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Parents' and students' perceptions of college alcohol risk: the role of parental risk perception in intentions to communicate about alcohol

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Parents’ and students’ perceptions of college alcohol risk: The role of parental risk perception in intentions to communicate about alcohol

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Abstract

The current study aims to examine discrepancies in parents’ and college students’ perceptions of alcohol risk and the role of perceived risk in predicting parents’ intentions to discuss alcohol with their child. In total, 246 college student-parent dyads (56.1% female students, 77.2% mothers) were recruited from a mid-size university. Participants completed measures of absolute likelihood, comparative likelihood, and severity of alcohol consequences. In comparison to students, parents perceived the risks of alcohol poisoning (p < .001), academic impairment (p < .05), and problems with others (p < .05) to be more likely. In addition, parents rated the majority alcohol consequences (e.g., passing out, regrettable sexual situation, throwing up) as more severe than students (all ps < .001). However, parents tended to be more optimistic than their child about the comparative likelihood of alcohol consequences. After controlling for demographics and past alcohol communication, greater absolute likelihood (β = .20, p = .016) and less confidence in knowledge of student behavior (β = .20, p = .013) predicted greater intentions to discuss alcohol. Providing parents of college students with information about college drinking norms and the likelihood of alcohol consequences may help prompt alcohol-related communication.

Keywords

alcohol risk; college students; parents; risk perception; alcohol-specific communication

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Statement 2: Contributors
Lucy E. Napper, Elizabeth M. Grimaldi, & Joseph W. LaBrie have each contributed significantly to the preparation of the manuscript. Specifically, Dr. Napper oversaw the literature review, designed the study, conducted the statistical analysis, and drafted the Introduction and Results. Elizabeth Grimaldi assisted in conducting the literature review and drafted the Method and Discussion. Dr. LaBrie oversaw the production of the manuscript and contributed to editing the manuscript in its entirety. All authors contributed to and have approved the final manuscript.

Statement 3: Conflicts of Interest
All authors declare that they have no conflicts of interest.

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Perceptions of susceptibility to risk and the severity of harm are key components for understanding peoples’ motivation for engaging in behaviors that reduce the risk of negative health consequences. Perceptions of risk are central to many models predicting health-related behavioral intentions and actual behaviors. For example, the Protection Motivation Theory (Rogers, 1975), Health Belief Model (Becker, 1974), and the Extended Parallel Process Model (Witte, 1992) suggest that perceiving a negative consequence as more likely and serious can increase the likelihood of action to reduce the perceived risk. Although these models suggest that greater perceived risk alone may not be sufficient to prompt attitude or behavior change, in many models it is seen as necessary component to motivate health behavior change.

Research among college students has demonstrated that absolute perceived risk (i.e., estimates of the likelihood and severity of alcohol-related consequences) are related to students’ alcohol use (Klein, Geaghan, & MacDonald, 2007; Lewis, Neighbors, Oster-Aaland, Kirkeby, & Larimer, 2007; Wild, Hinson, Cunningham, & Bacchichiochi, 2001), as well as current and future alcohol-related consequences (Dillard, Midboe, & Klein, 2009). Students who drink more and have greater alcohol-related problems tend to recognize that that they are at greater risk of future negative consequences than those who drink less and have fewer alcohol-related problems. Although these findings suggest that, overall, students are fairly accurate in their risk estimates, younger adults and adolescents are often viewed as seeing themselves as invulnerable to negative events (Millstein & Halpern-Felsher, 2002; Quadrel, Fischhoff, & Davis, 1993). Indeed, research examining comparative perceived risk (i.e., estimates of the likelihood of alcohol consequences in comparison to a typical peer) suggests that heavier drinking college students tend to rate the risk of personally experiencing alcohol-related harm to be significantly lower than a same-age peer (Wild et al., 2001). Furthermore, Cohn and colleagues (1995) demonstrated that adolescents perceive a range of risk behaviors, including drinking alcohol and drinking and driving, to be less harmful than their parents.

Although parents of adolescents view the consequences of drinking to be severe, it is not clear whether parents of college students also view the consequences of alcohol to be more harmful or more likely than their children. Researchers have indicated that parents tend to underestimate how frequently their own college-age child drinks (Bylund, Imes, & Baxter, 2005). Therefore, it is possible that parents of college students have lower estimates of the likelihood of alcohol-related problems than their children. However, research examining perceived comparative risk suggests that parents may be even more optimistic than adolescences about the likelihood their child experiences a range of negative events in comparison to their peers. For example, parents tend to be more optimistic than adolescents about the chances of their child being a passenger in a car driven by someone who had been drinking and their child knowing when they had had enough to drink (Cohn et al., 1995). Currently, there is a dearth of research examining discrepancies in college students’ and their parents’ perceptions of alcohol risk. Research addressing these potential differences could help inform interventions aimed at encouraging parents to talk to their students about alcohol risk in college by identifying areas where parents and students hold discrepant views.
Parents’ perception of their child’s risk may be an important motivator of health communication with their student (Katz, Kam, Krieger, & Roberto, 2012). Relatively few studies have explored predictors of alcohol communication among parents of college-aged children (Napper, Hummer, Lac, & LaBrie, 2014), even though alcohol communication during this period appears to be a protective factor against alcohol risk (Booth-Butterfield & Sidelinger, 1998; Napper et al., 2014; Turrisi, Jaccard, Taki, Dunnam, & Grimes, 2001; Turrisi, Wiersma, & Hughes, 2000). Cremeens and colleagues (2008) examined the relationships among parents’ perceptions of alcohol-related susceptibility, severity and parent-child communication in a college sample. They found that parents’ perception of how likely their child was to engage in heavy drinking did not predict communication frequency, but that perceived severity of heavy drinking on a daily basis was associated with greater parent-child communication. Although this study addresses an under-researched topic, it does have a number of limitations. First, the researchers did not assess parents’ perceptions of severity specific to their own child, but instead measured perceived harm to people in general from heavy alcohol consumption. Furthermore, although Cremeens et al. assessed both severity and susceptibility, the relationship between these variables and parent-child communication were analyzed separately. Further studies examining perceived likelihood and severity for alcohol-related negative consequences relevant to college students and specific to parents’ own child might provide a more precise measure of the effect of parents’ risk perception. Indeed, developing a better understanding of factors that motivate parents to communicate about alcohol could have important implications for designing parent-based alcohol interventions. To our knowledge, no other researchers have attempted to replicate or extend the work of Cremeens and colleagues to further explore how parents’ risk perception relates to alcohol communication in the college context.

**Current study**

The current study had two primary aims. Using a sample of parent-college student dyads, we compared parents’ and students’ perceptions of the likelihood (both absolute and comparative) and severity of alcohol consequences. Given that parents tend to underestimate their students’ alcohol use (Bylund et al., 2005), we expected parents to rate negative consequences as less likely than their students on measures of absolute risk. Furthermore, based on prior adolescent research (Cohn et al., 1995), we expected parents to be more optimistic than their child about the likelihood of experiencing negative consequences on measures of comparative risk. In contrast, we predicted that parents would perceive the potential harms associated with alcohol use to be more serious than their child. Secondly, we sought to examine whether parents’ perception of absolute perceived risk (likelihood and severity) predicted parental intentions to talk to their college student about alcohol use. In an extension of previous research (Cremeens et al., 2008), we also examined whether parents’ confidence in their knowledge of their child’s drinking predicted alcohol communication intentions. We hypothesized that parents who felt less certain about their child’s alcohol use would be more motivated to start a discussion about alcohol with their child.
Methods

Participants

Participants consisted of 246 parent-student dyads recruited from a midsized, west-coast university. The racial composition of the student population was 52.8% Caucasian, 14.6% Asian, 13% Multiracial, 10.2% Hispanic, 5.3% African American, and 0.4% Native American/Alaska Native. The student sample was 56.1% female and had a mean age of 18.9 years ($SD = 1.06$). The parent participants had a similar racial composition to that of the student sample. Overall, 77.2% of the parents were female and the mean age was 51.0 years ($SD = 4.89$).

Procedure

Students were recruited through the psychology department subject pool and the study protocol was approved by the university’s institutional review board. After volunteering to participate, students were emailed a link to an informed consent form. After informed consent was obtained, participants were immediately directed to an online survey. In exchange for completing the online survey, students received course credit. Students who signed up for the study were asked to recruit a parent of their choice for additional course credit. The nominated parent was emailed a study description and a link to an online consent form. After providing consent, parents were directed to an online parent survey.

Measures

Likelihood and severity of risk—Students were questioned about the likelihood and severity of seven alcohol-related problems (see Table 1). The seven items were selected based on pilot data and covered both more common (e.g., “Say or do embarrassing things”) and severe (e.g., “passing out”) alcohol-related problems. Likelihood ($\alpha = .87$) was assessed on a 7-point scale (1 = Zero chance to 7 = Almost Certain) and severity ($\alpha = .88$) was rated on a 5-point scale (1 = Not at all serious to 5 = Extremely serious). These scales were based on questionnaires used in previous research (Boyle & Boekeloo, 2009; Weinstein, 1987; Weinstein et al., 2007). Parents were asked to respond to the similar items assessing how likely it would be for their child to experience each problem ($\alpha = .96$) and how severe it would be if their child experienced the problem ($\alpha = .95$).

Comparative risk judgment—Students were asked to rate the likelihood that they would experience five alcohol-related consequences over the next year compared to a typical student at their university (1 = Much below average to 7 = Much above average). Items included scenarios such as “pass out from drinking” and “get into a sexual situation which you later regret”. Items were based on measures used in previous research (Dillard et al., 2009; Klein et al., 2007; Weinstein, 1987). Similarly, parents were asked about the likelihood that their child would experience each of the consequences compared to a typical student at their child’s university.

Past parental communication and confidence—Parents responded to questions assessing the frequency of their alcohol-related communication with their child (based on items from Napper et al., 2014). The five items ($\alpha = .92$) included questions such as “How
often do you ask your child how frequently he or she drinks on the weekends?” Responses were measured on an 8-point scale from 1 = Never to 8 = More than once a week. To measure confidence, parents were asked five parallel items (α = .97) assessing how confident they were in their knowledge of their child’s drinking frequency, quantity, and number of alcohol-related problems their child experienced (1 = Extremely unconfident to 6 = Extremely confident).

**Parental alcohol-related communication intentions**—A subsample of the parent population (N = 141) was asked to rate their intent to speak to their child about their alcohol use within the next month. The subsample did not differ significantly from the main sample in terms of parent sex, parent race, past parent-student alcohol communication, or student sex. Parents’ intentions to communicate with their child about alcohol use were assessed using two items: “I intend to speak to my child about their alcohol use in the next month” and “I want to speak to my child about their alcohol use in the next month” (r = .92, p < .001). The items were scored on a 7-point Likert scale (1 = Definitely do not intend to to 7 = Definitely intend to).

**Student alcohol use**—The students’ alcohol use was assessed using an item from the Quantity, Frequency, Maximum Index (Baer, 1993; Marlatt, Baer, & Larimer, 1995). Students were asked to consider the past 30 days and report “on average, how many drinks did you have each time you drank?” Drinks were defined as “12 oz. beer or wine cooler, 8 oz. of malt liquor, 4 oz. of table wine, or 1.25 oz. of spirits”.

**Results**

**Analysis Plan**

A series of paired t-tests were used to examine differences between parents’ and students’ likelihood and severity judgments for drinking consequences. Consequences were also ranked to examine whether parents and students differed in relation to which types of consequences they perceived to be more likely or severe. In addition, a three-step hierarchical multiple regression was conducted predicting parents’ intentions to talk to their student about alcohol. The hierarchical regression allowed us to examine the relationship between communication intentions and both perceived risk and confidence in alcohol knowledge after controlling for demographic variables and past communication. At Step 1, student (i.e., age, sex, alcohol use) and parent demographics (i.e., sex, race) were entered. Past alcohol communication was entered in Step 2. Parents’ perceived likelihood, severity and confidence in their knowledge about students’ alcohol behavior were entered in Step 3.

**Perceived Risk**

Overall, parents’ and students’ provided similar rankings of the likelihood and severity of drinking consequences. For both groups, the events perceived as most likely included “saying or doing embarrassing things”, “throwing up”, followed by “regrettable sexual situations”. Overall students and parents agreed that among the risks assessed, alcohol poisoning and doing poorly academically were the most serious risks from alcohol use.
Although student and parent rankings were fairly similar, the dyads did significantly differ on their levels of perceived likelihood and seriousness (Table 1). For example, parents believed that alcohol poisoning ($t(245) = -4.36, p < .001$), academic impairment ($t(245) = -2.53, p = .012$), and problems with others ($t(245) = -2.52, p = .012$) were significantly more likely to occur than their child believed. Parents also rated embarrassing acts ($t(244) = -6.64, p < .001$), throwing up ($t(244) = -5.30, p < .001$), regrettable sexual situation ($t(244) = -4.79, p < .001$), and passing out ($t(244) = -5.72, p < .001$) to be significantly more serious than their child. Examination of the comparative risk items (Table 1) indicated that for all of the items, both the student and parent believed that the student was less likely than the average student to experience alcohol consequences. Parents were more optimistic than students about the comparative risk of embarrassing acts ($t(244) = 3.13, p = .002$), throwing up ($t(244) = 3.56, p < .001$), and passing out ($t(243) = 2.24, p = .026$).

### Communication Intentions

In bivariate analyses, intentions to communicate were associated with greater past communication ($r = .38, p < .001$), higher parents’ perceived likelihood ($r = .30, p < .001$), and less confidence in knowledge of student alcohol use ($r = -.26, p = .002$). Parents’ perceived severity was not associated with intentions to communicate ($r = .15, p = .08$).

The results of the multiple regression are presented in Table 2. The following variables significantly contributed to the prediction of intentions in the final model: student age ($\beta = -0.18, p = .019$), parent sex ($\beta = -0.16, p = .037$), past communication ($\beta = 0.26, p = .001$), perceived likelihood ($\beta = 0.20, p = .016$), and confidence in knowledge of alcohol use ($\beta = -0.20, p = .013$). Mothers and those with younger students had greater intentions to discuss alcohol with their child. After controlling for demographic variables and past communication behavior, parents who believed their child was more likely to experience alcohol problems and were less confident in their knowledge of their students’ alcohol behavior were more motivated to talk to their child about alcohol.

### Discussion

The current study examines parents’ and college students’ perceptions of severity and both absolute and comparative likelihood of alcohol-related risks. Additionally, this study extends the work of Cremeens et al. (2008) by using parent-student dyads to explore the role of parents’ risk perception in predicting intent to communicate with their child regarding alcohol. In the current study, parents and students ranked the likelihood of alcohol-related consequences in a similar order; however, as hypothesized and consistent with adolescents research (Cohn et al., 1995), parents rated most consequences as more severe than students did. Despite the fact that parents tend to underestimate how much their child drinks (Bylund et al., 2005), parents’ ratings of absolute likelihood of alcohol consequences were still greater than those of their child for some of the more severe consequences.

The observed discrepancies between parents’ and students’ ratings of absolute likelihood may in part reflect that parents completed measures assessing the risk to another person, while the students made judgments about their own risk. In general, people tend to use different standards and behavioral information when making self-judgments, rather than...
judgments about others (Chambers & Windschitl, 2004). Letting parents know that students often perceive a number of consequences to be less likely and severe than parents do may help prompt greater parent-child dialogue about alcohol-related problems. Given the observed discrepancies in perceived risk for some but not all consequences, parents may wish to focus discussions on specific risks that are typically rated as less severe or likely by students than by parents. This could include the discussion of blacking out, vomiting, alcohol poisoning, and academic problems, as well as strategies students use to prevent these consequences.

Both parents and students believed that the student participant was less likely than the typical student to experience alcohol problems. This finding is consistent with research on comparative-optimism demonstrating that individuals tend to see themselves and those close to them as less vulnerable to experiencing negative events than a “typical other” (Chambers & Windschitl, 2004; Klar, Medding, & Sarel, 1996; Perloff & Fetzer, 1986). This effect could be motivated by the desire to present and see oneself and family members in a positive light. Alternatively, it may reflect differences in the processing of information about the self, those close to us, and a more vague “typical other” (Chambers & Windschitl, 2004; Sheperd, Carroll, Grace, & Terry, 2002). Interestingly, although parents had higher absolute likelihood estimates on three of the absolute measures, they tended to be more optimistic than students on three of the five measures of comparative risk. Parents and students may differ in their perception of the amount and frequency of drinking by the typical college student. Furthermore, past research demonstrates that comparative optimism decreases when the referent is closer and more familiar to the target population (Chambers & Windschitl, 2004). Therefore, students’ lower level of optimism may reflect that they perceived themselves as being more similar to or more knowledgeable about the typical student than their parents. These findings indicate that using both absolute and comparative approaches to assess perceived risk can provide a more nuanced understanding of differences in parent and student perceptions of risk. Furthermore, relative to college students, parents may benefit more from interventions aimed at exploring optimistic bias related to college alcohol problems.

Predicting Intentions to Communicate

The second aim of the study was to examine the relationship between parents’ perceived risk and intentions to communicate with their child. After controlling for demographics, students’ drinking behavior, and parents’ reports of past parental communication regarding alcohol, the results indicated that parents’ estimates of absolute likelihood as well as confidence in their knowledge of their student’s drinking behaviors predicted parents’ intentions to communicate with their child. Parents were more likely to intend to communicate with their child about alcohol use when they were less confident in their knowledge of students’ drinking behaviors and if they believed their child to be more likely to experience negative consequences. Lack of confidence may predict intentions to communicate because parents are hoping to gain a better understanding of their child’s alcohol use through more communication. Similarly, parents’ perception of greater absolutely likelihood plausibly predicts intent to communicate out of concern that their child
may be truly at risk for negative consequences and the hope that more communication could diminish these risks.

Perceived severity of negative outcomes did not predict intentions to communicate. Given that parents appear to be aware of the severity of negative outcomes, it is possible that parental severity ratings did not predict due to the limited range of responses. Contrary to Cremeens and colleagues (2008), the results of the current study suggest that perceiving the risks of alcohol to be likely, rather than more severe, is a more important motivator of intentions to communicate for parents of college students. Taken together, the results of the current study indicate that college interventions aimed at encouraging parents to consider how much they really know about their child’s drinking and the likelihood of students experiencing negative consequences may be more effective for promoting alcohol-specific communication than information designed to enhance perceptions of the severity of consequences.

**Limitations**

This study has several limitations which should be considered. The study uses cross-sectional data. Longitudinal data would help assess whether likelihood and severity perceptions influence actual communication. For example, in the current study only intentions to communicate and not actual behavior were assessed. As intentions do not always translate into behavior, future researchers should consider assessing whether perceived likelihood and confidence predicts the frequency and type of parents’ actual alcohol-related communication. Furthermore, studies assessing actual communication behavior would provide a clearer picture of what types and style of communication are most beneficial for reducing alcohol risk among emerging-adults. Additionally, this study did not measure students’ actual experiences of future negative consequences, which prevented us from assessing the accuracy of parents and students perceptions. Future research would benefit from measuring consequences longitudinally in order to assess accuracy. Finally, there were a limited number of fathers in the current sample. Further research is needed to determine whether the current findings with regard to perceived risk and intentions to communicate generalize to samples focused primarily on fathers of college students.

**Conclusions**

Parents should be aware that in general, students believe the consequences of alcohol use to be less severe than they do, even if students do not perceive a particular situation to be less likely to occur than their parents. When communicating with their children, parents should consider discussing specific risks and the potential differences between their own assessment of likelihood and severity and their child’s. These types of conversations may enlighten parents regarding the risk perceptions of their child and allow them to address more specific alcohol concerns. The current results also reveal a number of potential ways college personnel can motivate parents to talk to their college-age children about alcohol. Informing parents about the likelihood of drinking consequences and the fact that parents typically hold inaccurate beliefs about their own child’s drinking may help promote greater likelihood estimates and less certainty of their child’s drinking, thereby prompting greater alcohol-related communication.
Acknowledgments

Statement 1: Role of Funding Sources

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References


### Highlights

1. Examines discrepancies in parents’ and students’ perceptions of alcohol risk
2. Explores how perceived risk predicts parents’ intentions to communicate
3. Parents believed consequences to be more severe and more likely than students
4. Consequence likelihood and lack of knowledge of behavior predicted intent to talk
5. Parents should be informed of college drinking norms to prompt communication
Table 1

Parent and student perceptions of alcohol risk likelihood, severity and comparative risk.

| Risk                              | Likelihood |  | Severity |  | Comparative Risk |  |
|----------------------------------|------------|--|----------|  |------------------|  |
|                                  | Parent M (SD) | Student M (SD) | t(245) | Parent M (SD) | Student M (SD) | t(244) | Parent M (SD) | Student M (SD) | t(244) |
| Say or do embarrassing things    | 2.31 (1.54) | 2.57 (1.43) | 2.17*  | 3.29 (1.35) | 2.54 (1.29) | −6.64*** | −1.72 (1.46) | −1.38 (1.50) | 3.13** |
| Throw Up                         | 1.98 (1.43) | 1.84 (1.15) | −1.41  | 3.44 (1.32) | 2.82 (1.38) | −5.30*** | −2.06 (1.24) | −1.70 (1.47) | 3.56*** |
| Regrettable sexual situation     | 1.93 (1.31) | 1.76 (1.06) | −1.80†  | 4.38 (1.17) | 3.84 (1.30) | −4.79*** | −2.01 (1.48) | −1.92 (1.42) | 0.72  |
| Pass out                         | 1.69 (1.17) | 1.69 (1.17) | 0.00   | 4.34 (1.20) | 3.67 (1.35) | −5.72*** | −2.29 (1.16) | −2.07 (1.32) | 2.24*  |
| Alcohol poisoning                | 1.56 (1.06) | 1.24 (0.56) | −4.36*** | 4.58 (1.11) | 4.45 (1.07) | −1.30   | −2.35 (1.29) | −2.38 (1.18) | −0.32 |
| Do poorly academically           | 1.85 (1.27) | 1.60 (1.02) | −2.53*  | 4.42 (1.09) | 4.33 (1.03) | −0.91   | --        | --        | --    |
| Problems with others             | 1.82 (1.26) | 1.59 (0.84) | −2.52*  | 4.05 (1.20) | 3.87 (1.11) | −1.76†  | --        | --        | --    |
| Total score                      | 1.88 (1.16) | 1.75 (0.79) | 1.49   | 4.07 (1.05) | 3.64 (0.94) | 4.66*** | --        | --        | --    |

Note. Responses options ranged from: 1 (Zero) to 7 (Almost certain) for likelihood items; 0 (Not at all serious) to 5 (Extremely serious) for severity items; −3 (Much below average) to +3 (Much above average) for comparative risk.

* p < .05.
** p < .01.
*** p < .001.
† p < .08.
## Table 2

Hierarchical Multiple Regression Analyses Predicting Intentions to Talk about Alcohol

<table>
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<th>Step 2 β</th>
<th>Step 3 β</th>
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<th>Δ F</th>
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<td></td>
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<td></td>
<td>Parent sex</td>
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<td>.17</td>
<td>5.46***</td>
<td>.08</td>
<td>13.91***</td>
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<td>Past alcohol communication</td>
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<td>.26**</td>
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<td>.25</td>
<td>7.32***</td>
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<td>.33</td>
<td>.69***</td>
<td>.08</td>
<td>6.90***</td>
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<td>4.78**</td>
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</table>

Note. Standard errors are reported for the final step of the regression.

* p < .05.

** p < .01.

*** p < .001.