

**ASSESSING A ROUTINE ACTIVITIES EXPLANATION FOR SEXUAL VIOLENCE  
VICTIMIZATION AMONG COLLEGE STUDENTS**

by

THOMAS CRITES, B.S.

THESIS

Presented to the Graduate Faculty of  
The University of Texas at San Antonio  
in Partial Fulfillment  
of the Requirements  
for the Degree of

MASTER OF SCIENCE IN CRIMINAL JUSTICE AND CRIMINOLOGY

COMMITTEE MEMBERS:

Dr. Megan Augustyn, Ph.D., Chair

Dr. Marie Tillyer, Ph.D.

Dr. Richard Hartley, Ph.D.

THE UNIVERSITY OF TEXAS AT SAN ANTONIO  
College of Public Policy  
Department of Criminal Justice  
December 2017

Copyright 2017 Thomas D. Crites  
All Rights Reserved

## **ACKNOWLEDGEMENTS**

This thesis could not have been possible without the assistance and support from the following individuals:

My thesis committee members, Dr. Megan Augustyn, Dr. Marie Tillyer, and Dr. Richard Hartley, my supportive mentor and friend, Dr. Jess Gagliardi, and the many friends at UTSA, who have provided me with their moral support and helped me endure the pressures of the master's program and the thesis process. Special thanks go out to Dr. Richard Hartley and Dr. Jess Gagliardi, my mentors and friends who believed in me, as well as inspired and guided me throughout the process. Finally, my thanks go out to all of my family members who understood the importance of this accomplishment and supported me along the way.

December 2017

# **ASSESSING A ROUTINE ACTIVITIES EXPLANATION FOR SEXUAL VIOLENCE VICTIMIZATION AMONG COLLEGE STUDENTS**

Thomas Crites, M.S.  
The University of Texas at San Antonio, 2017

Supervising Professor: Megan Augustyn, Ph.D.

Sexual violence has played a prominent role on college campuses across the United States over the last decade. While crime on college campuses, in general, decreased since the early 2000s, sexual violence displayed a continuous upward trend from 2010-2013 among college students. Victimization theories suggest that victims of crime, including sexual violence, are not random targets; rather, victims may actually contribute to the likelihood of victimization. According to Lifestyle Theory, victimization is related to lifestyle choices. Within this framework, Routine Activities Theory suggests that certain aspects of a college student's lifestyle may contribute to the likelihood of sexual victimization through contact with motivated offenders, suitability as a target for crime, and the absence of capable guardians. This study investigates how specific college student lifestyle characteristics affect the likelihood of sexual violence victimization. Using a sample of college students from the American College Health Association surveyed in the spring semesters of 2013, 2014, and 2015, fixed effects logistic regression models examine whether participation in Greek life, changing socialization circles while drinking, living arrangements, and employment status affect the likelihood of sexual victimization among males and females, respectively. Overall, the results of this study show that each of these lifestyle choices/routine activities of undergraduate college students examined affects the likelihood of sexual violence victimization, although not always in the expected direction. Moreover, there were no significant gender differences in the influence of these four

lifestyle factors/routine activities on victimization risk. The discussion focuses on the implications of the results for theory and policy.

## TABLE OF CONTENTS

Acknowledgements.....	iii
Abstract.....	iv
List of Tables .....	viii
Chapter One: Introduction .....	1
Chapter Two: Literature Review .....	7
Sexual Violence Victimization among College Students .....	7
Demographic Correlates .....	7
Lifestyle Correlates.....	10
Situational Correlates.....	11
Routine Activities Theory.....	12
College Lifestyles .....	18
Greek Life .....	18
More Frequent Changing of Socialization Circles while Drinking .....	21
Living Arrangements .....	22
Daily Activities .....	24
Gender Differences in Risk Factors .....	25
Chapter Three: Current Study.....	28
Chapter Four: Data and Methods .....	30
Data .....	30
Measures .....	32
Dependent Variable .....	32
Independent Variables .....	32

Moderating Variable .....	34
Control Variables .....	34
Chapter Five: Analytic Plan.....	37
Chapter Six: Results.....	39
Chapter Seven: Discussion .....	49
References.....	61
Vita	

## LIST OF TABLES

Table 1	Descriptive Statistics.....	36
Table 2	Correlation Matrix of independent and control variables.....	39
Table 3	Logistic Regression models examining the relationship between college routine activities and sexual assault victimization among females.....	40
Table 4	Logistic Regression models examining the relationship between college routine activities and sexual assault victimization among males.....	43
Table 5	Difference in Prevalence of Risk.....	47



## CHAPTER ONE: INTRODUCTION

Increased attention has been given to sexual violence on college campuses in the United States over the last decade. For instance, Baylor University has come under increased scrutiny from the national media given 17 reported cases of sexual or domestic assault charges against football players since 2011 (Patterson, 2016). Moreover, five football players were accused of rape in the first two weeks of the 2016 college football season (Shah, 2016). Sexual assault victimization among college students is not only related to student athletes, which is the typical focus of media attention. In January of 2017, five female students from Northwestern University reported that they were given date-rape drugs, and three reported that they were sexually assaulted at social events held at fraternity houses (McCoppin & Briscoe, 2017). These cases and other cases of sexual violence occurring in the college community have further highlighted increased likelihood of sexual victimization among college students and stimulate attempts to further understand the etiology of sexual violence among college students.

Sexual violence is any sexual act that is committed against someone without the person's freely given consent (Basile, Smith, Breiding, Black, & Mahendra, 2014). Reporting for the Centers of Disease Control, Basile and colleagues (2014) note the following types of sexual violence: completed or attempted forced penetration of a victim, completed or attempted alcohol/drug-facilitated penetration of a victim, completed or attempted forced acts in which a victim is made to penetrate a perpetrator or someone else, completed or attempted alcohol/drug-facilitated acts in which a victim is made to penetrate a perpetrator or someone else, non-physically forced penetration which occurs after a person is pressured verbally or through intimidation or misuse of authority to consent or acquiesce, unwanted sexual contact, and non-contact unwanted sexual experiences.

In general, statistics reveal that the rate of sexual violence on college campuses has been increasing in recent years. In 2013, there were approximately 4,964 cases of forcible sex offenses reported to university police departments (National Center for Education Statistics [NCES], 2016). This was more than double the number of sex offenses that were reported in 2001 at 2,201 (NCES, 2016). This increase is particularly troubling given that the total number of crimes that occurred on college campuses was decreasing at the same time (from 41,956 in 2001 to 27,596 in 2013; NCES, 2016). Importantly, sexual violence was the only crime to display a continuous upward trend from 2010 to 2013 (United States Department of Education, 2016). For this research, the reason why sexual violence is increasing (either increased reporting or increased victimization) is not the focus; it simply demonstrates that sexual violence on college campus is nontrivial. Similarly noticing the alarming numbers of college students who are sexually victimized in recent years, former President Obama launched a special White House task force in 2014 designed to further understand and prevent sexual violence on college campuses through the use of campus climate surveys to identify trends in sexual violence and evaluation and implementation prevention strategies (Gupta, 2016).

In tandem with increasing reports of sexual violence on college campuses, the number of students attending colleges has also increased in recent years, particularly among women who are most often victims of sexual violence (Jennings et al., 2007; Tjaden & Thoennes, 1998). According to research conducted by the National Women's History Museum (NWHM, n.d.), it was not until the 1980s when the number of women that attended American universities was about equal to the number of men attending college. In recent years, though, the number of women attending college has exceeded the number of males. For instance, in 2014, there were approximately 20,207,400 total students enrolled at American universities with 8,797,100 males

and 11,410,300 females (United States Department of Education, 2016). In response to the rise in women attending college, the United States adopted numerous methods to address the issue of equal rights for women on college campuses, with a particular focus on preventing crimes of sexual violence. For instance, in 1972, the United States Congress passed Title IX, which states that no person in the United States shall, on the basis of sex, be excluded from participation in, be denied benefits, or be subjected to discrimination under any educational program that receives federal financial assistance (U.S. Department of Education Office for Civil Rights, 2015). More specifically, Title IX identified harassment, sexual advances, sexual touching, sexual comments, gestures, or requests for sexual favors as forbidden on college campuses.

Historically, student awareness and reporting of sexual violence victimization on college campuses has been minimal. There was also a lack of education provided to students regarding sexual violence. However, in 1990, the United States Congress passed the Clery Act, which requires colleges and universities to make available information about crimes occurring on campus each year as well as crimes occurring in all affiliated institutional facilities. More specifically, the Clery Act requires colleges and universities to provide annual security reports which include crime statistics for the prior three years, including crimes of sexual violence, and policy statements and extant security measures, including procedures with respect to the investigation of alleged sex offenses and campus prevention programs regarding sexual violence. Furthermore, the Clery Act requires colleges and universities to provide logs (to university faculty and students as well as the neighboring community members) of all crimes reported to the campus police department, provide timely warnings to the community about crimes that occur which present a threat to the safety of the students or employees, and to keep eight years of crime statistics from the university and surrounding public areas on hand.

As data regarding crimes on college and university campuses have become more readily available to students and the interested public, researchers are better able to explore the factors associated with the likelihood of sexual violence among college students. Many individual characteristics are inadvertently associated with an increased likelihood of sexual violence victimization, such as alcohol consumption, college organization membership, etc. (Minow & Einolf, 2009; Franklin, 2016; Mustaine & Tewksbury, 2000). In this tradition, this research will examine additional factors that may affect the likelihood of sexual victimization to further inform efforts aimed at sexual assault prevention in line with the requirements of Title IX and the Clery Act.

Past research largely explores individual factors that affect the likelihood of sexual violence victimization, particularly victimization among college women (Siddique, 2016; Fisher, Cullen, & Turner, 2000; Wasserman, 2003; Sloan, Lanier, & Beer, 2000; Combs-lane & Smith, 2002). While examining these student characteristics, many researchers use different criminological lenses including routine activities theory, self-control theory, and rational choice theory. This research draws upon Lifestyles Theory developed by Hindelang, Gottfredson, and Garofalo (1978) and the Routine Activities Theory (RAT) developed by Cohen and Felson (1979) and later adapted by Cohen, Kluegal, and Land (1981). Both theories suggest that an individual's routine activities affect the likelihood of victimization. More specifically, Cohen, Kluegel, and Land (1981) adopted the framework from Cohen and Felson (1979) and proposed an individual theory of victimization related to lifestyles and individual routine activities. This theory states that criminal victimization is more likely to occur when motivated offenders, suitable targets, and the absence of capable guardians converge in time and space (Cohen & Felson, 1979; Cohen, Kluegel, & Land, 1981). One way to understand the likelihood of sexual

violence victimization among college students is to adopt this perspective and focus on how lifestyle characteristics of college students affect interactions with motivated offenders, target suitability, and/or guardianship to see if these characteristics promote an increased likelihood of sexual violence victimization (Fisher, Daigle, & Cullen, 2010; Stein, 2014).

This study will focus on four aspects of the college lifestyle that may affect the likelihood of interactions with motivated offenders, individual target suitability, and the lack of capable guardianship. Specifically, the current study will evaluate the following hypotheses:

- 1) Participating in Greek life increases the likelihood of sexual violence victimization among undergraduate college students.
- 2) More frequent changing of socialization circles while drinking increases the likelihood of sexual violence victimization among undergraduate college students.
- 3) Living at home with parents/guardians reduces the likelihood of sexual violence victimization among undergraduate college students.
- 4) More frequent employment reduces the likelihood of sexual violence victimization among undergraduate college students.

The above hypotheses will be tested using the American College Health Survey, which is a survey administered to a national sample of college students intended to assess students' health habits, behaviors, and perceptions of safety. Data from the spring semesters of 2013, 2014, and 2015 will be used to measure student lifestyles and sexual victimization in the past 12 months. The sample for analysis is limited to sophomores, juniors, and seniors in order to ensure that sexual victimization experiences occurred while the students were enrolled in college.

This thesis will proceed as follows. First, it will discuss the empirical research examining the characteristics associated with sexual violence victimization. Then, it will more extensively

discuss routine activities theory and how various aspects of the college lifestyle can speak to elements of routine activities theory and affect the likelihood of sexual violence victimization. Next, a brief discussion regarding why the predictors of sexual violence likely vary across gender will be provided. After formally proposing the hypotheses driving this study, a detailed description of the data, measures and analytic plan will be provided. The results of the analyses will then be reported before a discussion of the results and the subsequent implications of these results for theory and policy.

## CHAPTER TWO: LITERATURE REVIEW

### Sexual Violence Victimization among College Students

Data collected regarding crimes that occur among college students from 2001 to 2013 show that 85% of crimes were classified as property crimes (NCES, 2016). Among the remaining 15% of crimes during that time span which were classified as violent crimes, 54% were crimes of sexual violence (NCES, 2016; Hart & Miethe, 2011). In 2013, specifically, there were approximately 5,009 cases of sexual violence out of the 27,567 total crimes reported that year that involved college students as victims (NCES, 2016). In other words, 18% of all crimes committed on college campuses in 2013 were sexual violence crimes. Thus, a nontrivial portion of crime on the college campuses is classified as sexual violence.

**Demographic Correlates.** Research demonstrates that many factors affect the likelihood of sexual violence victimization. Among college students, in particular, the research examines the demographic factors of victims, the drug and alcohol use of victims, and the routine activities of college students (Siddique, 2016; Meyer, 2013; Hart & Rennison, 2011; Sinozich & Langton, 2014). Similar to sexual violence victimization in the general population, gender is one of the strongest correlates related to the likelihood of sexual violence victimization among college students. The majority of victims of sexual violence are women (Mustaine & Tewksbury, 2000; Fisher, Daigle, Cullen, & Turner, 2003; Krebs, Lindquist, Warner, Fisher, & Martin, 2007). In fact, some research suggests that 1 in 5 female college students have been a victim of sexual violence (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). However, even though female students are at greater risk of being sexually assaulted while in college (i.e., 1 in 5 female students compared to 1 in 16 male students), male college students are still five times more likely

than males who are not in college to be victims of sexual violence (Department of Justice, 2014). One possible explanation for this may be due to the sexual orientation of the individual.

Sexual orientation is also related to the likelihood of sexual violence victimization, particularly for males. Kimerling, Rellini, Kelly, Judson, and Learman (2002) found that gay/bisexual men (61.4%) reported higher rates of sexual violence victimization compared to heterosexual males (3.1%). Other research showed that approximately 40% of gay men and 47.4% of bisexual men experienced sexual violence other than rape at some point during their lifetime (Walters, Chen, & Breiding, 2013). The rates of sexual violence are non-trivial among heterosexual males as well. A little over 20% of heterosexual men experienced sexual violence other than rape during their lifetime. Currently, few studies have examined these differences among college males, in particular. Johnson, Matthews, and Napper (2016) examined the relationship between sexual orientation and sexual assault victimization among college students across the United States. They concluded that gay and bisexual men were more likely to be a victim of sexual assault compared to heterosexual males, but females who identified themselves as a lesbian were no more likely to report sexual violence victimization compared to heterosexual females (Johnson, Matthews, & Napper, 2016). Rothman, Exner, and Baughman (2011) conducted a meta-analysis looking at population-based studies and the prevalence of sexual violence among gay/lesbian/bisexual men and women. They were able to support previous research by concluding that gay/lesbian/bisexual individuals are likely at an elevated risk for sexual violence victimization across their lifetime.

Previous research shows that age is also related to sexual violence victimization (Siddique, 2016). Statistics from the Department of Justice (2014) indicate that the majority of sexual violence victims are under the age of 30 (i.e., 54% between the ages of 18-30). This age



group includes the typical age range of college students. In fact, college students themselves are at a higher than average risk for sexual violence victimization (Department of Justice, 2014).

Research also examines whether or not the race/ethnicity of college students is related to sexual violence victimization. Hart and Rennison (2011) found that between 1995 and 2005, the rates of violent victimization, including rape and sexual assault, were statistically similar between Hispanic college students and Non-Hispanic college students. However, the authors did not disentangle the type of victimization by race, so it is not possible to speak to differences in rates of sexual victimization. However, Sorenson and Siegal (1992) found that non-Hispanic whites had higher rates of sexual assault victimization compared to Hispanic males. Furthermore, Wyatt (1992) found similar rates of sexual assault victimization between white and black females in Los Angeles, California. Sinozich and Langton (2014) also found that the rate of sexual victimization was not statistically different between whites and blacks (6.7 per 1,000 for white females and 6.4 per 1,000 for black females). Similarly, Coulter et al. (2017) did not find statistically significant differences in rates of sexual violence victimization (i.e., Black 8.7%, other 8.6%, white 7%, and Hispanics 5.4%).

On the other hand, Kimerling et al. (2002) found that race/ethnicity was related to victimization. More specifically, they found that minority females (i.e., non-white) were more likely to be victims of sexual violence compared to white females. Johnson, Matthews, and Napper (2016) also found that race and ethnicity were related to victimization. Those who self-reported as biracial were most likely to report victimization compared to whites. However, these researchers also found that Hispanics and Native Americans were no more likely to be related to any sexual violence victimization examined compared to whites. Overall, the evidence for race/ethnicity being related to sexual violence victimization is mixed at best.

**Lifestyle Correlates.** Researchers examining the likelihood of sexual violence victimization are also interested in lifestyle characteristics of college students, including alcohol and drug use. In general, drug and alcohol use significantly increases the likelihood of becoming a victim of sexual violence (Wasserman, 2003; Ullman, Karabatsos, & Koss, 1999). Krebs, Lindquist, Warner, Fisher, and Martin (2009) concluded that there is a strong link between a woman's substance use (i.e., voluntary alcohol or drug use) and sexual violence victimization. Turchik and Hassija (2014) found that health risk behaviors such as increased drug use and problematic drinking (i.e., binge drinking or episodic drinking) were also positively associated with sexual violence victimization. As a result, Testa, Hoffman, and Livingston (2010) concluded that the "alcohol culture within college is central to the high levels of sexual risk and sexual victimization present among college students" (p. 256).

Other activities of college students related to alcohol and drug use, including partying and participation in Greek life, are related to the likelihood of sexual violence victimization as well (Danielson, Taylor, & Hartford, 2001). In fact, Sloan, Lanier, and Beer (2000) found that students whose lifestyles were characterized by "partying" had a greater risk for victimization compared to those students who do not lead "partying" lifestyles. Hines, Armstrong, Reed, and Cameron (2012) found that sexual violence victimization of college students was related to the amount of time students spent socializing and partying. Research also indicates that characteristics of Greek life (i.e., regular contact with fraternity members, alcohol consumption, risk-taking behaviors) are associated with an increased risk of sexual violence victimization in college students, especially for females (Franklin, 2016; Minow & Einolf, 2009). Many researchers have tried to examine specific characteristics of Greek life that are associated with

sexual violence victimization. The current study differs from prior research in the fact that it assesses membership in an organization and not specific characteristics of the organization.

**Situational Correlates.** In addition to the lifestyle choices of college students, situational variables are related to the likelihood of sexual violence victimization. Hart and Miethe (2011) found that sexual violence against college students is most likely to occur during the evening (i.e., between 6 p.m. and 6 a.m.). Moreover, the Department of Justice (2005) found that between 1995 and 2002, college students were more likely to be violently victimized off-campus than on-campus. Concerning the time of the school year, Flack, Caron, Leinen, Breitenbach, and Barber (2008) found that reported instances of sexual violence were most likely to occur between the end of the first month of school and mid-October during the second year of college for female students. Additional information regarding the situational characteristics related to sexual violence is largely unavailable due to the fact that it goes largely unreported (Sabina & Ho, 2014).

In general, the majority of victims of sexual violence knew their attackers (Mustaine & Tewksbury, 2000; Fisher et al., 2003). According to Fisher, Cullen, and Turner (2000), 9 out of 10 victims knew the person who sexually victimized them. Similar findings from the Bureau of Justice Statistics (2013) demonstrated that 78% of women who were raped or sexually assaulted said that they were assaulted by an intimate partner, relative, friend, or acquaintance.

Given what is known about risk factors for sexual violence, and the fact that the literature often invokes a lifestyle explanation for the relationship between these risk factors and victimization, it is important to focus on the routine activities of college students to further determine if other factors increase their likelihood of becoming a victim of sexual violence. The following section

will discuss what lifestyle and routine activities theories are and how they can account for risk factors for sexual violence victimization among college students.

### **Routine Activities Theory/Lifestyle Theory**

In 1978, Hindelang, Gottfredson, and Garofalo introduced a theory of personal victimization known as the Lifestyles Theory. They define a lifestyle as a routine daily activity that can either be professional (work, school, etc.) and/or leisure. Hindelang, Gottfredson, and Garofalo (1978) proposed that individual lifestyles lead to associations with motivated offenders and exposure to situations that have a higher risk for victimization (i.e., walking alone at night, going home with a stranger, accepting a ride from a person they just met, etc.) affecting subsequent personal victimization. Associations can be defined as personal relationships among individuals that develop based on the similar lifestyles and interests of these individuals. Exposure is simply one's involvement in situations that have a high risk for victimization. They suggested that there are four conditions that must be met for personal victimization to occur: (1) the offender and victim must intersect in time and space; (2) some dispute must arise between the two in which the offender views the victim as an appropriate object of victimization; (3) the offender must be willing and able to threaten or use force in order to achieve the desired outcome; and (4) the circumstances make the offender view it as advantageous to threaten or use force to achieve the desired outcome. Based on the idea that there are variations in lifestyles that affect exposure to situations conducive for victimization, the authors concluded lifestyles of individuals affect the probability of victimization (Hindelang, Gottfredson, & Garofalo, 1978). The major contribution of Lifestyles Theory is that lifestyles of victims better serve to understand how and why crime occurs, specifically with interpersonal crimes.

A year later, Cohen and Felson (1979) proposed Routine Activities Theory (hereafter RAT) in order to account for changes in property crime over time at the macro-level. Cohen and Felson (1979) departed from the traditional focus on *social causes of crime* and instead identified the conditions necessary for a crime to occur, similar to the work of Hindelang and colleagues (1978). Specifically, Cohen and Felson (1979) argued for a crime to occur, a motivated offender and suitable target must converge in time and space in the absence of capable guardianship. In 1981, Cohen, Kluegel, and Land, adopted the framework of Cohen and Felson's (1979) RAT and integrated it with the work of Hindelang and colleagues (1978) to propose an individual-level RAT related to victim lifestyles. In short, there are three elements to RAT. The first element is the concept of a motivated offender. A motivated offender is anyone who is willing and capable of committing crimes. Cohen and Felson (1979) suggested that the routine activities of citizens in society influence exposure to motivated offenders. Cohen et al. (1981) revised this to suggest that various individual lifestyles bring potential victims into contact with motivated offenders. The second element of RAT is a suitable target. Suitable targets have four qualities: value, inertia, visibility, and access (Cohen & Felson, 1979). About sexual violence, the value or quality may be the attraction to the target. Inertia is considered the size, weight, and/or the physical capacity to resist victimization. It follows then that victims who are less able to resist an attacker for whatever reason (e.g., size, strength, or incapacitation) are more likely to be perceived as suitable targets. Physical visibility is potential victims engaging in activities in a public or group setting while accessibility is viewed as an offender having the access to interact with a potential victim. The last element of RAT is the absence of a capable guardian. A capable guardian can be considered a family member, friend, police officer, and/or co-workers who would prevent or stop victimization from occurring.

Building upon Cohen and Felson's (1979) original concept of a capable guardian, scholars have subsequently identified three types of "controllers" (or types of capable guardians) that may affect the likelihood of crime: handlers, managers, and guardians (Felson, 1995). Handlers are people who exert informal social control over offenders to prevent them from committing crimes such as school police officers or residence hall coordinators. Managers are those who watch over places. An example of a manager can be an apartment manager updating the security or locks on the doors of the apartments or a store owner who installs security cameras around the building to provide guardianship. Guardians are those who watch over targets protecting them from victimization by intervening on their behalf. Each of these controllers acts in their way to prevent crime.

An important element of RAT that separates it from traditional criminological theories is that it suggests that crime can either increase or decrease without a change in the number of motivated offenders (Tillyer & Eck, 2009). Furthermore, Cohen and Felson (1979) focused on the absence of a capable guardianship and the presence of suitable targets as key elements for crime prevention given that the presence of motivated offenders is largely constant. Subsequently, Felson (1992) argued that even though the presence of motivated offenders is constant, the actual motivation of an offender can vary.

Very little research involving RAT speaks to the element of the motivated offender. One reason for this lack of research is that Cohen and Felson (1979) were not particularly focused on this element of the theory concerning crime prevention given the conclusion that the presence of motivated offenders is constant. Moreover, Felson (1992) argued that the topic of motivation is better suited for theories of offending, not victimization. However, a small body of work does examine this element of the theory, and there is a general support that the presence of motivated

offenders is related to the likelihood of victimization (Gibbs, Cassidy, & Rivers, 2013; Benson, Madensen, & Eck, 2009). Beauregard and Leclerc (2007) linked motivated offenders to the absence of capable guardians, the environment, and target ease. Similarly, Mustaine and Tewksbury (2009) found that the suitability of a target and absence of capable guardians affected the presence of motivated offenders. As a result, research suggests that situational factors affect the likelihood of encountering motivated offenders (Felson, 1992).

More research focuses the target suitability element of RAT. Research suggests that different elements that make targets more suitable (i.e., value, inertia, visibility, and accessibility) play an important role in the likelihood of victimization. For example, Holt, Fitzgerald, Bossler, Chee, and Ng (2016) studied risk factors associated with cyber and mobile phone bullying victimization of youth in Singapore. They concluded that target accessibility was significant in both cyber-and mobile phone-bullying victimization. They also found that the victim's proximity (i.e., visibility) to bullies online affected the risk of cyber victimization (Holt et al., 2016). Burns, Kinkade, and Bachmann (2012) found that the visibility of the target (i.e., money) promoted theft. Reynolds, Henson, and Fisher (2011) examined target attractiveness with respect to cyberstalking victimization among undergraduate college students and found that target attractiveness, in terms of including the value of the target to the offender (i.e., they are valuable or enjoyable) and if they are "easy" targets (i.e., young or elderly person may not have the ability to resist, small-sized items are easier targets for shoplifting), increased the risk of cyberstalking victimization. Other research has found that specific behaviors including excessive drinking and illegal drug use increased target attractiveness and subsequent victimization (Mustaine & Tewksbury, 2002; Spano & Freilich, 2009).

An abundance of research supports the idea that the absence of a capable guardian increases the risk for victimization. The element of a guardianship includes many different things (e.g., CCTV cameras, home alarm systems, gates, fences, signs, and lighting) or people (e.g. family, friends, colleagues, police officers, and even strangers). It suggests that increased guardianship decreases the likelihood of victimization (Hollis-Peel, Felson, & Welsh, 2013; Garofalo & Clark, 1992; Tseloni, Wittebrood, Farrell, & Pease, 2004). More specifically, Tseloni et al. (2004) examined characteristics of guardianship across three countries (Netherlands, the UK, and the U.S.) and found that homes were less likely to be burglarized compared to homes where nobody was at home during the day. Popp (2012) studied the risk of bullying victimization among high school students in the United States and found that students who had a social support network that they could rely on and schools that enforced their rules more strictly and fairly exhibited decreased levels of bullying victimization. It was also found that extracurricular activities increased the likelihood of victimization because of the level of guardianship provided by the school is diminished (Popp, 2012).

Other research examines ineffective guardianship and its relationship to victimization. This ineffective guardianship is related to the victim or others around them (Mohler-Kuo, Dowdell, Koss, & Weschler, 2004; Sampson, Eck, & Dunham, 2010). More specifically, Mohler-Kuo et al. (2004) studied rape among college women and found that for the majority of the rapes that occurred (72%), the victim was so intoxicated that she was unable to consent. They concluded that these women were ineffective in guarding themselves against motivated offenders.

In the tradition of RAT, research links specific lifestyle factors of college students to the likelihood of sexual violence victimization. For instance, Franklin et al. (2012) found that an



increased frequency of partying and the number of days that students spent on campus were positively related to sexual assault victimization. They argued that these factors increased contact with motivated offenders. Fisher, Daigle, and Cullen (2010) also assessed the relationship between lifestyle-routine activities and sexual victimization. They found several characteristics of college students enhanced the risk of sexual victimization, such as substance use, visiting places where alcohol is served, going to places that are exclusively male, and living alone. They argued that substance use does two things: (1) increases the attractiveness of the target and (2) decreases the level of self-guardianship. They argued that being in places where alcohol is served and exclusively male places were indicative of increased contact with motivated offenders (Mustaine & Tewksbury, 2000; Fisher, Daigle, Cullen, & Turner, 2003; Krebs, Lindquist, Warner, Fisher, & Martin, 2007). Stein (2014) also found that going out for leisure on a regular basis, going to school routinely, and living alone enhanced the risk of potential sexual violence victimization. He argued that substance use and living alone created ineffective or an absence of guardianship.

Given the strength of Lifestyles and RAT as an explanation for the likelihood of victimization, particularly sexual victimization, the current research will focus on lifestyle choices or the routine activities of college students and assess how they, too, may be related to the likelihood of sexual violence victimization. The next section of this thesis will specifically consider how participation in Greek life, changing socialization circles while drinking, employment and living arrangements may affect the likelihood of sexual violence victimization through contact with motivated offenders, target suitability, and guardianship levels.

## **College Lifestyle**

The college atmosphere often brings a new lifestyle and different routine activities for enrolled students. Students create their schedules, can join campus organizations, may become employed while attending school, may live independently from their family of origin, and expand their social circles. Many different elements of the college lifestyle may affect the likelihood of sexual victimization, including social circles, daily activities, and living arrangements. Importantly, elements of RAT - the level of interaction with motivated offenders, the suitability of an individual as a potential target, and the absence or presence of capable guardian - emerge in these aspects of the college lifestyle and may explain the differential likelihood of sexual victimization across these characteristics.

One's social circle greatly expands when entering college (Hallett, 2015). These new friends can be classmates, people in campus organizations that they join, or even students that live in the same area as they do. It is possible that two aspects of socialization in college, participation in Greek life and one's socialization circles while drinking, may affect the likelihood of sexual victimization.

**Greek Life.** Greek life, which includes participation in sororities and fraternities, is a particular form of socialization that is common at American universities (Driscoll, 2011). According to the Panhellenic Association, there are approximately 750,000 undergraduate students in 12,000 Greek life chapters on over 800 college campuses in the United States and Canada (Driscoll, 2011). Individual sororities and fraternities vary in their organizational structure and purpose; however, they tend to share common elements: secrecy, single-sex membership, selection of new members through rushing and pledging, occupancy of a residential property at which the undergraduate members of the organization live, and the use of

identification symbols such as Greek letters (Whalen, 1967; Jacobs, 2014; “Glossary of Greek Life,” 2017). There are many different activities for students to engage in while participating in Greek organizations, including community service projects, formal dinners, university activities, and parties (Jazairi, n.d.).

Several features of Greek life are known to increase the risk of sexual violence victimization. Alcohol and drugs play a prominent role in Greek life (Walker, Martin, & Hussey, 2014). More specifically, students who live in Greek residences report higher rates of involvement in alcohol and drug use (Collins & Liu, 2014). Eberhardt, Rice, and Smith (2003) found that risk behaviors associated with Greek membership are related to sexual violence victimization including alcohol abuse and a lack of safe-sex behaviors. Franklin (2016) and Minow and Einolf (2009) found that sorority membership is positively associated with behaviors such as excessive drinking, risky sex, and illegal drug use (Franklin, 2016; Combs-lane & Smith, 2002), all of which are known to increase the likelihood of sexual victimization. Prior research tends to link Greek life to an increased risk of sexual victimization through specific characteristics; however, this research seeks to add to this body of literature and examine if Greek life itself affects the likelihood of sexual violence victimization.

When examining Greek life participation as a factor that may affect the likelihood of sexual violence victimization, itself, it is important to acknowledge that fraternity members are more likely to commit acts of sexual violence on college campuses (Boyle, 2015; Mohler-Kuo et al., 2004). Research repeatedly demonstrates that fraternity membership is directly related to sexual assault perpetration (Seabrook, Ward, & Giaccardi, 2016; Bouffard & Pratt, 2010; Murnen & Kohlman, 2007; Foubert, Newberry & Tatum, 2007; Brown, Sumner, & Nocera, 2002). Fraternity membership is linked to increased perpetration as a result of peer pressure

(Franklin, Bouffard, & Pratt, 2012) and increased alcohol consumption and drug use (Collins & Liu, 2014; Nelson & McHugh, 2013; McCabe et al., 2005). Murnan and Kohlman (2007) conducted a meta-analysis examining fraternity membership and sexual aggression among college men and concluded that fraternity membership was significantly associated with the self-reporting of sexual aggression. Moreover, they showed that fraternity membership was related to an increased acceptance of rape myths which are linked to increased perpetration. Carroll, Rosenstein, Foubert, Clark, and Koreman (2016) corroborated this finding.

Participation in Greek life may increase the likelihood of sexual victimization through increased interactions with motivated offenders, increased target suitability, and decreased guardianship. As previously indicated, Greek members interact with other Greek members through condoned socialization activities related to Greek life membership. Moreover, Greek members, particularly males, are known to be at an increased likelihood of sexual violence perpetration. Therefore, participation in Greek life likely serves to increase contact with motivated offenders. Moreover, victims and offenders often share many of the same characteristics (Boyle, 2015; Walker, Martin, & Hussey, 2014; Boswell & Spade, 1996). These similar characteristics may further serve to increase target suitability.

Furthermore, the risk-taking behaviors common to Greek life likely make those who participate in Greek life more suitable targets and undermine guardianship. For example, many Greek life events serve alcohol and lack capable guardians, such as family or police or sober friends, which can effectively prevent victimization from occurring. If friends of a potential victim are drinking, they are less able to serve as guardians due to intoxication affecting their mental and physical abilities. As such, it may be easier for a motivated offender to pull someone away from the party for some alone time (especially if it is not consensual; Mohler-Kuo,

Dowdall, Koss, & Wechsler, 2004). Sorority members may also be seen as more suitable targets because they tend to be more physically attractive based on their beauty-oriented lifestyles, usually to attract the opposite sex (Robbins, 2004). Therefore, Greek life, particularly for females, may play a significant role in the likelihood of sexual victimization.

**More Frequent Changing of Socialization Circles while Drinking.** More frequent changing of socialization circles while drinking is also likely to be related to the likelihood of sexual violence victimization. Changing of socialization circles while drinking combines two known risk factors for sexual victimization: alcohol use and peer groups. It is well established that there is a relationship between alcohol use and sexual violence victimization (Turchik & Hassija, 2014). Drinking can increase target attractiveness to the offender because offenders may be able to use force easier on someone who has been drinking compared to someone who is sober (Mustaine & Tewksbury, 2002). Moreover, drinking undermines self-guardianship.

Peer groups or socialization circles are also related to risk for sexual victimization. Larger peer groups or changing peer groups likely increase contact with motivated offenders, increase target suitability, and decrease guardianship. The more people with whom one socializes brings one into contact with more acquaintances or peers, who are more likely to be perpetrators of sexual victimization compared to strangers (Mustaine & Tewksbury, 2000; Fisher et al., 2003; Fisher, Cullen, & Turner, 2000). Target suitability may also increase if an individual switches peer groups more frequently compared to an individual who does not switch groups because switching groups provides additional opportunities for an offender to have physical access to a potential victim.

Finally, changing socialization circles can decrease the guardianship of the potential targets. Peers who have elevated levels of attachment are more willing to protect each other

(Schreck & Fisher, 2004; Tillyer, Wilcox, & Gialopsos, 2010). Someone who stays with one group while drinking may have higher levels of attachment to the peer group compared to those that move around. Those individuals who move around more frequently are also likely to experience decreased guardianship because their peers may not look for them if they believe the person just comes and goes often. Combining these factors, individuals who change peer groups or groups of friends more frequently while drinking may be more likely to be victims of the sexual violence because they are less likely to be in the presence of a capable guardian and/or have willing guardian who has a desire to protect one's peers (Schreck & Fisher, 2004; Tillyer, Wilcox, & Gialopsos, 2010).

**Living Arrangements.** Sexual victimization is most likely to occur in a victim's residence (Fisher et al., 2000). Statistics from The Sexual Victimization of College Women conducted by the Department of Justice in 2000 states that 59% of completed rapes occurred in the victim's residence, 31% occurred in other living quarters, and 10% took place in a fraternity house (Fisher et al., 2000). Therefore, a victim's living arrangement is likely to influence victimization risk.

The most common forms of living arrangements among college students include: living at home with one's parents, on-campus housing, and off-campus housing away from one's primary residence with parents/guardians (Kokemuller, 2016). With respect to the elements of RAT (Cohen & Felson, 1979), students who live at home with their parents may be in contact with fewer motivated offenders, be perceived as less suitable targets, and likely have more capable guardianship during hours when sexual victimization is most likely to occur (i.e., nighttime). One reason that they may come into contact with fewer motivated offenders may be due to the fact that individuals who live at home go out to parties or bars less frequently, and if

they do go out to party, they are more likely to return home earlier due to parent preferences (e.g., having a curfew) or consideration of others who may be in the household. Parents also serve as capable guardians. Students are not likely to be home alone, especially in the evenings, when sexual victimization is most likely to occur (Hart & Miethe, 2011).

There are several forms of on-campus housing: dormitories, fraternity or sorority housing, and other college/university housing. McPheters (1978) found that the proportion of students who lived in dormitories was a strong predictor of campus crime rates. In on-campus housing, individuals may be perceived as more suitable targets, have less capable guardianship, and encounter more motivated offenders. Increased suitability can be associated with visibility and easier physical access. Students who live in dorms often only have one or two rooms. Therefore, they are more likely to frequent in public areas and many dormitories provide public areas for students to hang out beside their rooms. Furthermore, access to victims increases as students who live on campus are commonly allowed to enter dorms or allowed into a dorm by other students who live in the specific dorm. Overall, this creates easier access for motivated offenders to find suitable targets.

Many dormitories on college campuses also tend to be coed, which leads to more association with potential motivated offenders given the number of persons living in the same building, and that victims and offenders tend to share similar characteristics (Cohen, Kluegel, & Land, 1981). While there are guardians who are in charge of enforcing rules and protecting students in on-campus housing such as hall coordinators or resident assistants, the ratio of students to guardians is quite high (for example, 37:1 resident to RA ratio; Papandrea, 2015) limiting the effectiveness of guardianship at all times. There is also a limitation of guardianship because rooms are private domiciles. Also, many dorms do not have security cameras where

school police or hall coordinators can view the halls of the dorms and see what is happening. Even though there are hall coordinators on call 24/7 (Papandrea, 2015), they are not roaming the halls to make sure victimization is not occurring. Therefore, overall guardianship is limited.

Off-campus housing, such as apartments, can also create more opportunities for sexual victimization compared to living with one's parents or guardians. Individuals who live in these domiciles may be perceived as more suitable targets, have less capable guardianship, and interact with more motivated offenders. They may be considered more suitable targets based on accessibility and visibility. Many students live in apartment complexes, which are open to the public, where it is possible for a motivated offender to learn one's daily routine. There is also a higher occupancy of people, increasing the likelihood of contact with motivated offenders compared to living in a single-family home as many do when living with parents. Off-campus housing may also increase target suitability as the knowledge that a subject is living away from home for the first time may increase the perceptions of ease as a target regarding target naiveté. Individuals who live off campus are also at an increased likelihood of being alone or lacking capable guardians compared to one's familial home (Combs-Lane, 2002; Franklin, 2016). In essence, living off-campus away from home may decrease guardianship or provide ineffective guardianship, particularly if an individual lives alone.

**Daily Activities.** Another aspect of the college lifestyle that may affect the likelihood of sexual victimization is employment. Approximately four out of five college students work part-time while studying for their degrees, averaging about 19 hours a week (Kingkade, 2013). Employment is likely related to victimization risk because it structures activities to situations where guardianship is likely to be present. More specifically, work reduces unstructured socializing with peers, which tends to lack capable guardianship and is related to victimization



(Schrek, Wright, & Miller, 2002; Schreck & Fisher, 2004). At a job, there are colleagues and supervisors who are around the individual for the duration of the time that they are at work, which may keep motivated offenders at bay because motivated offenders will know coworkers are invested in the presence and actions of the suitable target. Moreover, the more hours per week that an individual works, the less likely he or she is to be a victim of sexual violence because he or she will have less opportunity to be in situations where sexual assault is likely to occur (e.g., parties, one-on-one interactions with a member of the opposite sex). Students who work may also be seen as less suitable targets due to less physical access. These individuals can also be considered less suitable targets because they may work at a job where they work behind a counter or in a restricted space which gives motivated offenders less physical access to them.

### **Gender Differences in Risk Factors**

Women are more likely to be targets of sexual violence compared men (Rennison, 2002). More specifically, one in five women is likely to be a victim of sexual violence compared to one in sixteen men during college (Krebs et al., 2007). This begs the question as to what factors account for the difference in rates of sexual violence victimization for male and female college students? Perhaps it is the differences in elements of routine activities that lead to differential risks associated with sexual victimization across gender. Although existing research suggests that many risk factors for violent victimization are similar for men and women (Hines, Armstrong, Reed, & Cameron, 2012), some research suggests that risk factors for victimization vary by gender (Wilcox, Tillyer, & Fisher, 2009; Lauritsen & Carbone-Lopez, 2011; Tillyer, Wilcox, & Gialopsos, 2010).

Although research, in general, does not compare the relevance of risk factors for sexual victimization across gender, a few studies have examined the gender differences in risk factors

for other violent crimes. Looking at assault victimization among junior high and high school students, Wilcox, Tillyer, and Fisher (2009) found that involvement in school sports and self-reported criminal behavior enhanced the likelihood of sexual assault victimization for girls more than for boys. Wilcox, Tillyer, and Fisher (2009) argued that women's participation in social activities increased contact with boys, who are often socialized to view girls as vulnerable and gratifying targets for victimization. As a result, Wilcox, Tillyer, and Fisher (2009) suggested that gender informs perceived opportunity, which is related to target suitability and perceived guardianship.

Lauritsen and Carbone-Lopez (2011) looked at an individual, family, and community-level predictors of violent victimization and found important differences in risk factors across gender, particularly concerning stranger violence. Neighborhood disadvantage served as a stronger risk factor for victimization among men compared to women, with the authors suggesting that economic indicators (poverty, unemployment, and public assistance rates) are better indicators of exposure to potential strangers, who are more likely to victimize men. They also argued that neighborhood economic conditions are related to behavioral expectations for men (masculinity, independence, and willingness to use violence) which may promote victimization. On the other hand, Lauritsen and Carbone-Lopez (2011) found that length of residence, single parenthood, and family composition of neighborhoods increased the risk of victimization for women more than men. These, too, are related to routine activities as women who raise children on their own and those who are new to their communities have fewer social ties and support systems in neighborhoods serving as capable guardians. They also noted that several other factors increased the risk for victimization among women more so than it did for men, including collective efficacy, social capital and male presence in the community.

Few researchers have explored the issue of gender differences in risk factors related to sexual victimization. Tillyer, Wilcox, and Gialopsos (2010) looked at school-based sexual victimization in the form of sexual harassment and sexual assault among adolescents, specifically at the middle and high school students. For sexual harassment, they found that attachment to parents reduced the risk of sexual victimization for girls but not for boys. The use of tobacco, alcohol, and marijuana significantly increased the risk of sexual harassment for girls but not for boys. Delinquent peers and self-reported crime significantly increased the risk for sexual harassment for both boys and girls, but relationship was stronger for girls. Concerning sexual assault, they found that both attachments to school and to peers were protective factors for victimization among boys but not for girls. Other gender differences in the effects of delinquent peers, self-reported crime, and the use of tobacco, alcohol, and marijuana on the risk of sexual assault victimization were similar to those observed for sexual harassment. As such, Tillyer, Wilcox, and Gialopsos (2010) provided general support for the idea that risk factors for sexual victimization can vary across gender. However, there is a lack of research that has looked at gender differences in risk factors for sexual victimization among college students.

### **CHAPTER THREE: CURRENT STUDY**

Routine activities and lifestyles are pertinent to the study of sexual victimization. Given the high rates of sexual victimization among college students (Krebs et al., 2007), this research examines aspects of the college lifestyles that likely affect contact with motivated offenders, perceived target suitability and capable guardianship, which inadvertently may influence the likelihood of sexual violence victimization. Four specific hypotheses will be tested in this research:

- 1) Participating in Greek life increases the likelihood of sexual violence victimization among undergraduate college students.
- 2) More frequent changing of socialization circles while drinking increases the likelihood of sexual violence victimization among undergraduate college students.
- 3) Living at home with parents/guardians reduces the likelihood of sexual violence victimization among undergraduate college students.
- 4) More frequent employment reduces the likelihood of sexual violence victimization among undergraduate college students.

Specifically, these hypotheses will be examined among a sample of college undergraduate students. The graduate student population is not a focus due to their tendency to be older (i.e., average age is 32.4 years old, Council of Graduate Schools, 2009; Bell, 2009) and the different lifestyles and routine activities of this population, which are more likely to include marriage or dependents and socialization in one's home with family.

Additionally, this thesis argues that it is important to determine if and how these potential risk factors may vary across gender given that existing research that shows some important differences in risk for violent victimization across gender (Hines et al., 2012; Wilcox, Tillyer, &

Fisher, 2009; Lauritsen & Carbone-Lopez, 2011; Tillyer, Wilcox, & Gialopsos, 2010).

Unfortunately, few studies examine gender differences in sexual assault, particularly among college students. Therefore, this thesis will contribute to the literature on sexual victimization and examine these lifestyle factors among men and women, to determine if these lifestyle factors/routine activities invoke differential risk for sexual victimization across gender.

## CHAPTER FOUR: DATA AND METHODS

### Data

The data for this research comes from the American College Health Association's National College Health Assessment [ACHA-NCHA]. This nationwide survey is administered each semester (fall and spring of each school year) with the goal of assisting universities in the understanding of student health habits, behaviors, and perceptions. More specifically, ACHA-NCHA explores six areas of health-related issues to provide a more thorough understanding of student life and activities: alcohol, tobacco, and drug use, sexual health, weight, nutrition and exercise, mental health, and personal safety and violence (ACHA-NCHA, n.d.).

The original ACHA-NCHA data collection began with a pilot program in 1998, and the survey was administered each spring and fall semester from 2000 to 2008. It included paper and web surveys administered to colleges and universities in the United States each semester ranging from 8 in Fall 2001 to 117 in Spring 2006. In Fall of 2008, the survey was redesigned (with more specific questions) and has continued in this form until the present day. Overall, 778 unique institutions have participated in the ACHA-NCHA data collection with over 500 participating two or more times. In every survey administration since its inception, each university is self-selecting, meaning that they make the decision to participate in the survey and the schools are not randomly selected. However, only those universities that randomly selected students to participate are included in the ACHA-NCHA databases.

Each survey administered asked about behaviors, attitudes, and perceptions over the past 12 months. The current study uses ACHA-NCHA data collected from students in the spring semester in the years 2013, 2014, and 2015. The data are limited to the three most recent survey years that are available for a more contemporary examination of risk. Data also only come from

the spring semester in each year given that the recall period for behaviors and experiences is 12 months. Limiting the sample to students surveyed in spring semesters prevents the possibility that victims sampled report the same experience in a fall and spring survey if the survey was administered in both semesters. There was a total of 295,378 students that completed the survey in spring 2013, 2014, and 2015. The sample was limited to second-year, third-year, fourth-year, and fifth-year undergraduate students to ensure that victimization experiences occurred while one was enrolled in college. As a result, this leads to a sample size of 174,141 students. After listwise deletion, across all the variables of interest (see measures), the final sample size for this research is 163,249.

Additional analyses compared the initial sample of eligible students to the final sample after listwise deletion and the samples differed in the following ways. There were several differences between the initial sample and the final sample in regard to demographics such as gender, age, race/ethnicity, and other control variables. Approximately 68% of the initial sample responded as being White whereas in the final sample 60% report being White. There was a significant difference concerning the year in school, with 19% of the initial sample being second-year undergraduate students and 33% of the final sample being second-year undergraduate students. In the initial sample, 19% were third-year undergraduates, 16% were fourth-year undergraduates, and 5% were fifth-year undergraduates which is statistically different from the final sample in which 32% were third-year undergraduates, 27% were fourth-year undergraduates, and 8% were fifth-year undergraduates. Students in the final sample were more likely to be single (90%) compared to the initial sample (86%). Finally, as it relates to the enrollment status of respondents, 89% of the initial sample were full-time students compared to

92% in the final sample. The implications of these differences will be discussed in the discussion section as it relates to the generalizability of data.

## **Measures**

**Dependent Variable.** The dependent variable is sexual violence victimization. In each survey, subjects were asked three questions regarding sexual victimization within the last 12 months: 1) “were you sexually touched without your consent?” 2) “was sexual penetration attempted (vaginal, anal, oral) without your consent?” and 3) “were you sexually penetrated (vaginal, anal, oral) without your consent?” Students responded either yes or no to each question. Notably, these are behaviorally specific measures that help to clarify how one may interpret the questions related to sexual violence victimization. Research supports the use of behaviorally specific measures to make sure that different behaviors of the same crime can be accounted for (Koss, 1993; Koss, 1996). In this research, sexual violence victimization is a binary indicator with one representing that the student responded yes to at least one of the victimization experiences and 0 indicating the student responded no to all of the potential victimization experiences. In the final sample, 8% of the population reported being a victim of sexual violence within the last 12 months. More specifically, 7.19% indicated that they were sexually touched without their consent; 2.99% indicated that sexual penetration was attempted, and 1.83% indicated that they were sexually penetrated without their consent. Notably, these are not mutually exclusive classifications of victimization, which is why a global measure of sexual victimization is used.

**Independent Variables.** The four primary variables of interest in this study reflect characteristics associated with the college lifestyle. The first independent variable assesses a student’s participation in Greek life. In each survey, students were asked: “are you a member of



a social fraternity or sorority?” Available answers were yes or no, and a binary variable was created with one indicating the student participated in Greek life and 0 indicating the student did not participate in Greek life. The second independent variable also taps into socialization experiences in college and speaks to the frequency of a student changing of socialization circles while drinking. In the ACHA-NCHA data, subjects were asked, “during the last 12 months, when you “partied”/socialized, how often did you stay with the same group of friends the entire time you were drinking?”. Responses to this question were in a Likert scale format and included 0) always or don’t drink, 1) most of the time, 2) sometimes, 3) rarely, or 4) never. The scale is used to indicate the diversity of peers with whom one socializes while drinking. The mean score for changing socialization circles while drinking was .58 (s.d. = .85).

The data also asks about a student’s living arrangements. Students were asked “where do you currently live” with the following answer choices: 1) campus residence hall, 2) fraternity or sorority house, 3) other college/university housing, 4) parent/guardian’s home, 5) other off-campus housing, and 6) other. The responses to this question were used to create two binary variables indicating whether or not the student lives in on-campus housing (fraternity/sorority house, campus residence hall, and other college/university housing; 37%) and whether or not the student lives in off-campus housing away from home (other off-campus housing and other; 47%). Living in a parent’s/guardian’s home (16%) serves as the reference group. The final set of independent variables represents the employment status of students. Specifically, students were asked, “how many hours a week do you work for pay?” Student responses are in the following format: 0) did not work, 1)1-9 hours, 2) 10-19 hours, 3) 20-29 hours, 4) 30-39 hours, 5) 40 hours and 6) 40 hours or more. For this study, responses 5 and 6 were combined to make

one grouping of 40 hours or more. The mean response for employment status was .49 (s.d. = .71).

**Moderating Variable.** The moderating variable that will be used in this research is gender. In each survey, students were asked, “what is your gender?” The responses to this question were used to create a binary variable (1 = female, and 0 = male). Approximately 67% of the population were female and 33% were male.

**Control Variables.** Prior research suggests that several demographic variables have an effect on sexual violence victimization (Siddique, 2016; Hart & Rennison, 2011; Kimerling et al., 2002); therefore, they are included in this research to address the issue of spuriousness. Specifically, this study will include a series of control variables covering eight domains: race/ethnicity, year in college, age, marital status, sexual orientation, enrollment status, alcohol consumption, and year of data collection. Respondents were asked “how do you usually describe yourself” with answer choices of A) White, B) Black, C) Hispanic or Latino/a, D) Asian or Pacific Islander, E) American Indian, Alaskan Native, or Native Hawaiian, F) Biracial, and G) Other. Race/ethnicity is accounted for using a set of dummy variables including Black (6%), Hispanic (12%), Asian (11%), Multiracial (5%), Native American (2%), and other race (4%). White (60%) serves as the reference group. A respondent’s current year in school is accounted for with the following binary variables: third year (32%), fourth year (27%), and fifth year (8%). Second-year undergraduates (33%) serve as the reference group. Age is measured as a continuous variable. The average age of the sample was approximately 22 years old. A respondent’s marital status is represented by two dichotomous variables. One indicates whether the subject was married/partnered (7%) and the other indicates if the subject was separated/divorced or other (3%). Single (90%) serves as the reference group. The sexual

orientation of the respondents is accounted for using a binary variable with Gay/Lesbian, Bisexual, and unsure (10%) coded as 1 and heterosexual (90%) coded as 0. A respondent's enrollment status is a dichotomous variable with part-time or other coded as 1 (8%) and full-time status represented as 0 (92%). A respondent's alcohol consumption is measured by asking students, "during the last 12 months when you "partied"/socialized, how often did you choose not to drink?" This is accounted for as a scale representing how much students frequently drink ranging from 0) don't drink or always choose not to drink, 1) most of the time, 2) sometimes, 3) rarely, and 4) never. Higher values represent more frequent alcohol consumption. The mean response was 1.79 (s.d.= 1.24). Finally, the year the survey was administered is accounted for with two binary variables indicating the survey was administered in 2014 (28%) and 2015 (32%) respectively. The year 2013 (40%) serves as the reference group.

Table 1. Descriptive Statistics							
Variable	Full Sample (N=163,249)			Males (N=54,213)		Females (N=109,036)	
	Mean	Standard Deviation	Range	Mean	Standard Deviation	Mean	Standard Deviation
<b>Dependent Variable</b>							
Sexual assault victimization	.08	-	0,1	.04	-	.10**	-
<b>Independent Variables</b>							
Greek life participation	.12	-	0,1	.11	-	.12**	-
Changing socialization circles while drinking	.58	.85	0-4	.78	.97	.49**	
Employment	.49	.71	0-5	.43	.71	.51**	.71
<b>Living arrangements</b>							
On-campus	.37	-	0,1	.35	-	.38**	-
Off-campus	.47	-	0,1	.49	-	.47**	-
Lives with parents/guardians (reference category)	.16	-	0,1	.16	-	.15**	-
<b>Moderating Variable</b>							
Male	.33	-	0,1	-	-	-	-
Female (reference category)	.67	-	0,1	-	-	-	-
<b>Control Variables</b>							
<b>Race/Ethnicity</b>							
Black	.06	-	0,1	.05	-	.07**	-
Hispanic	.12	-	0,1	.12	-	.12	-
Asian	.11	-	0,1	.12	-	.11**	-
Native American	.02	-	0,1	.02	-	.02	-
Other	.04	-	0,1	.04	-	.03**	-
Multiracial	.05	-	0,1	.04	-	.05**	-
White (reference category)	.60	-	0,1	.61	-	.60**	-
<b>Year in School</b>							
2 <sup>nd</sup> Year Undergraduate (reference category)	.33	-	0,1	.32	-	.33**	-
3 <sup>rd</sup> Year Undergraduate	.32	-	0,1	.32	-	.32	-
4 <sup>th</sup> Year Undergraduate	.27	-	0,1	.26	-	.27**	-
5 <sup>th</sup> Year Undergraduate	.08	-	0,1	.10	-	.08**	-
Age	22.12	5.02	18-94	22.39	5.08	21.97**	4.96
<b>Marital Status</b>							
Married/Partnered	.07	-	0,1	.07	-	.07	-
Separated/Divorced	.03	-	0,1	.03	-	.03	-
Single (reference category)	.90	-	0,1	.90	-	.90	-
<b>Sexual Orientation</b>							
Homosexual/Bisexual	.10	-	0,1	.10	-	.10	-
Heterosexual (reference category)	.90	-	0,1	.90	-	.90	-
<b>Enrollment Status</b>							
Part-time Student	.08	-	0,1	.08	-	.07**	-
Full-time student (reference category)	.92	-	0,1	.92	-	.93**	-
Alcohol Consumption	1.79	1.24	0-4	1.91	1.33	1.74**	1.19
<b>Survey Year</b>							
2013 (reference category)	.40	-	0,1	.40	-	.39**	-
2014	.28	-	0,1	.29	-	.28**	-
2015	.32	-	0,1	.31	-	.33**	-

\* p<.05, \*\*p<.01 for significant difference between male and female samples

## CHAPTER FIVE: ANALYTIC PLAN

The dependent variable for this research is a binary indicator of sexual violence victimization. Given the binary nature of the dependent variable, an ordinary least squares (OLS) regression model cannot be used to test the hypotheses. The dichotomous outcome violates the assumption made by the OLS regression model that the dependent variable is continuous. A binary outcome also violates the assumptions of homoscedastic errors, normally distributed errors, and that the independent variable has a constant effect on the dependent variable, which is not possible given the bounded nature of the outcome. A binary response model addresses these issues by assuming an underlying outcome variable  $Y^*$  generates the observed dependent variable  $Y$ . This underlying outcome variable is continuous and unobserved and it is related to the observed outcome in the following way:

$$P(Y=1) = P(Y^* > 0)$$

Applying a cumulative logistic distribution with a logit link function, a logistic regression model can be estimated examining the effects of an independent variable(s) on a binary dependent variable in the form of the log odds and odds ratios (which is the exponentiated log odds).

Another issue for this research is that students are grouped within colleges/universities and are not a random sample. Fixed effects models treat the unobserved differences between individuals within each school as a set of fixed parameters that can be directly estimated and accounted for in regression models. Therefore, fixed effects logistic regression models will be used to account for the relationship between the independent variables and the dependent variable within each school.

The following analytic steps will be taken to address the research hypotheses. First, bivariate correlations will be used to look for collinearity between all independent variables and control variables. Collinearity will be assessed through a high correlation (over .5) and a Variance Inflation Factor (VIF) over 2. Second, fixed effects logistic regression models will be estimated to examine the relationship between each independent variable, respectively, and the dependent variable while accounting for potential spuriousness by including all control variables. Lastly, a fixed effects logistic regression model will be estimated including all four independent variables to determine if the effects of each independent variable on the dependent variable remain as long as collinearity was not determined to be an issue. Importantly, the examination for collinearity and all fixed effects logistic regression models will be estimated separately for males and female students in order to see if the significance and magnitude of risk for the four independent variables vary significantly across gender. In order to examine differences in magnitude of risk factors, the confidence intervals for the odds ratios will be examined for overlap (if there is overlap then there is not a significant difference in risk) given that the formula to compare the significance of coefficients across independent samples, proposed by Brame et al. (1998), cannot be applied to logistic regression models.

## CHAPTER SIX: RESULTS

Examining the correlation between the variables included in this analysis reveals that the highest correlation is 0.440, which is the correlation between age and being married. Given that the highest correlation is below .5, collinearity is not an issue. Additionally, the VIF for each of the variables of interest is below 2 suggesting that multicollinearity is not a problem for this research.

Table 2. Correlation matrix of independent and control variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1.00																					
2	0.12	1.00																				
3	0.09	0.02	1.00																			
4	-0.02	0.05	-0.72	1.00																		
5	0.09	-0.01	0.03	0.01	1.00																	
6	-0.02	-0.03	0.04	-0.04	0.01	1.00																
7	-0.02	-0.03	-0.09	-0.04	-0.01	-0.05	1.00															
8	-0.04	-0.01	-0.01	-0.04	-0.01	-0.07	-0.10	1.00														
9	-0.01	-0.01	-0.01	0.01	0.01	0.07	0.02	-0.01	1.00													
10	-0.01	-0.01	-0.02	-0.01	0.02	0.02	-0.01	-0.02	0.05	1.00												
11	-0.01	-0.01	0.01	-0.01	0.01	0.11	0.09	0.07	0.10	0.09	1.00											
12	-0.01	-0.01	-0.04	0.04	-0.01	-0.01	0.01	-0.01	-0.02	0.01	0.01	1.00										
13	0.01	0.04	-0.12	0.15	0.05	-0.04	-0.02	-0.01	-0.01	-0.01	-0.01	-0.42	1.00									
14	-0.03	-0.01	-0.17	0.11	0.02	0.01	0.02	-0.01	0.01	0.01	0.01	-0.21	-0.18	1.00								
15	-0.07	-0.05	-0.25	0.28	0.02	0.04	0.03	-0.04	0.03	0.02	-0.02	-0.01	0.10	0.20	1.00							
16	-0.06	-0.07	-0.16	0.21	0.01	-0.01	0.02	-0.03	0.02	0.01	-0.01	-0.01	0.01	0.09	0.44	1.00						
17	-0.02	-0.02	-0.06	0.06	0.01	0.01	0.02	-0.02	0.02	0.02	0.01	0.01	-0.01	0.02	0.24	-0.05	1.00					
18	-0.05	0.00	0.03	-0.02	0.00	0.01	0.02	-0.00	0.01	0.02	0.06	-0.00	0.01	0.01	-0.01	-0.03	0.02	1.00				
19	-0.05	-0.03	-0.17	0.08	-0.03	0.00	0.05	-0.06	0.01	0.01	0.00	-0.04	-0.00	0.15	0.28	0.16	0.07	-0.00	1.00			
20	0.12	0.42	-0.01	0.11	-0.04	-0.04	-0.02	-0.08	-0.02	-0.04	0.00	0.00	0.09	0.02	-0.06	-0.09	-0.03	0.04	-0.03	1.00		
21	0.02	0.04	0.08	-0.01	0.05	-0.02	-0.07	-0.04	-0.00	-0.02	-0.01	-0.01	0.02	-0.02	-0.01	-0.01	-0.01	0.01	-0.05	0.02	1.00	
22	-0.00	-0.04	0.01	0.01	0.01	0.00	0.02	0.03	0.01	-0.00	0.01	0.01	0.01	0.02	-0.01	-0.00	-0.01	0.03	-0.03	-0.02	-0.43	1.00

- |  |                         |
|--|-------------------------|
| 1. Greek Life                                    | 12. Third-year Student  |
| 2. Changing socialization circles while drinking | 13. Fourth-year Student |
| 3. On-campus housing                             | 14. Fifth-year Student  |
| 4. Off-campus housing                            | 15. Age                 |
| 5. Employment                                    | 16. Married             |
| 6. Black   | 17. Separated/Divorced  |
| 7. Hispanic                                      | 18. Non-heterosexual    |
| 8. Asian   | 19. Part-time Student   |
| 9. Native American                               | 20. Alcohol Consumption |
| 10. Multiracial                                  | 21. Survey Year 2014    |
| 11. Other race                                   | 22. Survey Year 2015    |

Table 3 presents the results examining the relationship between aspects of college lifestyles and routine activities on sexual violence victimization among females. According to Model 1, the log odds ratio for Greek life is positive and significant for the female sample ( $\beta=.24$ ;  $SE=.03$ ). Specifically, participating in Greek life increases the likelihood of being a victim of sexual assault by 1.28 or 28% among women. Model 2 examines how changing socialization circles while drinking affects the risk for sexual violence victimization among women. According to Model 2, the effect is positive and significant ( $\beta=.26$ ;  $SE=.01$ ), indicating that the more often college women change socialization circles while drinking, the more likely they are to be victimized. The odds ratio is 1.29.

	Model 1			Model 2			Model 3			Model 4			Model 5		
	$\beta$	SE	OR	B	SE	OR	B	SE	OR	$\beta$	SE	OR	$\beta$	SE	OR
Independent Variables															
Greek Life	.24	.03	1.28**	-	-	-	-	-	-	-	-	-	.16	.03	1.17**
Socialization while Drinking	-	-	-	.26	.01	1.29**	-	-	-	-	-	-	.25	.01	1.28**
On-campus Housing	-	-	-	-	-	-	.32	.04	1.37**	-	-	-	.27	.04	1.31**
Off-campus Housing	-	-	-	-	-	-	.26	.04	1.30**	-	-	-	.23	.04	1.25**
Employment	-	-	-	-	-	-	-	-	-	.17	.01	1.18**	.16	.01	1.17**
Control Variables															
Black	-.01	.04	.99	.00	.04	1.00	-.04	.04	.97	-.02	.04	.98	-.00	.04	1.00
Hispanic	-.15	.04	.86**	-.15	.04	.86**	-.14	.04	.87**	-.16	.04	.86**	-.13	.04	.88**
Asian	-.17	.04	.84**	-.19	.04	.83**	-.17	.04	.84**	-.18	.04	.84**	-.17	.04	.85**
Native American	.23	.07	1.26**	.24	.07	1.27**	.23	.07	1.26**	.23	.07	1.26**	.24	.07	1.27**
Other	.18	.06	1.20**	.17	.06	1.19**	.19	.06	1.21**	.17	.06	1.19**	.18	.06	1.19**
Multiracial	.36	.04	1.43**	.36	.04	1.43**	.35	.04	1.42**	.36	.04	1.43**	.35	.04	1.42**
Third-year Student	-.05	.03	.95	-.05	.03	.95	-.03	.03	.97	-.06	.03	.94*	-.04	.03	.96
Fourth-year Student	-.05	.03	.95	-.05	.03	.95	-.03	.03	.97	-.08	.03	.92**	-.05	.03	.95
Fifth-year Student	-.11	.05	.89*	-.11	.05	.89*	-.08	.05	.93	-.15	.05	.86**	-.09	.05	.91
Age	-.06	.00	.95**	-.06	.00	.94**	-.06	.01	.94**	-.06	.00	.94**	-.06	.00	.95**
Married	-.82	.08	.44**	-.81	.08	.44**	-.85	.08	.43**	-.83	.08	.44**	-.83	.08	.44**
Separated/Divorced	-.03	.08	.97	-.03	.08	.97	-.03	.08	.97	-.03	.08	.97	-.03	.08	.97
Non-heterosexual	.61	.03	1.84**	.60	.03	1.81**	.59	.03	1.80**	.60	.03	1.81**	.61	.03	1.84**
Part-time student	.02	.05	1.02	.01	.05	1.01	.05	.05	1.05	.03	.05	1.03	.05	.05	1.06
Alcohol consumption	.31	.01	1.36**	.25	.01	1.28**	.31	.01	1.36**	.32	.01	1.04**	.25	.01	1.29**
Survey Year 2014	.15	.03	1.17**	.14	.03	1.15**	.14	.03	1.15**	.14	.03	1.15**	.13	.03	1.14**
Survey Year 2015	.25	.03	1.29**	.28	.03	1.31**	.26	.03	1.29**	.26	.03	1.29**	.26	.03	1.29**

\* $p<.05$  \*\* $p<.01$  (two-tailed test)



Model 3 focuses on the relationship between living arrangements and sexual violence victimization. According to Model 3, living on campus significantly increases the likelihood of sexual victimization compared to living at home ( $\beta=.32$ ;  $SE=.04$ ) and living off campus also significantly increases the likelihood of victimization compared to living at home ( $\beta=.26$ ;  $SE=.04$ ). In fact, college women who live on campus are 37% more likely to be sexually victimized compared to those who live at home. The odds ratio for undergraduate women who live off campus are 30% greater to be sexually victimized compared to those students who live at home. Model 4 examines the relationship between the number of hours worked and sexual victimization among women. Contrary to my hypothesis, as the number of hours worked increases, the likelihood of being a victim of sexual violence significantly increases ( $\beta=.17$ ;  $SE=.01$ ). More specifically, a one unit increase is associated with a girl being 18% more likely to be victimized.

Model 5 in Table 3 includes all proposed lifestyle and routine activities in the same model to determine whether or not their significance remains while controlling for the other routine activities and lifestyle choices and control variables. According to Model 5, Greek life is positive and significantly related to sexual violence victimization ( $\beta=.16$ ;  $SE=.03$ ) among women, the more often a woman changes socialization circles while drinking, the more likely she is to be a victim of sexual violence ( $\beta=.25$ ;  $SE=.01$ ), living on campus increases the risk of sexual violence victimization compared to living at home ( $\beta=.27$ ;  $SE=.04$ ) among women, living off campus increases the risk of sexual violence victimization compared to living at home ( $\beta=.23$ ;  $SE=.04$ ) among women, and the more hours one works significantly increases the likelihood of sexual violence victimization ( $\beta=.16$ ;  $SE=.01$ ) among women. More specifically, the odds for women who participate in Greek life are 17% greater to be a victim of sexual

violence. The more often a woman changes socialization circles while drinking, odds are 28% greater in the likelihood of sexual violence victimization. The odds are 31% greater for women who live on campus are to be a victim of sexual violence compared to those who live at home. Females who live off campus are 25% more likely to be sexually victimized compared to those who live at home. Finally, a one unit increase in employment is associated with a woman being 18% more likely to be victimized. In sum, among undergraduate women, hypotheses one through three are confirmed, and interestingly, contrary to hypothesis 4, more hours a woman works significantly increases the likelihood of sexual violence victimization.

In each of the models run among undergraduate women, a consistent pattern of significance emerged among the control variables. Being black is unrelated to the likelihood of sexual violence victimization compared to being white. However, both Hispanics and Asians were less likely to be sexually victimized compared to white women. On the other hand, women who self-reported being Native American, multiracial, and other were more likely to be a victim of sexual violence compared to those who reported being white. The year in school was unrelated to likelihood of sexual violence victimization at the traditional alpha level of .05. Age was negatively related to the likelihood of sexual violence victimization among undergraduate women, with risk decreasing by 5% each year. Women who were married were less likely to victims of sexual violence compared to those who indicated they were single. On the other hand, those who were divorced or separated showed no significant difference in the odds of sexual violence victimization. Women who reported being homosexual or bisexual were significantly more likely to be victims of sexual assault compared to heterosexual undergraduate women. In fact, homosexual or bisexual women were 84% more likely to be sexually victimized. Alcohol consumption was also positive and significantly related to the likelihood of sexual violence

victimization, with more frequent consumption related to higher odds of being victimized among undergraduate women. Enrollment status was unrelated to sexual violence victimization.

Table 4 presents the results examining the relationship between routine activities and lifestyle factors and sexual violence victimization of undergraduate men. According to Model 1, participation in Greek life is positive and significantly related to sexual violence victimization among the undergraduate men ( $\beta=.46$ ;  $SE=.06$ ). More specifically, undergraduate college men who indicated that they participated in Greek life have 1.58 greater odds of being sexually victimized than men who did not report participating in Greek life in the past year.

Table 4. Logistic regression models examining the relationship between college routine activities and sexual assault victimization among males (N=54,213)

	Model 1			Model 2			Model 3			Model 4			Model 5		
	$\beta$	SE	OR	$\beta$	SE	OR	$\beta$	SE	OR	$\beta$	SE	OR	$\beta$	SE	OR
<b>Independent Variables</b>															
Greek Life	.46	.06	1.58**	-	-	-	-	-	-	-	-	-	.31	.06	1.37**
Socialization while Drinking	-	-	-	.30	.02	1.34**	-	-	-	-	-	-	.28	.02	1.32**
On-campus Housing	-	-	-	-	-	-	.50	.08	1.65**	-	-	-	.43	.08	1.54**
Off-campus Housing	-	-	-	-	-	-	.35	.08	1.42**	-	-	-	.30	.08	1.35**
Employment	-	-	-	-	-	-	-	-	-	.22	.03	1.25**	.19	.03	1.22**
<b>Control Variables</b>															
Black	.34	.09	1.41**	.31	.09	1.37**	.31	.09	1.36**	.33	.09	1.39**	.29	.09	1.33**
Hispanic	.15	.07	1.16*	.16	.07	1.18	.17	.07	1.19*	.15	.07	1.16*	.17	.07	1.19*
Asian	.07	.07	1.07	.02	.07	1.02	.08	.07	1.08	.05	.07	1.06	.04	.07	1.04
Native American	.11	.15	1.12	.10	.15	1.10	.12	.15	1.12	.10	.15	1.10	.08	.15	1.08
Other	.57	.10	1.77**	.54	.10	1.71**	.59	.10	1.80**	.55	.10	1.73**	.53	.10	1.69**
Multiracial	.17	.10	1.19	.18	.10	1.19	.16	.10	1.18	.16	.10	1.18	.17	.10	1.18
Third-year Student	-.03	.06	.97	-.02	.06	.98	.00	.06	1.00	-.04	.06	.96	-.00	.06	1.00
Fourth-year Student	.05	.06	1.05	.06	.06	1.06	.10	.06	1.10	.03	.06	1.03	.08	.06	1.08
Fifth-year Student	.04	.09	1.04	.06	.09	1.07	.11	.09	1.11	.01	.09	1.01	.10	.09	1.10
Age	-.03	.01	.97**	-.03	.01	.97**	-.03	.01	.97**	-.03	.01	.97**	-.03	.01	.97**
Married	-.45	.13	.64**	-.44	.13	.65**	-.49	.13	.61**	-.47	.13	.62**	-.47	.13	.63**
Separated/Divorced	.24	.13	1.27	.20	.13	1.22	.23	.13	1.26	.22	.13	1.24	.17	.13	1.18
Non-heterosexual	1.11	.05	3.04**	1.14	.05	3.14**	1.08	.05	2.96**	1.08	.05	2.94**	1.13	.05	3.09**
Part-time student	.08	.09	1.08	.09	.09	1.09	.11	.09	1.12	.08	.09	1.09	.14	.09	1.15
Alcohol consumption	.18	.02	1.20**	.08	.02	1.08**	.18	.02	1.20**	.20	.02	1.22**	.08	.02	1.08**
Survey Year 2014	-.10	.07	.90	-.11	.07	.89	-.12	.07	.89	-.11	.07	.90	-.13	.07	.88
Survey Year 2015	.03	.07	1.03	.07	.07	1.07	.04	.07	1.04	.04	.07	1.04	.04	.07	1.04

\* $p<.05$  \*\* $p<.01$  (two-tailed test)

Model 2 examines how the frequency of changing socialization circles while drinking is related to sexual violence victimization among undergraduate men. Changing socialization circles while drinking was positive and significantly related to being a victim of sexual violence ( $\beta=.30$ ;  $SE=.02$ ) among males. The odds ratio is 1.34, which indicates that the more often

college men change socialization circles while drinking, the odds are 34% greater for victimization. Model 3 focuses on the relationship between a college man's residence on the likelihood of sexual victimization. Living on campus significantly increased the likelihood of sexual violence victimization among men compared to undergraduate men who live at home ( $\beta=.50$ ;  $SE=.08$ ) and living off campus also significantly increased the likelihood of victimization compared to men who live at home ( $\beta=.35$ ;  $SE=.08$ ). More specifically, undergraduate college men who live on campus have 65% greater odds of being sexually victimized than men who live at home and undergraduate men who live off campus have 42% greater odds of being a victim of sexual violence compared to those who live at home. Model 4 examines the relationship between the number of hours worked and sexual violence victimization among undergraduate college men. Contrary to hypothesis 4, but similar to results from the women subsample, the number of hours worked is associated with an increase in the likelihood of sexual violence victimization ( $\beta=.22$ ;  $SE=.03$ ). More specifically, a one unit increase in employment is associated with 25% greater odds of sexual violence victimization.

Finally, Model 5 includes all four proposed routine activities and lifestyle factors in the same model to determine whether or not their significance remains after controlling for the other independent variables of interest and all control variables. According to Model 5, Greek life is positive and significantly related to sexual violence victimization ( $\beta=.31$ ;  $SE=.06$ ) among undergraduate men, the more often an undergraduate college man changes socialization circles while drinking, the higher odds he is to be a victim of sexual violence ( $\beta=.28$ ;  $SE=.02$ ), and living on campus was significantly associated with greater odds of sexual violence victimization ( $\beta=.43$ ;  $SE=.08$ ) compared to living at home. Among undergraduate men, living off campus was also associated with greater odds of sexual victimization among male undergraduate men ( $\beta=.30$ ;

SE=.08). Lastly, the more hours that a college man worked was positively associated with sexual violence victimization ( $\beta=.19$ ; SE=.03). With all covariates in the same model, men who participate in Greek life are at 37% greater odds of being a victim of sexual violence compared to those who did not participate in Greek life. Undergraduate college men who live on campus have 54% greater odds of being a victim of sexual violence compared to those who live at home and the odds for men who live off campus are 35% greater to be a victim of sexual violence compared to men who reported living at home. Finally, a one unit increase in hours worked is associated with a 22% increase in the likelihood for sexual violence victimization. For undergraduate college men, hypotheses one through three are confirmed, whereas evidence suggested the opposite of hypothesis four - employment is positively associated with sexual victimization. These findings are similar to the findings for undergraduate college women.

Once again, in each of the models run among the undergraduate college men, there was evidence of a consistent pattern of significance for the control variables. Black, Hispanic, and those who self-identified as “other” for race/ethnicity were more likely to be a victim of sexual violence compared to the white men. On the other hand, men who self-reported being Asian, Native American, and multiracial did not exhibit a significant different in risk for sexual violence victimization compared to white men. Year in school was unrelated to sexual victimization among undergraduate college men. For undergraduate men, age was negatively related to the likelihood of sexual violence victimization with each year older, the respondent was 3% less likely to be victimized. Those who reported being married were 59% less likely to be a victim of sexual violence compared to those undergraduate college men who reported being single. On the other hand, being divorced or separated was unrelated to sexual victimization among men. Undergraduate men who reported being homosexual or bisexual were significantly more likely to

be a victim of sexual violence compared to heterosexual undergraduate men. More specifically, the odds for homosexual or bisexual men are 109% greater to be sexually victimized compared to the heterosexual men. Finally, alcohol consumption positively and significantly related to the likelihood of sexual violence victimization, with the more frequent alcohol consumption associated with greater odds of sexual victimization.

The last step in this analysis is to determine whether or not there are differences in risk associated with the proposed routine activities and lifestyle factors across gender. Before presenting these results, it is important to note that while 8% of the analytic sample self-reported being a victim of sexual violence in the last 12 months, there was a significant difference in prevalence rates across gender. Approximately 4% of undergraduate college men reported experiencing sexual violence victimization, compared to 10% of the undergraduate college women.

Each of the four primary lifestyle characteristics – participation in Greek life, changing socialization circles while drinking, living arrangements, and employment – in this study are positively and significantly related to the likelihood of sexual violence victimization among both male and female undergraduate college students. Therefore, there is no evidence to suggest that relevance of these factors varies across gender. Given the lack of variation in significance across gender (Table 5), the next step is to determine whether the magnitude of risk varies across gender. This can be done by examining whether or not there is overlap in the confidence intervals for each variable across gender. If the confidence intervals do not overlap, then there is evidence of a significant difference in the magnitude of risk. If the confidence intervals do overlap, then there is no evidence to suggest that there is a significant difference in the magnitude of risk for victimization.

As it relates to the participation in Greek life, the confidence interval for the odds ratio is 1.21-1.55 for undergraduate men and it is 1.10-1.24 for women. This overlap indicates that there is not a significant difference in risk for victimization. As it pertains to more frequent changing of socialization circles while drinking, the confidence interval for the odds ratio is 1.27-1.38 for undergraduate college men and it is 1.25-1.31 for undergraduate college women. This overlap shows that the difference in risk is not significant. The confidence interval for the odds ratio for men who live in on-campus housing is 1.31-1.81 and it is 1.22-1.42 for women who live on-campus. The difference in risk was not significant because of the overlap that is present.

Table 5. Difference in Prevalence of Risk

	Model 1 Males (N=54,213)		Model 2 Females (N=109,036)	
	OR	95% Confidence Intervals	OR	95% Confidence Intervals
<b>Independent Variables</b>				
Greek Life	1.37**	(1.21 - 1.55)	1.17**	(1.10 - 1.24)
Changing Socialization circles while drinking	1.32**	(1.27 - 1.38)	1.28**	(1.25 - 1.31)
On-campus Housing	1.54**	(1.31 - 1.81)	1.31**	(1.22 - 1.42)
Off-campus Housing	1.35**	(1.16 - 1.57)	1.25**	(1.16 - 1.35)
Employment	1.22**	(1.15 - 1.28)	1.17**	(1.14 - 1.20)
<b>Control Variables</b>				
Black	1.33**	(1.12 - 1.59)	1.00	(.91 - 1.09)
Hispanic	1.19*	(1.04 - 1.36)	.88**	(.82 - .94)
Asian	1.04	(.91 - 1.20)	.85**	(.79 - .91)
Native American	1.08	(.81 - 1.45)	1.27**	(1.10 - 1.46)
Other	1.69**	(1.40 - 2.05)	1.19**	(1.06 - 1.34)
Multiracial	1.18	(.97 - 1.44)	1.42**	(1.30 - 1.55)
Third-year Student	1.00	(.89 - 1.12)	.96	(.91 - 1.01)
Fourth-year Student	1.08	(.96 - 1.21)	.95	(.89 - 1.00)
Fifth-year Student	1.10	(.92 - 1.31)	.91	(.82 - 1.01)
Age	.97**	(.96 - .99)	.95**	(.94 - .96)
Married	.63**	(.49 - .81)	.44**	(.37 - .51)
Separated/Divorced	1.18	(.91 - 1.53)	.97	(.83 - 1.12)
Non-heterosexual	3.09**	(2.78 - 3.44)	1.84**	(1.73 - 1.95)
Part-time student	1.15	(.97 - 1.37)	1.06	(.96 - 1.16)
Alcohol consumption	1.08**	(1.04 - 1.13)	1.28**	(1.25 - 1.30)
Survey Year 2014	.88	(.76 - 1.01)	1.14**	(1.07 - 1.21)
Survey Year 2015	1.04	(.91 - 1.20)	1.30**	(1.22 - 1.38)

\*p<.05 \*\*p<.01

Undergraduate college men who live in off-campus housing other than parent's/guardian's home, reported a confidence interval for the odds ratio of 1.16-1.57 and the confidence interval for the odds ratio for undergraduate college men who live in off-campus housing other than parent/guardian's home is 1.16-1.35. This overlap indicates that there is not a significant difference in risk for victimization. Finally, the confidence interval for the odds

ratio for the employment status of men is 1.15-1.28 and it is 1.14-1.20 for women. This overlap shows that there is not a significant difference in risk for male and female employment status.

Although there was no evidence to suggest that the primary variables of interest varied significantly across gender, the results suggest that several of the control variables vary in risk across gender. For instance, there was no overlap present between undergraduate college men (1.12-1.59) and women (.91-1.09) who reported being black. This indicates that there was a greater risk for sexual violence victimization for men who reported being black compared to women. The confidence interval for the odds ratio for men is 1.04-1.36 and it is .82-.94 for undergraduate women as it pertains to those who reported being Hispanic. No overlap was present, indicating that men who report being Hispanic are at greater odds for sexual violence victimization compared to undergraduate women. Another difference in risk across gender occurred in those respondents who reported being “other” for race/ethnicity. The confidence interval for the odds ratio for men is 1.40-2.05 and it is 1.06-1.34 for women as it pertains to undergraduate students who reported being “other” in race/ethnicity. With no overlap present, this indicates that there is a stronger relationship between other race and sexual violence victimization for undergraduate men than undergraduate women.

The sexual orientation of the respondents also saw a difference in risk across gender. Undergraduate men who reported being non-heterosexual (2.78-3.44) had a greater risk for sexual violence victimization compared to undergraduate women who reported being non-heterosexual (1.73-1.95). This indicates that there is a greater relationship that exists between sexual orientation and sexual violence victimization for undergraduate college men rather than for undergraduate college women. With respect to alcohol consumption, the confidence interval for the odds ratio is 1.04-1.13 for undergraduate men and it is 1.25-1.30 for undergraduate



women. This indicates that there is a significant difference in risk for sexual violence victimization across gender as it pertains to alcohol consumption. Finally, as it pertains to survey year, the confidence interval for the odds ratio for 2014 is .76-1.10 for undergraduate men and it is 1.07-1.21 for women and for the year 2015, the confidence interval for the odds ratio is .91-1.20 for men and it is 1.22-1.38 for women. This suggests that a greater relationship exists between the survey year and sexual violence victimization for women rather than men.

## CHAPTER SEVEN: DISCUSSION

The present study examined whether or not a variety of different routine activities or lifestyles of undergraduate college students are related to the likelihood of sexual violence victimization. Specifically, this study focused on participation in Greek life, the frequency of changing socialization circles while drinking, student living arrangements, and employment are related to the likelihood of sexual victimization among male and female undergraduate students, respectively. Overall, the results of this study demonstrate that a relationship exists between each of the routine activities/college lifestyles assessed and sexual victimization among both undergraduate men and women.

As predicted in the first hypothesis, participation in Greek life was associated with an increased likelihood of sexual violence victimization of undergraduate college students. This result is consistent with previous research using other data (i.e. College Alcohol Study; The Campus Sexual Assault (CSA) Study; Sexual Experiences Survey) indicating that students who participate in Greek life are more likely to be victims of sexual violence (Franklin, 2016; Dills, Fowler, Payne, 2016; Krebs et al., 2007; Mohler-Kuo et al., 2004). These findings are similar to prior research that has concluded that sorority membership is related to increased risk for sexual victimization (Franklin, 2016; Minow & Einolf, 2009, Mohler-Kuo et al., 2004). The findings of this study contribute to research on Greek life membership and sexual violence victimization by concluding that fraternity membership is also related to an increased risk for sexual violence victimization.

However, most of the prior research that studies fraternity membership looks at fraternity members as offenders, not as victims (Seabrook, Ward, & Giaccardi, 2016; Bouffard & Pratt, 2010; Murnen & Kohlman, 2007). Based on the findings of previous research (i.e. sorority

members are victims and fraternity members are offenders; Franklin, 2016; Bouffard & Pratt, 2010), the findings of the current study suggest that victims and offenders share many of the same characteristics (i.e., Greek life membership; Seabrook, Ward, & Giaccardi, 2016; Franklin, 2016). This study shows that both fraternity members and sorority members are at an increased risk for sexual violence victimization. This ties to Cohen, Kluegal, and Land's (1981) principle of homogamy, which states that individuals who share socio-demographic characteristics with potential offenders (i.e., in this case, Greek life membership) are more likely to be victims because they interact socially with these potential offenders, ultimately increasing the risk of exposure. Relating this to the elements of RAT, one may suggest that membership in Greek life brings potential suitable targets into increased contact with motivated offenders.

Moreover, this work demonstrated that the relationship between participation in Greek life and sexual violence victimization was significant for both undergraduate college men and women. Several implications arise from this finding. One implication that arises is that the relationship between participation in Greek life and sexual violence victimization is associated with policy. The results found in this study show that policy and research need to focus their attention on victimization for both men and women, rather than only focusing on victimization of women. The gender neutrality of this risk factor indicates that risk for victimization is not based on the gender of the individual; rather, it is based on his or her routine activities. For instance, prevention efforts should focus on educating undergraduate men and women on ways they can change their lifestyle choices to reduce their risk for victimization. More specifically, prevention efforts should target those students who are members of Greek life to reduce the risk of sexual violence victimization through educating students on their risks and creating safer environments

at Greek activities (e.g., eliminate alcohol at Greek activities and provide security or staff at activities).

The second hypothesis predicted that more frequent changing of socialization circles while drinking would be related to an increased likelihood of sexual violence victimization among undergraduate students. Specifically, the more frequent an undergraduate college student changed socialization circles while drinking, the more likely they were to be a victim of sexual violence. Previous research looked at alcohol consumption and changing peer groups as independent factors that increase the likelihood of sexual violence victimization (Turchik & Hassija, 2014; Schreck & Fisher, 2004). This study, on the other hand, looked at the interactive effects and found that the combination of these two factors increases the risk for victimization, controlling for the frequency of alcohol consumption when socializing. One reason why this relationship emerged may be due to the fact that alcohol consumption has been found to impact the decision-making process of individuals (Goudriaan, Grekin, & Sher, 2007); therefore, it is possible that alcohol consumption actually increases the frequency that one changes socialization circles. This type of socialization, which is common among undergraduate college students, increases the risk of sexual violence victimization

College students may often associate popularity with having multiple peer groups and being accepted in different places, which may lead to enhanced target suitability by increasing their contact with motivated offenders and taking away their potential capable guardianship. While changing socialization circles may increase feelings of popularity, students may be unaware of the decrease in safety that comes along with it. One way to reduce this risk is to create education material to show the increased risks for those students who change circles while drinking. Another way to reduce victimization would be to increase instruction about protective

actions, for instance, by requiring students to take a self-defense class to better protect themselves from potential threats. This can ultimately increase self-guardianship when individuals change socialization circles.

As predicted by third hypothesis, undergraduate students who live at home with parents/guardians experience a decreased risk of sexual victimization. Both living on campus and living off campus were found to increase the risk for victimization for undergraduate men and women compared to living at home. On-campus housing was found to have a greater risk for both undergraduate men (OR= 1.54) and undergraduate women (OR= 1.31). These findings contribute to research by showing that where students live may increase or decrease their risk for sexual violence victimization, whereas, most previous research has typically only looked at where the sexual violence victimization occurs (Franklin, 2016; McPheters, 1978; Fisher et al., 2000). With respect to RAT, this finding suggests that living in on-campus housing or other off-campus housing may increase contact with motivated offenders, increase target suitability, and have an absence or lack of a capable guardian.

However, this does not mean that college students should necessarily live at home. Rather, undergraduate students who do not live at home need to be educated and aware of the risk factors that increase the possibility for sexual violence victimization. One way to reduce risk associated with on-campus housing may be to initiate a buddy system. This would teach students to take a friend with them wherever they go, especially at night. Another prevention technique may be to increase guardianship in on-campus housing (e.g., security cameras, increased patrol, increased number of resident assistants, etc.). As it pertains to other off-campus housing, one way to possibly reduce the risk for victimization would be create an escort program where university police/security or local police escort students home if they are leaving campus.

Another way to decrease the risk associated with living on and off-campus is through education programs that provide students with self-defense techniques and information on how to avoid risky situations.

Finally, the last hypothesis predicted that more work hours would be associated with a reduced risk of sexual victimization. Interestingly, the results of this study suggest the opposite. The more hours that an undergraduate student worked was associated with a greater likelihood of sexual violence victimization. Previous studies have found that unstructured activities typically increase the likelihood of victimization (Schreck et al., 2002; Schreck & Fisher, 2004). Employment is typically considered a structured activity (Bartko & Eccles, 2002). For instance, there are often rules, dress codes, schedules to follow (days and hours they are supposed to work), and supervised activity. However, one reason that the results of this study may contradict the notion that employment is a structured activity and therefore reduces the likelihood of victimization may be related to the fact that other studies did not examine employment specifically, or even employment of undergraduate college students. The increased likelihood of sexual victimization may be due to the types of jobs that students have. Undergraduate college students typically do not work in Monday through Friday 8-5 jobs due to their class schedules. Instead, they tend to work in restaurants, fast food joints, bars, on-campus jobs (e.g., bookstore, cafeteria, library, etc.), and grocery stores at nights or on the weekends. These hours and types of jobs may add another circle of potential offenders. Future research should further address the issue of why work hours increases the likelihood for victimization. One aspect of this is to study who the perpetrator is. This is important because it goes against the RAT assumption that structured or supervised activities reduce the likelihood of victimization through the presence of

capable guardianship. Research should also look to understand the mechanisms behind the finding in order to determine how structured college employment truly is.

Another contribution of this work is that it examines if and how the relationship between lifestyle factors or routine activities and sexual violence victimization vary across gender. Many researchers have suggested that risk factors for victimization vary by gender (Wilcox et al., 2009; Lauritsen & Carbone-Lopez, 2011; Tillyer et al., 2010), but none have focused specifically on lifestyle factors for sexual violence victimization among college students. Notably, the results of this study indicated that for each of the four primary lifestyle factors investigated (i.e. primary independent variables), there were no significant differences in risk for sexual victimization across gender. Based on the results of this study showing that the four lifestyle characteristics affecting the risk of victimization for both undergraduate college men and women, it appears that these risk factors are gender neutral. Future research should seek to determine if the components of RAT that connect these four factors to increased risk of sexual violence victimization – motivated offenders, target suitability, and absence of a capable guardianship – are also gender neutral. More specifically, if these components are found to be gender neutral, are there differences in importance based on gender? For example, is one component (e.g., target suitability) more important for men while another component (e.g., capable guardianship) is more important for women? Future research should also look to see if this same pattern holds across other demographics such as race/ethnicity or marital status.

Even though there were no significant differences in risk for sexual victimization across gender for the primary independent variables, there were some significant differences in the control variables. For instance, another contribution that is made by this research is that differences across gender were found in the following control variables: race/ethnicity, sexual

orientation, alcohol consumption, and the survey year. What these results show is that there are differences in importance based on gender. In this study, being black, Hispanic, other, and being homosexual were more important to increased risk for victimization for undergraduate men, while alcohol consumption and the survey year were more important to increased risk for victimization for undergraduate women. Overall, these results add support to prior research in that there are similarities and differences that exist in characteristics related to increased risk for sexual violence victimization across gender.

Although this study contributes several key findings to the body of research on sexual violence among undergraduate college students, there are some limitations that should be addressed. Based on the correlational nature of this study, this research did not meet the criteria for causality, more specifically, the causal direction of the relationships that were discussed (i.e., temporal order). For instance, this study hypothesized that participation in Greek life was related to increased risk in sexual violence victimization. However, it is unknown if the participation in Greek life caused the victimization to occur. It is very possible that the victimization may have occurred before becoming a member of Greek life. Future research should attempt to account for temporal order between college lifestyles and victimization in order to make conclusions about causation.

Another limitation of this research is related to the generalizability of the data. The ACHA-NCHA databases consist of universities that choose to participate in the survey. This is a limitation because the databases do not include all schools across the United States or do not randomly select universities to partake in the survey. As a result, self-selecting schools cannot be used to generalize the findings across all universities and students across the United States. Another limitation that exists based on generalizability is due to the listwise deletion that was



used to create the final sample size. The difference between the initial and final populations further limits the representativeness of the sample. Future researchers should attempt to generate a representative sample of colleges and universities and work on survey designs that seek to limit skip patterns by participants.

A third limitation relates to the fact that this research was conducted across a three-year time span. It is possible that the same respondent completed the survey in multiple years. The data used in this research come from a survey where subjects remained anonymous, which makes it impossible to determine which, if any, respondents completed the survey in more than one survey year. However, by keeping it anonymous, it may have increased the likelihood that respondents would honestly report sensitive issues such as sexual violence. One issue that may be present with repeat respondents is a problem with repeat victims that may create a bias in the results. Future research should look to control for the potential bias of repeat victimization by asking respondents how many times they may have been victimized since entering college. However, the time reference of the past year does help reduce the possibility that a respondent may be reporting the same experience in multiple surveys.

Another limitation to this research is associated with the concept of spuriousness. The concept of spuriousness is that while two variables appear to be related to one another, the relationship is driven by a third, confounding factor. Spuriousness is a potential issue in this study due to the lack of relevant measures. This research was unable to include measures such as the amount of alcohol consumed on average, illegal drug use, involvement in other health risk behavior, and characteristics associated with Greek life. Additional measures would benefit studies similar to the present study because previous research has found that the amount of alcohol consumed, illegal drug use, involvement in other health risk behavior, as well as specific

characteristics of Greek life are related to increased risk for sexual violence victimization (Walker, Martin, & Hussey, 2014; Wasserman, 2003; Ullman et al., 1999; Krebs et al., 2009; Franklin, 2016; Combs-lane & Smith, 2002). For instance, the survey used in this study asked students “during the last 12 months, when you “partied”/socialized, how often did you choose not to drink?” This does not show how much students were drinking while they were socializing or that the victimization occurred when the respondent was drinking and socializing; this only shows students who chose not to drink while socializing. Another example is the way that Greek life was measured. The survey only asked students if they were a member of a fraternity or sorority. Prior research has shown that there are specific characteristics that are associated with Greek life that increase the risk for victimization (Franklin, 2016; Minow & Einolf, 2009). Therefore, specific characteristics could not be controlled for in order to ensure that it was membership in Greek life that was related to risk in victimization and not the behaviors that students engage in that are part of Greek life. This research also did not control for low self-control, which could be a confounding factor. Pratt et al. (2014) demonstrates that self-control is a consistent predictor of victimization. Therefore, it is worth including in future research. Future research should also look to include more inclusive measures in order to be able to meet the criteria for causality and to ultimately be able to determine the specific characteristics associated with increased risk for victimization.

Finally, another limitation that emerges from this research is the fact that the specific mechanisms of RAT were unable to be tested. This also inhibits the research to validate the theory or link the risk factors tested to victimization. More specifically, this study did not directly examine how Greek life, frequently changing socialization circles while drinking, living arrangements, and employment affect contact with motivated offenders, increased target

suitability, and capable guardianship. Future research should look to include specific measures that can link the specific mechanisms of RAT to the studied college lifestyle characteristics.

Despite the limitations discussed above, important policy implications emerge. Prevention efforts aimed at reducing sexual violence should seek to educate students on how to prevent victimization by adopting a RAT framework and informing students that their seemingly innocuous decisions can affect the likelihood of sexual victimization by inadvertently placing them at greater risk for victimization. One program that could benefit from this research is a bystander style program. The bystander program teaches bystanders how to intervene in circumstances that include sexual violence (Banyard, Moynihan, & Plante, 2007; Berkowitz, 2002). Based on the elements of RAT, the bystander program would focus on increasing the number of capable guardians to decrease the risk for victimization. The bystander model gives the community members specific roles such as interrupting situations that can lead to assault before they happen or during the assault, speaking out against social norms that support sexual violence, and have the necessary skills to be effective and supportive to victims (Berkowitz, 2002). More specifically, in regard to the four primary lifestyle characteristics of the current study, the bystander program would put an emphasis on encouraging individuals to intervene in situations that include high risk victims (i.e. undergraduate college students who are members of Greek life, live in on-campus housing, live in off-campus housing away from home, who work, or students who frequently change socialization circles while drinking). By increasing the amount of capable guardianship, the bystander programs may also decrease the suitability of the target. Previous research shows support for bystander programs in that they can be effective measures for increasing knowledge of sexual violence and decreasing the acceptance of sexual violence among offenders (Banyard, Moynihan, & Plante, 2007; Berkowitz, 2002).

Another practice that can be used to prevent sexual violence victimization may be to assign specific guardians to watch over students in Greek life houses or at other Greek life events. This may decrease the target suitability of members of Greek life by increasing capable guardianship, and may even reduce the high-risk behaviors that are associated with Greek life and sexual violence victimization.

Another policy implication that emerges from this research stems from on-campus housing. One way universities can address policy issues on campus is to increase safety measures in on-campus housing (i.e. Greek houses and dormitories). Particularly, victimization that occurs on campus is most likely to occur in living quarters (31%) or a fraternity house (10.3%) (Fisher et al., 2000). One way that policy can increase safety measures is by increasing the amount of security (i.e. cameras and officers) that is present in on-campus housing during the night. By increasing the security present in on-campus housing, the amount of capable guardianship would also be increased which could ultimately decrease the contact between motivated offenders and suitable targets.

Overall, this research contributes to the study of sexual violence on college campuses examining multiple facets of the college lifestyle demonstrating their relationship to sexual violence victimization among undergraduate students. Furthermore, it examines if these factors vary in significance across gender. While the specific lifestyle factors driving the hypotheses did not vary, other lifestyle factors such as sexual orientation and alcohol consumption do vary in significance across gender, demonstrating the need to assess risk for sexual victimization across gender to inform effective programming. Overall, the results of this research can be used to further stress the importance of using lifestyles and routine activities to understand how victims unwillingly and inadvertently contribute to their risk for sexual victimization. Furthermore,

these results can be used to educate undergraduate college students about their increased risks for victimization and suggest precautionary measures to decrease their suitability as a target, increase their guardianship, and ultimately decrease their contact with potential motivated offenders.

## REFERENCES

- Banyard, V. L., Moynihan, M. M., & Plante, E. G. (2007). Sexual violence prevention through bystander education: An experimental evaluation. *Journal of Community Psychology*, 35(4), 463-481. doi:10.1002/jcop.20159
- Bartko, W. T., & Eccles, J. S. (2003). Adolescent participation in structured and unstructured activities: A person-oriented analysis. *Journal of Youth and Adolescence*, 32(4), 233-241. doi:10.1023/A:1023056425648
- Basile, K. C., Smith, S. G., Breiding, M. J., Black, M. C., & Mahendra, R., (2014). Sexual violence surveillance: Uniform definitions and recommended data elements, version 2.0. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Beauregard, E. & Leclerc, (2007). An application of the rational choice approach to the offending process of sex offenders: A closer look at the decision-making.
- Bell, N. E. (2009). Data sources: Non-traditional students in graduate education. Council of Graduate Schools. Retrieved from [http://cgsnet.org/ckfinder/userfiles/files/DataSources\\_2009\\_12.pdf](http://cgsnet.org/ckfinder/userfiles/files/DataSources_2009_12.pdf)
- Benson, M, Madensen, T., & Eck, J., 2009. "White-Collar Crime from an Opportunity Perspective." In the *Criminology of White-Collar Crime*, edited by Sally S. Simpson and David Weisburd, 175–194. New York: Springer Science and Business Media.
- Berkowitz, A.D. (2002). Fostering men's responsibility for preventing sexual assault. In P.A. Schewe ~Ed.! *Preventing violence in relationships: Interventions across the lifespan* ~pp. 163–196!. Washington, DC: American Psychological Association.

- Boswell, A., & Spade, J. (1996). Fraternities and Collegiate Rape Culture: Why Are Some Fraternities More Dangerous Places for Women? *Gender and Society*, 10(2), 133-147. Retrieved from <http://www.jstor.org.libweb.lib.utsa.edu/stable/189830>
- Brown, T. J., Sumner, K. E., & Nocera, R. (2002). Understanding sexual aggression against women: An examination of the role of men's athletic participation and related variables. *Journal of Interpersonal Violence*, 17, 937-952. <http://dx.doi.org/10.1177/0886260502017009002>
- Burns, R., Kinkade, P., & Bachmann, M. (2012). Getting hosed: Petty theft in the car wash industry and the fifth suitability criterion in routine activities theory. *The Social Science Journal*, 49(3), 263. doi: 10.1016/j.soscij.2011.09.005
- Cantor, D., Bonnie Fisher, Susan Chibnall, Reanna Townsend, et. al. Association of American Universities (AAU), Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct (September 21, 2015).
- Carroll, M. H., Rosenstein, J. E., Foubert, J. D., Clark, M. D., & Korenman, L. M. (2016). Rape myth acceptance: A comparison of military service academy and civilian fraternity and sorority students. *Military Psychology*, 28(5), 306-317. doi: <http://dx.doi.org.libweb.lib.utsa.edu/10.1037/mil0000113>
- Champion, D.J., & Hartley, R.D. (2010). *Statistics for criminal justice and criminology*. Pearson Prentice Hall: Upper Saddle River, NJ.
- Clarke, R. V. (1999). Hot products: Understanding, anticipating, and reducing demand for stolen goods (Paper 112, B. Webb Ed.). London: Home Office, Research Development and Statistics Directorate.

- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activities approach. *American Sociological Review*, 44(4), 588.
- Cohen, L. E., Kluegel, J. R., & Land, K. C. (1981). Social inequality and predatory criminal victimization: An exposition and test of a formal theory. *American Sociological Review*, 46(5), 505-524.
- Collins, C. S., & Liu, M. (2014). Greek environments: An update on the effects of fraternities and sororities on health-related behaviors. *Journal of College and Character*, 15(2), 87-102. doi:10.1515/jcc-2014-0013
- Combs-Lane, A. M., & Smith, D. W. (2002). Risk of victimization in college women: The role of behavioral intentions and risk-taking behaviors. *Journal of Interpersonal Violence*, 17, 165-183
- Copenhaver, S., & Grauerholz, E. (1991). Sexual victimization among sorority women: Exploring the link between sexual violence and institutional practices. *Sex Roles*, 24(1-2), 31-41. doi:10.1007/BF00288701
- Coulter, R. W. S., Mair, C., Miller, E., Blosnich, J. R., Matthews, D. D., & McCauley, H. L. (2017). Prevalence of past-year sexual assault victimization among undergraduate students: Exploring differences by and intersections of gender identity, sexual identity, and Race/Ethnicity. *Prevention Science*, doi:10.1007/s11121-017-0762-8
- Danielson, C., Taylor, S. H., & Hartford, M. (2001). Examining the complex relationship between greek life and alcohol: A literature review. *NASPA Journal*, 38(4), 449-463. doi:10.2202/1949-6605.1152
- Department of Justice (2005). Campus safety/violent victimization of college students. Retrieved from



<http://www.ocpaoh.org/Campus%20Safety/Violent%20Victimization%20of%20College%20Students.pdf>

Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, Rape and Sexual Victimization Among College-Aged Females, 1995-2013 (2014). Retrieved from <https://www.rainn.org/statistics/victims-sexual-violence>

Dills, J., Fowler, D., & Payne, G. (2016). *Sexual violence on campus: Strategies for Prevention*. Atlanta, Georgia. Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Driscoll, E., (2011). Greek life: What you need to know. Fox Business. Retrieved from <http://www.foxbusiness.com/features/2011/08/31/greek-life-what-need-to-know.html>

Eberhardt, D., Rice, N. D., & Smith, L. (2003). Effects of greek membership on academic integrity, alcohol abuse, and risky sexual behavior at a small college. *NASPA Journal*, 41(1), 7. doi:10.2202/0027-6014.130

Eck, J. E. (1994). Drug markets and drug places: A case-control study of the spatial structure of illicit drug dealing. Baltimore: University of Maryland Press.

Eck, J. E. (2001). Policing and crime event concentration. In R.F. Meier, L.W. Kennedy, & V.F. Sacco, *The process and structure of crime: Criminal events and crime analysis* (pp. 249-276). Transaction Publishers.

Felson, M. (1992). Routine activities and crime prevention: Armchair concepts and practical action. *Studies on Crime and Crime Prevention*, I, 30-34.

Felson, M. (1995). Those who discourage crime. In J.E. Eck & D. Weisburd (Eds.), *Crime prevention studies: Vol. 4. Crime and place* (pp. 53-66). Monsey, NY: Criminal Justice Press.

- Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior: An International Journal*, 30(1), 6–38.
- Fisher, B., Cullen, F. T., Turner, M. G., & National Institute of Justice (U.S.). (2000). *The sexual victimization of college women*. (). Washington, DC: U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice.
- Fisher, B. S., Daigle, L. E., & Cullen, F. T. (2010). What distinguishes single from recurrent sexual victims? The role of lifestyle-routine activities and first-incident characteristics. *Justice Quarterly* 27(1), 102-129.
- Foubert, J. D., Newberry, J. T., & Tatum, J. L. (2007). Behavior differences seven months later: Effects of a rape prevention program. *NASPA Journal*, 44, 728 –749
- Franklin, C. A., Bouffard, L. A., & Pratt, T. C. (2012). Sexual assault on the college campus: Fraternity affiliation, male peer support, and low self-control. *Criminal Justice and Behavior*, 39(11), 1457-1480. doi:10.1177/0093854812456527
- Franklin, C. A., Franklin, T. W., Nobles, M. R., & Kercher, G. A. (2012). Assessing the effect of routine activity theory and self-control on property, personal, and sexual assault victimization. *Criminal Justice and Behavior* 39(10), 1296-1315.
- Franklin, C. (2016). Sorority affiliation and sexual assault victimization: Assessing vulnerability using path analysis. *Violence Against Women*, 22(8), 895-922.  
doi:10.1177/1077801215614971
- Garofalo, J. and Clark, D. (1992) Guardianship and residential burglary. *Justice Quarterly* 9 (3): 443-463.

- Gibbs, C., Cassidy, M. B., & Rivers, L. (2013). A routine activities analysis of White-Collar crime in carbon markets. *Law & Policy*, 35(4), 341-374. doi:10.1111/lapo.12009
- "Glossary of Greek Life Terms". gmu.edu. George Mason University Interfraternity Council. Retrieved 28 June 2017.
- Goudriaan, A. E., Grekin, E. R., & Sher, K. J. (2007). Decision making and binge drinking: A longitudinal study. *Alcoholism Clinical and Experimental Research*, 31(6), 928-938. doi:10.1111/j.1530-0277.2007.00378.x
- Hallet, M. (2015). 5 reasons college life is important. Retrieved from <https://www.unigo.com/in-college/college-experience/5-reasons-college-social-life-is-important>
- Hart, T. C., & Miethe, T. D. (2011). Violence against college students and its situational contexts: Prevalence, patterns, and policy implications. *Victims and Offenders*, 6(2), 157-180.
- Hart, T. C., & Rennison, C. M., (2011). Violent victimization of hispanic college students: Findings from the national crime victimization survey. *Race and Justice* 1(4), 362-385.
- Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). *Victims of Personal Crime: An empirical foundation for a theory of personal victimization*. Cambridge, Massachusetts. Ballinger Publishing Company.
- Hines, D., Armstrong, J., Reed, K., & Cameron, A. (2012). Gender differences in sexual assault victimization among college students. *Violence and Victims*, 27(6), 922-940. doi:10.1891/0886-6708.27.6.922
- Hollis-Peel, M. E., Felson, M., & Welsh, B. C. (2013). The capable guardian in routine activities theory: A theoretical and conceptual reappraisal. *Crime Prevention & Community Safety*, 15(1), 65-79. doi:10.1057/cpcs.2012.14

- Holt, T. J., Fitzgerald, S., Bossler, A. M., Chee, G., & Ng, E. (2016;2014;). Assessing the risk factors of cyber and mobile phone bullying victimization in a nationally representative sample of singapore youth. *International Journal of Offender Therapy and Comparative Criminology*, 60(5), 598-615. doi:10.1177/0306624X14554852
- Humphrey, S. E., & Kahn, A. S. (2000). Fraternities, athletic teams, and rape: Importance of identification with a risky group. *Journal of Interpersonal Violence*, 15(12), 1313-1322. doi:10.1177/088626000015012005
- Jackson, A., Gilliland, K., Veneziano, L. (2006). Routine activity theory and sexual deviance among male college students. *Journal of Family Violence*, 21(7), 449-460.
- Jacobs, P., (2014). Why one school decided to make all of its fraternities and sororities co-ed. *Business Insider*.
- Jasairi, A. (n.d.). What is greek life? *Campus Explorer*. Retrieved from <http://www.campusexplorer.com/college-advice-tips/AB7769A2/What-is-Greek-Life/>
- Jennings, W. G., Gover, A. R., & Pudrzynska, D. (2007). Are institutions of higher learning safe? A descriptive study of campus safety issues and self-reported campus victimization among male and female college students. *Journal of Criminal Justice Education*, 18(2), 191-208.
- Johnson, L. M., Matthews, T. L., & Napper, S. L. (2016). Sexual orientation and sexual assault victimization among US college students. *The Social Science Journal*, 53(2), 174-183. doi: 10.1016/j.soscij.2016.02.007
- Kalof, L. (1993). Rape-supportive attitudes and sexual victimization experiences of sorority and nonsorority women. *Sex Roles*, 29(11-12), 767-780. doi:10.1007/BF00289217

- Kimerling, R., Rellini, A., Kelly, V., Judson, P. L., & Learman, L. A. (2002). Gender differences in victims and crime characteristics of sexual assaults. *Journal of Interpersonal Violence*, 17(5), 526.
- Kingkade, T. (2014, July 14). Colleges warned they will lose federal funding for botching campus rape cases. *The Huffington Post*. Retrieved from [http://www.huffingtonpost.com/2014/07/14/funding-campus-rape-dartmouth-summit\\_n\\_5585654.html](http://www.huffingtonpost.com/2014/07/14/funding-campus-rape-dartmouth-summit_n_5585654.html)
- Kingkade, T. (2016, June 6). There are far more title ix investigations of colleges than most people know. *The Huffington Post*. Retrieved from [http://www.huffingtonpost.com/entry/title-ix-investigations-sexual-harassment\\_us\\_575f4b0ee4b053d433061b3d](http://www.huffingtonpost.com/entry/title-ix-investigations-sexual-harassment_us_575f4b0ee4b053d433061b3d)
- Kokemuller, N., 2016. Types of living arrangements for college students. Hearst Seattle Media. Retrieved from <http://education.seattlepi.com/types-living-arrangements-college-students-1478.html>.
- Krebs, C. P., Lindquist, C., Warner, T., Fisher, B., & Martin, S. (2007). The campus sexual assault (CSA) study: Final report. Retrieved from the National Criminal Justice Reference Service: <http://www.ncjrs.gov/pdffiles1/nij/grants/221153.pdf>
- Krebs, C. P., Lindquist, C. H., Warner, T. D., Fisher, B. S., & Martin, S. L. (2009). College women's experiences with physically forced, alcohol- or other drug-enabled, and drug-facilitated sexual assault before and since entering college. *Journal of American College Health*, 57(6), 639-647. doi:10.3200/JACH.57.6.639-649
- Krug, E. G., NetLibrary, I., & World Health Organization, (2002). *World report on violence and health*. Geneva: World Health Organization.

- McCabe, S. E., Teter, C. J., Boyd, C. J., Knight, J. R., & Wechsler, H. (2005). Nonmedical use of prescription opioids among U. S. college students: Prevalence and correlates from a national survey. *Addictive Behaviors*, 30, 789-805.
- McCauley, J. L., Calhoun, K. S., & Gidycz, C. A. (2010). Binge drinking and rape: A prospective examination of college women with a history of previous sexual victimization. *Journal of Interpersonal Violence*, 25(9), 1655-1668.  
doi:10.1177/0886260509354580
- McCoppin, R., & Briscoe, T. (2017). Northwestern's fraternity system faces crisis amid sexual assault reports. *The Chicago Tribune*. Retrieved from <http://www.chicagotribune.com/news/local/breaking/ct-northwestern-university-fraternity-suspend-met-20170217-story.html>.
- McPheters, L. R. (1978). Econometric analysis of factors influencing crime on campus. *J Crim Just* 6( 1):47- 52.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674-697. doi:10.1037/0033-2909.129.5.674
- Minow, J. C., & Einolf, C. J. (2009). Sorority participation and sexual assault risk. *Violence Against Women*, 15, 835-851.
- Mohler-Kuo, M., Dowdall, G. W., Koss, M. P., & Wechsler, H. (2004). Correlates of rape while intoxicated in a national sample of college women. *Journal of Studies on Alcohol*, 65, 37-45.

- Murnen, S. K., & Kohlman, M. H. (2007). Athletic participation, fraternity membership, and sexual aggression among college men: A meta-analytic review. *Sex Roles, 57*(1), 145-157. doi:10.1007/s11199-007-9225-1
- Mustaine, E. E., & Tewksbury, R. (2000). Comparing the lifestyles of victims, offenders, and victim-offenders: A routine activity theory assessment of similarities and differences for criminal incident participants. *Sociological Focus, 33*(3), 339-362.
- Mustaine, E. E., & Tewksbury, T. (2001). Lifestyle factors associated with the sexual assault of men: A routine activities theory analysis. *The Journal of Men's Studies, 9*(2), 153-182.
- Mustaine, E. E., & Tewksbury, R. (2002). Sexual assault of college women: A feminist interpretation of a routine activities analysis. *Criminal Justice Review, 27*(1), 89-123. doi:10.1177/073401680202700106
- Mustaine, E. E., & Tewksbury, R. (2009). Transforming potential offenders into motivated ones: Are sex offenders tempted by alcohol and pornography? *Deviant Behavior, 30*(7), 561-588. doi:10.1080/01639620802467821
- NCES, 2016. U.S. Department of Education, Office of Postsecondary Education, Campus Safety and Security Reporting System, 2001 through 2013; and National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2002 through Fall 2014, Institutional Characteristics component.
- Nelson, S., & McHugh Engstrom, C. (2013). Fraternity influences on binge drinking and grade point averages. *Journal of Student Affairs Research and Practice, 50*(4), 393-415. doi:10.1515/jsarp-2013-0028

- Planty, M., Langton, L., Krebs, C., Berzofsky, M., & Smiley-McDonald, H. (2013). Female victims of sexual violence, 1994-2010. U.S. Department of Justice, Bureau of Justice Statistics. Retrieved from <https://www.bjs.gov/content/pub/pdf/fvsv9410.pdf>
- Papandrea, D. (2015). Evolving role of ras: As student life issues become more complex, training for resident advisors is increasing, as are expectations. *University Business*. Retrieved from <https://www.universitybusiness.com/article/evolving-role-ras>
- Patterson, C. (2016, November 2). Baylor sexual assault scandal: Police reports not shared, new policies delayed. *CBS Sports*. Retrieved from <http://www.cbssports.com/college-football/news/baylor-sexual-assault-scandal-police-reports-not-shared-policies-severely-delayed/>
- Popp, A. M. (2012). The effects of exposure, proximity, and capable guardians on the risk of bullying victimization. *Youth Violence and Juvenile Justice*, 10(4), 315-332.  
doi:10.1177/1541204011434833
- Rennison, C. A. (2002). Rape and sexual assault: Reporting to police and medical attention, 1992-2000 [NCJ 194530]. Retrieved from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: <http://bjs.ojp.usdoj.gov/content/pub/pdf/rsarp00.pdf>
- Reyns, B. W. (2013). Online routines and identity theft victimization: Further expanding routine activity theory beyond direct-contact offenses. *Journal of Research in Crime and Delinquency*, 50(2), 216-238. doi:10.1177/0022427811425539
- Reyns, B. W., Henson, B., & Fisher, B. S. (2011). Being pursued online: Applying Cyberlifestyle–Routine activities theory to cyberstalking victimization. *Criminal Justice and Behavior*, 38(11), 1149-1169. doi:10.1177/0093854811421448



- Rothman, E. F., Exner, D., & Baughman, A. L. (2011). The prevalence of sexual assault against people who identify as gay, lesbian, or bisexual in the united states: A systematic review. *Trauma, Violence, & Abuse*, 12(2), 55-66. doi:10.1177/1524838010390707
- Sabina, C., & Ho, L. Y. (2014). Campus and college victim responses to sexual assault and dating violence disclosure, service utilization, and service provision. *Trauma, Violence, & Abuse*, 15(3), 201-226.
- Sampson, R., Eck, J.E. and Dunham, J. (2010) Super controllers and crime prevention: A routine activity explanation of crime prevention success and failure. *Security Journal* 23 (1): 37-51.
- Schreck, C. J., Wright, R. A., & Miller, J. M. (2002). A study of individual and situational antecedents of violent victimization. *Justice Quarterly*, 19, 159-180.
- Schreck, C. J., & Fisher, B. S. (2004). Specifying the influence of family and peers on violent victimization: Extending routine activities and lifestyles theories. *Journal of Interpersonal Violence*, 19(9), 1021-1041. doi:10.1177/0886260504268002
- Schwartz, M., DeKeseredy, W., Tait, D., & Alvi, S. (2001). Male peer support and a feminist routine activities theory: Understanding sexual assault on the college campus. *Justice Quarterly*, 18(3), 623-649.
- Scott-Sheldon, L. A. J., Carey, M. P., & Carey, K. B. (2010). Alcohol and risky sexual behavior among heavy drinking college students. *AIDS and Behavior*, 14(4), 845-853. doi:10.1007/s10461-008-9426-9
- Seabrook, R. C., Ward, L. M., & Giaccardi, S. (2016). Why is fraternity membership associated with sexual assault? exploring the roles of conformity to masculine norms, pressure to

- uphold masculinity, and objectification of women. *Psychology of Men & Masculinity*, doi:10.1037/men0000076
- Shah, B. (2016, September 16). NCAA remains quiet as athlete sexual assault cases continue. *Rolling Stone*. Retrieved from <http://www.rollingstone.com/sports/ncaa-remains-quiet-on-sexual-assault-cases-w440108>.
- Siddique, J. A. (2016). Age, marital status, and risk of sexual victimization. *Journal of Interpersonal Violence*, 31(15), 2556. doi:10.1177/0886260515579507
- Sinozich, S., & Langton, L. (2014). Rape and sexual assault victimization among college-aged females, 1995-2013. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <https://www.bjs.gov/content/pub/pdf/rsavcaf9513.pdf>.
- Sloan, J. J. III, Lanier, M. M., & Beer, D. L. (2000). Policing the contemporary university campus: Challenging traditional organizational models. *Journal of Security Administration*, 23(1), 1
- Sorenson, S. B., & Siegel, J. M. (1992). Gender, ethnicity, and sexual assault: Findings from a los angeles study. *Journal of Social Issues*, 48(1), 93-104. doi:10.1111/j.1540-4560.1992.tb01159.x
- Spano, R., & Freilich, J. D. (2009). An assessment of the empirical validity and conceptualization of individual level multivariate studies of lifestyle/routine activities theory published from 1995 to 2005. *Journal of Criminal Justice*, 37(3), 305-314. doi: 10.1016/j.jcrimjus.2009.04.011
- Stein, R. E. (2014). Individual and structural opportunities: A cross-national assessment of females' physical and sexual assault victimization. *International Criminal Justice Review*, 24(4), 392-409. doi:10.1177/1057567714557155

- Testa, M., Hoffman, J. H., & Livingston, J. A. (2010). Alcohol and sexual risk behaviors as mediators of the sexual victimization-revictimization relationship. *Journal of Consulting and Clinical Psychology, 78*(2), 249-259. doi:10.1037/a0018914
- Tewksbury, R. T., & Mustaine, E. E. (2001). Lifestyle factors associated with the sexual assault of men: A routine activities theory analysis. *The Journal of Men's Studies, 9*(2), 153-182.
- Tillyer, M. S., & Eck, J. E. (2009). Routine activities. In J.M. Miller (Eds.), *21st century criminology: A reference handbook: Vol. 1* (pp. 279-287). Thousand Oaks, CA: SAGE Publications, Inc.
- Tillyer, M. S., Wilcox, P., & Gialopsos, B. M. (2010). Adolescent school-based sexual victimization: Exploring the role of opportunity in a gender-specific multilevel analysis. *Journal of Criminal Justice, 38*, 1071-1081.
- Tjaden, P., and N. Thoennes. *Prevalence, Incidence and Consequences of Violence Against Women Findings From the National Violence Against Women Survey*. Washington, DC: U.S. Department of Justice, National Institute of Justice, November 1998, NCJ 172837.
- Turchik, J. A., & Hassija, C. M. (2014). Female sexual victimization among college students: Assault severity, health risk behaviors, and sexual functioning. *Journal of Interpersonal Violence, 29*(13), 2439-2457. doi:10.1177/0886260513520230
- Tseloni, A., Wittebrood, K., Farrell, G. and Pease, K. (2004) Burglary victimization in England and Wales, the United States, and the Netherlands: A cross-national comparative test of routine activities and lifestyle theories. *British Journal of Criminology 44* (1): 61-91.
- U.S. Department of Education, National Center for Education Statistics. (2016). *Indicators of School Crime and Safety: 2015* (NCES 2016-079), Figure 22.1.

- U.S. Department of Education, Office for Civil Rights (2015). Title IX and sex discrimination. Retrieved from [https://www2.ed.gov/about/offices/list/ocr/docs/tix\\_dis.html](https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html)
- U.S. Department of Education, National Center for Education Statistics. (2016). Digest of Education Statistics, 2014 (NCES 2016-006), Chapter 3.
- U.S. Department of Education, Office of Postsecondary Education, Campus Safety and Security Reporting System, 2001 through 2013; and National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2002 through Fall 2014, Institutional Characteristics component. (This table was prepared August 2015.)
- Ullman, S. E., Karabatsos, G., & Koss, M. P., (1999). Alcohol and sexual aggression in a national sample of college men. *Psychology of Women Quarterly*, 23(4), 673.
- V. Gupta. (2016, January 25). Understanding the threat of sexual violence on college campuses. [Justice Blogs: Civil Rights Division]. Retrieved from <https://www.justice.gov/opa/blog/understanding-threat-sexual-violence-college-campuses>
- Walker, J. K., Martin, N. D., & Hussey, A. (2015). Greek organization membership and collegiate outcomes at an elite, private university. *Research in Higher Education*, 56(3), 203-227. doi:10.1007/s11162-014-9345-8
- Walters, M. L., Chen, J., & Brieding, M. J., (2013). The national intimate partner and sexual violence survey (NISVS): 2010 findings on victimization by sexual orientation. National center for Injury Prevention and Control, Centers for Disease Control and Prevention. Atlanta, GA.
- Wasserman, C., (2004). Dating violence on campus: A fact of life. National Center for Victims of Crime. Retrieved from <http://www.umd.edu/ocrsm/files/Dating-Violence-on-Campus-A-Fact-of-Life-2003.pdf>.

Whalen, R. (1967). Handbook of secret organizations. Milwaukee: Bruce Publishing Company.  
pp. 43–45.

World Health Organization., World report on violence and health (Geneva: World Health  
Organization, 2002), Chapter 6, pp. 149.

Wyatt, G. E. (1992). The sociocultural context of african american and white american women's  
rape. Journal of Social Issues, 48(1), 77-91. doi:10.1111/j.1540-4560. 1992.tb01158

## **VITA**

Thomas Crites is from Albuquerque, NM. He earned a Bachelor's degree in Psychology and a Bachelor's degree in Criminal Justice from West Texas A&M University. His future plans are to work as a criminal intelligence analyst for the federal government.