Western Kentucky University

# **TopSCHOLAR®**

Masters Theses & Specialist Projects

**Graduate School** 

Spring 2021

# Work-School Conflict, Stress, and Alcohol Use Among Employed College Students

Casandra Faith Rollins Western Kentucky University, casandra.rollins136@topper.wku.edu

Follow this and additional works at: https://digitalcommons.wku.edu/theses

Part of the Clinical Psychology Commons, Industrial and Organizational Psychology Commons, and the Social Psychology Commons

#### **Recommended Citation**

Rollins, Casandra Faith, "Work-School Conflict, Stress, and Alcohol Use Among Employed College Students" (2021). *Masters Theses & Specialist Projects.* Paper 3484. https://digitalcommons.wku.edu/theses/3484

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

# WORK-SCHOOL CONFLICT, STRESS, AND ALCOHOL USE AMONG COLLEGE STUDENTS

A Thesis Presented to The Faculty of the Department of Psychological Sciences Western Kentucky University Bowling Green, Kentucky

> In Partial Fulfillment Of the Requirements for the Degree Master of Science

> > By Casandra F. Rollins

> > > May 2021

# WORK-SCHOOL CONFLICT, STRESS, AND ALCOHOL USE AMONG COLLEGE STUDENTS

Date recommendedApril 5, 2021						
Katrina A. Burch Digitally signed by Katrina A. Burch Date: 2021.04.05 10:44:46 -05'00'						
Dr. Katrina A. Burch	, Director of Thesis					
Reagan D. Brow	Digitally signed by Reagan D. Brown					
Reagan D. DIOW	Date: 2021.04.06 16:51:21 -05'00'					
Dr. Reagan D. Brown						
Jenni Teeters	Digitally signed by Jenni Teeters Date: 2021.04.07 18:01:00 -05'00'					
Dr. Jenni Teeters						

Rayon

Associate Provost for Research and Graduate Education

I dedicate this thesis to my mom Terridene and sister Grace who have always been my biggest supporters. I love you both more than you will ever know.

I also want to acknowledge my cohort for being the best friends anyone could ask for. Thank you Brewer, Eli, Brandi, San, and Ben for always encouraging me. I wish you all the best in life.

#### **ACKNOWLEDGEMENTS**

I would like to acknowledge my mentor Dr. Katrina Burch for her guidance and efforts in making this thesis possible. Thank you for all the times you have went out of your way to help me succeed and for pushing me to be the best version of myself. I could not have successfully made it through this program without your support and encouragement. I also want to thank Dr. Jenni Teeters for supporting me in exploring my research interest in my undergraduate studies and for always being so helpful in supporting this thesis project. Thank you also to Dr. Regan Brown for being a great teacher and part of my thesis committee.

# TABLE OF CONTENTS

Literature Review	2
Method	
Results	
Discussion	
Conclusion	

## LIST OF FIGURES

igure 1 <sup>2</sup>	47
----------------------	----

## LIST OF TABLES

Table 1	
Table 2	
Table 3	50

# WORK-SCHOOL CONFLICT, STRESS, AND ALCOHOL USE AMONG COLLEGE STUDENTS

Casandra F. RollinsMay 202161 PagesDirected by: Dr. Katrina Burch, Dr. Jenni Teeters, and Dr. Reagan BrownDepartment of Psychological SciencesWestern Kentucky University

The purpose of this study was to examine the relationship between work-toschool conflict (WSC), role stress in the school domain, and alcohol use among employed, full-time college students (n = 51). It was also examined whether the relationship between WSC and school stress is influenced by student role salience. A within-person, daily diary design was used in order to measure participants' daily WSC, school stress, and alcohol use over a 14-day period. Multilevel Random Coefficient Modeling (MRCM) was utilized to investigate the relationships of interest. A small nonsignificant, positive relationship between daily WSC and daily alcohol use was found. Although there was no significant relationship between daily school stress and daily alcohol use, a positive relationship between daily WSC and daily school stress was supported. Role salience did not significantly moderate the relationship between WSC and school stress as predicted. Although it was found that school stress did not significantly mediate the relationship between daily WSC and daily drinking, supplemental analyses did indicate that daily school stress is positively related to weekly drinking and interestingly, that there is an indirect effect of daily WSC on weekly drinking when including daily school stress in the model. These results can help researchers and practitioners alike understand how college student employment during the academic year affects consequent drinking behaviors.

viii

#### Work-School Conflict, Stress, and Alcohol Use Among College Students

College students misuse alcohol at alarming rates. National surveys of US college students indicate that 40-44% engage in heavy episodic drinking and that this rate is on the rise (Office of Applied Studies, 2006; Wechsler al., 2002). This behavior is potentially dangerous and has many negative consequences for those who engage in it, such as early death and injury. Research addressing this issue has found that although college student alcohol use is determined by many factors, there is evidence that students' alcohol misuse may be the result of the increased stress students face while attending college and is thus used as a way to regulate emotion (Rice & Van Arsdale, 2010). There are various new roles students must adopt while attaining a college degree (e.g. student, adult), with many students finding these roles stressful to balance and maintain (e.g. Armeli et al., 2010; Robotham, 2008). Associated role stress is arguably magnified for students who must work in order to afford costs such as living expenses and tuition, with research highlighting that these students' working environments put them at a higher risk of misusing alcohol and other substances (Frone, 2003; Valois et al., 1999). In an effort to better understand the antecedents to student employees' stress, researchers have coined the term work-to-school conflict (WSC), which refers to the interference of work with one's ability to meet the demands and responsibilities of school (Markel & Frone, 1998). A developing topic of interest for researchers in the field of organizational psychology has been focused on examining how the stress extending from WSC is related to student's subsequent alcohol use (Oviatt et al., 2017).

Furthermore, a major concern for researchers and practitioners is whether the working student population is more susceptible to using alcohol as a coping mechanism

in response to the perceived stress generated by WSC. Work-family conflict, another form of inter-role conflict, is empirically similar to work-school conflict and research examining the connecting between work-family conflict and alcohol use supports this hypothesis (Butler, 2007; Wolff et al., 2013). Consistent with the stressor-stress-strain model, the work-family literature has found evidence suggesting that stress mediates the relationship between work-family conflict and subsequent alcohol use, and that these relationships may exhibit similar effects for WSC (Wang et al., 2010). College students have been severely underrepresented in occupational-health related studies and researchers have called for a better understanding of this at-risk population of part-time workers (Calderwood & Gabriel, 2017). Another important and larger issue the current study aims to address is whether employed students use alcohol to cope with role-conflict from their competing work and school demands, thus setting the stage for future, problematic coping mechanisms utilized in their careers after college. As such, I aim to investigate how work-school conflict, stress, and role salience influence alcohol use among working college students.

#### **Literature Review**

As stated, work-to-school conflict (WSC) arises when a student's work demands result in an individual not feeling as if they can meet the responsibilities of their schoolwork and this interferes with their academic performance (e.g., having to work the night before an exam, ruminating about work responsibilities while at school). Workschool conflict is a bidirectional process, with work-to-school conflict comprising one end of the spectrum. The school domain can also interfere with one's ability to meet their work demands and responsibilities, which is termed school-to-work conflict (Kremer, 2016; Olson, 2014). This notion of bidirectionality comes from the work-family conflict literature which states there are separate mechanisms by which the different directions of work-family conflict are related to antecedents and outcomes [i.e. work-to-family conflict (WFC) vs. family-to-work conflict (FWC); Frone et al., 1992]. Though there are many different directions of work-school-family conflict in the literature, the current study is focused specifically on the effects of work-to-school conflict (WSC) given the centrality of the school domain to most college students.

Student employment is common among college students, with research from Georgetown University (2015) indicating that more than 70% of college students have worked while attending school. This may be due to the increased cost of college tuition, indicating that more students are now working in order to afford the excessive cost of higher education. Research has found that working while attending school is not ideal for students and many believe that their job during the semester is a burden that impedes their long-term goal of graduating college in order to begin their preferred careers (Butler, 2007). Many students have also stated they believe their work is associated with negative outcomes in their academic pursuits (Curtis & Williams, 2002).

Research associated with WSC has been mostly concerned with outcomes such as school performance, attendance, social support, and psychological/physical health (e.g. Adebayo et al., 2008; Kremer, 2016; Markel & Frone, 1998). For example, Park and Sprung (2013) found that WSC significantly predicted detriments in psychological health (no impact on physical health), though this relationship was weaker when the students received work supervisors' work-school support and experienced higher levels of workschool facilitation (i.e., work enhancing school life). Important implications of Park and

Sprung's (2013) study are that (1) consistent with the literature, WSC was found to be a significant predictor of students' psychological stress, (2) the relationship between WSC and stress can be buffered by providing students positive support from their work domain, and (3) working while attending school may be viewed positively by students as well. The last implication highlights that students' work roles can provide role enrichment and positive outcomes for employed students who participate in both domains.

McNall and Michel (2011) found results similar to Park and Sprung (2013) in that WSC was related to detriments in psychological health, and that school-related organizational support was a positive, significant moderating variable between WSC and reduced psychological health. McNall and Michel (2011) additionally found that students with high core-self evaluations were less likely to perceive WSC, and those with low core-self evaluations were more likely to experience school burnout. This suggests that there are individual differences related to personality that can either increase or decrease a student's perceived ability to manage both work and school demands.

#### Work-to-School Conflict and Alcohol Use

While research investigating the antecedents and outcomes associated with WSC appears to be on the rise, there remains a large gap in the literature addressing how WSC may be associated with behavioral outcomes such as problematic college drinking behaviors. While research is limited, Butler et al. (2010) examined college students' daily work stressors and alcohol consumption utilizing an online daily diary design for fourteen days. Butler et al. (2010) assessed whether increased daily workload, hours worked, and WSC were positively related to student's daily alcohol consumption, and hypothesized

that this relationship would be stronger for those who (1) had strong expectations about alcohol's tension reducing properties and (2) were men. Butler et al. (2010) found, opposite to their hypotheses, that daily WSC conflict was *negatively* related to daily alcohol consumption. The authors noted that these findings may be due to the fact that working students' busy schedules give them less of an opportunity to drink and engage in the college drinking culture (Leppel, 2006).

Oviatt et al. (2017) conducted a study to further address the relationship between WSC and student substance use behaviors. Oviatt et al. (2017) used a cross-sectional research design, examining 2,055 student's current employment characteristics, WSC, depressive symptomatology, and substance use, and found that WSC significantly predicted increased alcohol use among employed students after controlling for demographic variables and hours worked. Oviatt et al. (2017) hypothesized that the relationship between WSC and alcohol use would be negative, consistent with the findings from Butler et al. (2010), but instead found results that indicated that more perceived WSC was associated with greater frequency of alcohol consumption. It is important to note that alcohol use was measured as the number of drinks consumed in the past month in this study rather than daily drinks (i.e., a between rather than within-person measure of drinking).

Oviatt et al. (2017) stated that the differences in their findings as compared with Butler et al. (2010) may be due to the nature of the designs used in both studies. The cross-sectional nature of the study done by Oviatt et al. (2017) accounted for employed students' greater alcohol use related to WSC on days in which the students had greater opportunities to drink (i.e., days of low school load) due to decreased work-school

obligations. In comparison, Butler et al.'s (2010) daily study did not account for how school load affected students' ability to drink on days with high WSC. Because of the high demands and responsibilities employed students face on days with high WSC, students may have chosen to engage in problematic drinking behaviors to cope with their school stress at a later time when they were more capable of doing so. Oviatt et al. (2017) concluded that both findings together may support an overall clearer picture of how WSC affects student's substance use: students who experience WSC are more likely to engage in alcohol use to cope with this conflict, that is, when they have the available time to do so, rather than when they experience this conflict on a daily basis.

#### Drawing on the Work-Family Literature

The concept of work-to-school conflict grew out of the work-family conflict (WFC) literature, and as previously noted, may elucidate the process whereby WSC influences alcohol use. Work-family conflict is a form of role conflict that implies tension between one's work and family roles. Work-family conflict has been demonstrated to be related to negative behavioral outcomes, including increased alcohol use (e.g. Amstad et al., 2011). Although research demonstrating the association between WSC and alcohol use has produced inconsistent findings; research consistently supports the association between work-family conflict and alcohol use (see Amstad, et al., 2011).

For example, Frone et al. (1993) reported that WFC conflict was positively associated with drinking to cope, as well as problem drinking in a cross-sectional study. Frone et al. (1997) conducted a four-year longitudinal study to support the aforementioned cross-sectional findings and found that WFC was significantly related to heavy alcohol use. In addition to these early studies, Amstad et al. (2011) found in their meta-analysis that substance use (operationally defined to include alcohol misuse) was a significant outcome for both work-to-family and family-to-work conflict. Overall, these findings support the relationship between work-family conflict and alcohol use.

An individual's alcohol use is not particularly known to be stable, with research indicating that alcohol use is best described as a complex behavior that varies daily (Muraven et al., 2005). Given the daily, within-person variation of alcohol use, researchers have supported that within-subjects designs should be utilized in order to best explain students' alcohol usage while also measuring other daily variables that are predicted to affect this variance; opposed to cross-sectional designs (e.g. Park et al., 2004). For example, Wang et al. (2010) utilized a within-subjects design in examining the relationship between WFC and alcohol use and found that daily WFC did in fact predict daily alcohol use. Given previously stated evidence that WSC varies on a daily basis (Butler et al., 2005; Butler et al., 2010), expanding on previous research designs that examined WSC and alcohol use, and extrapolating the WFC and alcohol use literature to the present study, I hypothesize that:

*Hypothesis 1: daily work-school conflict will be positively associated with daily alcohol use among college students.* 

#### Stress

Stress is defined as "a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances" (Oxford English Dictionary, 2019). There has been a plethora of research supporting that students in higher-education face increased experiences of stress, especially those who work for pay during the semester (see Robotham, 2008 for review). What's more, role conflict, a stressor, is a significant

predictor of stress (Coverman, 1989; Kahn et al., 1964; Siegall, 2000). Work-to-school conflict, a form of interrole conflict, should therefore be associated with stress, especially stress that students experience in the school domain.

As mentioned, stress plays an important role in the WSC literature with findings indicating that WSC is positively related to students' increased stress within their student role (Butler, 2007; Kremer, 2016). Moreover, the stressor-stress-strain model indicates that stress is associated with stressors, which produces psychological, physical, and behavioral strain outcomes (e.g., drinking to cope). Being that the current study is specifically interested in work-to-school conflict, the stress that students experience specifically in their student role will be examined. It is also important to note that like WSC, student role stress is a state that can vary daily (Mroczek & Almeida, 2004). Given these findings, I hypothesize that:

# *Hypothesis 2: daily work-school conflict will be positively associated with daily role stress; specifically, the stress students experience in the school domain.*

It should be noted that stress has received more attention in the comparable WFC literature. WFC has similarly been found to be significantly related to stress, with research also indicating that this increased stress is positively related to increased alcohol use among employees (Wolff et al., 2013). Researchers have, for example, investigated how negative emotions related to stress are positively associated with heavy drinking, and have found that stress serves as an explanatory mechanism that links WFC to increases in drinking behaviors (Frone et al., 1994; Vasse et al., 1998). Extrapolating these findings to the work and school domains, it follows logically that school stress experienced as a result of managing both work and school (WSC) may predict

subsequent alcohol use in college students. Therefore, it is clear that WSC leads to student's experience of role stress in the school domain, and this stress may be the explanatory mechanism that leads students to cope with this stress through alcohol use, consistent with both the stressor-stress-stain model and the tension reduction theory of alcohol use.

As stated, the stressor-stress-strain model proposes that perceived stressors in one's environment leads to the experience of stress, which then leads to strain outcomes that can be psychological, physiological, or behavioral. Utilizing the stressor-stress-strain model, I posit that increased drinking behaviors can be conceptualized as a behavioral strain outcome resulting from school stress associated with competing work and school demands. Furthermore, the tension reduction theory states that alcohol is used as a means for students to reduce tension and stress, given the expectancies that alcohol has calming properties that will "promote relaxation and alleviate negative emotions" (Frone, 1999, pg. 289). The tension reduction theory proposes that students rely on socially accepted beliefs of using alcohol as means of reducing stress to consequently engage in more alcohol misuse.

Research supports both the stressor-stress-strain model and tension reduction theory in proposing that stress is associated with increased alcohol use and drinking problems (Cooper et al., 1992). Moreover, a recent longitudinal study that supports the idea of alcohol use as behavioral strain response to stress found that student's daily stressors (e.g., conflict) were associated with higher odds of drinking and alcohol-related problems (Russell et al., 2017). Provided that alcohol use can be seen as a maladaptive,

behavioral and tension reducing coping response to the experience of role stress resulting from WSC, and can vary on a daily basis, I hypothesize the following:

Hypothesis 3: daily role stress in the school domain is positively associated with daily alcohol use among college students. Hypothesis 4: daily role stress in the school domain mediates the relationship between daily work-to-school conflict and daily alcohol use among college students.

#### **Role Salience**

Students take on many different roles throughout college, especially students who are employed during their college tenure. Students' different roles may compete with each other, while some are more likely to have implications for subsequent behavior. Role salience, the importance of different roles in a person's life, relates to how committed, active, and experienced an individual is in a certain role (Nevill & Super, 1986). The more value a role has within these three criteria, the more salient the role is to an individual's life and therefore identity. Knowing the salience of an individual's different roles can offer enhanced insight of an individual by obtaining an improved understanding of the motives behind their behavior and values.

Research has supported the importance of role salience in understanding outcomes associated with WSC and WFC (Beutell, 1983; Greenhaus & Kopelman, 1981). For example, Kremer (2016) found that school-to-work (SWC) conflict was associated with stress and burnout for married couples, and that women reported more WFC and FWC conflict than men. This finding suggests that women's stronger family role salience may negatively impact them more when appraising conflict between their

responsibilities in both domains. Furthermore, Cinamon (2010) found after examining three groups of employees (i.e., those who identified more with the either the family role, work role, or both), that employees who strongly identified with both their work and family roles were more likely to experience WFC, and that those who mainly identified with the family role experienced the lowest levels of WFC. This research can be extrapolated to the work and school domains, which suggests that role salience may have implications for better understanding the relationship between WSC, stress, and alcohol use.

Given that many students experience the changing and emerging roles of young adulthood, role salience is suggested as a moderator in the proposed study as research extended to the work and school domains supports that it may differentially influence students' perceptions of WSC, and further, experiences of stress and engaging in alcohol use (Arnett, 2000). The various roles that students embrace may be difficult to manage while in school, and these role salience difficulties may help researchers to better understand WSC. Thus, the role salience that students' associate with will most likely impact how they experience WSC and engage in alcohol use, with those identifying more strongly with their student role arguably being the most likely to experience WSC and further school stress. The cross-domain hypothesis suggests that conflicting demands arising in a domain that are salient to an individual's identity (i.e., school) will more likely result in the opposing domain (i.e., work) creating conflict in that domain (i.e., the school domain) and subsequent stress (i.e., WSC; Gutek et al. 1991). This suggests that a stronger student identity salience will exacerbate the relationship between WSC and school stress, thus influencing students' alcohol use. To date, this is the first study to

examine the possible moderating influence of role salience on the relationship between WSC, stress, and alcohol use. Therefore, I propose the following hypothesis:

Hypothesis 5: Student role salience will moderate the relationship between workto-school conflict and school stress, such that the relationship between work-toschool conflict and school stress will be stronger for students who strongly identify with their student role.

#### **Present Study**

A within-person daily diary design to assess participants daily work-to-school conflict, school stress, and alcohol use for two weeks was utilized. Given the varying nature of these variables, there is a need to examine these variables on the daily level. Using a daily diary approach reduces bias and error that is characteristic in retrospective reporting of experiences and can provide a much clearer picture of the relationships of interest (Fisher & To, 2012). Student role salience will be examined as a possible moderator between WSC and school stress, such that the relationships of interest will arguably be exacerbated for those whose student role is more salient. The conceptual model guiding this research is presented in Figure 1.

#### Method

#### **Participants**

Students who were eligible for the daily portion of the study were 18 years of age, considered a part-time or full-time college student, had access to the internet, worked at least 4 or more hours per a week, and drank three or more alcoholic drinks a month. Students seeking treatment for substance use were ineligible for the study.

Out of 817 respondents who completed a baseline/screening survey, a total of 92 participants were eligible to participate in the daily diary portion of the study. Of the 92 participants who were eligible to participate, a total 53 participants indicated interest in the daily portion of the study, although only a total of 51 participants completed at least 1 survey (response rate = 55%). Of the 51 participants who participated in the daily portion of the study, all maintained they worked and were a college student on the first daily survey and thus maintained their eligibility to participate. Of the 51 participants, a total of 41 completed 7 or more of the 14 daily surveys (response rate = 80%). Specifically, 17 participants completed all 14 surveys (response rate = 33%), 12 participants completed 13 surveys (response rate = 24%), and 12 participants completed between 7 to 12 surveys (response rate = 24%).

The sample for this study was mostly selected from the student population at Western Kentucky University (96%), with only 2 students attending another public university in Kentucky. The majority of participants were white (66.7%) and female (58.8%). Many of the students were seniors (41%) and graduate students (29%), studying within in a variety of different majors (e.g., nursing, elementary education, engineering, psychology, and finance). Mean age was 23.8 years, with a standard deviation of 5.35 years. Participants were employed in a wide variety of job fields, including: medical (20%), restaurant (15.6%), and office administrative (10%) positions. The students worked an average of 26.69 (SD = 11.72) hours per a week and were enrolled in an average of 11.85 (SD = 3.83) course credit hours. The majority of the sample contained full-time students (82%).

#### Measures

The study measured employed students on the variables of interest first using a baseline/screening survey. Eligible participants were then assessed using a short daily survey which they completed for two consecutive weeks (14 days).

#### **Baseline/Screening Survey**

Measures included in the baseline survey were either developed for the purposes of this study or used in prior research and have been found to demonstrate good psychometric properties. Please see the Appendix for a list of all survey measures and associated items.

**Student demographics**. Participant age, gender, sexual orientation, job type, hours worked, income, and number of credits were assessed.

**Student role salience.** Student identity salience was measured using a 4-item scale, adapted from Callero (1985), and Burke and Reitzes (1991). The original reliability of the scale was a Chronbach's  $\alpha$  of .59. After examining the item intercorrelations, it was found that the fourth item was not correlated with the other items on the scale, thus the item was deleted. Deleting the fourth item increased the reliability of the scale to a Cronbach's  $\alpha$  of .70. The three items were averaged to create a single scale score for each participant as a measure of their student role salience. Responses were assessed using a 5-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (5). Items were coded such that higher scores indicate more salience within the student role.

**Psychological Well-being Control Variables.** Three psychological constructs were measured in order to examine their potential use as control variables for individual differences that may be likely to impact the study variables of interest: core-self evaluations, positive and negative affect, and depression.

*Core-Self Evaluations.* Core-self evaluations were assessed via the Core-Self Evaluation Scale developed Judge et al. (2003). The CSES measures a single factor that is the communality of self-esteem, locus of control, generalized self-efficacy, and emotional stability. Response options for the scale are rated along a 5-point Likert-type scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Responses were coded such that higher scores indicate stronger core-self evaluations such as a strong internal locus of control (Cronbach's  $\alpha = .78$ ).

*Positive and Negative Affect.* Positive and Negative Affect were measured using the Positive and Negative Affect Schedule – Short Form (PANAS) developed by Thompson (2007). Participants indicated, on a 5-point Likert-type scale (*never* to *very often*), the extent to which they generally experience different affective states (e.g., nervous, inspired). Responses were calculated such that higher scores indicated higher levels of these affective states (Cronbach's  $\alpha$  for negative affect = .64; Cronbach's  $\alpha$  for positive affect = .68).

*Depression.* Students' depression was measured using 10 items from Radloff's (1977) Center for Epidemiologic Studies Depression (CES-D) scale measuring depression in the general population. Items were assessed along a 4-point Likert-type scale that asks respondents to report the frequency of their feelings, thoughts, symptoms, and energy levels associated with mild depression ranging from *rarely or none of the time* to *all of the time*. Responses were calculated such that higher scores indicated greater depressive symptomology (Cronbach's  $\alpha = .75$ ).

**Typical Alcohol Use.** Typical drinks per week was assessed using the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985). The DDQ was included

on the baseline survey in order to measure participant's overall, average alcohol use given that the daily measure of alcohol use was limited to the two-week period of the study. Students were asked to estimate the total number of standard drinks they consumed on each day during a typical week in the past month. A separate item was included to assess heavy episodic drinking. Students were asked to report how many times they had drank four or more (if female) or five or more (if male) standard drinks in one occasion during the past month (Wechsler et al., 1995).

#### Daily Survey

The following measures were included in the daily survey. All measures were adapted for use to fit the daily context. The daily survey was designed to take less than five minutes to complete.

**Work-to-School Conflict (WSC).** Daily work-to-school conflict was measured using 6 items from Olson's (2014) work, family, and school conflict scale adapted for daily use. This measure uses a 5-point Likert-type response format ranging from *strongly disagree* (1) to *strongly agree* (5). Responses were coded such that higher scores indicate a greater degree of work-to-school conflict. The Cronbach's alpha reliability of the scale ranged from .91 - .98 across the 14 days of data collection.

**Student Role Stress**. Students' school stress was measured using an adapted version of the Job Stress in General scale developed by Stanton et al. (2001). Items were adapted to fit the school context and asked students to indicate how they felt that day regarding school. This 14-item measure used an adapted forced-choice 4-point Likert-type response format ranging from *strongly disagree* to *strongly agree*. Responses were coded such that higher scores indicate a greater degree of student role stress. The

Cronbach's alpha reliability of the scale ranged from .90 - .97 across the 14 days of data collection.

Alcohol use. Daily alcohol use was measured by participants reporting how many standard drinks they consumed that day (e.g., 12oz of beer, 5oz of wine, 1.5oz of liquor). Pictures were provided to help guide students in deciding how many standard drinks they had consumed. The more drinks the student reported consuming, the greater their alcohol use.

**COVID-19.** Questions related to how students are impacted daily by COVID-19 were assessed to control for the pandemic's possible effects on the variables of interest. This included asking students if they went to class or work online and also if COVID-19 impacted their levels of stress at work and school. These questions were created for the current study. An example item is "did you feel more stressed at school today as a result of COVID-19?".

**Tension Reduction Expectancies.** Students daily tension reduction expectancies of alcohol were measured using Leigh et al.'s (2003) 3-item alcohol expectancies scale, and included to assess the students beliefs about the tension reduction properties of alcohol. Responses were assessed along a 5-point Likert-type response format ranging from *strongly disagree* to *strongly agree*. Responses were coded such that higher scores indicate greater tension reduction expectancies of alcohol. The Cronbach's alpha reliability of the scale ranged from .84 - .98 across the 14 days of data collection.

**Daily Course Load.** Daily course load was included as a potential control variable given the potential impact of course load on students' opportunity to drink. Students were asked how much time they spent on school work each day. Responses were assessed

along a 5-point Likert-type frequency scale ranging from *none* to *a lot more than I usually have to*. Responses were coded such that higher scores indicate a higher course load that day.

**Classes Attended.** Students were asked whether they went to class, and if so whether their class was online, in-person, or hybrid (i.e., in-person and online). Students who reported they went to class were also asked to report how many classes they attended that day.

**Daily Hours Worked.** Students were asked to report whether they worked each day and if they responded yes, they were also asked how many hours they worked that day.

#### Procedure

The entire study took place during the Fall 2020 and early Spring 2021 semesters, while the daily portion of the study specifically took place during the last week of February and the first week of March 2021. Permission from the Institutional Review Board (IRB) at Western Kentucky University was obtained before the start of the study. Participants were recruited via advertisements on campus, social media, student-all emails, and through Study Board, which is an online system for scheduling research participation in psychological studies. All data were collected through participants' smart devices (e.g., cellphone and personal computers) via Qualtrics's survey software.

The baseline/screening survey was distributed to all platforms for the Fall 2020 and Spring 2021 semesters in which students were told they could earn course credit or monetary rewards for their participation. Participants who were eligible based on their responses to the baseline/screening survey were contacted via text and email. The researchers explained the study to the participants and those who were interested were

included in the daily portion of the study. Prior to completing baseline and daily measures, participants were provided with a consent form and informed of the study's purpose, risks, benefits, compensation, and all other pertinent study details.

Utilizing daily dairy methodology, eligible participants (see Participants above for a description of eligibility) were sent daily questionnaires via text and email, based on their contact preference. Each daily survey took approximately 5 minutes on average to complete. As noted, participants completed the daily measures of WSC, school stress, alcohol use, and other relevant control variables via Qualtrics. All information sent to researchers was encrypted and confidential in a secured drive made by the university information technology for the research lab. Participants were provided with a Google Voice phone number and email address created for this study to answer any of their questions and were also informed that they could discontinue the study at any time.

In order to better ensure adherence to research protocol and avoid possible attrition, monetary incentives were used to encourage participants to complete all daily measures. Past research with college students has shown that these monetary incentives increase participant compliance with completing daily measures (Stone et al., 2002). Participants received \$1 per daily survey and those who completed 13 or 14 surveys received a \$6 bonus. In addition, students were eligible to win one of nine \$50 bonuses if they completed all daily surveys. The winners of the \$50 bonuses were randomly chosen at the completion of the daily diary portion of the study using a random number generator assigned to participants who completed all 14 surveys, only. Alternatively, students were given the option to receive course credit totaling up to 10 course credits for their participation. No students decided to receive this option.

All daily surveys were sent at 6:00 PM CST each night using a Google Voice account created for the current study. Depending on which contact option the students preferred, they would receive either a text or email each time with their daily survey. Participants were encouraged to complete their daily survey by 12pm CST the day after they received their survey for that day. All participants were courteously reminded at 9 AM the next morning to complete their daily survey by noon. Based on the participants' completion of the surveys, the participants were rewarded either cash or an Amazon eGift Card for their time.

#### Results

Prior to conducting substantive analyses, preliminary analyses were conducted in order to examine the data for any patterns of missingness. No patterns of missing data were noted and the data were assumed to be missing at random (MAR). Multilevel random coefficient modeling (MRCM) was utilized due to the hierarchical nature of the proposed data. Daily observations (level 1) were nested within people (level 2). Level 1 and Level 2 variables included in the models were modeled as fixed effects, unless otherwise specified. Fixed effects models use within-person variation from the data to identify effects of time-varying variables. For example, the current study is primarily concerned with how daily WSC and daily school stress predict changes in daily alcohol use. Furthermore, within-person associations refer to using the person as his or her own control; therefore, modeling the variables of interest as fixed effects indicates that changes in the outcome variable co-occur with changes in the predictor variable(s). All level 1 variables were person-mean centered, with the aggregate means of those variables entered at level 2. Doing this allows for clean partitioning of the variance into withinperson and between-person. Level 2 variables were grand-mean centered. All hypotheses were tested in Mplus, a statistical modeling program that allows for the analysis of multilevel data.

Hypotheses 1, 2, and 3 were examined using multilevel regression. To examine Hypothesis 4, multilevel mediation was utilized according to the steps laid out by Mathieu and Taylor (2007). The magnitude and significance of variance that resides within- and between- level 2 variables for each level 1 criterion and mediator was examined. Thus, the variance within- and between- daily alcohol use and stress was examined. To assess a full mediation, it is recommended that: (1) the significance of WSC on daily alcohol use be evaluated, this relationship must be supported in order for mediation to be supported; (2) test the influence of WSC on school stress; (3) test the influence of school stress on daily alcohol use; and finally, add WSC to the equations containing the test of the relationship between school stress and daily alcohol use (Mathieu & Taylor, 2007). In order for full mediation to be established, the influence of daily WSC on daily alcohol use must not be significant with school stress in the model as the mediating variable.

In order to examine cross-level moderation, the relationship of daily WSC on daily school stress was modeled as a random effect. Student role salience, as the crosslevel moderator (in other words, a level 2 variable moderating a level 1 relationship), was regressed onto the slope of the level 1 relationship (i.e., daily WSC and daily school stress). See Hypothesis Testing section below for a description of these results. **Descriptive Analyses** 

All descriptive analyses were conducted in SPSS version 26.0 (IBM Corp., 2019). The means, standard deviations, and correlations at the within and between person constructs are reported in Table 1. Correlations are based on composite scores calculated for each construct. Zero-order correlations between potential control variables and the outcome variable of interest were examined to determine whether they (e.g., core-self evaluations) should be included in the substantive models of interest. Results of zeroorder correlation analyses indicated that daily course load as well as average course load across participants should be included as a control variable. No other potential control variables were included based on correlational analyses.

#### **Unconditional Model**

Prior to conducting analyses, an unconditional model (intercepts only) was estimated so that partitions of the total variance into variability at level 1 (day level) and level 2 (person-level) could be assessed. The unconditional model for daily drinking yielded significant ICC(1) = .38 and ICC(2) = .87 values at p < .05, indicating that observations within subjects are not independent and warrant the utilization of MRCM. Additionally, partitioning of the variance into variability at level 1 (12.6%) and level 2 (80.4%) was done. Although the level 1 variance was lower than expected, we continued with the analysis in order to examine the hypotheses of interest. Moreover, because mediation is hypothesized, following recommendations put forth by Mathieu and Taylor (2007), the ICC(1) and ICC(2) values were examined for the mediator variable (school stress). School stress exhibited sufficient between (64%) and within (36%) person variance. Additionally, the ICC(1) = .09 and ICC(2) = .51 values were significant (p <

.05), again indicating that observations within subjects are not independent and thus warrant MRCM.

#### **Hypothesis Testing**

Hypothesis 1 indicated that daily WSC would be positively associated with daily alcohol use and was tested using multilevel regression. Daily alcohol use was regressed on daily WSC, controlling for daily workload at Level 1 and the aggregate means of the variables of interest at Level 2. Results indicated that the relationship between daily work-to-school conflict and daily alcohol use, while positive, was not significant ( $\beta = .26$ , p = .45).

Hypothesis 2 indicated that daily WSC would be positively associated with daily school stress and was tested using multilevel regression. Daily school stress was regressed onto daily WSC, controlling for daily workload at Level 1 and the aggregate means of the variables of interest at Level 2. Results indicated support for Hypothesis 2, indicating that on days when participants experienced more work-to-school conflict, they also experienced more school stress ( $\beta = .09, p = .01$ ). Results further indicated that 12% of the variance in daily school stress was attributed to daily WSC.

Hypothesis 3 indicated that daily school stress would be positively associated with daily alcohol use and was tested using multilevel regression. Daily alcohol use was regressed onto daily school stress, controlling for daily course load and the aggregate means of the variables of interest at Level 2. Results indicated that the relationship between daily school stress and daily alcohol use was positive, but not significant ( $\beta = .10, p = .73$ ). See Table 2 to review the results found for hypotheses 1, 2, and 3.

Hypothesis 4 indicated that daily school stress would mediate the relationship between daily WSC and daily alcohol use and was tested using multilevel mediation according to the steps laid out by Mathieu and Taylor (2007; see above). Results indicated no support for Hypothesis 4 (indirect effect = .001, p = .44, 90% Bayes CI = -.01, .01), controlling for daily course load and the aggregate means of the variables of interest at Level 2 (see Table 3).

Hypothesis 5 indicated that student role salience, a Level 2 variable, would moderate the relationship between daily WSC and daily school stress. In order to examine the cross-level moderation, the effect at level 1 (i.e., the relationship between daily WSC and daily school stress) was modeled as a random effect, with student role salience at Level 2 regressed onto the slope of the relationship at Level 1. Results indicated no support for Hypothesis 5 ( $\gamma = -.05$ , p = .16).

Finally, the full path model was examined as shown in Figure 1, controlling for daily course load and the aggregate means of the variables of interest. After examining the model, the results indicated that there is not a significant moderated mediation as expected, thus the hypothesized full path model was not supported. This is to be expected given the above results for individual hypotheses.

#### Supplemental Analysis

After testing all hypotheses, the results indicated that daily alcohol use was not significantly associated with daily WSC and daily school stress. It is important to note that daily alcohol use had very little variability in the sample, leading to low correlations with the study variables of interest. In order to get a better picture of the dependent variable's relationship with the substantive predictors (i.e., daily WSC and daily school

stress), further analyses were conducted using weekly alcohol use as the outcome variable of interest, rather than daily alcohol use. Testing the model with weekly alcohol use modeled at Level 2 (the person level) rather than the daily level (level 1) may better illuminate the relationships of interest.

To examine alcohol use at the between-person level of analysis, scores from the Daily Drinking Questionnaire (DDQ) included on the baseline were summed to create a aggregate variable that depicts each participant's weekly alcohol use (M = 8.05, SD = 5.66). This measure of alcohol use was examined in the supplemental analysis rather than the weekly average of students' daily drinks reported given that the DDQ provides an overall better depiction of the students' average weekly drinking that is not limited by the time-period in which the study was conducted. It is also important to note that there was a concern in using the students' daily drinks for an overall weekly average given that if students completed the daily questionnaire before they engaged in drinking, these drinks may have not been reported. Overall, this measure of average weekly drinking by the DDQ was significantly related to weekly drinking as reported by participants during the daily portion of the study (r = .91, p < .001).

Each of the hypotheses that included daily alcohol use as an outcome variable of interest were examined by replacing level 1 daily drinking with level 2 average weekly drinking. Therefore, Hypotheses 1, 3, and 4 were examined with weekly alcohol use modeled as a Level 2 outcome variable. Hypothesis 1 was examined by regressing weekly drinking on daily WSC, controlling for daily course load. Results indicated that there was no relationship between daily WSC and weekly alcohol use ( $\gamma = .06$ , p = .38). Hypothesis 3 was examined by regressing weekly drinking on daily school stress,

controlling for daily course load. Results indicated that daily school stress was positively associated with weekly drinking behavior ( $\gamma = .35$ , p = .02).

Given the significant relationship between daily WSC and daily school stress, as well as daily school stress and weekly drinking, the mediating effect of stress on the relationship between daily WSC and weekly alcohol use was also examined. To test whether daily school stress mediates the relationship between daily WSC and weekly alcohol use, the technique to examine cross-level mediation described Preacher et al. (2010; 2011) that draws on the multilevel mediation techniques proposed by Mathieu and Taylor (2007) was used. All cross-level effects were modeled as fixed effects within the model. Results indicated that there was a significant indirect effect of daily WSC on weekly drinking, as mediated by daily school stress (ab = .72, p = .04, 90% CI = .07, 1.76). In order to give a more accurate estimate of the indirect effect, Bayes Credibility Intervals (CI) were examined due to both the non-normally distributed standard errors and the small sample size. The 90% Bayes CI did not contain a zero-value (.070, 1.76), lending further support for the significant of the indirect effect of daily WSC on weekly alcohol use.

In order to further examine how the variables of interest are possibly related to alcohol use, students' heavy episodic drinking in the past month (also measured via the baseline survey) was assessed in relation to daily WSC and daily school stress. These supplemental analyses yielded non-significant results after controlling for daily course load (daily WSC and heavy episodic drinking:  $\gamma = -.08$ , p = .34; daily school stress and heavy episodic drinking:  $\gamma = .22$ , p = .085).

#### Discussion

The purpose of this study was to examine the effects that daily WSC and daily school stress have on daily alcohol use. Daily diary methodology was used, which allowed for the collection of data each day over the course of 14 consecutive days. This method was chosen in order to investigate the effects of different constructs across levels and time. Associations between daily WSC, daily school stress, and daily alcohol use were examined, as well as the moderating effect of student role salience on the relationship between WSC and daily school stress. The potential mediation of daily school stress on the relationship between daily WSC and daily alcohol use was also examined.

Of the five hypotheses tested, the only significant relationship found was that of daily WSC and daily school stress. Importantly, results indicated that when students experienced more daily WSC conflict, they also experienced more stress emanating from the school domain. This relationship is supported by prior studies, which have found that at the between-level, or the person level, average WSC is associated with stress (e.g., Kremer, 2016; Park & Sprung, 2013). My research further elucidates prior studies by demonstrating that the relationship between WSC and school stress also exhibits within-person effects. Although student role salience was not identified as a significant moderator of this relationship, it can still be implied that school stress in particular is an important outcome of daily WSC for students who participate in the work domain while in college.

As previously mentioned, alcohol use at the daily level was not significantly associated with daily WSC and daily school stress, however the relationships of interest

were trending in the positive direction. This finding is in slight opposition to prior research by Butler et al. (2010), which suggested that students who experience daily WSC and daily school stress is associated with less alcohol use.

#### **Daily and Weekly Alcohol Use**

At the daily level, it was hypothesized that daily WSC and daily school stress would predict daily drinking given that research has indicated WSC is a form of inter-role conflict that is empirically similar to WFC, which has been shown to be predictive of daily drinking behaviors (Wang et al., 2010). The current study aimed to examine the mechanisms by which WSC may similarly lead to alcohol use with students. It was hypothesized there would be a positive relationship between the variables of interest based on the theoretical underpinnings of tension reduction theory. The tension reduction theory supports that students who manage conflicting demands in both their student and work roles may be more likely to alleviate the stress associated with these conflicting demands through alcohol use. In the current study there was in fact a positive significant relationship between tension reduction expectancies and daily alcohol use which lends supports this theory (r = .43, p < .01).

As noted, the findings of the study indicate that daily WSC is predictive of daily school stress, however neither daily WSC, nor daily school stress, was associated with daily alcohol use. These nonsignificant findings with daily alcohol use may be attributed to the explanation posited by Butler et al. (2010) that daily alcohol use in response to daily WSC is unlikely given that students are more likely avoid drinking in order to successfully manage their demands in both domains. For example, research by Skidmore and Murphy (2011) has found that students' drinking behaviors are highly sensitive to

next-day responsibilities; that is, students are less likely to drink on evenings they have work or class the following day. Future research would benefit from comparing how employed students engage in drinking on a daily level compared to their non-employed counterparts to further clarify these results.

Participants in this study drank an average of 1.21 alcoholic drinks per a day, with a greater degree of variability in this behavior across all individuals (SD = 2.05). It was observed that drinking was more frequent over the weekends as expected, with fewer alcoholic drinks consumed during the school week. During the week students are likely to experience more WSC given they are more likely to have to manage their responsibilities in both their school and work domains during this time frame. In addition, the sample size for analyses was smaller than intended (power analyses indicated a sample size of approximately 100 was needed to detect a small effect), complicating the ability to find potential significant effects. Moreover, there was less-than-desirable within-person variance in daily alcohol use.

In order to further examine the relationship between alcohol use, daily WSC, and daily school stress, supplemental analyses were conducted using weekly alcohol use as an outcome variable. Weekly alcohol use was modeled as a person-level variable, so crosslevel analyses were conducted in order to determine whether within-person variation on daily WSC and daily school stress were associated with between-person variation in weekly alcohol use. Although initial hypothesis testing indicated that daily school stress did not significantly predict daily alcohol use, supplemental analyses indicted that daily school stress was positively associated with weekly average alcohol use. This result suggests that within-person variation in school stress is associated with between-person

variation in weekly average alcohol use. Put another way, daily school stress is significantly associated with average weekly alcohol use among students. This finding implies that the variation in school stress on a daily level has a larger impact on overall drinking behaviors that likely occurs during periods of time students have more opportunities to drink as a means of coping with this stress (i.e., on the weekends and during breaks).

The most interesting finding from the supplemental analyses using weekly average drinking was that a significant indirect effect of daily WSC on weekly drinking was found through student's daily school stress. This indirect effect was initially surprising given that daily WSC was not found to be significantly related to weekly drinking when examining the cross-level direct relationship between daily WSC and weekly alcohol use. Mathieu and Taylor (2006) maintain it is possible that two variables may not be directly related but can have a relationship via the indirect effect of a mediating variable. It is suggested that this type of relationship is not specifically a mediated effect, but instead finding that there is a relationship between the two variables via a mediation analysis should be referred to as an indirect effect.

This indirect effect of daily WSC on weekly alcohol use via daily school stress lends support to results found by Oviatt et al. (2017), which suggested that there is a pattern of greater drinking behaviors for those that experience more WSC overtime. The indirect and direct effect of daily school stress on weekly alcohol use suggests that students' stress in the school domain is likely the mechanism by which working students engage in alcohol use. In other words, it can be argued that the stress students experience in the school domain may likely influence students drinking behaviors in response to

WSC as a coping mechanism. Taken together, my findings, as well as the findings by Oviatt et al. (2017), suggest that there are likely daily mechanisms in the school domain that do influence alcohol use in students. Although no mediation was found between daily WSC and alcohol use at the daily level of analysis possibly due to the aforementioned limitations related to power and the nature of the school domain, it may be the case that there is a complex relationship on a daily level that warrants future research.

#### **Strengths and Limitations**

This study has several strengths related to its design. Conducting a longitudinal daily diary study allowed for a more accurate depiction of the within person variation on the constructs of interest, specifically daily WSC and school stress that were shown to vary within-individuals based on their daily experiences. It was found that daily WSC does indeed predict daily school stress which highlights that these variables do warrant daily measurement when examining their effect on other variables of interest. Conducting the study over a 14-day period allowed for an adequate capture of the variance among the variables on a daily level. Although collecting self-reported data is a disadvantage of this study given that self-serving biases can systematically distort results, there is research that supports that this bias is less pressing when using daily dairy studies given that participants are more likely to accurately recall information about their behavior if it is reported daily (Midanik, 1988).

As mentioned, there were some limitations in the study that possibly led to multiple non-significant findings due to a lack of power in the analyses. The biggest limitation was that the small sample size of the current study prevented us to observe

more accurate and significant correlations between the constructs of interest as they exist in the population of working students, thus increasing the probability of type II error in our analyses. Large sample sizes with adequate power are needed to assess moderating variables such as role salience in the current study. Given the small sample obtained, likely due to the daily requirements of the study and lack of full completion of all daily surveys from participants, the moderating effect of role salience was insignificant.

This issue of sample size can also account for the problematic p-values observed when examining daily alcohol use's relationship with all other variables. Given the small average number of drinks observed on a daily basis, the measure of this variable made it difficult to assess its daily relationship with the variables included in the model. Although the measure of daily alcohol use did not significantly correlate with the predictor variables as expected, the measure of weekly drinking provided by the DDQ allowed for a supplemental analysis in examining alcohol use's relationship with both WSC and school stress. Including this measure of the dependent variable allowed for an examination of alcohol use's relationship to the daily variables and thus provided interesting findings that elucidates how alcohol use is related to daily school stress in the WSC literature.

#### **Future Research and Practical Implications**

The findings from the current study add to the current college student employment literature, as well as research examining possible predictors of college drinking behaviors. Given that the relationship between student employment and alcohol use has mostly been examined in adolescent samples, there has been a paucity of research on drinking behaviors of employed students in the college student population. The results

of this study advance the literature on what is known about WSC given the implications WSC has on student outcomes found in the study, especially student school stress.

Results from the current study support the proposed stressor-stress-strain model in that the school stress extending from WSC may be predictive of subsequent behavioral strain expressed as alcohol use. Although there was not enough power to elucidate the relationship between WSC and alcohol use at the daily level, the between-person level analysis of alcohol use suggested that daily WSC does indeed indirectly affect average weekly alcohol use via the school stress that students experience from this conflict. This significant and positive relationship supports the stressor-stress-strain model in that overtime people who experience greater WSC are more likely to drink in response to the stress both working and studying can have within their school role. Again, it cannot be implied that stress mediates the relationship between daily WSC and weekly alcohol use given that a direct relationship was not observed between the variables, but the results did indicate that there is a significant indirect effect of daily WSC on average weekly drinking. Therefore, future research that seeks to understand the relationship between WSC and drinking behavior in college students should seek to incorporate other possible mediating and moderating mechanisms that may better explain this relationship. For example, students with disengaging coping styles may be more likely to use alcohol as a maladaptive coping mechanism in response to role conflict as opposed to students who trend toward more adapting coping styles, such as planning and active coping.

It is important to note the nature of WSC compared to WFC may account for some of the inconsistencies found in the relationship between daily WSC and alcohol use in the current study and in the daily study conducted by Butler el al. (2015). It has been found

in the WFC literature that many of the responsibilities in the family domain that conflict with one's work include social duties such as supporting one's family members or providing for children (Butler et al., 2010). On the other hand, the school domain requires more cognitively challenging tasks, such as keeping up with school work and studying for exams. Given that students may have more cognitively challenging responsibilities throughout the week in the school domain, this may account for the implication that employed college students are more likely to drink on the weekends after completing their school work, thus complicating the daily variation observed in alcohol use in relation to the WSC experienced in this study. Future research should examine the role that daily WSC has on daily drinking during the weekends and breaks in which students with high WSC may be more likely to drink in response to the stress this conflict places on them.

Furthermore, in order to better understand how daily school stress is related to daily WSC and daily drinking, future research should compare students who work during the semester to those who are unemployed. For example, it may be the case that students who work are unable to drink during the week because of their greater responsibilities compared to students who do not work, thus their employment may be best described as a protective factor. It may also be the case that employed students are inherently different compared to their unemployed counterparts in that they are more responsible and thus do not engage in alcohol use as often as other students who do not have to work during the semester. These questions should be investigated in future studies.

It is important to note when interpreting the results of this research that engaging in excessive alcohol use is expensive for both society and organizations, with a study

conducted by the CDC finding that in 2010, excessive drinking cost the U.S. \$249 billion, with 71.9% of cost being related to losses in workplace productivity (Sacks et al., 2015). Specifically, this excessive alcohol use is related to many negative organizational consequences such as lower task performance and increased workplace accidents and injuries, with the most well-documented organizational outcome being absenteeism (Frone, 2008). Given the magnitude of this problem and the cost it brings to organizations, employers have been encouraged to obtain different methods of predicting which job candidates are likely to engage in substance use behaviors (Johansson et al., 2007).

Learned and problematic drinking habits that students engage in during college may make them more likely to be employees that have problematic drinking behaviors in their careers after they graduate. This may be especially true for students who are at greater risk of misusing alcohol. Furthermore, employed students may be more likely to normalize alcohol consumption as an employee than students who do not have to manage paid employment during the school year. Given that college graduates consist of a large number of new employees who enter the labor force, and that many students now work while attending school, this issue is of concern for organizational researchers and practitioners alike (National Association of Colleges & Employers, 2016).

Overall, the results of the proposed study are valuable in informing universities and employers of college students about the risks student employment imposes on student's stress, as well as possible negative drinking behaviors and outcomes. For example, the indirect effect daily stress has on the relationship between daily WSC and weekly drinking has implications that could impact future university policies when it

comes to decisions such as determining which type of resources should be offered to students who must work to afford tuition. Given the finding that WSC leads to greater school stress specifically, this reiterates that universities also should continue to offer flexible learning options such as hybrid courses to decrease the demands and thus the stress students experience in the school domain. In student's work settings, these results could be used to help motivate employers in also providing flexible work arrangements and possibly to implement means of targeting negative drinking behaviors such as promoting a culture that does not encourage employee drinking in or outside of the workplace.

#### Conclusion

Utilizing MRCM, the current study examined the relationships between daily WSC, daily school stress, and daily alcohol use. The moderation of student role salience on the relationship between daily WSC and daily school stress, as well as the indirect effect of daily WSC on daily alcohol use via school stress, were also assessed. The results supported a significant positive relationship between daily WSC and daily school stress, but the other hypotheses, including the mediation of daily school stress on daily WSC and drinking, were not supported. Although these hypothesized relationships were not statistically supported, supplemental analyses indicated that daily school stress is positively related to weekly drinking on the between-person level, and also that there is a cross-level indirect effect of daily WSC on weekly alcohol use through student's school stress.

The results of this study contribute to a better understanding of the impact WSC has on college students' substance use behaviors, although more longitudinal research is

needed at the daily level to better understand how WSC impacts these behaviors. As stated, future research should focus on comparing both employed and unemployed college students to better clarify the impact WSC has on students' alcohol use as a means of coping with their school related stress. If future research does find evidence that working students develop potentially negative drinking behaviors during periods of college employment, this may mean that these students are more susceptible to engage in such behavior throughout their careers after graduation. Given that students' developed patterns of alcohol use during college can result in many potential issues for organizations who hire them, these findings, as well as other research related to this topic, should be used as grounds to create an intervention for working students to refrain from developing negative drinking habits in response to the elicited stress from WSC.

#### References

- Adebayo, D.O. (2006). Workload, social support, and work-school conflict among Nigerian nontraditional students. *Journal of Career Development*, *33*(2), 125-141.
- Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A metaanalysis of work–family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology*, 16(2), 151.
- Armeli, S., Conner, T. S., Cullum, J., & Tennen, H. (2010). A longitudinal analysis of drinking motives moderating the negative affect-drinking association among college students. *Psychology of Addictive Behaviors*, 24(1), 38.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469–480.
- Beutell, N. J. (1983). An investigation of conflict between work and nonwork roles. Workrole salience, family role expectations, and satisfaction. Paper presented at the annual meeting of the Academy of Management, Dallas, Texas.
- Brody, J. L. (2012). The drinking habits of first year college students: Halloween and other holiday spikes. Retrieved November 29, 2019, from https://youthresearchhub.wordpress.com/2012/10/31/the-drinking-habits-of-firstyear-college-students-halloween-and-other-holiday-spikes/.
- Burke, P., & Reitzes, D. (1991). An identity theory approach to commitment. *Social Psychology Quarterly*, 54(3), 239-251.

- Butler, A. B. (2007). Job characteristics and college performance and attitudes: A model of work-school conflict and facilitation. *Journal of Applied Psychology*, 92, 500–510.
- Butler, A. B., Dodge, K. D., & Faurote, E. J. (2010). College student employment and drinking: a daily study of work stressors, alcohol expectancies, and alcohol consumption. *Journal of Occupational Health Psychology*, 15(3), 291–303.
- Butler, A. B., Grzywacz, J. G., Bass, B. L., & Linney, K. D. (2005). Extending the demands-control model: A daily diary study of job characteristics, work-family conflict and work-family facilitation. *Journal of Occupational and Organizational Psychology*, 78, 155-169. doi:10.1348/096317905X40097
- Calderwood, C., & Gabriel, A. S. (2017). Thriving at school and succeeding at work? A demands-resources view of spillover processes in working students. *Journal of Vocational Behavior*, *103*, 1-13.

Callero, P. (1985). Role-identity salience. Social Psychology Quarterly, 48(3), 203-215.

- Cinamon, R. G. (2010). Anticipated work-family conflict: Effects of role salience and self-efficacy. *British Journal of Guidance & Counselling*, *38*(1), 83-99.
- Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. *Journal of Consulting and Clinical Psychology*, *53*(2), 189.
- Cooper, M. L., Russell, M., Skinner, J. B., Frone, M. R., & Mudar, P. (1992). Stress and alcohol use: Moderating effects of gender, coping, and alcohol expectancies. *Journal of Abnormal Psychology*, 101, 139-152.

- Curtis, S., & Williams, J. (2002). The reluctant workforce: Undergraduates' part-time employment. *Education and Training*, 44, 5–10.
- Dundes, L., & Marx, J. (2006). Balancing work and academics in college: Why some students working 10 to 19 hours per week excel? *Journal of College Student Retention: Research, Theory, and Practice, 8*(1), 107-120.
- Fisher, C. D., & To, M. L. (2012). Using experience sampling methodology in organizational behavior. *Journal of Organizational Behavior*, *33*(7), 865-877.
- Frone, M. R. (1999). Work stress and alcohol use. *Alcohol Research & Health*, 23, 284–291.
- Frone, M. R. (2003). Predictors of overall and on-the-job substance use among young workers. *Journal of Occupational Health Psychology*, 8(1), 39.
- Frone, M. R. (2008). Employee alcohol and illicit drug use: Scope, causes, and organizational consequences. *Handbook of Organizational Behavior*, 1, 519-540.
- Frone, M. R., Barnes, G., & Farrell, M. (1994). Relationship of work-family conflict to substance use among employed mothers: The role of negative affect. *Journal of Marriage and Family*, 56(4), 1019-1030.
- Frone, M. R., Russell, M., & Cooper, M.L. (1993). Relationship of work-family conflict, gender, and alcohol expectancies to alcohol use/abuse. *Organizational Behavior*, 14, 525-558.
- Frone, M. R., Russell, M. & Cooper, M. L. (1997). Relation of work–family conflict to health outcomes: A four-year longitudinal study of employed parents. *Journal of Occupational and Organizational Psychology*, 70, 325-335.

- Georgetown University. (2015). Seventy percent of college students work while enrolled, new Georgetown University research finds. *Center on Education and the Workforce*.
- Greenhaus, J. H., & Kopelman, R. E. (1981). Conflict between work and nonwork roles: Implications for the career planning process. *Human Resource Planning*, *4*, 1-10.
- Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology*, 76(4), 560.
- IBM Corp. (2019). IBM SPSS statistics for windows, version 26.0. Armonk, NY: IBM Corp.
- Johansson, E., Alho, H., Kiiskinen, U., & Poikolainen, K. (2007). The association of alcohol dependency with employment probability: Evidence from the population survey 'Health 2000 in Finland'. *Health Economics*, 16(7), 739-754.
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel Psychology*, *56*(2), 303-331.
- Kremer, I. (2016). The relationship between school-work-family-conflict, subjective stress, and burnout. *Journal of Managerial Psychology*, *31*(4), 805-819.
- Lee, N. K., Greely, J., Oei, T. P. (1999). The relationship of positive and negative alcohol expectancies to patterns of consumption of alcohol in social drinkers. *Addictive Behaviors*, 24(3), 359-369.
- Leigh, B. C., & Stacy, A. W. (1993). Alcohol outcome expectancies: Scale construction and predictive utility in higher order confirmatory models. *Psychological Assessment*, 5(2), 216.

- Leppel, K. (2006). College binge drinking: Deviant versus mainstream behavior. *The American Journal Of Drug And Alcohol Abuse*, 32(4), 519-525.
- McNall, L. A., & Michel, J. S. (2011). A dispositional approach to work–school conflict and enrichment. *Journal of Business and Psychology*, 26(3), 397-411.
- Markel, K. S., & Frone, M. R. (1998). Job characteristics, work-school conflict, and school outcomes among adolescents: Testing a structural model. *Journal of Applied Psychology*, 83, 277-287.
- Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior*, 27(8), 1031-1056.
- Mathieu, J. E. & Taylor, S. R. (2007). A framework for testing meso-mediational relationships in organizational behavior. *Journal of Organizational Behavior*, 28, 141-172.
- Midanik, L. T. (1988). Validity of self-reported alcohol use: A literature review and assessment. *British Journal of Addiction*, 83(9), 1019-1029.
- Muraven, M., Collins, R. L., Shiffman, S., & Paty, J. A. (2005). Daily fluctuations in self-control demands and alcohol intake. *Psychology of Addictive Behaviors*, 19, 140–147.
- Mroczek, D. K. & Almeida, D. M. (2004). The effect of daily stress, personality, and age on daily negative affect. *Journal of Personality*, 72, 355-378.
- National Association of Colleges and Employers. The Class of 2016 Student Survey Report. Bethlehem, PA: National Association of Colleges and Employers; 2016.

- Nevill D. D., Super D. E. (1986). *The salience inventory: Theory, application, and research*. Palo Alto, CA: Consulting Psychologists Press.
- Office of Applied Studies. DHHS Publication No. SMA 06–4194, NSDUH Series H-30.
  Rockville, MD: Substance Abuse and Mental Health Services Administration;
  2006. Results from the 2005 National Survey on Drug Use and Health: National findings.
- Olson, K.J. (2014). Development and initial validation of a measure of work, family, and school conflict. *Journal of Occupational Health Psychology*, *19*(1), 46-59.
- Osberg, T.M., Atkins, L., Buchholz, L., Shirshova, V., Swiantek, A., Whitley, J., & Oquendo, N. (2010). Development and validation of the college life alcohol salience scale: A measure of beliefs about the role of alcohol in college life. *Psychology of Addictive Behaviors, 24*(1), 1–12.
- Oviatt, D. P., Baumann, M. R., Bennett, J. M., & Garza, R. T. (2017). Undesirable effects of working while in college: Work-school conflict, substance use, and health. *The Journal of Psychology*, 151(5), 433-452.
- Park, C.L., Armeli, S., & Tennen, H. (2004). The daily stress and coping process and alcohol use among college students. *Journal of Studies on Alcohol and Drugs*, 65(1), 126-135.
- Park, Y., & Sprung, J. M. (2013). Work-school conflict and health outcomes: Beneficial resources for working college students. *Journal Of Occupational Health Psychology*, 18(4), 384-394.
- Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, *15*, 209.

- Preacher, K. J., Zhang, Z., & Zyphur, M. J. (2011). Alternative methods for assessing mediation in multilevel data: The advantages of multilevel SEM. *Structural Equation Modeling*, 18, 161-182.
- Radloff, L. S. (1977). CES-D scale: A self-report depression scale for research in the general populations. *Applied Psychological Measurement*, 1, 385-401.
- Raudenbush, S. W., Spybrook, J., Congdon, R., Liu X., Martinez, A., Bloom, H., et al.
  (2011). Optimal design software for multi-level and longitudinal research
  (Version3.01) [Software]. *Retrieved from.* http://www.wtgrantfoundation.org/.
- Robotham, D. (2008). Stress among higher education students: Towards a research agenda. *Higher Education*, *56*(6), 735-746.
- Rice, K. G., & Van Arsdale, A. C. (2010). Perfectionism, perceived stress, drinking to cope, and alcohol-related problems among college students. *Journal of Counseling Psychology*, 57(4), 439.
- Russell, M. A., Almeida, D. M., & Maggs, J. L. (2017). Stressor-related drinking and future alcohol problems among university students. *Psychology of Addictive Behaviors*, 31(6), 676.
- Sacks, J. J., Gonzales, K. R., Bouchery, E. E., Tomedi, L. E., & Brewer, R. D. (2015).
  2010 national and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine*, 49(5), e73-e79.
- Skidmore, J. R., & Murphy, J. G. (2011). The effect of drink price and next-day responsibilities on college student drinking: A behavioral economic analysis. *Psychology of Addictive Behaviors*, 25(1), 57.

- Stanton, J., Balzer, W., Smith, P., Parra, L., & Ironson, G. (2001). A general measure of work stress: The stress in general scale. *Educational and Psychological Measurement*, 61(5), 866-888.
- Stone, A.A., Shiffman S.S., Schwartz J.E., Hufford M., & Broderick J.B. (2002). Patient non-compliance with paper diaries. *British Medical Journal*, 324, 1193–1194.
- Thompson, E.R. (2007). Development and validation of an internationally reliable shortform of the positive and negative affect schedule (PANAS). *Journal of Cross-Cultural Psychology*, *38*(2), 227-242.
- Stress. (2019). In Oxford Dictionary (2<sup>nd</sup> ed.). Retrieved from https://www.oed.com/.
- Valois, R. F., Oeltmann, J. E., Waller, J., & Hussey, J. R. (1999). Relationship between number of sexual intercourse partners and selected health risk behaviors among public high school adolescents. *Journal of Adolescent Health*, 25(5), 328-335.
- Vasse, R. M., Nijhuis, F.J.N., & Kok, G. (1998). Associations between work stress, alcohol consumption, and sickness absence. *Addiction*, 93, 231–241.
- Wang, M., Liu, S., Zhan, Y., & Shi, J. (2010). Daily work-family conflict and alcohol use: Testing the cross-level moderation effects of peer drinking norms and social support. *Journal of Applied Psychology*, 95(2), 377-386.
- Wechsler, H., Dowdall, G. W., Davenport, A., & Rimm, E. B. (1995). A gender-specific measure of binge drinking among college students. *American Journal of Public Health*, 85(7), 982-985.
- Wechsler H., Lee J.E., Kuo M., Seibring M., Nelson T.F., & Lee H. (2002). Trends in alcohol use, related problems and experience of prevention efforts among US

college students 1993–2001: Results from the 2001 Harvard School of Public Health College Alcohol Study. *Journal of American College Health*, *50*, 203–217.

Wolff, J. M., Rospenda K. M., Richman J. A., Liu, L., & Milner L. A. (2013). Workfamily conflict and alcohol use: Examination of a moderated mediation model. *Journal of Addictive Diseases*, 32(1), 85-98.

# Figure 1.

# Conceptual Model



Means Standan	rd Devic	ations, a	und Corr	elations										
Measure	1	2	e	4	S	9	7	×	6	10	11	12	Μ	SD
1. Age	1												23.8	5.31
2. Gender	17	1											0.53	0.93
3. PA	.15	04	1										3.67	.60
4. NA	-30*	.11	33*	ł									2.44	.62
5. Depression	22	.04	35*	.50*	ł								2.15	.53
6. CSE	.30*	06	.45*	52*	57*	I							3.34	.52
7. Course	12	.10	.02	.07	.10	15	ł						2.62	1.12
Luau 8. TRE	17	.20	19	60.	07	16	01	ł					3.61	98.
9. Role Saliance	04	.10	.11	.16	.19	05	.05	.23	I				3.73	.73
Jo. WSC	.03	01	05	02	*60.	07	02	.01	.07	1			3.15	1.74
11. School	19*	.11*	00 <sup>.</sup>	.04	.14*	17*	.43*	03	.07	.24*	1		2.36	.66
ouess 12. Alcohol Use	.04	*60.	.04	.05	01	.03	15*	.33*	01	.10*	01	ł	1.21	2.05
Note: $* = signi$	ificant a	t p < .05	5, WSC =	= Work-	School (	Conflict	PA = I	ositive	Affect;	NA = N	egative	Affect;		

Table 1.

TRE = Tension Reduction Expectancies; CSE = Core Self Evaluation; within-person correlations below dotted line, between-person correlations above the dotted line.

# Table 2.

		Sch	iool St	ress			
Models	Variables	Est	SE	R2	Est	SE	R2
Level 1 Direct Effects							
	WSC	.09	.03	.12	.26	.34	.02
	School Stress				.10	.29	.02
Control							
	Course Load	.35	.05		27	.08	

Standardized regression weights for Hypotheses 1,2, and 3

*Note:* bold = significant at p < .05; WSC = Work-School Conflict

# Table 3.

		Alc	ohol	Use		Scl	nool St	ress		Indirect Effect
Models	Variables	Est	SE	R2	Est	SE	R2	Est	SE	90% Bayes CI
Level 1 Direct										·
Effects	WSC Stress	.05 .01	.04 .04		.07	.04		.00	.01	01, .01
Indirect Effect	Total			.026			.005			
Control	CL	14	.04							

Standardized regression weights for Hypotheses 4

*Note:* bold = significant at *p* < .05; WSC = Work-School Conflict; Stress = School Stress; CL = Course Load

# Appendix

# **Demographics Items**

What is your age?	Response Options
Which of these best	1 = Male
describes your gender	2 = Female
identity?	3 = Transgender
	4 = Gender neutral
	5 = Non-binary
What is your racial	1 = White, European decent
background? (Please	2 = Black, African American, African
select all that apply).	3 = American Indian, Alaska Native
	4 = Asian, Asian American
	5 = Hispanic, Latino/a
What of these best	1=Heterosexual/Straight
describes your current	2=Gay/Lesbian
sexual orientation?	3=Asexual
	4=Bisexual
	5=Queer
	6=A sexual orientation not listed here

What is your marital	1 = Single (never married)
status?	2 = Living with partner (opposite-sex or same-
	sex)
	3 = Married
	4 = Divorced, Separated, or Widowed
How many children 18	Open
and under live in your	
home. (If none, please	
type '0')?	
What is your	1 = Under \$25,000
household's total	2 = From \$25,000 to less than \$50,000
annual income?	3 = From \$50,000 to less than \$75,000
	4 = From \$75,000 to less than \$100,000
	5 = \$100,000  or more

#### **COVID-19 Personal Questions**

Scale: 1 = Yes, 2 = No, 3 = OPEN RESPONSE

- 1. Has COVID-19 increased the amount of stress you have experienced in the past 6 months?
- Did any of your family members and/or your spouse lose their job due to reasons related to COVID-19?

- 3. If YES, ask: Which of your family members were laid off due to reasons related to COVID-19 and has their job loss impacted you personally?
- 4. Has the stress related to COVID-19 made it more difficult than usual for you to balance your work, home, and school responsibilities?
- Do you now work from home due to reasons related to COVID-19?
- 6. If YES, ask: Has your work-life balance improved since?

#### **COVID-19 Work Questions**

Scale: 1 = Yes, 2 = No, 3 = OPEN RESPONSE

- Is your workplace considered an "essential" business by the CDC since the onset of the COVID-19 pandemic?
- If YES, ask: How many hours a week do you currently work? [OPEN]

- 3. If NO, ask: Is your work permanently shut down due to reasons related to the COVID 19 pandemic?
- 4. If NO, ask: Is your work temporarily shut down due to reasons related to the COVID-19 pandemic?
- 5. Did you lose a job due to reasons related to the COVID-19 pandemic?

6. If YES, ask: Please explain. [OPEN]Have you experienced a pay cut due to reasons related to COVID-19?

Have you received an increase in pay due to reasons related to COVID-19?

If YES ask: Please explain [OPEN] Has your workplace laid off any staff due to reasons related to COVID-19? Has COVID-19 changed your work situation and/or how you perform your work?

If YES, ask: Please explain. [OPEN]

#### Student Identity Salience Scale from Callero (1985) and Burke and Reitzes (1991).

Please indicate your agreement with the following statements:

Scale: 1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

1. Being a student is something I rarely even think about.

2. For others to know me as I really am, it is important for them to know that I am a student.

3. For me, being a student is an important part of who I am.

4. For me, being a student means more to me than just being a citizen in this

#### society. CLASS Measure from Osberg et al. (2010).

Scale: 1- strongly disagree 2- disagree 3- neutral 4-agree 5- strongly agree

- 1. Parties with alcohol are an integral part of college life.
- 2. To become drunk is a college rite of passage.
- 3. I would prefer it if my college was not considered a party school. (Reversed)
- 4. The reward at the end of a hard week of studying should be a weekend of heavy drinking.
- 5. I think that the students who do not go out to parties or bars are not enjoying their college experience.
- 6. Missing class due to a hangover is part of being a true college student.
- 7. A college party is not a true college party without alcohol.
- 8. Alcohol is not an important aspect of college life. (Reversed)
- 9. Attending parities with alcohol is the easiest way to make friends.
- 10. Drinking alcohol is a social event in which every college student partakes.

- 11. College is a time for experimentation with alcohol.
- 12. A good college party should include drinking games such as beer pong, flip cup, power hour, ect.
- Blacking out or forgetting part or all of the previous night's events is to be expected in college.
- 14. It is okay to drink in college, even if you are underage.
- 15. The chance to drink and party in college is just as important as the academic experience.

#### Core-Self Evaluation Scale by Judge et al., (2003).

Scale: 1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

- 1. I am confident I get the success I deserve in life.
- 2. Sometimes I feel depressed. (r)
- 3. When I try, I generally succeed.
- 4. Sometimes when I fail I feel worthless. (r)
- 5. I complete tasks successfully
- 6. Sometimes, I do not feel in control of my work. (r)
- 7. Overall, I am satisfied with myself.
- 8. I am filled with doubts about my competence. (r)
- 9. I determine what will happen in my life.
- 10. I do not feel in control of my success in my career. (r)
- 11. I am capable of coping with most of my problems.
- 12. There are times when things look pretty bleak and hopeless to me. (r)

#### **Positive and Negative Affect Scale** by Thompson (2007).

Scale: 1 = never, 2 = a little, 3 = somewhat, 4 = often, 5 = very often

Stem: Please indicate to what extent you generally feel, on average...

- 1. Active
- 2. Determined
- 3. Attentive
- 4. Inspired
- 5. Alert
- 6. Afraid
- 7. Nervous
- 8. Upset
- 9. Hostile
- 10. Ashamed

#### **Depression Scale** by Radloff (1977).

Scale: 0 = rarely or none of the time (less than 1 day), 1 = some or a little of the time (1-2 days) 2 = Occasionally or a moderate amount of time (3-4 days), 3 = All of the time (5-7 days)

- 1. I was bothered by things that usually don't bother me.
- 2. I had trouble keeping my mind on what I was doing.
- 3. I felt depressed.
- 4. I felt that everything I did was an effort.
- 5. I felt hopeful about the future. (R)
- 6. I felt fearful.
- 7. My sleep was restless.

- 8. I was happy (R)
- 9. I felt lonely.

10. I could not get "going."

#### Olson's (2014) measure of Work-School Conflict adapted for daily use.

Scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor

disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree

Stem: Please indicate the extent to which you agree with the following items:

1. I was so emotionally drained when I got done with work that it prevented me from doing school activities. WSC1 (strain)

2. I was so pressured at work, when I got to school I was too stressed to do school work. WSC2 (strain)

3. I was so stressed from work responsibilities, I had a hard time concentrating on my schoolwork. WSC3 (strain)

4. The time I spent on work responsibilities interfered with my school responsibilities. WSC4 (time)

5. My job interfered with my ability to get to school on time and/or to finish homework on time. WSC5 (time)

6. The amount of time my job took up made it difficult to fulfill school responsibilities. WSC6 (time)

#### Stanton's (2001) measure for School Role Stress.

#### **School Stress**

Stem: Today, SCHOOL felt...

Scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree

- 1. Demanding
- 2. Pressured
- 3. Hectic
- 4. Calm

- 5. Relaxed
- 6. Stressful
- 7. Pushed
- 8. Irritating
- 9. Under control
- 10. Nerve-wracking
- 11. Hassled
- 12. Comfortable
- 13. More stressful than I'd like
- 14. Smooth running
- 15. Pumped
- 16. Exciting

#### Alcohol Use Measure

1. How many drinks did you consume today? Please take note of the images below to

refer to what is defined as one standard drink. (Brody, 2012)



Number of drinks consumed today:

#### **COVID School and Work Questions**

Scale: 1 = Yes, 2 = No, 3 = OPEN RESPONSE, 4 = in-person, 5 = online, 6 = hybrid. 7

- = telecommuted
- 1. Today, I attended classes.

IF YES then ask Q2

2. Today, my classes were:

[check all that apply]

3. Did you work today at your place of employment?

#### **COVID Personal Questions**

#### Scale: 1 = Yes, 2 = No, 3 = OPEN RESPONSE

1. Today, did you feel more stressed at school as a result of COVID-19?

If YES ask: Please explain.

2. Today, did you feel more stressed at work as a result of COVID-19?

If YES ask: Please explain

#### Leigh et al.'s (2003) measure of Alcohol Tension Reduction Expectancies.

Scale: 0 = no chance, 1 = very unlikely, 2 = unlikely, 3 = likely, 4 = very likely

Stem: How likely is it that these things would happen to you if you were to drink alcohol

today OR when you drank alcohol today? Please select the number that best describes

how drinking would affect OR did affect you today.

When I drink (OR did drink) alcohol:

- 1. It takes away my negative moods and feelings
- 2. I feel less stress
- 3. I am able to take my mind off problems

#### Course Load Item

Scale: 1 = none, 2 = less than I usually do, 3 = about as much as I usually do, 4

= more than I usually do, 5 = a lot more than I usually have to.

Stem: Please indicate the amount of time you had to spend on coursework

today for your classes and/or school related projects.