Common Pathways to Heavy Alcohol Use and Abstinence in Adolescence

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Introduction

Previous research has examined the influence of parenting behaviors on adolescent substance use. Several of these are cross-sectional studies that used concurrent data and examined use versus non-use of alcohol (e.g., Anderson & Henry, 1995; Barnes & Farrell, 1992; Conger et al., 1991; Dielman, Butchart, & Shope, 1993; Jessor & Jessor, 1975). A few longitudinal studies have also examined the association between parenting factors and adolescent drinking behaviors (e.g., Shucksmith, Glendinning, & Hendry, 1997; Johnson & Pandina, 1991; Vicary & Lerner, 1986; Wills & Cleary, 1996; Wills, McNamara, Vaccaro, & Hirky, 1996). Taken together, the majority of these studies have found that those who use alcohol have lower levels of parental support and higher levels of parental hostility compared to those who do not use alcohol and that this relation increases with increased use. A few studies examining levels of substance use, however, have found that abstainers as well as heavy users report lower levels of parental support in comparison to those who report more moderate levels of use (e.g., Coombs & Landsverk, 1988; Padina & Schuele, 1983; Shelder & Block, 1990).

The vast majority of studies examining this issue rely on child-reports or self-reports of parenting behaviors. An exception to this type of measurement is Shelder and Block (1990) who observed children at five years interacting with their mothers; however, they examined marijuana use rather than alcohol use. The present study used direct observations of parent-child interactions in early childhood and early adolescence, as well as self-reports of alcohol use at 16 years to examine whether prospectively assessed parental support and hostility in early childhood and in early adolescence predict
later patterns of adolescent alcohol use. The following groups identified patterns of alcohol use: (a) abstainers, (b) infrequent drinkers, (c) light/moderate drinkers, and (d) heavy drinkers.

Hypotheses

It was hypothesized that, compared to infrequent and light/moderate alcohol users in adolescence, abstainers and heavy users experienced: (a) lower levels of parental support in early childhood and poorer quality parent-child relationships in early adolescence, and (b) higher levels of parental hostility in early childhood and early adolescence.

Methods

Participants

Participants were first-born children of low SES mothers, followed since birth (n = 152; 83 males, 69 females). Participants were drawn from a sample of low-income, predominately single mothers (62%) and their children.

Measures

Maternal support at 42 months. Four problem solving situations requiring interaction between mothers and children were conducted when the children were 42 months. Observers rated mothers based on the degree of emotional support she provided to help the child have a positive and enjoyable learning experience. The scale ranged from low scores indicating failure to provide support to high scores indicating encouragement, support, and confidence in the child’s abilities. The intraclass correlation was .87.
Maternal hostility at 42 months. This measure was based on the same observations of interaction tasks between mothers and children at 42 months. The hostility scale assessed the mother’s expression of anger, discounting, or rejection of the child. The scale ranged from low scores indicating no signs of rejection or other hostile behavior towards the child to high scores indicating expressions of anger accompanied by strong, barely controlled emotions. The intraclass correlation was .80.

Relationship quality 13 years. Relationship quality was a composite rating of four relationship scales (emotional engagement, positive affect, openness to expression of individual ideas, and ability of the relationship to support competent engagement with the tasks) derived from observations of parents and children in interaction tasks. The intraclass correlation was .83.

Mother-child hostility at 13 years. This scale was composite rating of hostility observed in parent-child relationships during video-taped interaction tasks. The intraclass correlation was .82.

Adolescent alcohol use at 16 years. Self-report of drinking behavior (frequency and quantity) derived from the Adolescent Health Survey (Blum, Resnick, & Bergeisen, 1989).

Data Analysis

Participants were grouped into categories reflecting level of alcohol use based on both frequency and quantity of alcohol consumed (abstainers—never used alcohol [n=54], infrequent—two drinks once or one drink less than monthly [n=43], light/moderate—no more than four drinks monthly or six or more drinks less than
Results

A MANOVA was conducted for mother’s supportive presence at 42 months, mother’s hostility at 42 months, parent-child relationship quality at 13 years and parent-child hostility at 13 years by adolescent alcohol use at 16 years (Table 1). Results indicated that there were significant differences between the alcohol use groups for all four variables. Bonferroni post hoc tests indicated that (a) the abstainer group had significantly lower scores for maternal support at 42 months compared to the light/moderate group, (b) both the abstainer and heavy use groups had significantly higher scores for maternal hostility at 42 months compared to the infrequent group, and (c) the heavy use group had significantly higher parent-child hostility scores at 13 years compared to the infrequent group.

Conclusions

The results of this study provide evidence that early parenting behaviors are related to later adolescent alcohol use. Overall, the results suggest some similarities in the early environments of abstainers and heavy drinkers. Both abstainers and heavy drinkers at 16 years are more likely than their more moderate drinking counterparts to have had unsupportive and hostile mothers in early childhood and poorer quality relationships with their parents in early adolescence. Heavy drinkers are also more likely to have had hostile relationships with their parents at 13 years. Findings suggest that an adaptive developmental pathway may be most predictive of experimentation with alcohol in middle adolescence.


Table 1

Multivariate Analysis of Variance for Parental Behaviors at 42 Months and Parent-Child Behaviors at 13 years by Adolescent Alcohol Use at 16 years

<table>
<thead>
<tr>
<th></th>
<th>Mean Scores and (Standard Deviations) For Alcohol Use Categories</th>
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<tbody>
<tr>
<td></td>
<td>F (4,147)</td>
</tr>
<tr>
<td>Maternal Support (42 months)</td>
<td>4.397**</td>
</tr>
<tr>
<td></td>
<td>(3.57)</td>
</tr>
<tr>
<td>Maternal Hostility (42 months)</td>
<td>6.72***</td>
</tr>
<tr>
<td></td>
<td>(2.54)</td>
</tr>
<tr>
<td>Parent-child Hostility (13 years)</td>
<td>3.51*</td>
</tr>
<tr>
<td></td>
<td>(.92)</td>
</tr>
<tr>
<td>Relationship Quality (13 years)</td>
<td>2.60*</td>
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<td></td>
<td>(.76)</td>
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</tbody>
</table>

Note: Abstainers (n=54), Infrequent (n=43), Light/Moderate (n=40), Heavy (n=15)

* p<.05, ** p<.01, *** p<.001

a. light/moderate > abstainers
b. abstainers > infrequent
c. heavy > infrequent