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Drinking Motives as Mediators for the Relationships between Overparenting and Alcohol Outcomes

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DRINKING MOTIVES AS MEDIATORS FOR THE RELATIONSHIPS BETWEEN
OVERPARENTING AND ALCOHOL OUTCOMES

by

Tatum E. Freeman

A Thesis
Submitted to the Graduate School,
the College of Education and Human Sciences
and the School of Psychology
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Master of Science

Approved by:

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ABSTRACT

The present study investigated the mediating role of drinking motives in the relationship between overparenting and alcohol outcomes using a sample of 207 traditional age college students (i.e., 18-25 years old; $M = 19.8$, $SD = 1.64$). Data on participant demographics, drinking motives, the practices of participants' primary caregiver, typical weekly drinking, hazardous drinking, and alcohol consequences were collected via SONA (an online participant management software that allows researchers to collect data from a university psychology subject pool). Participants were 89.4% female and 54.1% White. Coping and conformity drinking motives partially mediated the relationships between overparenting, alcohol consequences, and hazardous drinking such that overparenting predicted greater endorsement of coping and conformity motives which in turn predicted increased alcohol consequences and hazardous drinking. Implications include coping and social based interventions for college students that come from difficult parental backgrounds as well as parental education on the potential adverse effects of overly involved parenting styles.

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CHAPTER I - INTRODUCTION

According to a recent national survey, nearly 55% of college students aged 18-22 reported alcohol consumption in the past 30 days (Substance Abuse & Mental Health Data Archive, 2018). Additionally, 33% of college students have reported participating in dangerous drinking patterns, including binge drinking (5 [male]/4 [female] drinks in a two-hour period; National Institute of Alcohol Abuse and Alcoholism [NIAAA], 2004) and extreme binge drinking, such as 10+ drinks in a row (9.5%) or 15+ drinks in a row (3.1%) at least once within the past two weeks (Schulenberg et al., 2019). In 2015, 11.2% of full-time college students met criteria for an alcohol use disorder (Substance Abuse and Mental Health Services Administration, 2015). These rates are concerning because drinking can lead to alcohol-related negative consequences such as detriments to occupational or academic performance, risky sexual behavior, injuries, or death (White & Hingson, 2013). In fact, alcohol-related unintentional injuries among college students cause an estimated 1,825 deaths a year (Hingson et al., 2009). Further, alcohol can contribute to violence on college campuses, with 696,000 students each year between the ages of 18 and 24 experiencing physical assault from other intoxicated students and 97,000 experiencing sexual assault or rape (Hingson et al., 2005). Therefore, it is important to examine factors that may increase alcohol use/consequences in college students.

1.1 Drinking Motives and Alcohol Use

A collection of factors that might increase risky drinking in college students are drinking motives, as they appear to be the most proximal predictor of alcohol use behaviors irrespective of age, gender, or sex (Cooper, 1994). Drinking motives represent

the goals individuals have in mind when consuming alcohol, and they are often associated with a range of harmful alcohol outcomes. Drinking motives include coping motives (e.g., drinking to forget one's worries or to reduce feelings of depression and anxiety), conformity motives (e.g., drinking to fit in with a group), social motives (e.g., drinking to celebrate a special occasion with friends or to make social gatherings more fun), and enhancement motives (e.g., drinking to increase pleasant feelings or get high; Cooper, 1994). Coping and conformity motives are negatively reinforcing (i.e., removing a negative stimulus – negative affect or peer judgement) while social and enhancement motives are positively reinforcing (i.e., introducing a positive stimulus – social rewards or increased positive feelings).

Coping motives are particularly concerning as they are associated with higher and more problematic drinking levels and isolation drinking (Bravo et al., 2015; Cooper, 1994). In a college student sample, coping motives were positively related to drinking volume, having 6+ drinks, negative consequences, and symptoms of alcohol use disorder (Diep et al., 2016). An earlier published review of drinking motives and alcohol outcomes indicated that coping motives were most highly associated with negative consequences but were also associated with heavy drinking (Kuntsche et al., 2005). Lastly, coping motives are positively associated with negative affect and the use of avoidance coping (Ehrenberg et al., 2016), indicating a potentially dangerous cycle of problem avoidance exacerbated by the additional problems that coincide with negative consequences. Evidence is more sparse on conformity motives, but some studies suggest that drinking to conform puts individuals at higher risk for negative consequences (Carpenter & Hasin, 1999). More recent studies like Villarosa et al. (2018) have provided

additional evidence for these past findings, confirming the positive association between conformity motives and negative consequences in a sample of college students. Despite this, it should be noted that some studies do not find conformity motives to be a significant predictor of alcohol use behaviors (Crutzen et al., 2013), and others even find that conformity motives are negatively related to quantity and frequency of drinking (Cooper, 1994). These inconsistencies could be related to age, as conformity motives are more commonly endorsed by younger adolescents (Johnston & O'Malley, 1986) and appear to be more predictive of alcohol use in this age group (Gliksman, 1983). Lastly, conformity and coping motives appear to have unique relationships with certain psychological variables. For example, in a sample of young adult drinkers, distress tolerance, or the ability to tolerate negative mood states, had a significant negative relationship with coping motives while anxiety sensitivity (hyperawareness and fear of the bodily sensations associated with anxiety) had a significant positive relationship with conformity motives (Howell et al., 2010). These findings have been further verified in cannabis research, in which coping and conformity cannabis motives were negatively associated with distress tolerance (Zvolensky et al., 2009).

Social motives are most commonly endorsed by college students as the reason for drinking alcohol (Kuntsche et al., 2005) and have been associated with drinking on multiple days of the week, engaging in binge drinking at least monthly, and meeting risk threshold scores for hazardous drinking (Van Damme et al., 2013). Social motives are associated with increased negative consequences (Wicki et al., 2017) but appear to be less dangerous than other motives with stronger and more direct associations with negative consequences (i.e., enhancement and coping motives; Cooper, 1994).

Enhancement motives are consistently associated with higher levels of drinking, resulting in more negative consequences (Roos et al., 2015). Lastly, enhancement motives are related to heavy drinking situations (e.g., drinking with same-sex friends; Cooper, 1994).

1.2 Overparenting's Associations with Psychological Variables and Alcohol Use

One factor that may relate to specific drinking motives is overparenting.

Overparenting is sometimes referred to as helicopter parenting in the literature because of these parents' tendency to hover over their children, solving employment, academic, and social problems in their children's lives, and encouraging codependency (Cline & Faye, 1990). Overparenting has been associated with lower levels of well-being (LeMoyné & Buchanan, 2011) and lower levels of self-efficacy (Darlow et al., 2017). In millennials (i.e., those born from 1981-1996), it is associated with dependency on others, ineffective coping skills, and a tendency to conform to others' beliefs and values (Koerner & Fitzpatrick, 2002; Odenweller et al., 2014). In emerging adults, overparenting is related to lower levels of self-worth and several types of risky behaviors, including cannabis use, prescription drug use, and shoplifting (Nelson et al., 2015). College students with helicopter parents endorse higher levels of alcohol use (Cui et al., 2018) and higher rates of alcohol-related negative consequences (Perez et al., 2021). Lastly, authoritarian parenting, which also emphasizes high control, albeit with less warmth and support than helicopter parents, was associated with the greatest risk for heavy drinking (when compared to authoritative, permissive, and indifferent styles) among high school students transitioning to college (Mallett et al., 2011). For these reasons, it would be beneficial to examine potential mechanisms behind the overparenting and alcohol use relationship, perhaps in relation to the aforementioned social and mental-health related factors.

1.3 Drinking Motives and Overparenting

Despite the link between overparenting and dangerous substance use in college students, drinking motives, to our knowledge, have not been explored in relation to overparenting. Although there is no published evidence on drinking motives and overparenting, there is a strong theoretical basis for the relationship between drinking motives and overparenting, particularly when examining coping and conformity motives. As mentioned previously, coping motives are commonly utilized to avoid the experience of negative affect (Ehrenberg et al., 2016), and overparenting often leads to higher levels of negative affect, as evidenced by the lower levels of well-being and lower perceptions of self-worth among “helicopter kids” (LeMoynes & Buchanan, 2011; Nelson et al., 2015). These problems are confounded when considering these adolescents’ diminished ability to independently address their problems because of their ineffective coping skills and low self-efficacy (Darlow et al., 2017; Odenweller et al., 2014). Lastly, there is emerging evidence to support overparenting’s relationship to distress tolerance, a construct which has been negatively related to coping motives in the past (Howell et al., 2010). Perez and colleagues (2019) identified emotional distress tolerance as a mediator for the relationship between overparenting and emotional distress in college students, suggesting that the emotional distress commonly associated with overparenting is rooted in an inability to tolerate negative mood states. Thus, a multitude of factors (including low distress tolerance and self-efficacy) may limit helicopter children’s autonomy and encourage reliance on outside factors, such as alcohol, to cope with their negative affect.

Conformity motives have a similarly strong theoretical basis in relation to overparenting. Overparenting has been associated with dependency on others, a tendency

to conform to others' beliefs and values, and stunted social growth (Koerner & Fitzpatrick, 2002; Odenweller et al., 2014). Conformity motives also have positive associations with anxiety sensitivity (Howell et al., 2010), which is relevant in the context of helicopter kids because they have higher rates of anxiety medication prescription (Lemoyne & Buchanan, 2011). Further, both coping and conformity motives mediate the relationship between social anxiety and problematic drinking (Lewis, 2008); thus, socially stunted helicopter kids may be more likely to endorse both motives in an attempt to reduce anxiety symptoms. Finally, although existing data on conformity motives and alcohol outcomes are mixed, conformity motives may be more relevant for college students of helicopter parents because of the high value they place on obtaining guidance from others and, as described previously, the stronger associations between conformity motives and younger age groups (Johnston & O'Malley, 1986).

Existing data on various psychological factors (e.g., self-efficacy, levels of dependency) and their relations to drinking motives and overparenting suggests that the existing relationships between college student drinking and overparenting may be explained by coping and conformity drinking motives. That being said, the endorsement of social and enhancement motives cannot be ruled out in this population. However, it is not expected when considering the relatively lower social skills and lower degree of positive affect in helicopter children (i.e., social motives are norm-based and typically endorsed in preexisting social circles while enhancement motives are typically endorsed to boost existing positive mood; Cooper, 1994). All in all, the combination of poor well-being, low distress tolerance, and ineffective coping skills may lead college students to rely on alcohol to cope with negative mood states (i.e., coping drinking motives),

especially when it becomes readily available in the college environment outside of parental supervision. Further, these students' dependency on their parents combined with higher anxiety and lower social skills may translate to dependency on their peers and inflate conformity drinking motives, as they search for a new guiding force in the absence of their parents.

1.4 Current Study

The current study explored the role of drinking motives as mediators for the relationships between overparenting and alcohol outcomes (i.e., hazardous drinking, typical weekly drinking, and negative consequences). Exploring these mediating roles addressed a gap in the research regarding overparenting and drinking motives and aimed to bolster the relatively small amount of literature on overparenting and college student substance use. As discussed above, overparenting puts individuals at risk for a range of adverse social and coping/emotional processing deficits, and the results of this study could be utilized to shed light on the potential real-life implications (i.e., dangerous drinking behaviors) of those deficits in the already vulnerable college population. The results of this study could also inform substance use prevention and treatment on college campuses (e.g., assessing parental relationships as a risk factor for harmful alcohol use). This would allow university staff to take proactive measures against an issue that will likely continue to climb as parents gain more access to their children through advancing technology like location tracking, video calling, etc. Considering this, the current study aimed to answer the following questions:

Question 1: To what degree is overparenting related to drinking motives and alcohol outcomes (i.e., typical weekly drinking, hazardous drinking, and negative consequences)?

Hypothesis 1: Overparenting will be positively associated with conformity motives, coping motives, typical weekly drinking, hazardous drinking, and negative consequences.

Question 2: To what degree is the expected relationship between overparenting and alcohol outcomes mediated by drinking motives (i.e., social, enhancement, coping, conformity)?

Hypothesis 2a: Coping motives will mediate the positive relationships between overparenting and alcohol outcomes, such that overparenting will predict coping motives, and coping motives will predict greater negative consequences, typical weekly drinking, and hazardous drinking.

Hypothesis 2b: Conformity motives will mediate the positive relationship between overparenting and negative consequences, such that overparenting will predict conformity motives, which will predict higher levels of negative consequences.

CHAPTER II - METHOD

2.1 Participants and Procedures

The current study was conducted using the University of Southern Mississippi's SONA system, an online participant management software that allows researchers to utilize university psychology subject pools to collect data. Students received 1 SONA credit (based on the estimated 30-45 min completion time of the survey), which can be utilized for required or extra credit research participation. The sample included 207 traditional age (18-25 years old) college students, as a sample size of 200 is recommended to achieve adequate power based on the mediation model (Schoemann et al., 2017). The participants were mostly female (89.4%) and White (54.1%) followed by African/African American (27.5%), Indigenous (6.8%), Lationo/a/x (6.3%), Asian/Asian American (3.9%), Arabic/Middle Eastern (1.4%), and Caribbean (1%) with a mean age of 19.8 ($SD = 1.64$). The sample consisted of freshmen (36.2%), sophomores (24.6%), juniors (19.8%), and seniors (19.3%). Further, most participants answered the parenting questionnaires in reference to their mothers, with 85% of the sample identifying their mothers as the caregiver most involved in their upbringing, with father being the second most common answer (12.1% of the sample). Approximately 34% of the sample (71 participants) endorsed co-use of alcohol and cannabis (such that their effects overlapped) one or more times in the past month. A majority of participants indicated that their drinking had "no change" as a result of COVID-19 (48.8%), followed by "slightly increased" (18.4%). See Table 2.1 for further demographic information.

Table 2.1 *Participant Demographics*

Demographic	<i>N</i>	%	Demographic	<i>N</i>	%
<u>Racial/ethnic identity*</u>			<u>Academic Status</u>		
African/African American	57	28%	Freshman	75	36%
Arabic/Middle Eastern	3	1%	Sophomore	51	25%
Asian/Asian American	8	4%	Junior	41	20%
Caribbean	2	1%	Senior	40	19%
European American	112	54%	<u>Greek Status</u>		
Latino/a/x	13	6%	Yes	46	22%
Indigenous	14	7%	No	161	78%
Other	15	7%	<u>Student Athlete</u>		
<u>Sex</u>			Yes	8	4%
Female	185	89%	No	198	96%
Male	22	11%			

Note. Percentages rounded to the nearest whole number. * = Larger *N* due to participants having the ability to select all races that apply.

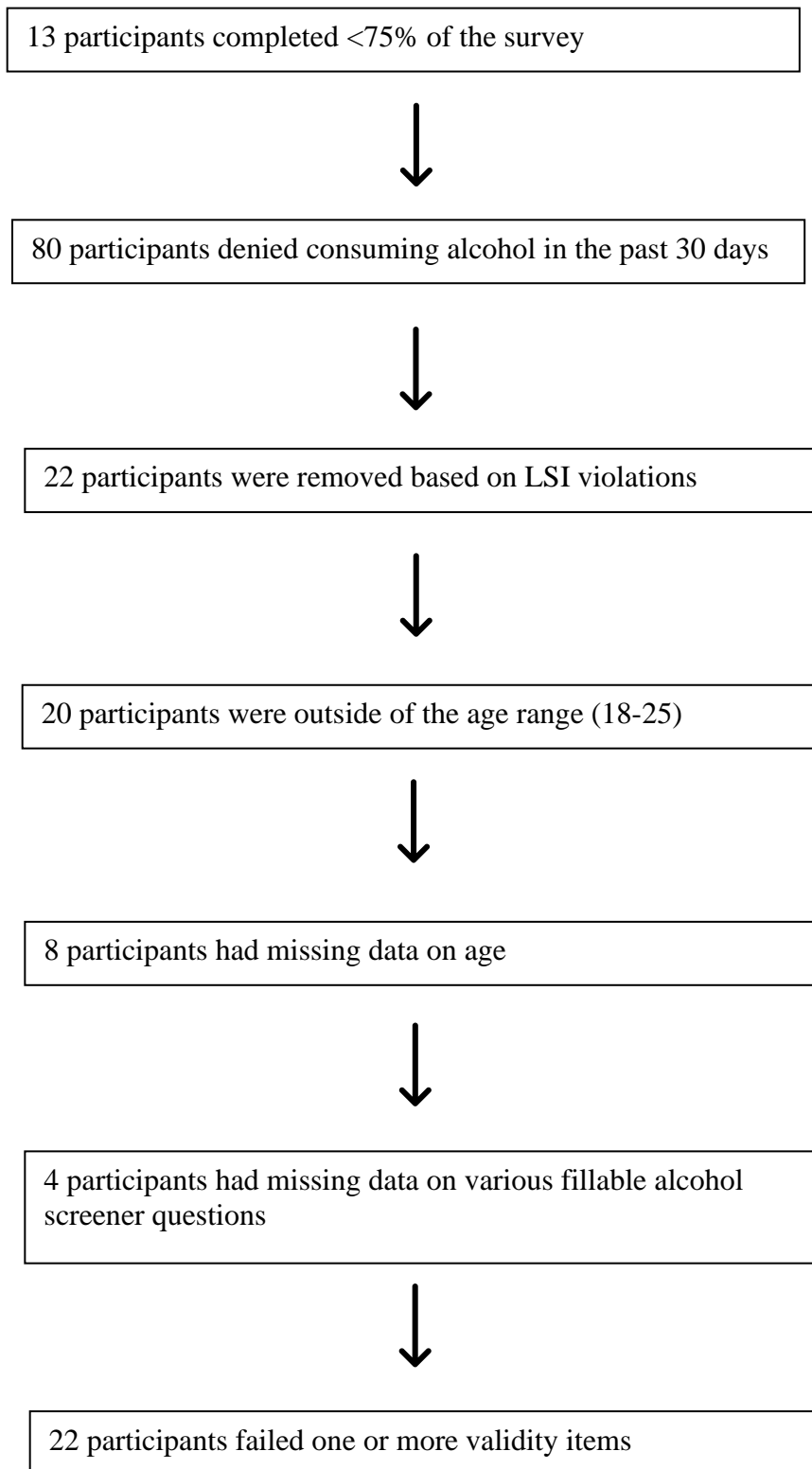
Participants who met screening criteria (i.e., 18 to 25 years old, past 30-day alcohol consumption) were provided a link to a secure online survey system (Qualtrics) where they electronically consented to participate in the study. After providing consent, the participants completed a demographics questionnaire followed by the study measures, which assessed levels of overparenting, endorsement of the four drinking motives, typical weekly drinking, hazardous drinking, and negative consequences. To limit order effects, all measures (excluding the demographics questionnaire) were presented randomly. Additionally, two directed response items (e.g., “Please select agree for this item”) and an

oath to honesty “It is important to answer honestly and thoughtfully throughout the study. Will you answer the following questions truthfully?” were embedded within the survey to ensure participant attention and intentional responding (Clifford & Jerit, 2016; Meade & Craig, 2012). All informed consent and study procedures were approved by the university Institutional Review Board.

2.2 Data Cleaning Procedures

Participants who met the screening criteria described previously and completed at least 75% of the survey were included in the analyses. Long string indices (LSI), which detect the longest number of identical, consecutive responses, were used to exclude participants who responded invariantly to 9+ items on the HPI or DMQ-R (DeSimone & Harms, 2018). See Figure 2.1 for an overview of the number of participants removed at each stage of data cleaning.

Figure 2.1 *Data Cleaning Procedures*



2.3 Measures

2.3.1 Demographics

Information on race, age, gender identity, year in school (e.g., freshman, sophomore, etc.), type of classes taken (i.e., online, in-person, or both), Greek life/athletic team membership, and living situation were collected. Various indices of alcohol consumption (including legal and academic consequences from drinking) were also collected alongside an assessment of simultaneous alcohol and cannabis use.

2.3.2 Coronavirus Measures

Because this study was conducted during the COVID-19 pandemic, we measured the effects of COVID on individuals and their drinking behaviors. A newly devised measure, the 6-item Perceived Coronavirus Threat Questionnaire (Conway et al., 2020) assessed how threatened participants feel by COVID. Scale anchors range from 1 = *not true of me at all* to 7 = *very true of me*. The threat questionnaire includes items like, “I am worried that I or people I love will get sick from the coronavirus.” Additionally, we included two other measures: the COVID psychological scale and the COVID drinking scale. The psychological scale was adapted from Conway et al.’s (2020) Coronavirus Impacts Questionnaire. It is 3 items with scale anchors ranging from 1 = *not true of me at all* to 7 = *very true of me*. The psychological scale asks participants about depression and other forms psychological distress resulting from the pandemic (e.g., “The Coronavirus [COVID-19] outbreak has impacted my psychological health negatively”).

The COVID-19 drinking scale, developed by the Behavior and Addiction Lab and under study, is 5 items with scale anchors ranging from 1 = *slightly decreased* to 7 = *significantly increased* and asks participants how their drinking behaviors have changed

in response to the pandemic (e.g., “How has your drinking in groups of people changed since the beginning of the COVID pandemic?”). As part of the measure, we also assessed how drinks per drinking occasion and days spent drinking have changed (1 = *1-2 less drinks*, 5 = *3+ more drinks* and 1 = *1-2 fewer days per week*, 5 = *3+ more days a week*, respectively).

2.3.3 Overparenting

Levels of overparenting were measured by the 15-item Helicopter Parenting Instrument (HPI; Odenweller et al., 2014). Participants responded to items such as “My parent insists that I keep him or her informed of my daily activities” and “My parent considers oneself a bad parent when he or she does not step in and save me from difficulty” using a 7-point Likert scale (1 = *very strongly disagree* to 7 = *very strongly agree*), with higher scores indicating elevated levels of perceived parental involvement. The HPI has empirical support for use in college samples (Perez et al., 2019, 2021). Alphas also indicate good reliability in college samples (.80 and .83; Kelly et al., 2017; Perez et al., 2019), and in this sample reliability was acceptable ($\alpha = .79$). Significant positive relationships exist between the HPI and Lemoyne and Buchanan’s (2011) 7-item Helicopter Parenting Scale (HPS) as well as between the HPI and authoritarian parenting and conformity orientation, demonstrating the convergent and construct validity of the scale, respectively (Odenweller et al., 2014).

2.3.4 Typical Weekly Drinking

The Daily Drinking Questionnaire (DDQ) measured typical weekly drinking (Collins et al., 1985). Participants were provided an image that shows examples of several different types of standard drinks, including “regular beer,” “malt liquor,” “table

wine,” “fortified wine,” “cordial, liqueur, or aperitif,” “brandy or cognac,” and “distilled spirits.” The drinks’ respective measurements (in fluid ounces) were also provided in the image. Participants were asked to list the number of standard drinks that they drink each day of the week on a typical week within the past 30 days. Standard drinks consumed daily are summed to provide total numbers of drinks consumed weekly. Previous research shows evidence of acceptable test-retest reliability after a two-year period (r ’s ranging from .55 to .72; Marlatt et al., 1998). The DDQ has been extensively validated in the college setting, and notably, Borsari et al. (2001) found that typical weekly drinking was the best predictor of alcohol problems in college students when compared to other measurements of consumption like binge drinking frequency and blood alcohol level.

2.3.5 Alcohol-Related Negative Consequences

Negative consequences were assessed by the 24-item Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ; Kahler et al., 2005). Participants selected “yes” (1) or “no” (0) to indicate whether they have experienced each consequence such as “I have felt very sick to my stomach or thrown up after drinking,” or “I have taken foolish risks when I have been drinking.” Total scores on the BYAACQ range from 0 to 24 with higher scores indicating greater experience of ARNC in the past month. Previous research has provided evidence of the BYAACQ’s test–retest reliability, convergent validity, and discriminant validity in the college environment (Kahler et al., 2008). The BYAACQ showed evidence of good reliability in this study ($\alpha = .89$).

2.3.6 Hazardous Drinking

The Alcohol Use Disorders Identification Test, adapted for use in the United States (USAUDIT) was utilized to measure hazardous drinking (Babor et al., 2016). The

USAUDIT is a 10-item self-report measure that provides information on alcohol dependence symptoms, consumption patterns, and problems experienced from alcohol use. Example items include, “How often during the past year have you had a feeling of guilt or remorse after drinking?” and “Have you or someone else been injured because of your drinking?” Items are scored on a scale of 0 to 6. Total scores involve summing all items and classifying the participant within four zones of alcohol risk. Zone I (low risk use) has total scores of 0-7. Zone II (at risk/hazardous use) has total scores of 8-15. Zone III (harmful use) has total scores of 16-24 while Zone IV (dependent use) has scores of 25+. The higher the total score, the higher the participant’s alcohol-related risk, and the zones correspond with varying levels of recommended treatment (e.g., screening/feedback to recommendation for inpatient treatment). The USAUDIT has utility in detecting at-risk drinking and evidence for sufficient specificity and sensitivity in detecting alcohol use disorder in college student samples (Madson et al., 2020). The AUDIT showed evidence of acceptable reliability in this study ($\alpha = .77$) with a mean score of 8.6, putting the sample in the “at risk/hazardous use” range.

2.3.7 Drinking Motives

The 12-item Short Form of the Drinking Motives Questionnaire-Revised (DMQ-R) was utilized to gather information on participants’ self-reported drinking motives (Cooper, 1994). Participants were asked how often their drinking was motivated by the reasons listed, and items are scored on a 5-point Likert scale ranging from 1 (*almost never/never*) to 5 (*almost always/always*). The four drinking motives are represented by three corresponding items on the measure; subscale scores for each of the motives range from 3 to 15. Higher scores on a particular subscale indicate greater endorsement of that

drinking motive when the individual chooses to consume alcohol. Social motives include items such as, “Because it improves parties and celebrations” while conformity motives include items like, “To be liked” or “To fit in with the group you like.” Examples of enhancement motives include, “Because it’s fun” and “To get high” while coping motives include items like “Because it helps you when you feel depressed or nervous.” The DMQ-R and its short form have been validated for use in multiple languages, countries, and populations (Hauck-Filho et al., 2012). In samples including US college students, Short Form DMQ-R composite score validity estimates were .86 or greater, and the drinking motives had positive associations with several measures of alcohol use (including days drinking and binge drinking; Harbke et al., 2019), providing evidence of concurrent validity. The DMQ-R showed evidence of adequate to excellent reliability in this study (coping $\alpha = .84$; social $\alpha = .90$; enhancement $\alpha = .71$; conformity $\alpha = .89$).

2.4 Statistical Procedures

Structural equation modelling (SEM) in MPlus Version 8.4 (Meyers et al., 2006; Muthén & Muthén, 2012) was utilized to test the degree to which the four drinking motives mediated the relationships between the exogenous predictor variable (overparenting) and alcohol outcomes. To determine significance for the mediation, bootstrapping recommendations from Preacher and Hayes (2008) were followed; thus, 5,000 resamples were utilized to identify significant mediations, which were represented by 95% confidence intervals that do not include zero. The bootstrapping method was proactively selected over other approaches because it is not limited to parametric samples.

A model with all four drinking motives was first run and evidenced poor model fit (CFI = .76, SRMR = 0.13), and overparenting was not significantly associated with enhancement nor social drinking motives. A model with only coping and conformity motives was retained, as these were the originally hypothesized relationships, and model fit rose to an acceptable level (CFI = .97, SRMR = .05).

CHAPTER III - RESULTS

3.1 Hypothesis 1 – Descriptive Statistics

Means, standard deviations, and intercorrelations for all measures are presented in Table 3.1. In terms of the intercorrelations, it was hypothesized that overparenting would be positively associated with conformity motives, coping motives, typical weekly drinking, hazardous drinking, and negative consequences. The results mostly supported this hypothesis, but overparenting was not significantly associated with typical weekly drinking. Coping motives were positively associated with conformity motives, typical weekly drinking, alcohol consequences, and hazardous drinking. Conformity motives were positively associated with alcohol consequences and hazardous drinking but not typical weekly drinking. Typical weekly drinking was positively associated with alcohol consequences and hazardous drinking. Lastly, alcohol consequences were positively associated with hazardous drinking.

Table 3.1 Overall Means, Standard Deviations, and Intercorrelations ($n = 207$)

Scale	1	2	3	4	5	6
1. Overparenting	-					
2. Coping	.20**	-				
3. Conformity	.19**	.25***	-			
4. Weekly Drinks		.33***		-		
5. Alcohol Consequences	.17*	.47***	.29***	.41***	-	
6. Hazardous Drinking	.15*	.47***	.33***	.50***	.73***	-
Mean	55.82	6.11	5.05	11.78	6.53	8.60
SD	13.15	3.17	2.97	15.15	5.15	5.56

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

3.2 Hypothesis 2 – Mediation Results

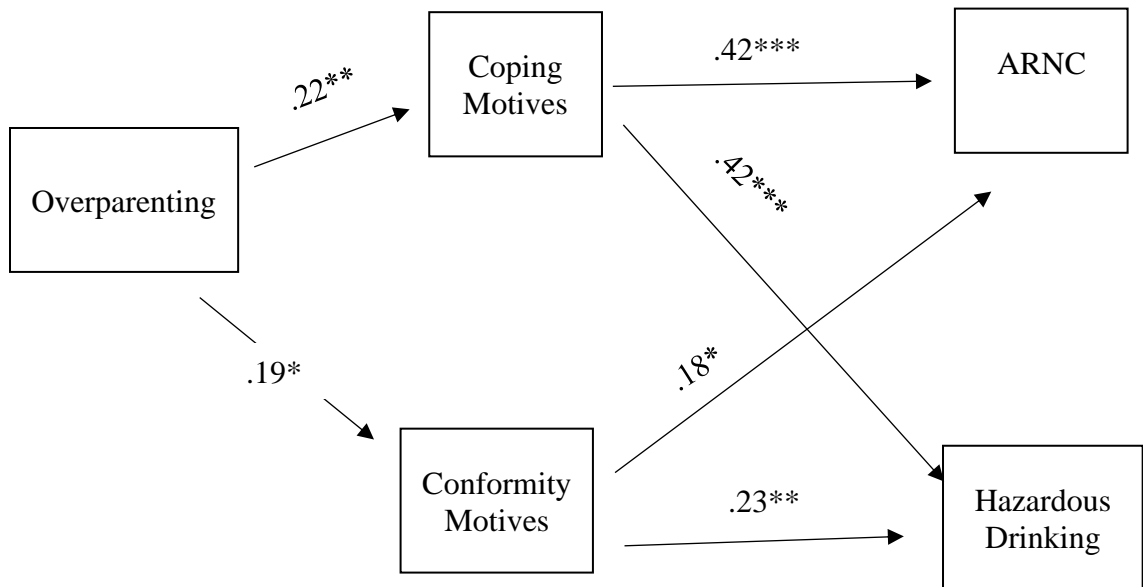
A main effect was found for overparenting on alcohol consequences ($c = .17$, 95% CI [.07, .27]). There were significant positive relationships from overparenting to coping ($\beta = .22$, $p = .001$) and conformity drinking motives ($\beta = .19$, $p = .015$). Positive relationships from coping motives to alcohol consequences ($\beta = .42$, $p < .001$) and from conformity motives to alcohol consequences ($\beta = .18$, $p = .01$) also emerged. The association between overparenting and alcohol consequences remained significant after including drinking motives in the model ($c^l = .12$, 95% CI [.06, .19]), indicating only partial mediation.

A main effect was also found for overparenting on hazardous drinking ($c = .14$, 95% CI [.04, .23]). As stated previously, there were significant positive relationships from overparenting to coping and conformity drinking motives. Positive relationships from coping motives to hazardous drinking ($\beta = .42$, $p < .001$) and from conformity motives to hazardous drinking ($\beta = .23$, $p = .003$) also emerged. Again, the association

between overparenting and hazardous drinking remained significant after including drinking motives in the model ($c' = .14$, 95% CI [.07, .22]), indicating only partial mediation.

There was no main effect observed for overparenting on typical weekly drinking, contrary to hypotheses. Typical weekly drinking was predicted by endorsement of coping motives ($\beta = .33$, $p < .001$), which is consistent with the literature, but no other significant relationships emerged with typical weekly drinking. Refer to Figure 3.1 to see the full mediation model.

Figure 3.1 *Significant Paths within Mediation Model*



Note. *** = $p < .001$, ** = $p < .01$, * = $p < .05$ ARNC = Alcohol-related negative consequences.

CHAPTER IV – DISCUSSION

The present study examined the degree to which the relationships between overparenting and alcohol outcomes were mediated by drinking motives. Consistent with the literature, overparenting was positively associated with hazardous drinking and negative consequences (Cui et al., 2018; Perez et al., 2021) as well as coping and conformity motives, a new finding. The present study hypothesized that coping motives would mediate the relationships between overparenting and typical weekly drinking, alcohol consequences, and hazardous drinking. Two of these hypotheses were supported considering the nonsignificant relationship between overparenting and typical weekly drinking. Coping motives predicted both hazardous drinking and negative consequences, consistent with past findings that coping motives are related to problematic drinking levels as well as negative consequences (Kuntsche et al., 2005). It was also hypothesized that conformity motives would mediate the relationship between overparenting and alcohol consequences, which did emerge, with the addition of conformity motives also serving as a mediator for the relationship between overparenting and hazardous drinking. These results are consistent with Villarosa et al.'s (2018) findings that conformity motives were related to negative consequences in college student samples. These results also support previous nonsignificant findings between conformity motives and alcohol consumption variables (Crutzen et al., 2013), as conformity motives were not significantly related to typical weekly drinking in this sample.

The lack of relationship between typical weekly drinking (i.e., alcohol consumption) and overparenting is notable, given the intercorrelations between all three alcohol outcome variables and overparenting's significant relationships with both

hazardous drinking and negative consequences. Considering that overparenting only predicted coping and conformity motives (and not social or enhancement motives), the observed results are consistent with the theoretical basis of our hypotheses and prior research findings, including overparenting's associations with ineffective coping skills, low self-efficacy, dependency on others, and a tendency to conform to others' values (e.g., college norms around heavy drinking; Darlow et al., 2017; Koerner & Fitzpatrick, 2002; Odenweller et al., 2014). It could be that overparenting is not related to explicit consumption but rather to hazardous drinking and alcohol consequences because of the lack of responsibility/self-efficacy related to drinking to avoid negative feelings or conform to others' desires. An example of this could be the US-AUDIT item (a hazardous drinking indicator) "failing to do what was normally expected of you because of drinking" (i.e., neglecting schoolwork because of drinking to cope) or getting into the car with someone who has been drinking (an alcohol consequence that could occur due to social pressure). Furthermore, the AUDIT assesses consumption at a more advanced level than typical weekly drinking, with higher scores representing more frequent and faster alcohol consumption. For example, our sample reported an average of 11 drinks a week, which would not be considered hazardous if split into daily use (i.e., 1.5 drinks per day). However, participants would elevate on hazardous use if they reported consuming, for example, 5 drinks within 2 hours on a Saturday.

It should also be noted that while overparenting was correlated with all variables of interest, the correlations were relatively weak. The strongest correlations were between coping and conformity drinking motives and alcohol outcomes, so drinking motives appear to be most relevant in this context. Considering this, it is important to examine the

bidirectional nature of parent-child relationships. It is impossible to determine if these children had inherently lower levels of distress tolerance, eliciting increasing levels of overparenting as a response from their caregivers, or if overparenting was present first and stunted self-efficacy and distress tolerance, leading to reliance on coping and conformity motives in adulthood.

The average rate of overparenting in this sample on each item of the HPI was 3.72, which was consistent with previous college student samples collected in the Southeast; for example, Perez et al. (2019) found a rate of 3.60. Conflicting results emerge when examining college students in other regions of the US, like the Mid-Atlantic = 2.24 (Wenze et al., 2019) or Midwest = 1.95 (McGinley & Davis, 2021). The southern United States, most notably the Deep South where this sample was collected, has a longstanding history of reporting the most collectivistic tendencies in the United States (Vandello & Cohen, 1999). Further, children usually report higher levels of maternal helicopter parenting in samples where maternal/paternal rates of overparenting are differentiated (Cui et al., 2019; McGinley & Davis, 2021). Thus, the collectivist environment and high rates of mother/daughter relationships examined in this sample may have contributed to the rates of helicopter parenting and corresponding alcohol outcomes.

4.1 Implications

This study has several implications for college students of helicopter parents. Most notably, it highlights how certain parenting practices could lead to alcohol misuse in the college environment. Clinicians working with college students should seek to assess the student's parental environment, model adaptive coping strategies, and present

realistic norms on college student drinking in treatment to reduce drinking to cope and overidentification/peer pressure from subgroups of high drinking peers. Moreover, SES should also be considered, with some research pointing to differential relationships between overparenting and alcohol outcomes based on SES (i.e., overparenting is protective for low-income students but harmful for high-income students; McGinley & Davis, 2021). Lastly, parental education on the danger of overparenting and more specifically how limited autonomy can negatively impact self-worth and coping skills should also be considered, especially in more collectivistic regions.

4.2 Limitations

The main limitation of this study is its cross-sectional design, which prevents causal implications from being made. Further, all measures were self-report, so levels of overparenting, for example, are based on participant's perceptions of their parents rather than objective data (e.g., parental statements) and are limited by participant memory. Moreover, participants may have underreported alcohol outcomes due to fear of legal or university consequences, which is relevant when considering the mean age of this study (i.e., 19.8 years old) and the legal drinking age in the United States (i.e., 21 years old). The sample was overwhelmingly female, which also affected the generalizability of the results. Additionally, approximately 34% of the sample endorsed co-use of alcohol and cannabis at least once in the past month, which was not accounted for.

4.3 Future Directions

Finally, the results of this study present several opportunities for future research. Given the higher rates of helicopter parenting reported in the Southeast discussed earlier, levels of collectivism could be examined as a potential moderator for the relationships

between overparenting and alcohol outcomes. It is also possible that the results of this study could have been affected by the relatively high gender match between parents and children (i.e., over 80% of the sample was female and reported on the parenting practices of their mothers). Therefore, future research could examine if these relationships hold true in the context of paternal helicopter parenting and if the gender match between parents and children could also serve as a potential moderator. Given that only partial mediation was found in this sample, other mediators could be involved in the relationship between helicopter parenting and alcohol outcomes. In a previous college student sample, coping styles fully mediated the relationship between PTSD symptoms and alcohol outcomes (Freeman et al., 2020). It was found that the type of coping style utilized (i.e., avoidance coping vs. problem-solving coping) was responsible for the observed relationship, and drinking to cope can be considered a form of avoidance coping. It is reasonable to assume that helicopter kids did not develop appropriate coping styles in adolescence and may rely on avoidant methods (i.e., alcohol consumption) to cope; therefore, coping styles could also emerge as a mediator in the context of overparenting and alcohol outcomes. Additionally, as discussed previously, social anxiety is associated with overparenting and conformity motives, so social anxiety could also serve as a mediator and influence endorsement of conformity drinking motives in order to decrease social discomfort. Considering the rates of simultaneous alcohol and cannabis use endorsed in this sample, future studies should examine if the observed relationships still emerge when accounting for co-use, as well as if similar relationships exist among helicopter parenting and cannabis motives.

4.4 Conclusion

Overall, this study presents findings on a novel relationship between overparenting and corresponding drinking motives in college students. Specifically, coping and conformity drinking motives are two factors that contribute to the relationships between overparenting and alcohol outcomes. Targeting deficits in terms of coping or social inefficacy in college students from adverse parental backgrounds serves as a relevant intervention as many college students transition away from the parental home and into adulthood. By utilizing early harm reduction and other intervention strategies, reliance on alcohol to manage coping and social deficits in helicopter children may be reduced.

APPENDIX A – Electronic Informed Consent

Informed Consent

PURPOSE: This study aims to assess the associations between overparenting and health behaviors in college students. Results will contribute to the parenting and college student health literature and will help inform intervention and prevention efforts for college students with adverse parental relationships.

DESCRIPTION OF STUDY: Participation in the study involves completing several online questionnaires. These questionnaires focus on perceived parental involvement, thoughts, attitudes, and behaviors. The survey can be completed in approximately 30-45 minutes. Quality assurance questions have been implemented throughout to ensure attentive and intentional responding.

BENEFITS: Participants will be awarded 1 SONA credit for completing the survey and will be given the opportunity to contribute to current psychological research, which could inform harm reduction strategies for other college students.

RISKS: No foreseeable risks, beyond those present in routine daily life, are anticipated in this study. If you find that you are distressed by completing these questionnaires or concerned about your behavior you should visit the campus counseling center or notify the researcher immediately, though this need is not anticipated. The survey asks some personal questions about behavior, including illegal behavior. There are no alternate procedures; however, you can skip questions or discontinue from further participation in the study at any time without any consequence. You can contact the principal investigator, Tatum Freeman (tatum.freeman@usm.edu), or her research supervisor, Dr. Michael Madson (Michael.madson@usm.edu), at any time throughout the study.

CONFIDENTIALITY: This study uses automatic crediting. Thus, it is anonymous, and you will not need to provide your name. The on-line survey has security measures to protect your responses, and there are no hard copies of your responses. Findings will be presented in aggregate form with no identifying information to ensure confidentiality and will be stored on a password protected computer.

PARTICIPANT ASSURANCE: If participants have questions concerning the research, the primary investigator, Tatum Freeman, can be contacted at 601-624-6781 (or e-mail at tatum.freeman@usm.edu). All study procedures have been approved by the Institutional Review Board in accordance with federal human research regulation laws. Questions regarding your rights as a research participant can be directed to the Chair of the Institutional Review Board at 601-266-6820.

A list of available on-campus and local agencies are provided for students who experience distress as a result of their participation. Please review the resources below if you should require mental health services:

University of Southern Mississippi Behavioral Health Clinic: 601-266-4588

University of Southern Mississippi Student Counseling Services: 601-266-4829

Pine Belt Mental Healthcare: 601-544-4641

Forrest General Psychology Services: 601-288-4900

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face data collection may not commence without prior approval from the Vice President for Research's Office.

PROTOCOL NUMBER: IRB-21-41

PROJECT TITLE: Drinking Motives as Mediators for the Relationships between
Overparenting and Alcohol Outcomes

SCHOOL/PROGRAM: School of Psychology, Psychology

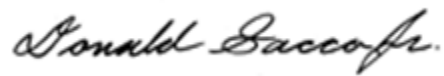
RESEARCHER(S): Tatum Freeman, Michael Madson

IRB COMMITTEE ACTION: Approved

CATEGORY: Expedited

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: April 20, 2021

A handwritten signature in cursive script that reads "Donald Sacco".

Donald Sacco, Ph.D.

Institutional Review Board Chairperson

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