>-.006</td>
<td>.006</td>
<td>n.s.</td>
</tr>
<tr>
<td>Avoidant Coping</td>
<td>.11</td>
<td>-.12</td>
<td>F = 7.45, p &lt; .01</td>
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<tr>
<td><strong>Contextual Supports</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mom Social Support</td>
<td>-.06</td>
<td>.09</td>
<td>n.s.</td>
</tr>
<tr>
<td>Positive Activity Involvement</td>
<td>-.47</td>
<td>.76</td>
<td>F = 6.45, p &lt; .01</td>
</tr>
</tbody>
</table>

*Note: Scale scores are mean centered, such that a value of .00 represents the mean for the full sample.*
Figure 1  Stress Buffering Model

Figure 2  Direct Effects Model

Adapted from M. Barrera (1988)
Figure 3  Stress Deterioration Model

Adapted from M. Barrera (1988)
Figure 4. Interaction of COA status X Family Organization with Alcohol Diagnosis as outcome.
Figure 5. Interaction of COA status X Active Coping with Alcohol Diagnosis as outcome.
Figure 6. Interaction of COA status X Maternal Support with Drug Diagnosis as outcome.
Figure 7. Interaction of COA status X Positive Activity Involvement on Alcohol Diagnosis
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