

3-1-2018

Intimate Partner Violence, Anxiety Diagnosis, and Binge Drinking Behavior Among College Students

David Kays
dkays@georgefox.edu

This research is a product of the Doctor of Psychology (PsyD) program at George Fox University. [Find out more](#) about the program.

Recommended Citation

Kays, David, "Intimate Partner Violence, Anxiety Diagnosis, and Binge Drinking Behavior Among College Students" (2018). *Doctor of Psychology (PsyD)*. 243.
<http://digitalcommons.georgefox.edu/psyd/243>

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Digital Commons @ George Fox University. It has been accepted for inclusion in Doctor of Psychology (PsyD) by an authorized administrator of Digital Commons @ George Fox University. For more information, please contact arolf@georgefox.edu.

Intimate Partner Violence, Anxiety Diagnosis, and Binge Drinking
Behavior Among College Students

by
David Kays

Presented to the Faculty of the
Graduate Department of Clinical Psychology
George Fox University
in partial fulfillment
of the requirement for the degree of
Doctor of Psychology
in Clinical Psychology

Newberg, Oregon

March 6, 2018

Approval

Intimate Partner Violence, Anxiety Diagnosis, and
Risky Drinking Behavior Among College Students

Submitted By


David Mathew Kays, M.A.

Has been approved at the
Graduate Department of Clinical Psychology

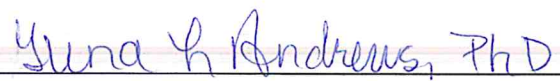
George Fox University

As a dissertation for the Psy.D. degree

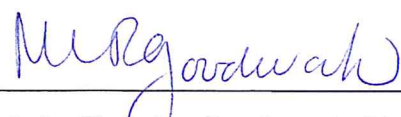
Signatures:




Bill Buhrow, Psy.D., Chair



Glena Andrews, Ph.D., ABPP



Marie-Christine Goodworth, Ph.D., ABPP



Date

Intimate Partner Violence, Anxiety Diagnosis, and Binge Drinking

Behavior Among College Students

David Kays

Graduate Department of Clinical Psychology

George Fox University

Newberg, Oregon

Abstract

Drinking behavior is common among students at colleges and universities, and binge drinking is particularly problematic due to its association with a variety of unwanted, negative experiences including anxiety (Thomas, Randall, Book, & Randall, 2008), unwanted intimate encounters (Lefkowitz, Waterman, Morgan, & Maggs, 2016) and intimate partner violence (IPV) (Rizo, 2015). The present study sought to determine if there were significant differences in college student drinking based on their experience of IPV, anxiety and its treatment. Archival data from the National College Health Assessment was used in this study. A randomly selected sample of 800 college students was analyzed. Results failed to find significant differences in binge drinking based on experience of IPV or anxiety diagnosis and treatment.

Keywords: Intimate Partner Violence, Binge Drinking, College Students, Anxiety, Anxiety Treatment

Table of Contents

Approval Page ii

Abstract iii

List of Tables..... vi

Chapter 1: Introduction1

 Binge Drinking Behavior and College Students1

 Intimate Partner Violence2

 Anxiety and Intimate Partner Violence3

 Anxiety Treatment and Alcohol Use4

 Objective of the Present Study5

 Hypotheses5

Chapter 2: Methods6

 Participants6

 Materials9

 National College Health Assessment-II9

 Intimate Partner Violence.....10

 Binge Drinking Behavior10

 Anxiety Diagnosis and Treatment.....10

 Procedure11

Chapter 3: Results12

 Hypothesis 113

 Hypothesis 213

Hypothesis 3	14
Chapter 4: Discussion	16
Limitations	18
Areas for Future Study	19
Summary	19
References	20
Appendix A Curriculum Vitae	25

List of Tables

Table 1	Descriptive Statistics – Gender and IPV	7
Table 2	Descriptive Statistics – Gender and Anxiety	7
Table 3	Descriptive Statistics – Sexual Orientation and IPV	8
Table 4	Descriptive Statistics – Sexual Orientation and Anxiety	8
Table 5	Descriptive Statistics – Race.....	9
Table 6	Correlation Matrix.....	12
Table 7	Descriptive Statistics – Drinks per Hour.....	14

Chapter 1

Introduction

Excessive drinking behavior is common among students at colleges and universities. Approximately 2.2 million college-age adults used alcohol for the first time in 2016 (Lipari, Ahrnsbrak, Pemberton, & Porter, 2017) and according to the 2015 National Survey on Drug Use and Health (National Survey [NSDUH], 2015), college students report binge drinking at a higher rate (37.9 %) than do their non-collegiate, same-aged peers (32.6 %; Lipari et al., 2017). Binge drinking is problematic for several reasons and is associated with a variety of unwanted, negative experiences including anxiety (Thomas, Randall, Book, & Randall, 2008), unwanted intimate encounters (Lefkowitz, Waterman, Morgan, & Maggs, 2016) and intimate partner violence (IPV; Rizo, 2015). While the relationship between alcohol use and IPV, as well as alcohol use and anxiety have previously been explored to varying degrees, the relationship of these three together has not yet been investigated. As a result, the purpose of this study is to examine if IPV and various treatments for anxiety diagnoses are associated with differences in college student drinking.

Binge Drinking Behavior and College Students

Alcohol is one of the most commonly abused substances in college populations (Substance Abuse and Mental Health Services Administration, 2012; World Health Organization, 2015). College students drink more frequently than their same aged peers (NSDUH, 2015) with 58.0% of full-time college students aged 18-22 drinking within the last 30 days compared to

48.2% of their peers. Common alcohol related problems for college students range from academic delay to unintentional injury to assault and victimization of others (Hingson, Zha, & Weitzman, 2009). In addition, alcohol use is associated with impaired executive functioning along with unwanted sexual outcomes and experiences (Lefkowitz et al., 2016). However, despite alcohol's association with deleterious experiences, alcohol use in conjunction with sexual activity is viewed as a positive combination by the majority of college students (Lefkowitz et al., 2016).

Regarding binge drinking, Lipari et al. (2017) found that 62.3% of college-aged individuals believe there's *great risk* in binge drinking daily (4-5 drinks of alcohol in a sitting). However, the perception of great risk dropped to 37.1% when asked about binge drinking only 1-2 times a week. Further, binge drinking is heavily influenced by peer binge drinking behavior regardless of previously held attitudes about binge drinking (Byrd, 2016; Lefkowitz et al., 2016).

Intimate Partner Violence

Research shows that IPV remains the most common form of violence in the United States (Breiding et al., 2014; Garcia-Moreno et al., 2006; Garcia-Moreno et al., 2013) and continues to be a significant national public health issue with approximately one in every four women experiencing IPV in their lifetime (Garcia-Moreno et al., 2013). One reason IPV is so common is due to the fact that people are often most vulnerable within romantic relationships and this vulnerability may result in IPV (Garcia-Moreno et al., 2013).

IPV is defined as physical, sexual, or psychological aggression and stalking (Intimate Partner Violence: Definitions, 2015). In the present study, IPV was divided into three categories: Emotionally abusive, e.g., called derogatory names, yelled at, ridiculed; physically abusive, e.g.,

kicked, slapped, punched; and sexually abusive, e.g., forced to have sex when you didn't want it, forced to perform or have an unwanted sexual act performed on you (American College Health Association [ACHA], 2009).

College-aged individuals (18 to 24 years old) are at increased risk of experiencing IPV with 13% reporting sexual victimization, 18% reporting physical domestic violence, and 39% reporting unwanted pursuit (Edwards et al., 2014). Some of the reasons college students are at increased risk include their transitions in living situations, close proximity to intimate partners, and access to drugs and alcohol (Hingson et al., 2009, Rennison & Welchans, 2000). Problematic and risky drinking behaviors occur in approximately 18.5% of IPV victims and much of the IPV experienced is excused by victims as a symptom of their own drinking behaviors (Rizo, 2015).

Drinking to cope (DTC) literature posits that a considerable amount of drinking behavior is determined by current stressors and whether alternative coping strategies are available (Breese, Sinha, & Heilig, 2011). This theory suggests that as stressors increase and coping strategies decrease, individuals who drink are more likely to increase their alcohol consumption both in amount and frequency. As a result, one would expect that individuals who are experiencing IPV will increase their alcohol consumption since they experience increased daily stressors (Rizo, 2015) and reject certain coping strategies (e.g., social support) that moderate drinking behavior (Breese et al., 2011; McCaul, Hutton, Stephens, Xu, & Wand, 2016)

Anxiety and Intimate Partner Violence

Anxiety and anxiety disorders are often developed or exacerbated after experiencing IPV (Amar & Gennaro, 2005; Breiding et al., 2014; Campbell, Kub, Belknap, & Templin, 1997; Garcia-Moreno et al., 2013; Singer, Anglin, yu Song, & Lunghofer, 1995; Thompson et al.,

2006). Anxiety disorders among female victims and survivors of IPV are estimated to be as high as 63.8% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995) and include disorders such as PTSD, Generalized Anxiety Disorder (GAD), and Unspecified Anxiety Disorders (Flicker, Cerulli, Swogger, Cort, & Talbot, 2012).

Exposure to IPV can lead to structural changes in hippocampus, amygdala, and prefrontal cortex due to prolonged or acute stress responses in the brain (Garcia-Moreno et al., 2013). IPV is a unique and chronic stressor that frequently has no apparent end to the victim experiencing it. Due to its chronic nature, IPV survivors are in a constant state of stressful alertness and often experience isolation and withdrawal from social interactions as a result. This causes many survivors to perceive it as a personal stressor and thus they avoid using common social coping strategies, such as group participation and sharing with others (Rizo, 2015).

Anxiety Treatment and Alcohol Use

Research documented a relationship between alcohol use and anxiety (Thomas et al., 2008). People with high anxiety are more likely to report a stronger urge to drink after being stressed and are more at risk for engaging in binge drinking (McCaul et al., 2016). As mentioned above, DTC research shows that drinking behavior is significantly impacted by anxiety (Breese et al., 2011), with increased anxiety positively correlated with increased frequency and amount of alcohol consumed.

In treating the dual diagnoses of anxiety combined with alcohol use, several studies have found certain treatments for anxiety also help treat alcohol use disorders (Brady & Verduin, 2005; Thomas et al., 2008). For example, Boden et al. (2012) found that anxiety focused psychotherapy is effective at reducing alcohol use, in both frequency and amount. Additionally,

medication (venlafaxine) and anxiety-focused cognitive behavioral therapy combined proved to be a more effective treatment for reducing heavy drinking (Ciraulo et al., 2013). However, while some studies have found that both anxiety-focused pharmacotherapy and psychotherapy have proven to be effective at managing symptoms and reducing drinking behaviors (Brady & Verduin, 2005), other research found that treatment of anxiety with medication does not directly impact binge drinking behaviors (Thomas et al., 2008).

Objective of the Present Study

It is evident that college students face unique challenges. College students diagnosed with anxiety and who have received various types of treatment may be more equipped to cope with daily stressors, which in turn may impact their use of alcohol. The present study aims to determine if there are significant differences in college student drinking based on the experience of IPV and various treatments for anxiety.

Hypotheses. Hypothesis 1: Students who experienced IPV will report a significantly higher number of drinks per hour the last time they “partied/socialized” than those who have not experienced IPV. Hypothesis 2: Students who endorse being diagnosed with anxiety but received no treatment will endorse significantly higher number of drinks per hour the last time they “partied/socialized” than any other anxiety/treatment conditions. Hypothesis 3: Students who endorsed IPV and whose anxiety was treated with both medication and psychotherapy will report having fewer drinks per hour the last time they “partied/socialized” than any of the other combinations of anxiety/treatment conditions and no endorsement/endorsement of IPV.

Chapter 2

Methods

Participants

Students attending a variety of national universities completed the American College Health Association's (ACHA) National College Health Assessment II (NCHA II) in the Fall of 2008. In keeping with the ACHA reference group standards, these institutions either "surveyed all students, or used a random sampling technique" (ACHA, 2010, p. ii).

Of those students surveyed, 10 sample groupings were made based on endorsement/denial of IPV, and endorsement/denial of anxiety disorder diagnosis and treatment type. Anxiety disorder diagnosis was documented in five categories (see Materials).

An a priori test of power indicated that samples of 39 or more students from the data set's grouping criteria would be effective for comparative analysis. To account for the exclusionary criteria that were applied to the overall sample, initial stratified random samples of 80 undergraduate students, were taken from each of the ten groups for a total sample of 800.

Of the 800 participants, 628 identified as female (78.5%), 155 identified as male (19.6%), 7 identified as transgender (.9%), and 10 (1.3%) did not answer the demographic question about gender (see Tables 1 and 2). Of the 800 participants, 680 identified as heterosexual (86.2%), 27 identified as gay/lesbian (3.4%), 55 identified as bisexual (7.0%), 27 identified as unsure (3.4%), and 11 (1.4%) did not answer the demographic question about sexual orientation (see Tables 3 and 4). The majority (638 individuals) of the sample identified as White, non-Hispanic. Racial identification appears in Table 5.

Table 1

Descriptive Statistics – Gender and IPV

	Total Sample		Endorsed IPV		Denied IPV	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Female	628	78.5	317	80.5	311	78.5
Male	155	19.6	71	18.0	84	21.2
Transgender	7	.9	6	1.5	1	.3
Total	790	98.7	394	49.9	396	50.1
Missing	10	1.3	6	.75	4	.5
Total	800	100.0	400	100.0	400	100.0

Table 2

Descriptive Statistics – Gender and Anxiety

	No Anxiety Diagnosis		Diagnosis without Treatment		Diagnosis with Treatment	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Female	120	76.4	121	78.1	387	80.6
Male	37	23.6	32	20.6	86	17.9
Transgender	0	0.0	2	1.3	5	1.0
Total	157	19.9	155	19.6	478	59.8
Missing	3	1.8	5	3.1	2	.4
Total	160	100.0	160	100.0	480	100.0

Table 3

Descriptive Statistics – Sexual Orientation and IPV

	Total Sample		Endorsed IPV		Denied IPV	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Heterosexual	680	86.2	328	83.2	352	89.1
Gay/Lesbian	27	3.4	18	4.6	9	2.3
Bisexual	55	7.0	31	7.9	24	6.1
Unsure	27	3.4	17	4.3	10	2.5
Total	789	98.6	394	98.5	395	98.8
Missing	11	1.4	6	1.5	5	1.3
Total	800	100.0	400	100.0	400	100.0

Table 4

Descriptive Statistics – Sexual Orientation and Anxiety

	No Anxiety Diagnosis		Diagnosis without Treatment		Diagnosis with Treatment	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Heterosexual	147	93.6	127	82.5	406	84.6
Gay/Lesbian	1	.6	5	3.2	21	4.3
Bisexual	5	3.2	15	9.7	35	7.3
Unsure	4	2.5	7	4.5	16	3.3
Total	157	19.9	154	19.5	478	60.6
Missing	3	1.8	6	3.8	2	.4
Total	160	100.0	160	100.0	480	100.0

Table 5

Descriptive Statistics – Race

	Frequency
White, non-Hispanic (Includes Middle Eastern)	638
Black, non-Hispanic	43
Hispanic or Latino/a	56
Asian or Pacific Islander	42
American Indian, Alaskan Native, or Native Hawaiian	13
Biracial or Multiracial	37
Other	31

Materials

National College Health Assessment-II. The American College Health Association's National College Health Assessment II (ACHA NCHA II) was developed 13 years ago and has been administered to thousands of students at universities and colleges throughout America and Canada (<http://www.acha-ncha.org>, October 25, 2014). The assessment was first implemented in Spring of 2000 and since then has been used by over 500 institutions. The most recent edition, the NCHA-II, has been used since 2008 and is administered both in paper and electronic format. The assessment surveys students on a wide array of health perceptions and behaviors. The assessment takes around 30 minutes to complete. The purpose of the NCHA-II is "to adequately identify factors affecting academic performance, respond to questions and concerns about the health of the nation's students, develop a means to address these concerns, and ultimately

improve the health and welfare of those students” (<http://www.acha-ncha.org>, October 25, 2014).

Intimate Partner Violence. IPV conditions were constructed using the three parts of question 6,

Within the last 12 months, have you been in an intimate (coupled/partnered) relationship that was: Emotionally abusive? (e.g., called derogatory names, yelled at, ridiculed) No/Yes; Physically abusive? (e.g., kicked, slapped, punched) No/Yes; Sexually abusive? (e.g., forced to have sex when you didn't want it, forced to perform or have an unwanted sexual act performed on you) No/Yes? (ACHA, 2009, p.3)

Question 6 was recoded such that people fell into one of two different IPV conditions: *No IPV of any type endorsed*, and *IPV endorsed*.

Binge Drinking Behavior. Risky alcohol behavior was evaluated using question 10, “The last time you ‘partied’ / socialized how many drinks of alcohol did you have (If you did not drink alcohol, please enter 0)” (ACHA, 2009, p. 4); and question 11, “The last time you ‘partied’ / socialized over how many hours did you drink alcohol? (If you did not drink alcohol, please enter 0)” (ACHA, 2009, p. 4). The number of drinks was divided by the number of hours over which they were consumed to produce drinks per hour. The NCHA-II stated in this section that “One drink of alcohol is defined as a 12-oz. can or bottle of beer or wine cooler, a 4-oz. glass of wine, or a shot of liquor straight or in a mixed drink” (ACHA, 2009, p. 4).

Anxiety Diagnosis and Treatment. Anxiety diagnosis and treatment conditions were established using question 31b

Within the last 12 months, have you been diagnosed or treated by a professional for any of the following? (Please mark the appropriate column for each row), No; Yes, diagnosed

but not treated; Yes, treated with medication; Yes, treated with psychotherapy; Yes, treated with medication and psychotherapy; Yes, other treatment. (ACHA, 2008, p. 8)

Only the first five conditions were evaluated in this research, excluding students who endorsed “Yes, other treatment.”

Procedure

Archival data were selected from the NCHA II national reference set. Ten samples of 80 students each were randomly selected according to endorsement/denial of any IPV (see above) and endorsement of one of five different anxiety conditions, totaling 800 students. Scales for IPV and risky alcohol behavior were constructed by blending three questions together (6a, 6b, and 6c) and two questions together (10 and 11) respectively, while anxiety conditions were identified from a single question having five response options.

Chapter 3

Results

Correlations were run on the IPV, sexual orientation, anxiety conditions, and gender.

Significant results were found between sexual orientation and the other three variables (see Table 6).

Table 6

Correlation Matrix

			Endorsed IPV	Sexual Orientation	Anxiety Conditions	Gender
Spearman's rho	Endorsed IPV	Correlation	1.000	.084*	.000	-.020
		Coefficient				
		Sig. (2-tailed)	.	.018	1.000	.568
		N	800	789	800	790
	Sexual Orientation	Correlation	.084*	1.000	.088*	.133**
		Coefficient				
		Sig. (2-tailed)	.018	.	.013	.000
		N	789	789	789	789
	Anxiety Conditions	Correlation	.000	.088*	1.000	-.042
		Coefficient				
		Sig. (2-tailed)	1.000	.013	.	.236
		N	800	789	800	790
Gender	Correlation	-.020	.133**	-.042	1.000	
	Coefficient					
	Sig. (2-tailed)	.568	.000	.236	.	
	N	790	789	790	790	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

A two-way Analysis of Variance was used to assess the three hypotheses regarding risky drinking behavior of students using questions 10 and 11, “The last time you ‘partied’/socialized how many drinks of alcohol did you have?” and “The last time you ‘partied’/socialized over how many hours did you drink alcohol?” to determine how many drinks are consumed on average per hour by students. Responses for both were free-answer, with valid responses ranging from 0 to 99. Descriptive statistics are presented in Tables 1, 2, and 3.

Hypothesis 1

Hypothesis 1 proposed that students who experienced IPV would report a significantly higher number of drinks per hour the last time they “partied/socialized” than those who had not experienced IPV. The ANOVA analysis failed to find a significant difference in the number of drinks per hour between those endorsing IPV ($M = 1.25, SD = 2.93$) and those not endorsing IPV ($M = 1.02, SD = 1.14$), $F(1, 790) = 2.13, p = .15$.

Hypothesis 2

Hypothesis 2 proposed that students who endorsed a diagnosis of anxiety but received no treatment would endorse a significantly higher number of drinks per hour the last time they “partied/socialized” than any other anxiety/treatment conditions. The ANOVA analysis failed to find a significant difference in the number of drinks per hour in these five groups, $F(4, 790) = 0.575, p = .68$. Means and standard deviations for all conditions can be seen in Table 7.

Table 7

Descriptive Statistics – Drinks per Hour

Anxiety Condition	IPV	Mean	Std. Deviation	<i>n</i>
Denied Anxiety Disorder	Denied	1.17	1.49	80
	Endorsed	1.17	.94	80
	Total	1.17	1.24	160
Endorsed Anxiety Disorder, no Treatment	Denied	1.32	1.42	80
	Endorsed	1.18	1.12	80
	Total	1.25	1.28	160
Endorsed Anxiety Disorder. Medication Only	Denied	.94	.82	80
	Endorsed	1.06	1.00	80
	Total	1.00	.91	160
Endorsed Anxiety Disorder, Psychotherapy Only	Denied	.81	.67	80
	Endorsed	1.70	6.24	80
	Total	1.25	4.44	160
Endorsed Anxiety Disorder, Combined Treatment	Denied	.84	.98	80
	Endorsed	1.11	.93	80
	Total	.98	.97	160
Total	0	1.02	1.14	400
	1	1.25	2.92	400
	Total	1.13	2.22	800

Hypothesis 3

Hypothesis 3 proposed that students who endorsed IPV and whose anxiety was treated with both medication and psychotherapy would report having fewer drinks per hour the last time they “partied/socialized” than all other combinations of anxiety/treatment conditions and no endorsement/endorsement of IPV. The interaction effect between IPV and anxiety conditions was examined to ascertain if any significant difference existed. However, the ANOVA analysis failed

to find a significant interaction in the number of drinks per hour the last time they “partied”/socialized, $F(4, 790) = 1.287, p = .27$.

Chapter 4

Discussion

This study explored the impact of IPV and anxiety on college students' binge drinking behaviors. The hypotheses predicted that college students who experienced IPV (either emotional, physical, sexual, or any combination of the three) would report a significantly higher number of drinks per hour the last time they "partied/socialized" than those who have not experienced IPV. The results found no significant difference in binge drinking behaviors between college students who endorsed IPV and those who did not. This is inconsistent with the current DTC literature (Breese et al., 2011) and suggests that there may be moderating variables impacting the occurrence of binge drinking behaviors at social events and parties. Such moderating variables may include social support, additional coping strategies (i.e., exercise, etc.), or even additional stressors (Rizo, 2015). However, our results indicate that college students who experienced IPV do not alter their binge drinking behavior in response.

The second hypothesis predicted that college students who endorse being diagnosed with anxiety but received no treatment would endorse significantly higher number of drinks per hour the last time they "partied/socialized" than all other anxiety/treatment conditions. The results found no significant difference in risky drinking behavior among college students endorsing any of the anxiety diagnosis and treatment conditions. Although this did not align with previous research this is not totally inconsistent with the literature in that Thomas et al. (2008) found that while the number of drinking days decreased with anxiety-focused treatment, the amount

consumed during each drinking event was not significantly impacted. Thus, one might expect that due to asking about the amount they drank the last time they socialized or partied, the reduction in binge drinking behaviors identified in previous literature was not detected in this study because while the amount of alcohol consumed over a week decreased, the amount consumed at each drinking event remained more constant.

Lastly, the third hypothesis predicted students who endorsed IPV and whose anxiety was treated with both medication and psychotherapy would report having fewer drinks per hour the last time they "partied/socialized" than all other combinations of anxiety/treatment conditions and no endorsement/endorsement of IPV. The results found no significant interaction between experiencing IPV and the anxiety diagnosis and treatment conditions on binge drinking behavior. Although IPV impacts an individual's experience of anxiety (Coker et al., 2002), an official diagnosis of anxiety from a mental health provider may not have been acquired, even if the diagnostic criteria were met. For example, according to the ACHA-NCHA (ACHA, 2009), only 11% of students received either a diagnosis or treatment for anxiety compared with approximately 48% endorsing experiencing overwhelming anxiety. Thus, it may be that the experience of anxiety symptoms has a stronger relationship with binge drinking behaviors than does an official anxiety diagnosis. It is also possible that the expected differences in binge drinking behaviors do not occur in social or party settings and may occur in isolation. Although research suggests college students who identified higher anxiety also endorsed stronger urges to drink (McCaul et al., 2017) and engaged in more binge drinking behaviors (Thomas et al., 2008), it did not specify when and where they engaged in these behaviors.

In summary, while prior research found binge drinking associated with IPV and anxiety, the relationship of all three together had not been previously explored. This study was designed to explore the interaction effects of IPV and anxiety diagnosis and treatment on binge drinking. However, no interaction effects were found. Additionally, to my surprise, the expected relationships between IPV and binge drinking, and anxiety diagnosis and treatment and binge drinking were not found either. As mentioned above, there are several possible explanations for the results but because the expected relationships were not confirmed, it would seem premature to definitively state that no interaction effects exist between these three variables. What can be stated is that in the case of the current dataset, no interaction effects were found.

Limitations

In order to understand the results of this study, the limitations must be considered. First, the IPV questions did not assess the nature and severity of the IPV experience. Including such qualifiers would have increased the levels of severity in IPV that may have been able to better detect differences in binge drinking behavior. Instead of asking the students if in the past 12 months they had been in an intimate relationship that was emotionally, physically, or sexually abusive, asking the students the qualities of the IPV experience that have been shown to correlate with the intensity of impact on wellbeing (Black et al., 2011), might have produced more significant findings.

Similarly, the frequency of binge drinking behavior was not assessed by the NCHA. According to Hingson et al., (2009), repeated patterns of problematic drinking increase the present health risks. This measure did not include questions assessing the frequency of the behavior, the lasting impacts of the behavior (e.g., hangover, weight change, academic impact),

or the severity (e.g., Mild, Moderate, Severe). Measuring the extent of binge drinking may have detected significant findings in this study. Additionally, binge drinking behavior does not require a social or party event to occur. The specific questions assessed only the last time a student “partied/socialized,” which may have resulted in failing to detect a relationship between IPV or anxiety and binge drinking behavior across all settings.

Lastly, the duration and severity of anxiety disorder treatment was not identified. Students were asked whether they had been diagnosed or treated in the last 12 months for an anxiety disorder. Had the question included information on the duration, severity, and quality of treatment as perceived by the student, the analysis may have found different results.

Areas for Further Study

Future research should focus on remedying the limitations to confirm or challenge the present findings. As binge drinking is a common experience for college students, the impact of where people are drinking could be explored to further examine the theories behind DTC literature. In addition, identifying specific symptoms of IPV or anxiety that are related to binge drinking may yield a more nuanced understanding of the relationships between these experiences and binge drinking.

Summary

In conclusion, the aim of this study was to explore the relationship of IPV, anxiety disorders with varying modalities of treatment, and binge drinking behaviors of college students. Unexpectedly, the results failed to detect any relationship between the different conditions. Thus, binge drinking behavior was not found to be significantly related to anxiety diagnoses combined with various treatment modalities or history of IPV.

References

- Amar, A. F., & Gennaro, S. (2005). Dating violence in college women: Associated physical injury, healthcare usage, and mental health symptoms. *Nursing research, 54*(4), 235-242.
- American College Health Association. (2009). American College Health Association-National College Health Assessment Spring 2008 reference group data report (Abridged). *Journal of American College Health, 57*(5), 477-488. doi:10.3200/jach.57.5.477-488. Reference Group Executive Summary Fall 2010 - ACHA-NCHA. (n.d.). Retrieved April 18, 2018, from http://www.bing.com/cr?IG=7E4B63C290E24176AA80049CACDEC5DE&CID=32864E2F7529600A18DD45FA74866159&rd=1&h=VnWyYFFWR-fGyOnFqh31BbxefK-8JT6Z_WXILHrI2ac&v=1&r=http://www.acha-ncha.org/docs/ACHA-NCHA-II_ReferenceGroup_ExecutiveSummary_Fall2010.pdf&p=DevEx,5066.1
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Wlaters, M. L., Merrick, M. T., & Stevens, M. R. (2011). *National intimate partner and sexual violence survey*. Atlanta GA: CDC. Centers for Disease Control and Prevention.
- Boden, M. T., Kimerling, R., Jacobs-Lentz, J., Bowman, D., Weaver, C., Carney, D., . . . Trafton, J. A. (2012). Seeking Safety treatment for male veterans with a substance use disorder and post-traumatic stress disorder symptomatology. *Addiction, 107*(3), 578-586. doi:10.1111/j.1360-0443.2011.03658.x
- Brady, K. T., & Verduin, M. L. (2005). Pharmacotherapy of comorbid mood, anxiety, and substance use disorders. *Substance Use & Misuse, 40*(13-14), 2021-2041. doi:10.1080/10826080500294924

- Breese, G. R., Sinha, R., & Heilig, M. (2011). Chronic alcohol neuroadaptation and stress contribute to susceptibility for alcohol craving and relapse. *Pharmacology & Therapeutics, 129*(2), 149-171. doi:10.1016/j.pharmthera.2010.09.007
- Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization - national intimate partner and sexual violence survey, United States, 2011. Retrieved February 10, 2018, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6308a1.htm>
- Byrd, K. M. (2016). Binge drinking in and out of college: An examination of social control and differential association on binge drinking behaviors between college students and their non-college peers. *Sociological Spectrum, 36*(4), 191-207, doi:10.1080/02732173.2016.1155516
- Campbell, J. C., Kub, J., Belknap, R. A., & Templin, T. (1997). Predictors of depression in battered women. *Violence Against Women, 3*(3), 217-293.
- Ciraulo, D. A., Barlow, D. H., Gulliver, S. B., Farchione, T., Morissette, S. B., Kamholz, B. W., . . . Knapp, C. M. (2013). The effects of venlafaxine and cognitive behavioral therapy alone and combined in the treatment of co-morbid alcohol use-anxiety disorders. *Behaviour Research and Therapy, 51*(11), 729-735. doi:10.1016/j.brat.2013.08.003
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., et al. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 23*(4), 260-268.

- Edwards, K. M., Sylaska, K. M., Barry, J. E., Moynihan, M. M., Banyard, V. L. Cohn, E. S., & Ward, S. K. (2014). Physical dating violence, sexual violence, and unwanted pursuit victimization: A comparison of incidence rates among sexual-minority and heterosexual college students. *Journal of Interpersonal Violence*, 30, 580-600. <http://dx.doi.org/10.1177/0886260514535260>
- Flicker, S. M., Cerulli, C., Swogger, M., Cort, N., & Talbot, N. (2012). Depression and posttraumatic symptoms among women experiencing intimate partner violence: Relations to coping strategies, social support, and ethnicity. *Violence Against Women Journal*, 18(4), 420-436.
- Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., Watts, C. H. & WHO Multi-country Study on Women's Health and Domestic Violence against Women Study Team (2006). Prevalence of intimate partner violence: Finding from the WHO multi-country study on women's health and domestic violence. *Lancet*, 368(9543), 1260-9.
- Garcia-Moreno, C., Pallitto, C., Devries, K., Stöckl, H., Watts, C., Abrahams, N., & Petzold, M. (2013). Global and regional estimates of violence against women. Retrieved from <http://www.who.int/reproductivehealth/publications/violence/9789241564625/en/>
- Hingson, R. W., Zha, W., & Weitzman, E. R. (2009). Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18-24, 1998-2005. *Journal of Studies on Alcohol and Drugs*, 16, 12-20. doi.org/10.15288/jsads.2009.s16.12
- Intimate Partner Violence: Definitions. (2015, January 19). Retrieved from <http://www.cdc.gov/violenceprevention/intimatepartnerviolence/definitions.html>

- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Arch Gen Psychiatry*, *52*(12), 1048-60.
- Lefkowitz, E. S., Waterman, E. A., Morgan, N. R., & Maggs, J. L. (2016). College students' perceptions of the links between alcohol use and sexual experiences. *Emerging Adulthood*, *4*(4), 272-283. doi:10.1177/2167696815610694
- Lipari, R. N., Ahrnsbrak, R. D., Pemberton, M. R., & Porter, J. D. (2017, September). *Risk and protective factors and estimates of substance use initiation: Results from the 2016 National Survey on Drug Use and Health*. NSDUH Data Review. Retrieved from <https://www.samhsa.gov/data/>
- McCaul, M. E., Hutton, H. E., Stephens, M. A. C., Xu, X., & Wand, G. S. (2017). Anxiety, anxiety sensitivity, and perceived stress as predictors of recent drinking, alcohol craving, and social stress response in heavy drinkers. *Alcoholism, Clinical and Experimental Research*, *41*(4), 836-845. <http://doi.org/10.1111/acer.13350>
- National Survey on Drug Use and Health. (2016, September 07). Reports and detailed tables from the 2015 National Survey on Drug Use and Health (NSDUH). Retrieved from <https://www.samhsa.gov/samhsa-data-outcomes-quality/major-data-collections/reports-detailed-tables-2015-NSDUH>
- Rennison, C. M., & Welchans, S. (2000). Intimate partner violence. *Violence Against Women*, *1993*, 98.
- Rizo, C. F. (2015). Intimate partner violence related stress and the coping experiences of survivors: "There's only so much a person can handle." *Journal of Family Violence* 1-13. doi: 10.1007/s10896-015-9787-6

- Singer, M. I., Anglin, T. M., Yu Song, L., & Lunghofer, L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *Jama*, 273(6), 477-482.
- Substance Abuse and Mental Health Services Administration. (2012). Nearly half of college student treatment admissions were primarily for alcohol abuse. Retrieved from <http://www.samhsa.gov/data/spotlight/Spotlight054College2012.pdf>
- Thomas, S. E., Randall, P. K., Book, S. W., & Randall, C. L. (2008). The complex relationship between co-occurring social anxiety and alcohol use disorders: What effect does treating social anxiety have on drinking? *Alcoholism: Clinical and Experimental Research*, 32(1), 77-84. doi:10.1111/j.1530-0277.2007.00546.x
- Thompson, R. S., Bonomi, A. E., Anderson, M., Reid, R. J., Dimer, J. A., Carrell, D., et al. (2006). Intimate partner violence: Prevalence, types, and chronicity in adult women. *American Journal of Preventive Medicine*, 30(6), 447-457.
- World Health Organization. (2015). *Alcohol*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs349/en/#>

Appendix A

Curriculum Vitae

David Kays

4015 Sussex St., West Linn, OR, 97068 | 5039396579 | dkays06@gmail.com

EDUCATION

George Fox University, Newberg, OR

PsyD in Clinical Psychology

2013 – Present

Master of Arts: May, 2015

Doctorate of Psychology: Expected May, 2018

APA accredited

George Fox University, Newberg, OR

B.A. in Psychology

2007 – 2011

TEACHING EXPERIENCE

George Fox University, Newberg, OR

Adjunct Faculty teaching the following courses “Statistics, Research Methods, Addictions, and General Psychology”

2015-Current

Worked as the primary instructor and developed the course syllabi

George Fox University, Newberg, OR

Volunteer Lecturer “Adolescent Development, Personality Theories, Learning, History and Systems of Psychology”

2011-2016

Covered course material and facilitated teaching activities

SUPERVISED CLINICAL EXPERIENCE

Southern Oregon Rehabilitation Center and Clinics, White City, OR

Psychology Intern – Therapist

July 2017 – Present

Populations Served: Veterans

Duties: Therapist for the facility working with veterans, ages 18 and older; 40 hours a week supervised; inpatient and outpatient assessment, group and individual therapy; Cognitive Behavioral Therapy, Acceptance and Commitment Therapy used primarily with veteran population.

Supervisors: Megan Mack, PhD.; Jennifer Peterson, PhD.;
Michelle Nerish, PhD.

George Fox University Behavioral Health Clinic, Newberg, OR

Practicum Student – Assessment Coordinator

August 2016 – July 2017

Populations Served: Community Members and County Referred Patients

Duties: Therapist and Assessment Coordinator for the facility working with clients, ages 6 and older; 16 hours a week supervised; outpatient assessment and individual therapy; Solution Focused Therapy used primarily with community population

Supervisor: Joel Gregor, PhD.

Cedar Hills Hospital, Portland, OR

Practicum Student – Addictions and Trauma Therapist

April 2015 – May 2017

Populations Served: Active Duty Military, Veterans, and Dependents

Duties: Therapist for military active duty, military dependents, and veterans; 24 hours a week supervised; inpatient assessment, group and individual therapy; Narrative Therapy and Motivational Interviewing used primarily with military population

Supervisors: Jory Smith, PhD., Mario Bolivar, LCSW.

Clark County Juvenile Justice Court, Vancouver, WA

Practicum Student – Psychology Intern

August 2014 – July 2015

Populations Served: Detention and Adolescents on Probation

Duties: Therapist for adolescents in detention or on probation; 16 hours a week supervised; outpatient assessment and individual therapy; suicide risk assessment and Dialectic Behavioral Therapy used primarily with detention population

Supervisors: Christine Krause, PhD., Shirley Shen, PhD.

George Fox University, Newberg, OR

Pre-Practicum Trainee

August 2013 – May 2014

Populations Served: College Students

Duties: Therapist for two college students; one male one female, 6 hours a week supervised

Supervisors: Carlos Taloyo, PhD., Trinity Parker, M.A.

Albertina Kerr Sub-Acute Facility, Gresham, OR

Psychiatric Technician

February 2012 – August 2012

Populations Served: Children ages 5-17, diverse ethnic populations, most recently hospitalized

Duties: Managed client Behavioral Support Plans, facilitated living activities, utilized Collaborative Problem Solving, led life skills and therapy groups, OIS approved protective interventions used

Supervisors: Amelia Glasier, B.A., Garnet Dittfurth, MSW

Chehalem Youth and Family Services Residential Treatment Facility, Newberg, OR

Primary Care Specialist

October 2009 – December 2010

Populations Served: Children ages 8-21, residential living situation, most with legal stressors and parole officers

Duties: Managed client Behavioral Support Plans, facilitated living activities within the residence, utilized Behavioral Modification techniques, led life skills and therapy groups, OIS approved protective interventions used

Supervisors: Tara Sanderson, PsyD., Jessica Compton, MSW.

RESEARCH EXPERIENCE

Research Vertical Team Member

George Fox University, Newberg, Oregon

August 2013 –

Present

Research Assistant

Chris Koch, PsyD., George Fox University, Newberg, Oregon

October 2013 –

October 2015

RESEARCH PUBLICATIONS/PRESENTATIONS

Jasper, L., Koch, C., Lowen, J., Schloemer, J., Kays, D. (2014, August). Changes in verbal memory during youth football. Poster presented at the *122nd American Psychological Association Annual Convention*, Washington, D. C.

Burrell, J.E., Kays, D., Moore, C., Buhrow, W. (2016). What is the relationship of attendance at faith based institutions vs. non-faith based institutions and perceived use of drugs and alcohol? Poster presented at the *Christian Association of Psychological Studies*, Pasadena, California.

Kays, K., Kays, D., & Egger, A. (2017, March) *Bridging the gap: Pop media as a narrative tool for working with millennials*. Presentation at the meeting of the Christian Association of Psychological Services, Chicago.

Gallup, S. E., Fringer, L., Kays, D., & Buhrow, W. (2017, March). *Perception of on-campus safety among white and non-white female students attending faith-based and non-faith-based universities*. Poster presented at the meeting of the Christian Association of Psychological Services, Chicago

EDUCATIONAL EXPERIENCE

Contemporary Psychoanalytic Therapy

August, 2016 to December, 2016

George Fox University, Newberg, Oregon

Faculty: Nancy Thurston, PhD

Supervision and Management of Psychological Services

August, 2016 to May, 2017

George Fox University, Newberg, Oregon

Faculty: Rodger Bufford, PhD

Professional Issues

August, 2016 to December, 2016

George Fox University, Newberg, Oregon

Faculty: Glenna Andrews, PhD

Christian History and Theology Survey for Psychologists

January, 2016 to May, 2016

George Fox University, Newberg, Oregon

Faculty: Kathleen Gathercoal, PhD

Consultation, Education, and Program Evaluation

August, 2015 to May, 2016

George Fox University, Newberg, Oregon

Faculty: Marie-Christine Goodworth, PhD

Substance Abuse

August, 2015 to December, 2015

George Fox University, Newberg, Oregon

Faculty: Jory Smith, PhD

Spiritual and Religious Diversity in Professional Psychology

August, 2015 to December, 2015

George Fox University, Newberg, Oregon

Faculty: Winston Seegobin, PsyD

Statistics

August, 2015 to December, 2015

George Fox University, Newberg, Oregon

Faculty: Kathleen Gathercoal, PhD

Research Design

January, 2015 to May, 2015

George Fox University, Newberg, Oregon

Faculty: Kathleen Gathercoal, PhD

Psychodynamic Psychotherapy

January, 2015 to May, 2015

George Fox University, Newberg, Oregon

Faculty: Nancy Thurston, PsyD

Multicultural Therapy

January, 2015 to May, 2015

George Fox University, Newberg, Oregon

Faculty: Winston Seegobin, PsyD

Cognitive Behavioral Therapy

August, 2014 to December, 2014

George Fox University, Newberg, Oregon

Faculty: Mark McMinn, PhD

History and Systems of Psychology

August, 2014 to December, 2014

George Fox University, Newberg, Oregon

Faculty: Kathleen Gathercoal, PhD

Biological Basis for Behavior

August, 2014 to December, 2014

George Fox University, Newberg, Oregon

Faculty: Celeste Flachsbar, PhD

Cognitive Assessment

August, 2014 to December, 2014

George Fox University, Newberg, Oregon

Faculty: Celeste Flachsbart, PhD

Social Psychology

June, 2014 to July, 2014

George Fox University, Newberg, Oregon

Faculty: Joel Gregor, PhD

Adolescent Psychopathology

May, 2014 to June, 2014

George Fox University, Newberg, Oregon

Faculty: Elizabeth Hamilton, PhD

Cognition, Behavior, and Emotion

May, 2014 to June, 2014

George Fox University, Newberg, Oregon

Faculty: Marie-Christine Goodworth, PhD

Clinical Foundations for Treatment II

January, 2014 to May, 2014

George Fox University, Newberg, Oregon

Faculty: Carlos Taloyo, PhD

Personality Assessment

January, 2014 to May, 2014

George Fox University, Newberg, Oregon

Faculty: Paul Stoltzfus, PsyD

Theories of Personality and Psychotherapy

January, 2014 to May, 2014

George Fox University, Newberg, Oregon

Faculty: Winston Seegobin, PsyD

Clinical Foundations for Treatment I

September, 2013 to December, 2013

George Fox University, Newberg, Oregon

Faculty: Carlos Taloyo, PhD

Ethics for Psychologists

September, 2013 to December, 2013
George Fox University, Newberg, Oregon
Faculty: Rodger Bufford, PhD

Human Development

September, 2013 to December, 2013
George Fox University, Newberg, Oregon
Faculty: Elizabeth Hamilton, PhD

Psychopathology

September, 2013 to December, 2013
George Fox University, Newberg, Oregon
Faculty: Jeri Turgesen, PsyD

Addictions

September, 2009 to December, 2010
George Fox University, Newberg, Oregon
Faculty: Kristina Kays, PsyD

Human Sexuality

September, 2008 to December, 2008
George Fox University, Newberg, Oregon
Faculty: Kristina Kays, PsyD

Faith, Sexuality, and Identity: A Conversation - Panel

November 7th, 2012
George Fox University, Newberg, Oregon
Faculty: Erika Tan, PsyD

LGBTQ and University Populations - Diversity Training

February, 2013 to December, 2013
Reed College, Portland, Oregon
Instructor: Gary Granger, CSM

Sex and Gender Committee

August, 2013 to May, 2017
George Fox University, Newberg, Oregon
Faculty: Kathleen Gathercoal, PhD

Multicultural Committee

Administration Team Member

August, 2013 to May, 2017

George Fox University, Newberg, Oregon

Faculty: Winston Seegobin, PhD

MEMBERSHIPS

American Psychological Association

Christian Association of Psychological Studies

REFERENCES

Jory Smith, PhD

Cedar Hills Hospital/ Hazelden

Offsite Supervisor

Portland, OR

970-371-6144

JSmith@hazeldenbettyford.org

Chris Koch, PhD

George Fox University

Director of Assessment

Newberg, OR

503-554-2744

ckoch@georgefox.edu