Parents Still Matter: The Role of Parental Attachment in Risky Drinking among College Students

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This study longitudinally assessed the effects of parental attachment on alcohol-related risks across the first year of college. Greater attachment to mother was associated with lower alcohol risk while weaker attachment to mother was related to more drinking and consequences near the end of the first year, even when controlling for baseline drinking. Furthermore, gender moderated the relationship between attachment and consequences such that first-year men with weaker attachment reported experiencing more consequences than females or males with stronger attachment. Findings highlight the role of parental attachment in reducing risk and identify first-year males with low maternal attachment as a potential high-risk group.

KEYWORDS alcohol use, attachment, college students, gender

INTRODUCTION

Alcohol use and misuse among college students remains a pressing national health concern. Heavy alcohol use has been consistently associated with serious negative consequences affecting individual drinkers and their surrounding communities, and resulting in poor academic performance, property damage, sexual assault, and even death (Hingson, Heeren, Winter, & Wechsler, 2005; Hingson, Zha, & Weitzman, 2009; Turrisi, Mallett, Mastroleo, & Larimer, 2006; Wechsler et al., 2002). Previous research indicates that during the transition from high school, first-year college students are at an
increased risk for sharp increases in both quantity and frequency of alcohol consumption (Baer, Kivlahan, & Marlatt, 1995; Borsari, Murphy, & Barnett, 2007; Duchnick, 2004; Fromme, Corbin, & Kruse, 2008; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2002; White et al., 2006). Heavy drinking patterns developed during the first six weeks of college often set the precedent for drinking in subsequent years, in addition to inhibiting successful adaptation to college demands and impacting overall academic success (The NIAAA Task Force on College Student Drinking 2002; Pasarella et al., 2007; Powell, Williams, & Wechsler, 2004; Schulenberg et al., 2001).

Parental Influence

The transition to college presents students with novel social and academic challenges. Often they must also adapt to life away from the presence and direct influence of parents. Recent research, however, indicates that parental influence persists even after the move to college, and extends to students' alcohol use. Specifically, higher levels of parent-child communication, both alcohol-specific and non-alcohol-specific, have been found to negatively correlate with alcohol consumption, positive expectancies surrounding alcohol use, normative perception regarding binge drinking, and even the experience of negative consequences (LaBrie & Cail, 2011; Turrisi, Jaccard, Taki, Dunnam, & Grimes, 2001; Turrisi, Mastroleo Mallett, Larimer, & Kilmer, 2007; Turrisi, Wiersma, & Hughes, 2000; Wood, Read, Mitchell, & Brand, 2004).

Furthermore, parental involvement has been found to impact peer influences that lead to drinking and related problems. Wood, Read, Mitchell, and Brand (2004) reported that the quality of parental influence, such as permissiveness toward alcohol use or parental monitoring, may mediate the effect peers have on their child's alcohol use. Similarly, Abar and Turrisi (2008) found parental monitoring, knowledge of student alcohol use, and level of parental approval of alcohol use were all associated with student friend choice, thereby indirectly influencing students' drinking behavior. These findings, attributed by the authors to child internalization of perceived parent values, remained consistent across the entire first year of college regardless of students’ prior drinking and previous friends.

This indirect effect of parental influence on drinking behavior may also be moderated or mediated by the quality of the parent-child relationship. Attachment, a sense of connection between child and parent characterized by trust and reliability (Morris & Maisto, 1998), is one variable across which the parent-child relationship can be defined. While some previous research has examined the effects of attachment on alcohol use behaviors among high school-aged samples, few have explored this relationship among college students. In a high school sample of 13- to 19-year-olds, Brennan and Shaver (1995) found that those who reported secure parental attachment consumed alcohol at lower rates than those who reported insecure attachment. Similarly, van der Vorst, Engels, Meeus, and Dekovic (2006) assessed
the relationship between attachment and alcohol use among a sample of Dutch youths ages 11 to 14 and found that parental attachment negatively correlated with frequency and intensity of child alcohol consumption, with attachment to mother more significant than attachment to father. Again with adolescents, Tyler, Stone, and Bersani (2006) reported that attachment to mother significantly predicted alcohol misuse two years later, at ages 16 to 18, even when controlling for prior drinking. Branstetter, Furman, and Cottrell (2009) similarly found more secure maternal attachment predicted decreased substance use and that this relationship was mediated by maternal monitoring across two years in a sample of 14- to 16-year-olds. This trend has not yet been found applicable to those who may initiate drinking at a later age or to college students living away from parents. However, Chassin and Handley (2006) and Fromme (2006) have called for further longitudinal studies exploring the attachment and alcohol use relationship, subsequent to the van der Vorst et al. (2006) study.

Highlighting the role of attachment, studies of romantic and peer relationships among college students and adults have delineated the effects of such attachments on alcohol use behaviors. Securely attached individuals have been found to consume alcohol at lower rates than those insecurely attached (DeFronzo & Pawlak, 1993; Mickelson, Kessler, & Shaver, 1997; Vungkhanching, Sher, Jackson, & Parra, 2004). Insecure attachment has been found to predict increased drinking in those consuming alcohol to cope with stress or negative affect (Kassel, Wardle, & Roberts, 2007; McNally, Palfai, Levine, & Moore, 2003).

The current study is the first to our knowledge to explore the relationship between parent-child attachment and drinking motives, alcohol use and related negative consequences in students across the important developmental period of the first year of college. We expected that at the beginning of their first year, less securely attached students would report higher drinking motives, as well as greater alcohol consumption and drinking consequences than more securely attached students. Furthermore, we predicted that attachment would be negatively related to both alcohol use and consequences six months into the college experience, and that this relationship would remain even when controlling for baseline drinking. Finally, we sought to examine gender as a possible moderator of the relationship between attachment, alcohol use, and consequences.

METHOD

Participants

Participants were 139 first-year college students at a midsized West Coast university. These participants, recruited via e-mail, were control participants in a larger intervention study who completed both baseline and a six-month
follow-up assessment. The control participants were selected for the current study because we could observe their natural drinking patterns across the first year in college. Participants’ mean age at the beginning of the study was 18.05 years (SD=0.30) and 77.7% were female. The reported ethnic makeup of the control group was 61.9% Caucasian, 12.2% Hispanic, 11.5% Asian, 5.8% Other, 5.0% African-American, 2.2% Declined to State, 0.7% Native Hawaiian, and 0.7% American Indian.

Design and Procedure

This study was reviewed and approved by a university IRB committee. The university registrar provided e-mail addresses of first-year resident students in certain first-year residence halls. During their first month of school, the identified students were sent an e-mail containing a link to an online questionnaire that required their consent prior to being directed to the survey. If they consented and completed the initial survey, they were sent another link for a follow-up survey six months later. The university regularly uses e-mail as a form of communication and all students have a university-issued e-mail address and 24-hour access to on-campus computer labs, in addition to their private computers. Thus, e-mail is a preferred and effective recruitment strategy. Both the initial and follow-up surveys were approximately 15 to 20 minutes in length.

Measures

The baseline survey assessed demographics, drinking motives, mother and father attachment, alcohol use, and alcohol-related negative consequences. At the six-month follow-up, alcohol use and alcohol-related drinking consequences were measured.

Alcohol Use

Five questions assessed student alcohol use and were combined to form an alcohol composite variable for both baseline (α=.92) and six-month follow-up (α=.93). These questions were based on well-established quantity/frequency measures to assess alcohol consumption in the past 30 days (e.g., Dimeff, Baer, Kivlahan, & Marlatt, 1999) and modified to use a 9-point scale with 1 signifying lowest risk and 9 signifying greatest risk. The questions included the number of drinking days per month (1=never, 9=every day); average number of drinks consumed on each drinking occasion (1=none, 9=13 or more); the total number of drinks consumed each week (1=none, 9=22 or more); maximum number of drinks consumed at one time in the past month (1=none, 9=22 or more); and number of occasions participants had consumed at least four (females) or five (males) drinks within a two-hour period over the past two weeks (1=none, 9=10 or more times). This
modified measure has been used successfully in previous research (LaBrie, Hummer, & Neighbors, 2008; LaBrie, Hummer, Neighbors, & Pedersen, 2008; LaBrie, Pedersen, Neighbors, & Hummer, 2008).

**Drinking motives**

The Drinking Motives Questionnaire (DMQ) is a 20-item measure developed by Cooper (1994) to assess four dimensions (subscales) of motivation for drinking among college students. Items were scaled from 1 (almost never) to 5 (almost always). Each subscale includes five items such as, “Because it helps you when you feel depressed or nervous” (Coping; $\alpha = .89$), “Because it helps you enjoy a party” (Social; $\alpha = .96$), “Because your friends pressure you to drink” (Conformity; $\alpha = .89$), and “Because you like the feeling” (Enhancement; $\alpha = .93$).

**Alcohol negative consequences**

The Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ) is a 24-item questionnaire developed by Kahler, Strong, and Read (2005) to assess the negative consequences that young adults experience as a result of drinking. The brief version of the YAACQ efficiently assesses multiple domains of alcohol problems and covers a full range of problem severity. It has also been proven to be specifically relevant to the young-adult, college-aged population. Participants indicated whether they have experienced each of the 24 consequences (0 = no, 1 = yes) in the past month. Items included “I have taken foolish risks while drinking,” “I felt very sick to my stomach or thrown up after drinking,” and “I have neglected my obligations to family, work, or school because of my drinking.” The consequences were summed, with higher values representing more negative consequences experienced. Alpha reliability at baseline ($\alpha = .91$) and six-month follow-up ($\alpha = .93$) was satisfactory.

**Attachment to mother and father**

The Kerns Security Scale (KSS; Kerns, Klepac, & Cole, 1996; Kerns, Aspelmeier, Gentzler, & Grabill, 2001) assesses level of attachment security to mother and father through self-reports. Participants responded to 15 items, first about their primary maternal caregiver and then about their primary paternal caregiver. Each item is rated on a scale from 1 to 4 with sum scores ranging from a possible 15 to 60, with higher values reflecting more secure attachment. For each item, participants first choose which one of two descriptions best fits them and then report if that statement is “really true” or “sort of true” for them. Items include “I find it easy to trust my mom” OR “I’m not really sure I can trust my mom”; “I worry that my mom might not be there if I needed her” OR “I am sure that my mom would be there if I needed her.” The scale’s questions tap into the degree to which the child
believes a particular attachment figure is responsive and available, the child’s
tendency to rely on the attachment figure in times of stress, and the child’s
reported ease and interest in communicating with the attachment figure. The
KSS exhibited adequate reliability in this sample for both the mother ($\alpha = .89$)
and father ($\alpha = .89$) scales.

RESULTS

Analytic Plan

Descriptive statistics for mother security, father security, drinking frequency,
drinking motives, and drinking consequences were first examined. Drinking
frequency and consequences were assessed at baseline and six-month follow-up. T-tests were used to examine the differences between secure and
insecure participants in regard to their drinking frequency and consequences
at each time point, in addition to differences in drinking motives. Regression
analyses were used to examine the predictive ability of attachment security
on drinking consequences above and beyond drinking at baseline, and the
interaction between the participant gender and attachment security.

Descriptive Statistics

On the alcohol use composite, the means were 2.14 ($SD = 1.26$) at baseline
and 2.58 ($SD = 1.51$) at six-month follow-up. Furthermore, on average, par-
ticipants experienced 2.57 ($SD = 4.08$) alcohol consequences at baseline and
3.22 ($SD = 5.03$) alcohol consequences at six-month follow-up. With respect
to attachment, security scores averaged 50.25 ($SD = 8.43$) for mother and
48.92 ($SD = 8.53$) for father.

Main Results

Preliminary baseline analyses examining the correlations of mother and father
security revealed significant correlations on alcohol use ($r = -.25, p < .01$) and
alcohol consequences ($r = -.32, p < .001$) with mother security; but not with
father security alcohol use ($r = .01$, n.s.); and alcohol consequences ($r = -.09,$
n.s.). Due to these results and in conjunction with prior literature supporting
the finding that mother is most commonly the primary attachment figure,
only mother security was included in the remaining analyses.

Mother security scores were transformed with a mean-split to represent
high security ($N = 78$) and low security ($N = 61$) groups. Independent samples
t-tests revealed significant group differences on all drinking variables as can
be seen in Table 1, such that securely attached participants drank less, had
fewer consequences, and were less likely to endorse drinking motives com-
pared with less securely attached participants.
Two separate multiple regressions were estimated, predicting alcohol use and consequences at six-month follow-up and testing for gender moderation. As such, predictors were standardized prior to computation of the interaction term. Baseline drinking composite was entered as a covariate to statistically control for any prior differences in alcohol consumption. Attachment security with mother at baseline served as the predictor, with participant gender (0=female, 1=male) serving as the moderator of this effect. The model was estimated and graphed according to procedures established in Aiken and West (1991).

Results of the regression are displayed in Table 2. The following were longitudinally predictive of alcohol use: heavier levels of baseline alcohol use, male gender, and lower attachment security with mother, $F(4, 134)=26.50$, $p<.001$, $R^2=.44$. The following longitudinally predicted alcohol negative consequences: heavier levels of baseline alcohol use, male

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**TABLE 1** Mean Differences as a Function of Low and High Security with Mother

<table>
<thead>
<tr>
<th>Time</th>
<th>Variable</th>
<th>Low security</th>
<th>High security</th>
<th>$t$-test (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean $(SD)$</td>
<td>Mean $(SD)$</td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>Alcohol Use</td>
<td>2.41 (1.24)</td>
<td>1.93 (1.24)</td>
<td>2.26*</td>
</tr>
<tr>
<td></td>
<td>Alcohol Negative Consequences</td>
<td>3.52 (4.82)</td>
<td>1.82 (3.24)</td>
<td>2.49**</td>
</tr>
<tr>
<td></td>
<td>Coping Motives</td>
<td>1.63 (1.00)</td>
<td>1.26 (0.55)</td>
<td>2.74**</td>
</tr>
<tr>
<td></td>
<td>Social Motives</td>
<td>2.61 (1.40)</td>
<td>1.88 (1.16)</td>
<td>3.36***</td>
</tr>
<tr>
<td></td>
<td>Conformity Motives</td>
<td>1.41 (0.72)</td>
<td>1.22 (0.53)</td>
<td>1.80*</td>
</tr>
<tr>
<td></td>
<td>Enhancement Motives</td>
<td>2.23 (1.23)</td>
<td>1.65 (1.01)</td>
<td>3.03**</td>
</tr>
<tr>
<td>Six-Month Follow-Up</td>
<td>Alcohol Use</td>
<td>3.02 (1.62)</td>
<td>2.24 (1.33)</td>
<td>3.13**</td>
</tr>
<tr>
<td></td>
<td>Alcohol Negative Consequences</td>
<td>4.48 (5.65)</td>
<td>2.24 (4.29)</td>
<td>2.65**</td>
</tr>
</tbody>
</table>

*Note.* *$p<.05$. **$p<.01$. ***$p<.001$.

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**TABLE 2** Regressions Predicting Alcohol Use and Alcohol Negative Consequences at Six-Month Follow-Up

<table>
<thead>
<tr>
<th>Predictor (Baseline)</th>
<th>Alcohol use (6-month)</th>
<th>Alcohol negative consequences (6-month)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$-test</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>.61</td>
<td>9.15***</td>
</tr>
<tr>
<td>Participant Gender</td>
<td>.14</td>
<td>2.07*</td>
</tr>
<tr>
<td>Security with Mother</td>
<td>-.20</td>
<td>-2.41*</td>
</tr>
<tr>
<td>Participant Gender $\times$ Security with Mother</td>
<td>-.11</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

*Note.* $p<.05$. **$p<.01$. ***$p<.001$.  

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Role of Parental Attachment in Risky Drinking
gender, lower attachment security with mother, and a gender by attachment interaction, \( F(4, 134) = 9.26, p < .001, R^2 = .22 \). Thus attachment with mother was significantly associated with drinking and alcohol consequences near the end of the first year of college even after controlling for baseline drinking (drinking at the beginning of college).

The significant interaction effect on alcohol negative consequences at follow-up, controlling for baseline alcohol use, is graphed in Figure 1. Men less securely attached to their mothers experienced more alcohol consequences than women; however, men more securely attached to their mothers experienced fewer alcohol consequences than women. To determine if these slopes were significantly different from a horizontal slope, simple slope analyses were undertaken. The slope was found to be significant for men \((B = -0.47, p < .001)\) but not for women \((B = -0.07, \text{n.s.})\), indicating that an increase in mother security was linked to fewer alcohol-negative consequences only among men.

**DISCUSSION**

This study looked at the impact of parental attachment on alcohol use, drinking motives, and negative drinking consequences across the first year of college. At the beginning of college, students who reported more secure attachment to their mothers endorsed fewer motives for drinking, drank less, and experienced fewer negative consequences. Importantly, even while controlling for baseline drinking (drinking at the beginning of the first year of college) and gender, maternal attachment prospectively predicted both alcohol use and consequences at the end of the first year of college. Furthermore, gender moderated the relationship between attachment and negative alcohol consequences, such that men, but not women, with less secure maternal attachment experienced increased consequences six months into college. Conversely, more secure attachment served as a protective factor for men with respect to experiencing negative consequences. These findings add to the growing body of research suggesting that parental influence continues to have important effects not only during the transition to college but throughout the first year and potentially beyond.

These findings replicate previous research linking more secure attachment to one’s mother with decreased alcohol use but extend these findings into the important transitional period of the first year of college. Whereas attachment to mother has been shown in this and previous studies to affect alcohol-related behaviors cross-sectionally, the current study also yielded significant longitudinal findings. The power of attachment to predict both drinking and consequences at the end of the first year of college, even when controlling for baseline drinking, suggests an important role for parental relationships, particularly maternal relationships, throughout the critical
transition into college. Furthermore, the moderating effect of gender highlights the vulnerability of men with less secure maternal attachment for alcohol-related problems and potentially identifies them as a high-risk group for alcohol prevention and intervention efforts. More research is necessary to determine how parental attachment continues to influence students’ alcohol-related behaviors throughout college and beyond.

There are several potential explanations for the current findings. Students with less secure attachment to their mothers may possess behavioral or dispositional characteristics that place them at heightened risk for heavy drinking and associated consequences. Patterns of attachment security developed in the relationship with parents may extend into attachment relationships developed with peers at college. The impact of such persisting attachment patterns may be relevant for males in particular who are less likely to independently form intimate relationships with peers (Helgeson, Shaver, & Dyer, 1987; Monsour, 1992). Knox, Vail-Smith, and Zusman (2007), for example, found males were four times more likely than females to report that they “do not know how to go about making a friend,” and more frequently reported “a deep sense of loneliness.” Furthermore, strong relational health which often translates into a supportive peer network may provide a buffer against experiencing negative consequences (LaBrie, Thompson, et al., 2008). While there is not yet research on whether an interaction exists between less secure attachment and relational health/loneliness on alcohol-related consequences, drinking to cope has been consistently linked to increased alcohol consequences.

Conversely, college students actively seeking to build attachments may join cohesive organizations such as fraternities or sororities where drinking is highly prevalent. Whether in a fraternity or not, men tend to engage in more competitive or more attention-seeking drinking behaviors than women to establish social relationships (Borsari & Carey, 2006; Hays & Oxley, 1986;
Kuntsche, Knibbe, Gmel, & Engels, 2006). Murphy, Barnett, and Colby (2006) found men to be more reliant on alcohol-related activities for social reinforcement than women, who generally enjoy alcohol-free activities more than men. Regardless, the fact that men with less secure maternal attachment appear most at risk for problematic drinking highlights the importance of intervening with these men when they arrive at college to assist them in engaging in the campus community and developing positive attachment to both peers and mentors who might promote less risky behavior.

Limitations and Future Directions

The current study is limited by the scope of its sample demographics. Results may not generalize to similar-aged non-college populations or to colleges with different ethnic characteristics. For example, the individualistic tendency of some Caucasian ethnic groups may place these students who are living independently and away at college at disproportionate risk, in contrast to students whose cultures may place a higher value on maintaining close family ties (such as the Latino culture). Future studies with larger samples and more diverse demographics are needed to provide greater insight into the nature of the currently observed relationships.

Even though attachment to parents has been found to be stable for men and women from freshman to junior year of college (Rice, FitzGerald, Whalley, & Gibbs, 1995), future research would benefit from a more extended follow-up period. While the current study’s longitudinal examination over the course of the first year of college provides unique findings on an important transitional period, it may not be an adequate indicator of the sustained impact of parental attachment on college students’ drinking behavior during the course of their college career. Furthermore, the measure used to assess attachment (the KSS) has traditionally been used with children and adolescents, and to our knowledge there is no established measure of parental attachment to be used with a college-aged population. However, the KSS assesses constructs that continue to define the parental attachment relationship though college—the students’ sense of parent availability, knowledge that the parent can still be relied upon, and interest in communicating with the parent. Nonetheless, assessment of the scale’s validity among college students is warranted.

In addition, psychological distress unrelated to attachment may influence alcohol use and consequences over time (Geisner, Larimer, & Neighbors, 2004). Lacking the support provided within a strong attachment relationship with the mother, especially if combined with the absence of supplementary social support or lower levels of relational health, may leave the student unprotected against alcohol-related negative consequences (LaBrie, Thompson, et al., 2008).
The current study contradicts assumptions that parental influence wanes as students enter college, and provides evidence that parents still hold significance with respect to beliefs and choices around alcohol during college. Therefore, programs that encourage and facilitate continuing parental involvement throughout the first year of college may help reduce students’ alcohol-related risk. Furthermore, this study points to the importance of college administrations not only encouraging parental involvement but also assisting parents in building more secure relationships with their student-child. Given that alcohol use interventions focusing on continued parental communication have proven efficacious (Abar & Turrisi, 2008), further studies and interventions to increase parental involvement and improve the quality of the parental relationship particularly among incoming students who are less securely attached to their parents appear warranted.

The current findings suggest parental attachment, particularly maternal attachment, is uniquely related to alcohol use and negative consequences in college students even after students have moved away from home and throughout the first year of college. Specifically, attachment to mother predicted both alcohol consumption and negative consequences across the first year of college after controlling for baseline drinking levels. Future studies should clarify whether psychological characteristics mediate these findings as well as clarify what traits of college men amplify the relationship between attachment and consequences.

REFERENCES


