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Do as I Say, Not as You Perceive: Examining the Roles of Perceived Parental Knowledge and Perceived Parental Approval in College Students' Alcohol-Related Approval and Behavior

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SYNOPSIS

Objective.—This study examined college students' accuracy in their perceptions of parental approval of engaging in various alcohol-related behaviors, evaluated the mediational role of student approval in the relation between perceived parental knowledge and drinking, and determined the extent to which perceived parental approval moderated the relation between perceived parental knowledge and student approval.

Design.—Participants were 264 college student–parent dyads who completed independent online surveys.

Results.—Students overestimated parental approval of the child drinking, and parents were more approving of a “typical student” drinking than they were of their own child drinking. Student approval mediated the relation between perceived parental knowledge and student drinking, controlling for other relevant predictors. Perceived parental approval moderated the relation between perceived parental knowledge and student approval, controlling for other notable predictors.

Conclusion.—Parents continue to influence their child's alcohol-related attitudes and behaviors, even while in college.

INTRODUCTION

Alcohol misuse and the related consequences among college students are an enduring health concern. Nearly three quarters of students drink alcohol with 40% to 50% consuming five or more drinks in a row during the past month (Johnston, O'Malley, Bachman, & Schulenberg, 2010; Substance Abuse and Mental Health Services Administration, 2011). Consequences of high levels of drinking include unintentional injury, violence, unprotected sex, rape,

academic problems, relationship problems, health problems, legal problems, and even death (e.g., Ham & Hope, 2003; Wechsler et al., 2002). Parents can be a persuasive source of influence in the development of both adaptive and maladaptive health behaviors of their children. Although previous studies have suggested a declining and limited impact of parents on college student alcohol use (e.g., Ham & Hope, 2003; Wood, Read, Palfai, & Stevenson, 2001), an emerging body of evidence suggests that parents retain significant influence on students' behavioral decisions regarding alcohol (Abar & Turrisi, 2008; LaBrie & Sessoms, 2012; Nelson, Padilla-Walker, Christensen, Evans, & Carroll, 2011; Turner, Larimer, & Sarason, 2000; Turrisi & Ray, 2010). The current study seeks to provide greater insight into the influence of parents by examining potential mediation and moderation in the link between parenting factors and college students' alcohol-related outcomes.

The Role of Parental Knowledge in College Student Drinking

Despite the large body of research into the effects of parental monitoring, there remains no consensus on the types of behaviors that constitute monitoring, nor has it been uniformly measured and examined (Crouter & Head, 2002; DiClemente, Marinilli, Singh, & Bellino, 2001; Shillington et al., 2005). Nonetheless, parental monitoring has traditionally been operationalized as parental knowledge of a child's activities, friends, and behaviors (e.g., Bailey, Hill, Oesterle, & Hawkins, 2009; DiClemente et al., 2001; Pettit, Keiley, Laird, Bates, & Dodge, 2007; Smetana & Daddis, 2002). Because most measures of parental monitoring capture what parents know rather than what they actively do to obtain this information, it is more accurate to refer to this concept as parental knowledge (Crouter & Head, 2002; Kerr & Stattin, 2000). We can be relatively confident that parental knowledge is associated with reduced engagement in problematic behaviors among adolescents (Lac & Crano, 2009; Racz & McMahon, 2011), but the construct has received surprisingly limited attention in college populations. Preliminary evidence suggests that higher levels of perceived parental knowledge are associated with less drinking, drug use, and risky sexual behavior among college students (Padilla-Walker, Nelson, Madsen, & Barry, 2008). Abar and Turrisi (2008) found that parental knowledge assessed at prematriculation to college predicted first semester alcohol use, with indirect effects on second semester drinking mediated by close friends' drinking. Because of the preventative effects associated with parental knowledge among adolescent populations and the heightened risks associated with college student drinking, continuing to identify how parental knowledge can operate as a protective factor on alcohol-related outcomes among college students has important implications for ways in which parents, educators, and clinicians might foster more healthy development during the transition to adulthood.

The pathways by which parenting factors influence college students' health-risk behaviors are still in the process of being identified and well-understood. Several studies have indicated that similar to other types of behavioral decision making, an individual's own attitudes often represent a final pathway to alcohol use (e.g., de Leeuw, Engels, Vermulst, & Scholte, 2008; Neighbors, Lindgren, Knee, Fossos, & DiBello, 2011). Moreover, some parenting factors have been found to operate indirectly through students' own attitudes toward drinking, to impact drinking behavior. For example, one study found that the relation between parental communication and drinking consequences was mediated through

student attitudes and that student attitudes partially mediated the relation between parental communication and student drinking (Boyle & Boekeloo, 2009). Another recent study demonstrated that student approval (i.e., attitudes) mediated the relation between parental approval and student drinking (LaBrie, Hummer, Lac, Ehret, & Kenney, 2011). Furthermore, student attitudes have mediated the relation between parent based interventions (PBIs) and reductions in college student drinking (Turrisi, Abar, Mallet, & Jaccard, 2010). Given the preventative effects associated with parental knowledge along with the strong mediational role of student attitudes toward drinking, the current study examines whether student attitudes mediate the relation between parental knowledge and student drinking.

Parental Approval

Parental approval is another influential factor associated with alcohol-related outcomes among college students. Research has shown that parental disapproval of drinking is negatively associated with college student alcohol use and consequences (Jessor, Costa, Krueger, & Turbin, 2006). Similarly, in the summer before attending college, adolescents drank less alcohol if their parents disapproved of drinking behavior (Wood, Read, Mitchell, & Brand, 2004). However, the extent to which parents actually approve of their child's drinking, and the subsequent relation to the child's own alcohol-related attitudes and behavior, requires further study. Parental approval may offer a method by which parental knowledge translates to protective effects. That is, parental approval likely determines how parental knowledge is evaluated and later acted upon, subsequently and potentially having an impact on the child. Therefore, the current study seeks to examine the potential moderating effect of parental approval on the relation between parental knowledge and a final pathway leading to individual behavior: one's own attitudes.

Importance of Perceived Parenting Factors

Research indicates that parental approval and knowledge have an impact on college student alcohol use, but an important distinction must be made between reports from parents versus student reports of parental knowledge and approval. With respect to parental knowledge, research indicates that parents' self reports are not the same as their student perceptions (Cottrell et al., 2003; Haynie, Beck, Crump, Shattuck, & Simons-Morton, 1999; Padilla-Walker et al., 2008). Student perceptions can actually be more predictive of alcohol involvement (Cottrell et al., 2003; Haynie et al., 1999; Padilla-Walker et al., 2008). Thus, the current study focuses on perceived parental knowledge when examining its relations to student outcomes.

Perceived parental approval of student drinking (Abar, Abar, & Turrisi, 2009; Abar & Turrisi, 2008; Boyle & Boekeloo, 2006) and the disparity between perceived parental and perceived peer approval (Cail & LaBrie, 2010) are significantly associated with problematic drinking among college students. Similarly, a longitudinal study by Walls, Fairlie, and Wood (2009) found greater perceived parental disapproval of heavy drinking was related to slowing the adoption of drinking and escalation of increased alcohol consumption and consequences among student drinkers. Although perceived parental approval has been used as a proxy to actual parental approval, to our knowledge these constructs have not been formally compared. Based on research trends, it appears that parents may think they are

communicating their attitudes when in fact students may perceive something different. Thus, the current study seeks to provide an empirical documentation of the difference between perceived and actual parental approval of college student drinking.

Peer Influences on College Student Drinking

Decision making while in college represents a unique confluence of increased personal reliance and independent decision making, along with competing influences of both parents and peers. Peers are the major means of support and guidance for most college students, exerting greater impact on behavioral decisions than biological, familial, or cultural influences (e.g., Borsari & Carey, 2001). Learning and reinforcement of drinking behaviors are thought to occur through both active (i.e., alcohol offers) and passive (i.e., social modeling, perceived normative behavior, and attitudes of peers) mechanisms within the social environment. Students estimate that others are more accepting of a variety of drinking behaviors than they are themselves, and students' perceived approval of other students is often overestimated (Hummer, LaBrie, & Pedersen, 2012; Larimer, Irvine, Kilmer, & Marlatt, 1997; Neighbors et al., 2008). Furthermore, perceived peer approval is related to individual drinking even after accounting for one's own approval (Larimer et al., 1997) and perceived peer approval predicts alcohol consequences even when controlling for drinking (LaBrie, Hummer, Neighbors, & Larimer, 2010; Larimer, Turner, Mallett, & Geisner, 2004). To provide a more global perspective on this complex socialization process, it is important to simultaneously consider perceived peer norms when exploring the impact of parenting factors on college student drinking.

The Current Study

The current study focuses on the continued impact of parents on the alcohol-related attitudes (i.e., approval levels) and behaviors of their college-aged student-child. Despite significant implications for prevention, research detailing how parents affect their child's alcohol decision making while in college remains understudied. We were interested in whether students accurately perceived parental approval of various alcohol-related behaviors. We anticipated that students would overestimate parental approval levels. We were also interested in how approving parents were of their own child drinking compared to how approving they were of general college student drinking. It was hypothesized that parents would be more approving about typical college student drinking than that of their own child. Next, we examined the extent to which student approval of alcohol behaviors mediated the relation between perceived parental knowledge and student drinking. We expected that the impact of perceived parental knowledge would operate indirectly through its association with student approval, even while controlling for the effects of other notable predictors such as perceived peer norms, actual parental approval, and parents' own alcohol use. Finally, we explored the extent to which perceived parental knowledge and perceived parental approval combined to predict student approval of alcohol-related behaviors, again while controlling for the effects of perceived peer norms, actual parental approval, and both parent and student alcohol use. We hypothesized that perceived parental approval would be positively associated with student approval, whereas perceived parental knowledge would be negatively associated. We further tested to see if perceived parental approval moderated the relation between perceived parental knowledge and student approval.

METHOD

Participants

Throughout the academic year, 289 students from a private, mid-size, west coast university seeking class credit in the psychology subject pool completed an online assessment. Students electing to participate in the current study were asked to recruit one parent of their choice to complete a shorter parental questionnaire. Of the 289 students who completed the student survey, 264 (91%) successfully recruited a parent and provided complete, non-missing, data for a total of 264 unique student–parent dyads. Students reported a mean age of 19.01 years ($SD = 1.65$), and parents reported a mean age of 50.93 years ($SD = 5.51$). The student sample was 59% female ($n = 156$) and the ethnic composition was varied: 59.3% European American, 13.7% Latin American, 10.7% mixed, 7.4% Asian American, 4.4% African American, 4% Native American/Alaska Native, 2.2% other, and 1.9% Hawaiian/Pacific Islander. The gender and ethnic ratios accurately reflect the larger student population from which the sample was derived. Of the parent sample, 78% were female and ethnicity was similar to that of the student sample.

Design and Procedure

If the student decided to participate in the current study, research staff sent a separate e-mail to the student and parent that contained a study description and a link to an informed consent form documenting the confidentiality of responses. Upon submitting their consent, students and parents were taken to their respective online surveys. The student survey took about 30 min to complete, and the parent survey took about 10 min to complete. Before answering questions related to drinking behavior, a standard drink was defined as a drink containing one-half ounce of ethyl alcohol — one 12 oz. beer, one 4 oz. glass of wine, or one 1.25 oz. shot of 80 proof liquor. Pictures of standard drinks accompanied these descriptions.

Measures

The parent and student surveys began with demographic questions assessing age, gender, and ethnicity.

Perceived and Self-Reported Approval of Alcohol-Related Behaviors

Questions from two previously established measures were used to assess perceived and actual approval of drinking behaviors of both the students and parents. Three items from the House Acceptability Questionnaire (Larimer, 1992) assessed acceptability of “becoming intoxicated at a party,” “missing class due to a hangover,” and “drinking during weekdays.” Three items from a recent comprehensive injunctive norms review (Lewis et al., 2010) assessed the acceptability of “drinking every day,” “drinking on the weekends,” and “drinking underage.” All response options were measured on a 7-point Likert scale ranging from 1 (*not acceptable*) to 7 (*very acceptable*). The six items in total were averaged to form all of the necessary composite variables for the students and parents as described below.

Parental approval.—Parental approval of the hypothetical behaviors described above was measured for their own child as well as a “typical student” at the university. For example, parents were asked, “How acceptable do you feel it is for your child to miss class due to a

hangover?” Following all six items asking about their own child, parents were asked about their approval of a typical student at the university engaging in the same behaviors. For example, “How acceptable do you feel it is for a typical [university name] student to drink on the weekends?” Individual responses from the six questions were averaged to form a “parental approval of child’s drinking” composite ($\alpha = .76$) as well as a “parental approval of typical student drinking” composite ($\alpha = .85$).

Students’ perceptions and own approval.—Each student was first asked to estimate how approving the selected parent was of the child engaging in the six alcohol-related behaviors. For example, “How acceptable does your mother think it is for you to drink on weeknights?” Next, the students were asked to repeat their perceptions for a typical student on their campus. For example, “How acceptable does a typical [university name] student think it is to drink every day?” After reporting their perceptions, students’ own approval was assessed with the same six items. Each student was asked to record his or her own approval level of each of the six different behaviors. For example, “How acceptable do you think it is to become intoxicated at a party?” The six items regarding perceived parental approval were averaged to form a “perceived parental approval” composite ($\alpha = .83$). Likewise, perceptions regarding typical student norms were averaged to form a “perceived peer approval” composite ($\alpha = .79$). The six individual approval items were averaged to form a “student approval” composite ($\alpha = .83$). Finally, a discrepancy variable for each dyad was formed by subtracting the parental approval score from the child’s perceived parental approval score. Discrepancy scores from all participants were then averaged to form a “discrepancy between perceived and actual parental approval” composite. Positive scores reflect greater perceived parental approval compared to actual parental approval.

Student and Parent Weekly Alcohol Consumption

Student and parent drinking behaviors were assessed using the Daily Drinking Questionnaire (DDQ; Dimeff, Baer, Kivlahan, & Marlatt, 1999). Participants were asked, “Think of a typical week in the last 30 days. Try to remember as accurately as you can how often and how much you typically drank in a week during that one month period.” They responded by reporting the typical number of drinks consumed on each day of the week. Weekly drinking was calculated for both students and parents by summing participants’ responses for each day of the week. The DDQ has been used in numerous studies of drinking and has demonstrated good convergent validity (e.g., $r = .50$; Collins, Parks, & Marlatt, 1985) and test–retest reliability (e.g., $r = .87$; Neighbors, Dillard, Lewis, Bergstrom, & Neil, 2006).

Perceived Parental Knowledge

The knowledge subscale of the Parental Monitoring Scale (Stattin & Kerr, 2000) was used to measure perceived parental knowledge of the child’s whereabouts, activities, and associations. Using 5-point Likert scales ranging from 1 (*no, never*) to 5 (*yes, always*), students answered nine questions regarding parental knowledge. The questions were, “Do your parents: know what you do during your free time? know who you have as friends during your free time? usually know what type of homework you have? know what you spend your money on? usually know when you have an exam or paper due at school? know how you do in different subjects at school? know where you go when you are out

with friends at night? normally know where you go and what you do after school?” and “In the last month, have your parents ever had no idea of where you were at night?” (reverse coded). A composite was computed, reflecting lower or higher levels of perceived parental knowledge ($\alpha = .88$). The knowledge subscale of the Parental Monitoring Scale has demonstrated substantial test–retest reliability for the child’s reporting (e.g., $r = .83$: Stattin & Kerr, 2000).

RESULTS

Bivariate Associations

A correlation matrix of study variables is presented in Table 1. Student drinks per week was associated with student approval levels, $r(284) = .43, p < .001$, perceived parental approval, $r(284) = .30, p < .001$, actual parental approval, $r(263) = .21, p < .001$, and parent drinks per week, $r(260) = .18, p .003$. More perceived parental knowledge was related to less student drinking, $r(282) = -.13, p = .024$. Student approval was associated with most study variables, such as perceived parental approval, $r(284) = .52, p < .001$, perceived peer approval, $r(283) = .31, p < .001$, and actual parental approval, $r(261) = .28, p < .001$. More perceived parental knowledge was associated with less approving student attitudes toward drinking, $r(281) = -.27, p < .001$.

Misperceptions: Perceived Parental Approval versus Actual Approval

We were interested in whether students could accurately estimate how approving parents were about their drinking. Paired t -tests compared perceived parental approval ($M = 2.48, SD = 1.21$) to the actual approval reported by the parent ($M = 1.90, SD = .89$). Students overestimated by 30% how approving their parents were of them engaging in the alcohol use behaviors, $t(262) = 8.14, p < .001$. The magnitude of this misperception did not differ either by the gender of the student, $t(261) = -.73, p = .590$, or parent, $t(261) = 1.23, p = .549$. Moreover, correlational analyses revealed that the discrepancy between perceived and actual parental approval was positively associated with student drinking, $r = .13, p < .024$, and approval, $r = .31, p < .001$.

Discrepancies between Parental Approval of “Typical Student” versus Own Child

Next, paired t -tests compared parental approval of typical student behaviors ($M = 2.26, SD = 1.11$) to the parental approval of their own child ($M = 1.90, SD = .89$). Parents were more approving of a typical student engaging in alcohol-related behaviors than they were of their own child engaging in the same behaviors, paired $t(263) = 6.70, p < .001$. Again there were no differences based on the gender of the student, $t(258) = -.10, p = .583$, or parent, $t(262) = -.02, p = .156$.

Mediation Model

Two multiple regression models were estimated to investigate whether student approval mediated the relation between perceived parental knowledge and student drinking. To strengthen the analysis of mediation by statistically controlling for other relevant factors implicated in approximating young peoples’ approval of alcohol-related behaviors and their own drinking behavior, both regression models included three important covariates:

parent drinking behavior, parental approval, and perceived peer approval. Thus, in Model 1 evaluating student approval, the aforementioned covariates were entered at Step 1, while perceived parental knowledge was entered at Step 2. In Model 2 evaluating student drinking, the covariates were entered at Step 1, the main effect for perceived parental knowledge was entered at Step 2, and student approval was entered at Step 3.

Covariate Effects

In Model 1 assessing student approval, the following covariates were found to be significant at Step 1: actual parental approval ($\beta = .26, p < .001$) and perceived peer ($\beta = .27, p < .001$). In Model 2 assessing student drinking, parent drinking ($\beta = .15, p = .018$) and approval actual parental ($\beta = .20, p = .002$) were found to be significant at Step 1. However, in the final step of Model 2, the only covariate to remain significant was parent drinking ($\beta = .13, p = .025$).

Mediation Analysis

The regression analyses (see Table 2) successfully satisfied Baron and Kenny's (1986) four steps to establish a mediating effect: (1) perceived parental knowledge predicted student drinking, $\beta = -.15, p = .015$, (2) perceived parental knowledge predicted student approval, $\beta = -.19, p < .001$, (3) student approval predicted student drinking after controlling for perceived parental knowledge, $\beta = .38, p < .001$, and (4) the effect of perceived parental knowledge on student drinking was no longer significant with student approval in the model, $\beta = -.08, p = .197$. Sobel's (1982) test for mediation confirmed the mediation model, $z = -2.96, p = .002$. Thus, student approval of alcohol-related behaviors mediated the relation between perceived parental knowledge and student drinking.

Moderation Model Predicting Student Approval

A multiple regression model estimated the explanatory contribution of perceived parental approval and parental knowledge, along with their interaction effect, on the outcome of student approval. At Step 1, parent drinks per week, parental approval, perceived peer approval, and student weekly drinking served as covariates to statistically rule out the contribution of these factors. Main effects for perceived parental approval and parental knowledge were entered at Step 2. Specified in Step 3 was the two-way interaction involving perceived parental approval and perceived parental knowledge. Consistent with recommended procedures for estimating and interpreting interactions in multiple regression (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003), all predictors were standardized prior to computing the interaction term.

The following factors were found to be significant at Step 1 (Table 3): actual parental approval ($\beta = .19, p = .001$), perceived peer approval ($\beta = .27, p < .001$), and student drinks per week ($\beta = .36, p < .001$). At Step 2, significant main effects were found for perceived parental approval ($\beta = .39, p < .001$) and perceived parental knowledge ($\beta = -.14, p = .006$). Step 3 revealed a significant interaction between Perceived Parental Approval \times Perceived Parental Knowledge ($\beta = .13, p = .009$). The final model accounted for a total of 43% of the variance of student approval, $F(7, 252) = 26.55, p < .001$. The interaction was graphed at one standard deviation below (low) and above (high) the mean, and its standardized

simple slopes were evaluated to determine if these slopes were significantly different from a horizontal slope of zero (Dawson & Richter, 2006). Figure 1 contains the two-way interaction depicting the moderating role of perceived parental approval. Simple slopes analyses revealed that at high levels of perceived parental approval, perceived parental knowledge is not associated with student approval ($\beta = -.01, p = .887$). However, at low levels of perceived parental approval, as perceived parental knowledge increases, student approval decreases ($\beta = -.32, p < .001$).

DISCUSSION

The current study provides important insight into how college students' perceived parental knowledge, perceived parental approval, and own alcohol-related approval, comparatively influence one another and combine to impact student drinking behavior. Two separate but conceptually related sets of results suggest that greater perceived parental knowledge, especially in the presence of low parental approval, can mitigate more approving student attitudes, and hence, decrease drinking rates. Results support the emerging research documenting the potential positive impact of parents on student drinking despite the heightened influence of peers in the college environment. Although parents have a more direct influence on their child's behaviors during adolescence (Ryan et al., 2010), the current research suggests that parental influence continues into college even if the mechanisms of such influence change. Specifically, parents influence their child's drinking behavior indirectly through the child's own alcohol-related attitudes as well as through the child's perceptions of parental approval. This shift in influence is significant as the current findings revealed that students overestimate the approval level of their parents and those misperceptions are significantly related to more approving attitudes and greater alcohol use by the student.

Misperceptions and Discrepancies Regarding Parental Approval

Using dyadic data, results revealed that students overestimated how approving their parents were regarding the child engaging in various alcohol use behaviors. Parents were also more approving of a "typical student" drinking than they were of their own child engaging in the same behaviors. Many studies have illustrated the importance of perceived parental approval among college students (e.g., Abar et al., 2009; Abar & Turrisi, 2008; Boyle & Boekeloo, 2006) but this was the first study to our knowledge that demonstrated a misperception between perceived and actual parental approval in this population. Young people's attempts to discern parental approval for a variety of activities, including alcohol use, will be influenced by the discussions they have with their parents, the quality of their relationships with their parents, and the parents' own drinking behaviors (Brody, Flor, Hollett-Wright, McCoy, & Donovan, 1999). Parents may possess any range of approval toward drinking, but their child's perception of parental approval is formed in part from what parents communicate in addition to the behavior that is modeled. Therefore, instructing parents on how and when to communicate most effectively with their child about what is and is not acceptable, could potentially decrease or eliminate the discrepancy. Such instruction is especially relevant for parents who rarely or never communicate with their child about alcohol use as silence on the issue could be construed as tacit approval. It is also plausible

that under such circumstances, risky peer norms could become a greater influence on student drinking behavior, thereby superseding the potential for protective benefits associated with parenting factors.

Importance and Implications of Student Approval as a Mediator

As hypothesized, student approval of alcohol-related behaviors fully mediated the effect of perceived parental knowledge on student drinking, over and above other influential factors such as parent drinking, actual parental approval, and perceived peer approval. Thus, although related directly to drinking, the effects of perceived parental knowledge on drinking operate indirectly via student approval. This finding extends research showing that student approval mediates the impact of parenting factors such as parental communication (Boyle & Boekeloo, 2009), parental approval (LaBrie et al., 2011), and main effects of PBIs (Turrisi et al, 2010) on college student drinking.

When viewed together, the linkages outlined in recent studies along with the findings of the current study are reflective of an internalization process. The student takes over the values and attitudes of the parent as his/her own and is subsequently motivated, not by external consequences, but by internal factors (i.e., less approving personal attitudes, more parental awareness and interest in their drinking). Grusec and Goodnow (1994) argued that internalization needs to be viewed as a two-stage event. In this case, the student must first accurately perceive the message parents intend to convey and then they must be willing to accept the message. Abar and Turrisi (2008) suggested that parenting behaviors have a direct impact on students' selection of friends during college, even after accounting for the influence of prior individual drinking and previous friends from high school. That is, with greater perceived parental knowledge, individuals tended to associate less with heavy drinking peers in college and drink less themselves. These results support the notion that the selection of low alcohol using friends in college may represent student internalization of perceived parenting factors. The current study contributes novel information to this idea by showing that students overestimate parental approval and that, as seen below, perceived approval plays an important role in the impact of parental knowledge on student attitudes, both of which are implicated as critical factors to effective internalization. Further exploration of an internalization process derived from various parenting factors targeting health-risk behaviors of college students is a worthwhile area for future research.

Importance and Implications of Perceived Parental Approval as a Moderator

Perceived parental approval was shown to moderate the effect of perceived parental knowledge on student approval. Post-hoc tests revealed that, when perceived parental approval is low, greater perceived parental knowledge of the child's activities, whereabouts, and associations, is associated with even less approving student attitudes. Conversely, when perceived parental approval is high, perceived parental knowledge has a negligible impact on student attitudes.

Research commonly attributes high levels of parental knowledge as a protective factor; however, parental knowledge of college students does not appear to be risk reducing, unless it is accompanied by perceived parental disapproval of risky drinking. Approaches

that acknowledge underage drinking and aim to minimize associated harm are generally emphasized as a preferable alternative to a zero-tolerance policy with respect to drinking among college students (e.g., Botvin & Griffin, 2004; Dimeff et al., 1999; Marlatt & Witkiewitz, 2002). However, recent findings indicate that parental communication of zero tolerance, or complete disapproval, of alcohol use was associated with the safest student behaviors regarding both weekend drinking and likelihood of experiencing alcohol-related consequences (Abar, Morgan, Small, & Maggs, 2012). Conversely, a harm-reduction approach from parents was found to be associated with the highest levels of risk behaviors.

The beta weight for perceived parental approval was considerably larger than that of perceived peer approval. This finding illustrates that, contrary to popular belief, parents hold considerable sway on the alcohol attitudes of their college-aged child, relative to the omnipresent influence of a student's college peers. The fact that perceived parental approval continues to impact student approval into the college years, even after taking into account peer influence, should encourage parents to redouble their efforts in providing some oversight and involvement with their child's activities, friend choices, and day-to-day life. Therefore, instead of bemoaning "helicopter parenting" for example, student affairs professionals could leverage this willing involvement by encouraging parents to deliver messaging regarding their disapproval of risky drinking.

Limitations

This study should be viewed in light of several limitations. As this study was a cross-sectional examination of parent-child dyads, it would be advantageous in future research if the directionality of linkages were tested using longitudinal data. Given the greater status and power of influence afforded by parents relative to their children, the direction put forth in the research (from parent to child) seems highly plausible. Future research should also examine the study variables among a more representative sample of students, as the current sample demographics limit generalizability. It is also important to note that only one parent was included and the reasons students selected their participating parent are unknown. Additionally, we did not examine alcohol-specific parental knowledge which may have differential associations with student drinking outcomes. Future research should also explore what factors may contribute to student misperceptions of parental approval. More clearly understanding the source(s) of student misperceptions will better inform future intervention design.

Conclusions

This preliminary study offers unique insights into the processes by which perceived parental knowledge and perceived parental approval contribute to alcohol-related outcomes of college students. It is the first study in which researchers have documented college students' overestimations of their parental approval. Surprisingly, perceived parental approval was a substantially stronger predictor of student approval, when compared to actual parental approval as well as perceived peer approval. The study also highlights that parental knowledge continues to provide an important counterbalance to more approving drinking attitudes found in the college social environment by being impactful on student approval, which in turn was found to mediate the relation between knowledge and student

drinking. Finally, the continued importance of students' own alcohol-related attitudes when considering the impact of parenting factors on college student drinking further emphasizes the need to expand the conceptualization of the issues involved in college alcohol use beyond the college environment to include the continuing important role of parents.

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IMPLICATIONS FOR PRACTICE, APPLICATION, AND POLICY

The current study offers important insights for college parents, college administrators, and clinicians interested in mitigating the deleterious effects associated with college student drinking. Research has begun to investigate the efficacy of PBIs to decrease college student drinking by providing parents with information materials on alcohol use in college and encouraging frequent and meaningful conversations with their child regarding risky drinking (e.g., Ichiyama et al., 2009; Turrisi, Jaccard, Taki, Dunnam, & Grimes, 2001; Turrisi et al., 2009; Wood et al., 2010). PBIs that promote alcohol specific parent–child communication can be effective in reducing alcohol risk (Ichiyama et al., 2009; Turrisi et al., 2001; Turrisi et al., 2009; Wood et al., 2010). Findings from the current study suggest that PBIs could be enhanced by informing parents of the risk of ineffective communication and providing effective communication strategies to eliminate any misperceptions the student may have about where the parent stands on the issue. Encouraging parents to be explicit about their disapproval could reduce the degree of their child’s misperception. Furthermore, parents’ perception of the effectiveness of their alcohol-related communication has been found to be inversely related to the frequency of their discussions (Cremeens, Usdan, Brock-Martin, Martin, & Watkins, 2008). Thus, the more effective parents feel their discussions are, the less often they engage in them. Therefore, PBIs including effective communication strategies would be relevant for all parents, regardless of their confidence in their communication efficacy. Concurrently, increasing student perceptions of parental knowledge by providing more explicit oversight and involvement with their child’s activities, friend choices, and day-to-day life would synergize with parental disapproval to positively influence their child’s own approval levels and hence, reduce risky drinking behaviors.

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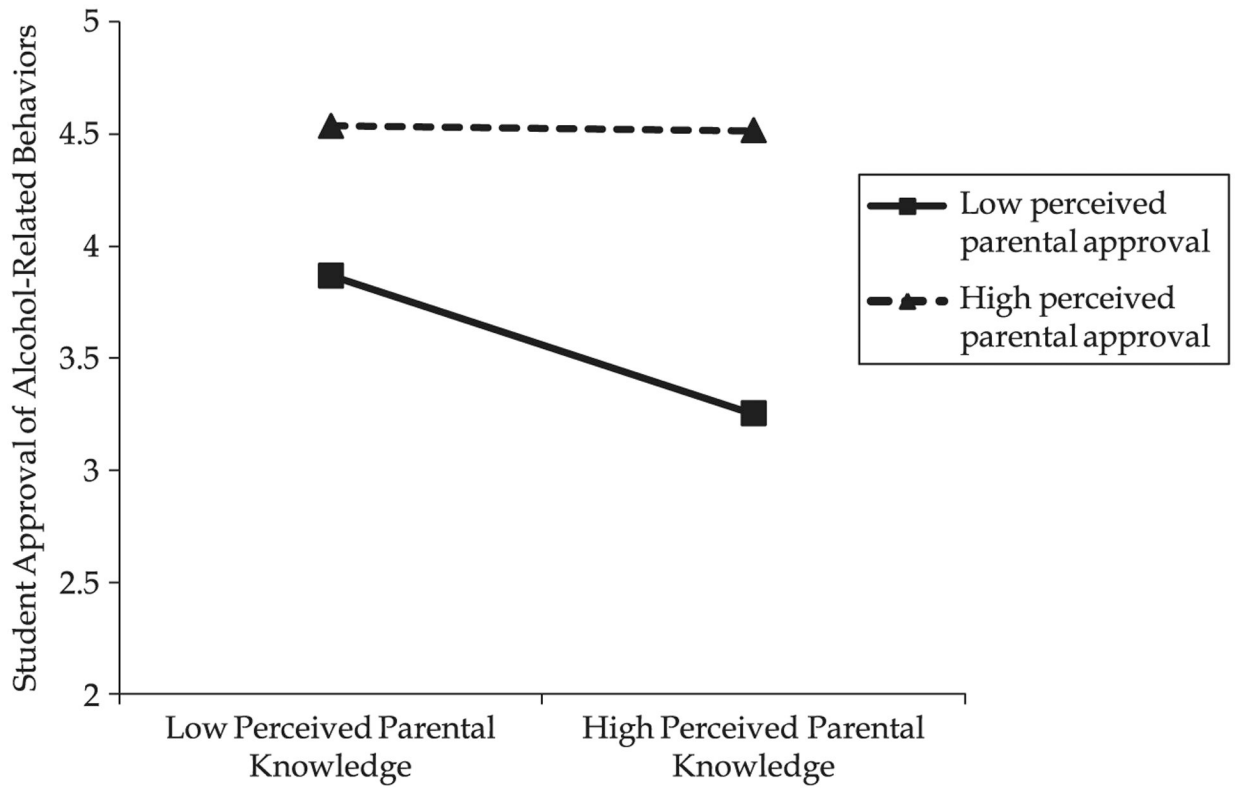


FIGURE 1. Correlation between perceived parental approval and perceived parental knowledge on student approval of alcohol-related behaviors.

TABLE 1

Means, Standard Deviations, and Correlation Matrix of Study Variables

Measure	Mean	SD	1	2	3	4	5	6	7
1. Student drinks per week	7.98	9.49	—						
2. Student approval of alcohol-related behaviors	4.01	1.25	.43***	—					
3. Perceived peer approval	5.31	0.89	.03	.31***	—				
4. Perceived parental approval	2.48	1.23	.30***	.52***	.10	—			
5. Perceived parental knowledge	3.19	0.85	-.13*	.26***	-.06	-.12	—		
6. Parental approval of child’s drinking	1.90	0.89	.21***	.28***	.10	.43***	-.10	—	
7. Parental approval of “typical student” drinking	2.27	1.12	.10	.22	.09	.34***	-.09	.64***	—
8. Parent drinks per week	3.66	4.52	.18**	.08	-.07	.27***	.05	.17**	.10

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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TABLE 2

Results of Mediation Analyses of the Relation between Perceived Parental Knowledge, Student Approval, and Student Drinking

	Step 1 β	Step 2 β	Step 3 β	Final Step <i>B</i>	Final Step <i>SE</i>	R^2 _{change}	R^2 _{total}
Model 1							
Student approval of alcohol-related behaviors							
Step 1							.17***
Parent drinks per week	.06	.07		.02	.02		
Parental approval of child's drinking	.26***	.24***		.32	.08		
Perceived peer approval	.27***	.26***		.35	.08		
Step 2						.04***	.20***
Perceived parental knowledge		-.19***		-.28	.08		
Model $F(4, 252) = 15.77$ ***							
Model 2							
Student drinks per week							
Step 1							.07***
Parent drinks per week	.15*	.16*	.13*	.28	.12		
Parental approval of child's drinking	.20**	.19**	.10	1.04	.65		
Perceived peer approval	.00	.00	.10	1.08	.64		
Step 2						.02**	.10**
Perceived parental knowledge		-.15*	-.08	-.87	.68		
Step 3							
Student approval of alcohol-related behaviors			.38***	3.09	.52	.11***	.21***
Model $F(5, 252) = 13.12$ ***							

* $p < .05$.

** $p < .01$.

*** $p < .001$.

TABLE 3

Multiple Regression Model Predicting Student Approval of Alcohol-Related Behaviors

	Step 1 β	Step 2 β	Step 3 β	Step 3 <i>B</i>	Step 3 <i>SE</i>	<i>R</i> ² change	<i>R</i> ² total
Step 1							.28***
Parent drinks per week	.01	-.06	-.06	-.07	.06		
Parental approval of child's drinking	.19**	.04	.03	.04	.07		
Perceived peer norms	.27***	.24***	.24***	.28	.06		
Student drinks per week	.36***	.27***	.27***	.31	.06		
Step 2						.13***	.42***
Perceived parental approval		.39***	.41***	.49	.07		
Perceived parental knowledge		-.14**	-.14**	-.17	.06		
Step 3							
Perceived parental approval × perceived parental knowledge			.13**	.15	.06	.02**	.43***
Model F(7, 252) = 26.55***							

* *p* < .05.

** *p* < .01.

*** *p* < .001.

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