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Institutions of higher education have been traditionally viewed as a safe place to explore entry into adulthood. However, sexual assault on college campuses is not uncommon, and awareness of sexual assaults on college campuses has increased tremendously in recent years. It is hypothesized in this paper that the lifestyle and activities associated with college life increase the likelihood of sexual assault on college campuses. Crime is expected to occur when the arrangements of social life place a motivated offender and a suitable victim in a space with no “capable” guardians. This paper uses routine activity theory as a foundational framework to examine the situational and individual characteristics that make college students more likely to offend or be victims of sexual assault. The data used in the present project comes from a 2005-2006 Campus Sexual Assault Survey, which was conducted online at two diverse, large public universities. Logistic regression analysis is used to separately assess patterns of sexual offending and victimization. Findings demonstrate that participation in certain social events increase the likelihood of offending and victimization. While this research is a first-step in attempting to understand why sexual assault occurs at a much higher rate in the college setting, the data indicate that many routine activities are important factors in explaining college campuses as a “hot spots” for sexual assault.

A PERFECT STORM: A ROUTINE ACTIVITY ANALYSIS OF FEMALE
UNDERGRADUATE SEXUAL ASSAULT

by

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CHAPTER I

INTRODUCTION

College is supposed to be the time when young people leave their homes and venture off to expand their minds and experience new things. Many young undergraduates look forward to meeting new friends, tailgating, attending parties, and experiencing life on their own without their parents. This is an exciting time in the life of a young adult, yet many are not fully aware of the environment in which they are entering. Institutions of higher education are typically viewed as a safe place to explore new knowledge and the self. However, data show that sexual assault of collegiate students occurs at nearly five times the rate of the U.S. population as a whole (Fisher, Cullen, and Turner, 2000). The higher education environment, plainly put, seems to increase the likelihood of sexual victimization.

This thesis project uses routine activities theory (RAT) to explain why sexual assault occurs on college campuses. Specifically, by examining the situational and individual characteristics of collegiate sexual assault victims and offenders, I hope to illuminate our understanding of college and university campuses as a place where sexual assaults disproportionately occur. In doing so, I look for patterns in sexual assault offending and victimization, which requires examining the culture of college life and the routine activities associated with that lifestyle.

Prevalence of Sexual Assault in Higher Education

Garrett-Gooding and Senter (1987) report that over 75% of female respondents in a study of college students have experienced some form of sexual aggression since entering college. More recent studies help clarify different forms of sexual aggression. For example, Fisher et al. (2000) conducted a national representative study titled “National College Women Sexual Victimization” (NCWSV), which surveyed over 3,800 college women. In this study, they asked women about their experiences with sexual misconduct since the current school year had begun. The results were alarming. In that seven month time span, 2.8% of college-aged women reported being the victim of an attempted or completed rape. Expanding this to an entire year, they estimated that nearly 5% of college women could be expected to be victims of an attempted or completed rape every school year. The researchers also broadened sexual misconduct from rape/attempted rape to sexual victimization in general and found that 15.5% of respondents reported being victims for the current academic year. Furthermore, Fisher et al. (2000) estimated that over the course of a female college student’s academic career, which is now approximately 5 years, between one fifth and one quarter of all female students will be victimized. In 2014, approximately 11,974,000 women attended a collegiate institution (Digest of Education Statistics, 2014). Using Fisher et al.’s (2000) statistic, approximately 1,855,970 women in college could be the victims of sexual victimization and 598,700 could experience rape or attempted rape during this school year.

According to data collected through the National Intimate Partner and Sexual Violence Survey, 1% of the female United States population was a victim of rape or sexual assault in 2010 (Black et al., 2011). Thus, it can be seen that the percentage for college women is nearly five times that amount. These differences suggest that something may be different about college life that puts female students at higher risk to be victims of sexual assault than the average United States resident.

In sum, students at colleges and universities experience much higher rates of sexual violence than the general United States population; thus, it is important to separate collegiate sexual assault from sexual assault that occurs within the general population. Sherman et al. (1989) used spatial crime data to illustrate the idea of “hot spots” - areas in which a large number of offenses are concentrated. Hot spots appear to be crime-specific; certain crimes are concentrated in particular spaces. Because of the high prevalence of sexual assault on college campuses, these spaces can be considered “hot spots” for victimization. A place becomes a hot spot when environmental conditions and routine activities combine to increase opportunities for crime to occur (Brantingham and Brantingham, 1999). I rely on routine activities theory (RAT) to examine factors associated with sexual assault among female college students¹.

¹ For the purposes of this project, I focus on male offenders and female victims. While sexual assault can be committed by anyone, and likewise, anyone can be a victim, the majority of the previous literature uses this gendered dichotomy.

Routine Activities Theory

Routine activities theory was developed to explain predatory crime. First proposed by Cohen and Felson (1979), this theory states that for any crime to occur, three things must be present: a likely offender, a suitable target, and a lack of capable guardianship. Those three criteria come together in particular convergences in time and space, which are influenced by an individual's routine activities. Crime can be predicted to occur when the arrangements of social life place a motivated offender and a suitable victim in a space with no capable guardians (Garland, 1999).

Routine activities theory has demonstrated that criminal activity and victimization are not randomly distributed throughout society; patterns exist that can be studied and analyzed (Cohen and Felson, 1979; Hindelang, Gottfredson, and Garofalo, 1978). Typically, these patterns are associated with routine activities and the lifestyle of individuals. An individual's daily routine affects exposure to potential offenders and the amount of guardianship in their surroundings. Routine activities can be any activity that occurs frequently to meet the needs of society or an individual (Cohen and Felson, 1979). These activities include, but are not limited to: work, education, leisure activities, social interactions, courtship, accessing food, and housing (1979). These activities are influenced by the larger structure of society and role expectations (Gottfredson, 1981).

CHAPTER II

REVIEW OF THE LITERATURE

RAT has been utilized in numerous analyses of a broad range of different crimes, including rape and sexual assault. Prior studies indicate that routine activities can accurately predict the likelihood of sexual assault victimization (Schwartz and Pitts, 1995; Tewksbury and Mustaine, 2003), as well as the likelihood of offending (Schwartz and DeKeseredy, 1997; Schwartz et al., 2001).

RAT has been used to examine rape rates in the general population (Belknap, 1987; Deslauriers-Varin, 2010; Mannon, 1998; Maume, 2006; Messner and Blau, 1987) as well as collegiate sexual assault rates (Mustaine and Tewksbury, 2002; Schwartz and Pitts, 1995; Schwartz et al., 2001). Belknap (1987) analyzed ten years of National Crime Survey data to assess a woman's risk of rape by comparing rape and sexual assault victims to non-victims. This study was one of the first to specifically use RAT as an analytic framework and set the precedent for the application of RAT to sexual assault.

Nearly twenty years after RAT was proposed, Schwartz and Pitts (1995) conducted the first study of *collegiate* sexual assault through the routine activity lens. They analyzed the routine activities of undergraduate women and found support that lifestyles influenced an individual's likelihood of assault. For example, they found that women who drank alcohol in public and who had friends who admitted to sexual coercion were at a higher risk for sexual assault than women who engaged in non-

drinking activities or had non-sexually coercive peer groups. Some studies that use RAT to examine collegiate sexual assault have argued for an incorporation of feminist theory (e.g., Mustaine and Tewksbury, 2002; Schwartz and Pitts, 1995; Schwartz et al., 2001; Tewksbury and Mustaine, 2003). Feminist theory can be combined with RAT to enable a discussion of lifestyles within the context of cultural beliefs about violence against women (Mustaine and Tewksbury, 2002). Specifically, feminist theory allows us to discuss behaviors of men and women (for example, alcohol consumption and time spent at parties) as well as their beliefs (such as belief in rape myths and gendered ideologies) within the context of the culture in which these individuals exist. However, these previous studies are not without shortcomings. First, none of the above mentioned studies analyze more than one component of RAT (offenders, victims, or guardians). Furthermore, the data used in these studies are from the 1990s or earlier. Society is ever-evolving; thus it is important to update studies with more recent data as it becomes available. Also, Schwartz et al. (2001) use data collected from Canadian college students. My analysis uses data from two large public U.S. universities, collected in the 2005-2006 school year, and investigates victims and offenders simultaneously from the same data source.

Feminist theories of rape generally suggest that when men sexually assault women, it is due to the patriarchal, culture of rape that dominates society in the United States (Berkowitz, 1992; DeKeseredy and Kelly, 1993; Sanday, 1990; Schwartz and DeKeseredy, 1997). This body of research suggests that men use sexual force as a way to maintain power and control over women. Through this incorporation of feminist thought,

the motivation of offenders, as well as their view of women as suitable victims, is explainable (Schwartz and Pitts, 1995). However, not all women are equally at risk for sexual assault, nor are all men equally likely to become offenders. By situating RAT within a feminist framework, this differential risk can be better explained (Mustaine and Tewksbury, 2002).

Routine Activities Shaped By Collegiate Culture

The routine activities of offenders and victims will be discussed at length in their respective sections; however, this section will focus on two of the routine activities embedded within the culture of higher education that relate to sexual assault and victimization: expected alcohol consumption and a party culture. These factors are important when examining offenders and victims, yet drinking and partying are widespread collegiate norms that influence all college students (Russell and Arthur, 2015).

While alcohol influences both victims and offenders (these influences will be discussed in more detail later), it is also embedded into the lifestyle of many college students. According to the National Institute on Alcohol Abuse and Alcoholism (2013), approximately 4 out of 5 college students consume alcohol and about half of college students who do consume alcohol do so through binge drinking. Armstrong and Hamilton (2013) studied a group of female college freshman and found that 92% of their sample attended at least one college party in their first year, over 50% of which were regular party attendees. In this study, Armstrong and Hamilton (2013) found that the women who did not participate in parties were seen as outcasts who were not worth associating with.

Parties, for these students, were seen as the main mechanism through which social status on campus was gained and maintained. Parties and alcohol consumption, however, are not without risks. Many researchers have found a connection between alcohol consumption and sexual victimization (Cowley, 2014; Flack et al., 2007; Franklin, 2011; Johnson and Johnson, 2013; Krebs et al., 2009).

Motivated Offenders

At the least, an offender must have criminal inclinations, the ability to carry them out, a suitable victim, and a lack of guardianship (Cohen and Felson, 1979). Embedded within routine activity theory is an offender's capability of rational choice (Cohen and Felson 1979). An offender is less likely to commit a crime if the probability of success is decreased, the benefits of the crime are reduced, and if the costs of the crime are increased (Cohen and Felson 1979). Most important to my analysis are: criminal inclinations, the ability to carry them out, and rational choice.

Criminal inclinations

Masculine ideologies and acceptance of rape myths have been highly correlated with perpetrators of sexual assault (Berkowitz, 1992; DeKeseredy and Kelly, 1993; Garrett-Gooding and Senter, 1987; Ryan and Kanjorski, 1998; Sanday, 1990; Schwartz and DeKeseredy, 1997; Thompson and Cracco, 2008). As previously stated, male socialization in the United States encourages the domination and abuse of women (Berkowitz, 1992; DeKeseredy and Kelly, 1993; Sanday, 1990; Schwartz and DeKeseredy, 1997). Women, according to "traditional" sex roles, frequently play "hard-

to-get,” and men need to be aggressive and persistent in order for sex to occur (Berkowitz, 1992; Garrett-Gooding and Senter, 1987).

American culture (and patriarchal cultures in general) allows men to develop beliefs and values that justify sexual assault (Berkowitz, 1992; Garrett-Gooding and Senter, 1987). Through socialization, men learn that sexual assault is permitted and establish mechanisms through which they can excuse others from these acts (Berkowitz, 1992; Garrett-Gooding and Senter, 1987; Thompson and Cracco, 2008). Garrett-Gooding and Senter (1987) found that 62% of college males studied held beliefs that accepted sexual coercion, and 56% of those students admitted to some type of coercive sexual act. Ryan and Kanjorski (1998) reported that the enjoyment of sexist humor was positively correlated with college-aged male’s acceptance of sexual coercion and sexually aggressive behavior. Using this literature, I propose that men who subscribe to these beliefs are more motivated to commit the crime of sexual assault simply because they have learned it is acceptable to do so. Not all patriarchal views are equal, however. One study found that men who rank higher on a “hostile masculinity” construct are more likely to be sexually aggressive than those who believe in gendered roles but not views that are hostile or aggressive towards women (Murnen, Wright, and Kaluzny, 2002).

Schwartz et al. (2001) provided a comprehensive analysis of the effect of male peer support of sexual aggression as motivation to commit the crime of sexual assault. They found that many male respondents felt as if their peers supported sexually aggressive behaviors, even to the point that they felt encouraged to commit sexual violence. Over 30% of the men studied who admitted to sexually aggressive behaviors

claimed that they had friends who forced sex upon women. This study suggested that males were more likely to be motivated to become offenders when they perceived that their friends also committed these acts and that their friends supported these behaviors.

Male peer support for sexual violence, as well as the perpetuation of sexually aggressive socialization, is found more frequently in particular groups on campus. Membership in a fraternity and/or participation in collegiate athletics are both shown to increase the likelihood of offending (Benedict, 1997; Crosset et al., 1996; Sanday, 1990; Schacht, 1996). Both groups have been found to represent a large number of sexual assault perpetrators (Copenhaver and Grauerholz, 1991; Schacht, 1996). Lackie and deMan (1997) found that affiliation with a fraternity is one of the predominant indicators of sexually aggressive behavior.

Sanday (1996) provides a scathing and comprehensive overview of the role that fraternities play in the commission of sexual assault. She establishes the idea that male only organizations, including but not limited to fraternities, may create a heightened rape culture within the group that increases the likelihood of sexually aggressive behavior. Her discussion of fraternity gang rapes is difficult to read, however, it illuminates how the men who participate in this behavior view their horrific actions as a way to increase group solidarity and social status. These men see women as sexualized objects who can be dominated to prove masculinity and heighten their own position. To those within the group, this behavior is normalized, accepted, and exalted. Patriarchal and misogynistic values are amplified within these all-male organizations, providing plenty of social support for sexually violent behaviors.

Ability to carry out criminal inclinations

As previously stated, research points to a strong connection between collegiate sexual assault and high levels of alcohol consumption (Cowley, 2014; Flack et al., 2007; Franklin, 2011; Johnson and Johnson, 2013; Krebs et al., 2009). Schwartz and Pitts (1995) establish that some men attempt to get a woman intoxicated so that she will be more vulnerable to sexual advances. In one study of male undergraduates, one in four respondents admit to using alcohol for the purpose of getting a woman drunk so that she would agree to have sex with him (Tyler, Hoyt, Whitbeck, 1998). It appears that male collegiate offenders do not only use alcohol to facilitate the incapacitation of their victims but also consume more intoxicants themselves. Males who commit sexual assault have been shown to be more likely to consume alcohol and drugs (and in larger quantities) while courting (Vogel, 2000).

Rational choice and the cost of crime

Of the three components of rational choice (probability of success, benefit of crime, and cost of crime), the most influential of these factors in my analysis is the cost of crime. I examine the cost of crime by the perceived risk of punishment for the act of sexual violence. Awareness of the sexual assault problem in higher education has increased exponentially in recent years, but so has awareness of the flaws in the system.

Acknowledging that college students require protection from victimization, the United States government has passed two major acts that outline how colleges and universities are required to respond to reports of crime on campus: the Clery Act and Title IX. Both of these acts set standards for how all higher education institutions that

receive federal funding should respond to claims of violence and how to report these crimes to their student body.

While these laws exist to protect victims, a number of scholars and victim advocates have spoken out regarding the problems that arise with these laws (e.g., Ahn, 2010; Gardella et al., 2014; Karjane, Fisher, Cullen, 2002; Pope, 2012; Walker, 2010). Walker (2010) presents a number of issues with Title IX, one of which being the failure of the Office of Civil Rights to adequately ensure that schools comply with Title IX laws. As of October 2014, 85 schools are being investigated for Title IX violations (Kingkade, 2014) and the number has been rapidly growing. College students are aware of the histories of many universities failing to acknowledge or adequately respond to claims of sexual victimization on campus (Karjane et al., 2002). Yet, the use of Title IX as a method for students to stand up to colleges and universities that have a history of silencing victims of sexual assault and rape has developed only recently (Walker, 2010). How schools respond to reports of sexual violence on campus sends a message to not only the victim and the accused, but also to the student body at large, which can have implications for the environment of the university (Bohmer and Parrot, 1993), including influencing a motivated offender's perceptions of the cost of sexual assault.

Suitable Victims

Suitable victims are a central criminogenic component of Cohen and Felson's (1979) theory. Certain routine activities are more likely to place a victim in a space with motivated offenders and no effective guardianship. The ability of the theory to analyze

the risk of victimization rests on the activities and behaviors in which potential victims engage.

Previous studies identify several routine activities and characteristics of female undergraduates that are most likely to contribute to their perceived suitability as targets, and thus, increase the risk of victimization. Below, I focus on 3 particularly relevant characteristics: leisure activities and social organizations, alcohol and drug consumption, and perceived vulnerability.

Leisure activities and social organizations

The leisure activities in which female undergraduates participate influence their risk of sexual assault victimization. Mustaine and Tewksbury (2002), in their analysis of female undergraduate routine activities, found that students who participated in a large number of college clubs and organizations were more likely than other female students to be victims of sexual violence. In fact, they concluded that women who leave their home to participate in leisure activities were 1.28 times more likely to be victims of sexual assault. Interestingly, however, not all leisure activities carried the same degree of victimization risk. Mustaine and Tewksbury (2002) identified that women who participated in leisure activities that occur in places that are “safe” and where offenders do not typically gather (such as a movie theater or library) had a decreased risk of sexual assault over women who spent their leisure time in activities that place them in a closer proximity to potential offenders.

Just as affiliation with Greek organizations is related to male offending, belonging to a sorority influences the likelihood of sexual victimization (Garrett-Gooding and

Senter, 1987). The research regarding likelihood of sexual assault and membership in a sorority is mixed. Most scholars agree that some relationship exists between membership in a social Greek organization and a female's likelihood of assault, but the specifics of these findings are slightly different. For example, Mustaine and Tewksbury (2002) found that membership in a Greek social organization did not increase the risk of sexual assault, but argued that being more socially exposed and involved on campus did increase risk. They argued that not all women who participated in sororities were socially active and that not all social active women belonged to sororities, but that the frequency of campus social activity increased the risk of victimization. Franklin et al. (2012) similarly found that a high frequency of partying was significantly correlated to an increase in the risk of sexual assault.

Some scholars have found that women who are members of sororities are more likely than those who are not members to report being raped in college (Kalof, 1993). Feminist routine activities theorists argue that the increased risk of victimization was related to the assumption that women who participate in Greek life are more likely to be around sexually aggressive men who also participated in Greek activities (Mustaine and Tewksbury, 2002). This relationship is supported by the finding that female college athletes have an increased risk of sexual assault, presumably due to their exposure to male athletes (Benedict, 1997) Other activities associated with sorority life, such as being more socially active, increased frequency of dating and of dating partners, and engaging in more frequent sexual activity, are also correlated with increased levels of sexual assault (Garrett-Gooding and Senter, 1987). Armstrong and Hamilton (2013) suggest,

however, that social status within a sorority affects the likelihood of victimization. Those women who are at the top of the social hierarchy within a sorority are less likely to be sexually assaulted because they command respect of their peers and men perceive them to be less vulnerable.

Alcohol and drug consumption

The routine activity of college women that is most strongly correlated with sexual assault is alcohol consumption (Tewksbury and Mustaine, 2001). Hingson, Zha, and Weitzman (2009) stated that 97,000 students were victims of alcohol-related sexual assault, and Krebs et al. (2009) found that most college sexual assaults occur after the victim has consumed alcohol. Intoxication demonstrates to motivated offenders that a woman is more vulnerable, and thus increases their suitability as a potential victim (Mustaine and Tewksbury, 2002). The more alcohol a woman consumes, the more likely it becomes that she will be victimized (Schwartz and Pitts, 1995). Because women are perceived as more vulnerable when intoxicated, the U.S. Department of Justice (2000) speculated that the use of alcohol to incapacitate women may be why 90% of victims of sexual assault reported that their assailant did not use a weapon in the commission of the act. Not only are women perceived as more vulnerable when drinking, their self-control and ability to make self-protective decisions decreases when they consume alcohol (Franklin, 2011; Franklin et al., 2012).

The risk of victimization increases if a woman is drinking in public (i.e., bars and parties) because it increases her risk of exposure to motivated offenders (Schwartz and Pitts 1995). Similar to the effects of alcohol use, women who purchase illegal drugs

and/or use them in public are at higher risk of sexual assault because this behavior increases contact with potential offenders and limits the woman's cognitive and physical ability to resist sexual assault (Mustaine and Tewksbury, 2002).

Perceived vulnerability

The "red zone," as it is commonly known, encompasses the first several weeks of college when sexual victimization is most likely to occur (Flack et al., 2008; Krebs et al., 2007; Sweeney, 2011). The routine activities of social life are frequent and heavily populated at this time of the academic year, meaning that suitable victims are more likely to be in the presence of a motivated offender at this time. Many first year students consider this to be the time to make friends and establish social status, and it is also the beginning phase of rush for Greek organizations - the process through which they select new members to invite to a fraternity or sorority (Armstrong and Hamilton, 2013). More parties occur at this time, and new students are socializing to prove their worth to potential Greek organizations (Armstrong and Hamilton, 2013). As previously established, a high frequency of attending parties increases the risk of sexual victimization (Franklin et al., 2012)².

Krebs et al. (2007) found that college women were the most likely to be sexually victimized their first year on campus. Franklin et al. (2012) suggested that this is partly

² Public perceptions of sexual assault often suggest that women who consume alcohol and illegal drugs are responsible for their victimization. While these behaviors may lead to an increased risk of victimization, they do not directly result and sexual assault as the other theoretical components examined here are equally important.

attributed to the fact that these women are less familiar with their surroundings and are new to living on their own. Having taken guardianship for granted while living with her parents, the new freshman may not realize the importance that guardians play in preventing crime from occurring, which increases their risk of sexual assault (Boumil, Friedman, and Taylor, 1993). Sweeney (2011) analyzed college students peer culture and the function of gender and sexuality within the party scene, and found that female freshmen were perceived as particularly attractive to male offenders because the new students are considered “fresh” and more vulnerable. Underage women (typically freshman and sophomores) who were drinking prior to their assault are less likely to report the incident to police or the university, due to fear of being punished for illegally consuming alcohol (Bohmer and Parrot, 1993). This pattern of lack of reporting may be another reason why younger students are frequently targeted as suitable victims.

While freshmen are widely considered the most vulnerable class of undergraduates, the length of time spent in college is positively associated with risk of sexual victimization (Krebs et al., 2009). This increased risk is attributed to the greater number of situations in which assault may occur. In other words, the longer a woman is in school, the more potential moments where routine activities can place her in situations where she will be perceived as a suitable victim by motivated offenders in a particular moment in time and space where no capable guardians present.

Lack of Capable Guardianship

In Cohen and Felson’s (1979: 590) original introduction of routine activities theory, capable guardians were conceived of as other humans, besides victim and

offender, who, by their presence alone, deter motivated offenders from committing crimes. However, over 25% of sexual victimization in college occurs in the presence of others (Planty, 2002), so previous literature often defines guardianship as individuals who are capable and willing to intervene (Reynald, 2010; and see Reynald, 2011 for a similar definition to operationalize guardianship, although not in connection with sexual assault). This conceptualization of guardianship places the emphasis on the *capability*, not the simple presence, of the guardian. Below I provide further discussion of factors that facilitate and impede capable guardianship.

Facilitators of capable guardianship

One of the main facilitators of bystander intervention is if a bystander identifies with or is familiar with the potential victim (Bennett, Baynard, and Garhart, 2014; Burn, 2009; Katz et al., 2014; Potter, Moynihan, Stapleton, 2011). If the bystander knows or identifies with the victim, research shows that he/she may be more likely to feel personal responsibility to act and an increased amount of empathy of the victim (Bennett et al., 2014). In this case, bystanders also are less likely to blame the victim. If a guardian knows the potential offender, Burn (2009) found that the guardian is more likely to intervene in order to prevent his/her friend from committing a crime. Individual pro-social tendencies also have been correlated with the willingness of a bystander to step in when a situation appears as if it is leading to sexual assault (Burn, 2009).

Another facilitator of capable guardianship is the perceived worthiness of the victim (Burn, 2009). Some victims are seen as playing a part in their own assault, but if they are assumed to be “virtuous” young women “in need of protection,” it is more likely

that someone will attempt to prevent the sexual assault from occurring. Rape myth acceptance and traditional sex roles influence the perceived worthiness of a victim.

Other factors beyond the perceived or real relationship of the guardian and potential victim matter. Being female, having experienced a rape response education course, and knowing someone who is a sexual assault survivor also increase the likelihood of bystander intervention (Burn, 2009; Jenkins and Dambrot, 1987; Katz et al., 2014; McMahon, 2010; Stein, 2007; Tewksbury and Mustaine, 2003). Moynihan et al. (2015) found that rape education programs can result in an increase in intervention for at least a year after completion of the course. This finding could be useful information for schools deciding whether or not to include sexual assault bystander education programs for their students. Rape education programs seem to be effective mechanisms through which capable guardianship is encouraged and strengthened.

Barriers to capable guardianship

Much of the existing research focuses on barriers to bystander intervention. Bennett et al. (2014) and McMahon (2010) both provide comprehensive analyses of the inhibitors of bystander intervention. Bennett et al. (2014) reported five main reasons for failure to intervene in a potential sexual assault scenario: the failure to notice, the failure to identify the scenario as a risky situation, the failure to feel responsibility to act, the failure to have the skills needed to intervene, and the failure to act related to audience inhibition. Similar to Bennett et al.'s (2014) finding that audience inhibition can result in the failure of a bystander to be a capable guardian, Latané and Nida (1981) found that in

any emergency situation, as the number of other people present increased, the willingness to step in and help decreased.

McMahon (2010) also found that capable guardianship is decreased if a bystander is male, if a bystander participates in Greek life or college athletics, has never participated in a rape education course, accepts rape myths, and/or does not know a survivor of sexual assault. Burn (2009) also found that barriers to intervention are greater for men than they are for women. Males who subscribe to sexually aggressive beliefs (even if they don't act on them) are significantly less likely to perceive a depiction of rape as rape, are more likely to blame the victim, and show decreases in the perception of the level of violence being used (Jenkins and Dambrot, 1987).

Even something as seemingly trivial as music videos can affect bystander intervention. Burgess and Burpo (2012) found that after showing college students sexualized and non-sexualized music videos, those who viewed the highly sexualized content were more likely to accept rape myths, more likely to blame the victim, and less willing to intervene in a social situation where sexual assault may occur. It is important to talk about the messages that society and American culture send college students; the implications of such messages are vast.

A plethora of research exists regarding sexual assault on college campuses and surrounding areas; however, none currently synthesize the literature to paint a clear picture of all the risk factors associated with this crime. Through an analysis of the existing literature, it becomes evident that support exists for the use of the routine activity theory to explain why sexual assault occurs at a higher rate in a higher education setting.

While not every possible factor that contributes to sexual assault is analyzed within this review, it is a first step in attempting to combine existing literature outside of routine activities theory to further its application in the analysis of collegiate sexual assault. This literature review demonstrates how a “perfect storm” of conditions might come together to increase the likelihood of female undergraduate sexual victimization.

CHAPTER III

DATA AND METHODS

Data

From a routine activities approach, data should reflect the three primary components of crime: motivated offenders, suitable target, and capable guardians. These three components encompass a number of the social characteristics of university life, which can be gathered through self-reported surveys of college students. Scholars using RAT to examine sexual assault in higher education have almost exclusively relied on self-report surveys (e.g., Franklin, Franklin, Nobles, Kercher, 2012; Mustaine, 1997; Mustaine and Tewksbury, 2002; Schwartz and Pitts, 1995; Schwartz, DeKeseredy, Tait, Alvi, 2001; Tewksbury and Mustaine, 2003). In this study, I examine survey responses through a careful statistical analysis of reported behaviors and frequent activities. I hypothesize that this analysis will reveal patterns among those who have been involved in sexual misconduct (either as an offender or a victim) and those who have not.

For this study, I use data collected through The Campus Sexual Assault Survey (CSAS). This survey was conducted during the 2005-2006 school year at two large public universities, one in the South and one in the Midwest. The CSAS was conducted online and anonymously. The two universities provided the researchers with basic demographic information on all undergraduate students. From these data, researchers eliminated all students who did not meet the following requirements: age 18-25, undergraduate, and

enrolled at least three-quarters time at the university. Thus, the sampling frame consists of young adult undergraduate students who are enrolled three-quarters to full-time.

The researchers used random sampling to ensure an equal number of freshman, sophomores, juniors, and seniors were being selected at each university. Sampled students were sent an email recruitment that described the study and provided a hyperlink to the study website. Students who had not participated by the following week were mailed a letter encouraging them to participate. Follow-up emails also were sent for several weeks (CSAS User Guide). Those who completed the survey received a \$10 Amazon.com gift card (obtainable through a separate website). The final sample included 5,446 undergraduate women and 1,375 undergraduate men participated for a total of 6,821 respondents. The response rate for female students was approximately 42% and the response rate for male students was approximately 34%. This response rate is slightly higher than average and is also consistent with the finding that women are more likely than men to respond to surveys (Sax, Gilmartin, Lee, and Hagedorn, 2010)

The CSAS dataset includes 747 variables. The survey was divided into 6 modules and was designed to be completed in approximately 15 minutes. The survey asks questions that establish routine activities of campus life and which can be used to examine factors contributing to sexual assault on college campuses. For example, the survey asks questions about demographic information, social drinking and illicit drug use, affiliation with student organizations (such as athletic teams and Greek organizations), academic engagement, perceptions of safety on campus, perceived institutional response to sexual misconduct, sexual assault reporting behaviors, and

definitions of consent. Appendix A details how each of question used in this analysis reflect a routine activities approach.

The underlying assumption of most survey data is that the respondents have answered honestly and accurately. While it is never possible to fully guarantee that this occurs, several components of this survey take measures to ensure the accuracy of responses. One of these steps is the ways in which the questions about sexual assault victimization and offending are worded. Instead of asking “Have you ever been raped?” the questionnaire asks respondents to identify experiences that they may have had since enrolling at the university. Koss (1992) and Fisher (2009) found that when respondents were asked to identify any experiences that met the legal definition of rape, respondents were more likely to accurately answer in the affirmative than if the word “rape” is used.

Using behavioral specific questions not only increases accuracy, it also gives the respondent an opportunity to see what the researcher intends to measure in each question (Fisher 2009). This approach aids in correcting measurement error. Warshaw and Koss (1988) found that survivors of acquaintance rape and sexual assault were less likely to identify their experiences as rape or sexual assault because of their close connection to the perpetrator. Because of the way in which the sexual assault experience survey questions are phrased, the CSAS data is arguably reliable.

The same logic should hold true for offenders. Those persons who have committed acts that meet the legal definition of rape may be more willing to admit to their behaviors if the stigmatizing words “rape” or “sexual assault” are not part of the questions posed. Scully and Marolla (1984) interviewed persons convicted of rape and

discovered that the majority of offenders interviewed either denied that the rape(s) occurred or excused their behavior in some way. By asking specific behavioral questions, the CSAS may eliminate some false negative reports of sexual assault and rape perpetrations.

In addition, because the survey is conducted online and anonymously, offenders may be more likely to be truthful, especially in regards to illegal or sensitive behaviors. Koss and Gidycz (1985) found that male offenders were more likely to admit to acts of sexual aggression when they self-reported via a survey than when being asked by an interviewer. While it is difficult to ensure total accuracy and honesty in a self-report questionnaire, previous research in this area consistently relies on this methodology to examine and explain collegiate sexual assault. These factors coupled with the exhaustive efforts of CSAS to gather reliable data make it a suitable dataset for the project.

Methods of Statistical Analysis

As stated earlier, RAT relies on the presence of three factors (motivated offenders, suitable targets, and a lack of capable guardians). Although CSAS allows me to examine respondents who report being an offender and a survivor of sexual assault, the CSAS does not collect information on guardianship or bystander behavior. While the presence of capable guardians is an important component of routine activities theory, I am not able to analyze the behaviors of bystanders using the current data. While this is an area that I hope future research will expand upon, the CSAS survey provides detailed information on two of the three components of RAT.

Previous RAT studies of collegiate sexual assault have used data that only focused on behaviors of one of the three actors in the theory. For example, Mustaine and Tewksbury (2002) and Schwartz and Pitts (1995) only examine the suitable target aspect of RAT. Schwartz et al. (2001) examine the influence of male peer support on motivated offenders, but do not analyze the other two components of RAT. Also, Tewksbury and Mustaine (2003) examine routine activities associated with capable guardians but do not discuss motivated offenders or suitable targets. The CSAS provides the opportunity to go one step further and analyze both motivated offenders and suitable victims in a single study.

Measures

Dependent Variables

I examine 2 dependent variables – one related to victimization and one related to offending. For the purposes of this analysis, victims were defined as women who reported being a sexually assaulted. Female respondents who indicated that they had been the victim of attempted or completed sexual assault since entering college were recoded into a dichotomous variable (0=non-victim or 1=victim). Respondents were asked multiple questions about their experiences with sexual assault prior to entering college and since entering college. As this study is focusing on sexual assault in college, the questions about previous sexual assaults were excluded from the final measure of victims. Students were asked if anyone had unwanted sexual contact with them using lies, threats, or pressure; using physical force or threat of physical force; or if the contact occurred when they were passed out, drugged, drunk, incapacitated, or asleep. Sexual

contact was defined as forced touching of a sexual nature (touching of private parts, grabbing, fondling, etc.), oral sex, vaginal or anal penetration with their penis, finger, or an object (CSAS User Guide).

My second dependent variable measures offending outcomes. Males who admitted to attempting or completing sexual assault were recoded into a dichotomous variable (0=non-offender, 1=offender).

Independent Variables

Predictor variables were selected based on the theoretical perspective used, as well as previous research. Drawing on the studies discussed in the review of the literature (Felson and Cohen, 1979; Garland, 1999; Maume, 1989; Mustaine and Tewksbury, 2002; Schwartz et al., 2001; Schwartz and Pitts, 1995; Tewksbury and Mustaine, 2003), I grouped the variables that measured routine activities into categories: non-romantic social activities (alcohol and drug consumption, academic engagement, involvement with social organizations), risk taking behaviors (leaving drinks unattended, accepting pre-made drinks from unknown sources, frequently being intoxicated during sex), and dating/hook up behavior (experience with intimate partner violence, having more than 10 sexual partners in the past year).

An entire module of the CSAS is devoted to alcohol and drug use since entering college (42 questions). Obviously, it was not possible to use all of these variables individually, so I combined 4 variables to measure alcohol consumption and 13 variables to measure drug consumption. The four variables used to create the high alcohol consumption variable are: Since college, how often do you consume alcohol, since

college how often do you consume enough alcohol to get drunk, on a typical occasion how many alcoholic drinks do you usually have, and since you began college how often have you had 4 or more drinks within a couple of hours. The three questions that measured frequency of consumption had possible responses of never, less than once a month, once or twice a month, once or twice a week, or daily/almost daily. The question that asked about how many drinks the respondent typically has when consuming alcohol had the following response options: 1, 2-3, 4-5, 6-10, more than 10. This question was only asked of those who reported that they have consumed alcohol since entering college. The high alcohol consumption variable used in the final statistical analyses includes those who report at least two of the following: those who consume alcohol at least once a week, those who get drunk more than once a week, those who drink four or more alcoholic drinks when drinking, or those who binge drink at least once a week.

The frequent illicit drug use variable was created in several steps. The CSAS lists 13 different illicit drugs (marijuana, cocaine, heroin, amphetamines or methamphetamines, ecstasy, LSD/acid, GHB, roofies, ketamine, psychedelic mushrooms, steroids without a doctor's prescription, prescription stimulants for the purpose of getting high, and chemical inhalants for the purpose of getting high) and asks respondents "Since you began college, how many times have you used each of the following drugs?" with 0, 1-2, 3-9, 10-19, 20-39, 40-99, 100 or more times as possible responses. I recoded the frequency of responses into no use (0 times), light use (1-2 times), moderate use (3-9 times), semi-frequent use (10-39 times), and heavy use (40-100+ times). Excluding marijuana, those who responded that they heavily used at least one drug, semi-frequently

used at least 3 drugs, or moderately used at least 6 drugs were coded as frequent users of illicit drugs.

I made the decision to exclude marijuana when measuring illicit drug use for several reasons. First, respondents used marijuana at a much higher frequency than any other drug. 37% reported using marijuana at least once since entering college while only 9% report using prescription stimulants (the second most commonly used illicit drug in the sample) at least once. These proportions are not abnormal, in fact, they mirror the national drug use proportions very closely (Raskin White and Rabiner, 2012). Marijuana, among college students, is viewed as a low risk drug that is socially acceptable among their peers, whereas other illicit drugs are seen as more dangerous and/or less acceptable (Walters, Lee, and Walker, 2012). Because of the prevalence of use, social acceptability, and perceived lack of risk I concluded that using marijuana in college is different from using other illicit drugs. Therefore, marijuana use was not included in the final illicit drug use measure.

Academic engagement, for the purposes of this study, is measured by grade point average. Respondents were asked to select one of the following that best represented their collegiate GPA: below 0.67, .067-1.66, 1.67-2.66, 2.67-3.66, 3.67 or higher. 89% of respondents selected either 2.67-3.66 or 3.67 and above. I therefore measure low academic achievement as those who reported having a GPA lower than 2.67 (0=GPA over 2.67, 1=GPA under 2.67).

I measure frequent exposure to highly masculine organizations by separately compiling questions about Greek and athletic affiliations. In the CSAS, involvement in

Greek organizations is measured in several different ways, and I combine each of these measures to create a single variable. The high Greek involvement variable used in my analysis is a combination of those who reported that they are members of Greek organizations, those who when consuming alcohol typically do so at fraternity parties, those who attend fraternity parties at least once a week, or those who live in Greek housing (0=not highly involved in Greek organizations, 1=high Greek involvement). I measure high athletic involvement by combining 2 variables, including questions about those who reported that they were a member of a sports team since entering college and those who reported that when consuming alcohol, they typically do so at a sporting event (0=not highly engaged in athletics, 1=high athletic involvement).

In order to examine a more comprehensive measure of high involvement with hypermasculine institutions, I created a measure that combined the above two recoded variables, which includes those who were coded as having a high involvement with Greek organizations and/or athletics (1=high Greek or athletic involvement 0=neither high Greek or athletic involvement).

Risky drinking behaviors and experience with IPV are both a combination of two original variables. Respondents who leave their drinks unattended or accept drinks from unknown sources were coded as engaging in risky drinking behaviors. The original response options for both questions were Likert scale options ranging from “never” to “daily/almost daily.” Almost 60% of respondents answered “never” to the question about accepting drinks from unknown sources and over 70% responded “never” to the question about leaving their drinks unattended. Because the majority of students did not engage in

risky drinking behavior, any responses other than “never” were recoded into a single variable (0=never accepts drinks from unknown sources or leaves drinks unattended and 1=accepts drinks from unknown sources or leaves drink unattended).

The measures for intimate partner violence were phrased differently, depending on the respondent’s gender. If female, the respondents were asked if they had ever been physically abused by a dating partner or emotionally abused by a dating partner. Individuals who said yes to either question were then coded as a victim of intimate partner violence (1=yes and 0=no). If male, the respondents were asked if they had ever physically or emotionally abused a dating partner. Again, those who answered affirmatively to either question were coded as offenders of IPV (1=yes and 0=no).

Demographic characteristics, including year in school, race, sexual orientation, and marital status) were selected to be used as controls in the models. These predictors were selected based on previous sexual assault research (Fisher et al., 1998; Fisher et al., 2000; Koss et al., 2000; Krebs et al., 2009).

Analytic Techniques

First, I analyze the basic descriptive distributions of the variables in question. After this, I conduct bivariate crosstabulations to analyze the chi-square statistics of the selected variables. Using the insight gained in these initial analyses, I conduct logistic regression to assess multivariate patterns of sexual assault victimization and offending. Specifically, I examine how various predictor variables, which measure specific aspects of routine activities, influence outcomes of sexual assault. Separate models are run for victims and offenders of sexual assault. The models produce coefficients that represent

odds ratio, or the likelihood that a respondent will be a victim or offender of sexual assault given their demographic characteristics or participation selected activities (Cohen and Cohen, 1975).

CHAPTER IV

RESULTS

This section will summarize the univariate, bivariate, and regression analyses performed on the CSAS data. Beginning with descriptive statistics of the data, I move to a brief discussion of the correlations between variables, and end with the results of the separate victim and offender logistic regression models.

Univariate Descriptive Statistics

The CSAS asks respondents about their gender, race, sexual orientation, marital status, year in school, and if the student transferred to their current school from another institution. As shown in Table 1, the sample is largely heterosexual (95.9%) never married (97.1%), and most students began their college career at their current university (87.0%). The respondents are almost equally divided by college classification (freshmen, sophomores, juniors, seniors), as expected from the sampling design. While the sample is heavily white (80.3%), it is fairly reflective of United States college enrollment at the time of the study. Kim (2011) reports that in 2005, minority students only made up 25.2% of students enrolled at 4 year colleges and universities.

The sample is also heavily female (79.8%). While this finding is generally consistent with national reports (Kim 2011), the CSAS still has a larger percentage of female respondents than the overall student population in the 2005-2006 school year (79.8% to 57.6%). Without knowing the sex ratios at the two universities, it is impossible

to know whether this is reflective of the populations sampled. Sax, Gilmartin, and Bryant (2002) report that female undergraduates are statistically more likely to respond to both paper and web based surveys. It is also possible that females are more likely to respond to sexual assault surveys than men due to the subject matter (Groves, Presser, and Dipko, 2004). While it is possible that there is a slight non-response bias for male undergraduates, the issue of females being more likely to respond to a survey – especially one concerning sexual assault – are challenges faced by most, if not all surveys of this kind. However, the results of this data depict a similar picture of female undergraduate sexual assault as previous studies (Fisher et al., 2000; Fisher, Cullen, and Turner, 2000; Garrett-Gooding and Senter, 1987; Lisak and Miller, 2002) and provide substantial insight into the behaviors that influence collegiate sexual violence.

Also shown in Table 1, 5.2% of the men who completed the CSAS admitted to being sexual assault offenders, and 34.2% of females reported being victims. These findings are similar to proportions found in previous studies of collegiate sexual assault (Fisher, et al., 2000; Lisak and Miller, 2002).

Table 1. Demographic Characteristics

Race		Percent	Year in School		Percent
	White	80.3%		Freshman	23.9%
	Black	8.1%		Sophomore	24.6%
	Hispanic	1.5%		Junior	26.0%
	Asian/Pacific Islander	5.5%		Senior	25.4%
	Multiracial/Other	4.6%			
Gender			Member of a Greek organization		
	Male	20.2%		Yes	16.2%
	Female	79.8%			

Marital Status		Victim of S.A. since college (female only)	
Never married	97.1%	Yes	34.2%
Sexual Orientation		Offender of S.A. since college (male only)	
Heterosexual	95.9%	Yes	5.2%

Bivariate Crosstabulations

I conducted bivariate crosstabulations to determine if a relationship existed between the dependent variables (victim of sexual assault or offender of sexual assault) and the theoretical predictor variables. Appendix B contains the results of the chi-square tests of female victims and male offenders and the potential predictor variables. I find that victims and offenders of sexual assault participate in certain routine activities at a significantly different frequency than the females and males who were not victims or offenders of sexual violence.

Multivariate Analyses: Logistic Regressions

Models Predicting Likelihood of Offending

The first offender regression model (Table 2) includes two demographic control variables: freshman classification and white. Neither of these variables is statistically significant at the .05 level, although race approaches statistical significance (OR=.536, p=.10).

Table 2. Logistic Regression Predicting the Likelihood of Offending

	S.E.	Wald	Sig.	OR
Controls				
Freshman	.463	.595	.440	.700
White	.388	2.582	.108	.536
Non-romantic Social Routine Activities				
Frequently involved with hypermasculine organization(s)	.340	6.132	.013	2.321
High alcohol consumption	.347	.033	.857	1.065
Frequent illicit drug use (excluding marijuana)	.396	2.465	.116	1.862
Dating and/or Hook up Routine Activities				
IPV offender	.406	15.942	.000	5.063

While high alcohol use and frequent illicit drug use (excluding marijuana) are not statistically significant, high involvement with hypermasculine organizations (Greek organizations and athletics) increases the likelihood of offending by about 132% (OR=2.321) net other factors in the model. Just as females who have been victims of intimate partner violence are more likely to be victims of sexual assault, men who committed intimate partner violence are more likely to be offenders of sexual assault (OR=5.063). Indeed, the results indicate that offenders of sexual assault are about 4 times as likely to have also participated in other forms of intimate partner violence. These findings are consistent with the victim models in that the models suggest that there is a strong relationship between intimate partner violence and sexual assault.

Greek organizations, fraternities in particular, have received a large amount of public attention in regards to sexual assault offending; however, it is less common for

athletic organizations to receive the same scrutiny. Given this focus, I elect to run supplemental models that separate the effects of masculine-dominant organizations. Specifically, I separate Greek and athletic organizations so that I can assess the independent effects of each of these organizations.

Table 3 shows the results of this supplemental offender model. As illustrated, the data indicate that being involved with Greek organizations is not statistically significant, but being involved in athletics is (OR=1.854). This finding raises concerns about the attention discussed above, but I will reserve further discussion for the concluding chapter.

Table 3. Logistic Regression Predicting the Likelihood of Offending, Separately Estimating Greek and Athletic Involvement

	S.E.	Wald	Sig.	OR
Controls				
Freshman	.461	.718	.397	.677
White	.387	2.604	.107	.535
Non-romantic Social Routine Activities				
High athletic involvement	.321	3.704	.054	1.854
High Greek involvement	.369	.341	.559	1.241
High alcohol consumption	.355	.085	.770	1.109
Frequent illicit drug use (excluding marijuana)	.396	2.139	.144	1.784
Dating and/or hookup behavior				
IPV offender	.406	15.591	.000	4.963

To further examine the apparent positive effect of athletic involvement on sexual assault, I conduct additional analyses. I begin by reassessing the athletic involvement

variable. As a reminder, this variable was created by combining respondents' answers about being involved with a sports team and reports that they were most likely to drink at a sporting event. Although there is reason to believe that sport involvement and drinking at sports combine to encourage a masculine-oriented cultural environment, it is also plausible that sports team members are not more likely to drink at (their own) sporting event. In other words, although combining these variables makes sense as a way to capture masculine routine activities, the single variable could also be confounding sport team involvement through participation in sports versus through fanship of the sport. As such, I decided to separately add these roots into the model predicting likelihood of offending. In other words, to see if being an athlete influenced the likelihood of offending *or* if the relationship is influenced by alcohol consumption at a sporting event, I conduct a third offender regression model (see Table 4).³

Table 4 depicts the results of this model, which indicates that there is not a significant relationship between being a member of a sports team and the likelihood of committing sexual assault. Therefore, the data suggests that the relationship between “involved in athletics” and committing sexual assault is influenced by frequently consuming alcohol at sporting events, not necessarily by team membership. The extant literature, combined with the findings from the three offender regression models in this

³ The argument here is based on prior theory and research describing sports events as places where masculinity is exercised. Some of these arguments hold that a certain level of effervescence can be experienced during sporting events and that this effervescence may result from the combined use of alcohol and highly masculine activities often present in sporting events, especially aggression (see Anderson 2008; Card and Dahl 2011; Lanter 2011; Roberts and Benjamin 2000; Spaaij 2014)

study, suggest that there is a likely relationship between sexually violent behaviors and frequently drinking alcohol at sporting events.

Table 4. Logistic Regression Predicting the Likelihood of Offending, Separately Estimating Athletic Involvement

	S.E.	Wald	Sig.	Exp(B)
Controls				
Freshman	.459	1.045	.307	.626
White	.387	2.295	.130	.556
Non-romantic Social Routine Activities				
Since college, member of a sports team	.356	.122	.727	1.132
High Greek involvement	.366	.523	.469	1.303
High alcohol consumption	.348	.376	.540	1.238
Frequent illicit drug use (excluding marijuana)	.396	1.925	.165	1.732
Dating and/or Hook up Routine Activities				
IPV offender	.405	15.700	.000	4.973

Although I detail the results of each of the offender models above, I have created Table 5 to visually compare the results of all three offender models.

Table 5. Summary of Logistic Regression Models Estimating the Likelihood of Offending

	Offender Model 1 Odds Ratios	Offender Model 2 Odds Ratios	Offender Model 3 Odds Ratios
Freshman	.700	.677	.626
White	.536	.535	.556
Frequently involved with hypermasculine organization(s)	2.321**		
High athletic involvement		1.854*	
High Greek involvement		1.241	1.303
Member of a sports team			1.132
High alcohol consumption	1.065	1.109	1.238
Frequent illicit drug use (excluding marijuana)	1.862	1.784	1.732
IPV offender	5.063***	4.963***	4.973***

*p<.05 **p<.01 ***p<.001

Models Predicting Likelihood of Victimization

As shown in Table 6, year in school, race, high Greek involvement, low academic achievement, risky drinking behaviors, frequent illicit drug use (excluding marijuana), heavy drinking, and being a victim of intimate partner violence (IPV) are all statistically significant in predicting the likelihood of sexual assault victimization⁴. Net other factors

⁴ The activities and behaviors that increase the likelihood of victimization reflect the likelihood that the victim will be exposed to potential motivated offenders. Neither routine activities theory or feminist theories suggest that the lifestyle or routines of victims make them at fault for their victimization, which is the same approach taken in this paper. As discussed in the review of the RAT literature, offenders make the rational choice to commit a crime when they are in the presence of a target they deem suitable without capable guardians near to prevent the crime from occurring. This paper argues

in the model, freshmen (OR=.575) and white students (OR=.834) are less likely to be victims of sexual assault. The other two demographic control variables, sexuality and marital status, are not statistically significant predictors.

Table 6 also indicates that several routine activity factors significantly increase the likelihood of sexual assault. Specifically, frequent alcohol consumption (OR=1.624), frequent illicit drug use (OR=1.598), high Greek organization involvement (OR=1.189), and a GPA below 2.67 (OR=1.335) are all positively associated with likelihood of sexual assault victimization. Accepting drinks from strangers or consuming drinks that had been left unattended also increase the likelihood of female students being a victim of sexual assault by 109.3% (OR=2.093). This analysis demonstrates that those who have spent more time in college, participate frequently with Greek organizations, demonstrate low academic engagement, frequently use illicit drugs, frequently consume alcohol, frequently engage in risky drinking behaviors, and have been in violent relationships are more likely to be victims of sexual assault. These findings support the hypothesis that certain frequent activities increase the likelihood of sexual assault victimization.

that certain lifestyles, behaviors, and routines increase the likelihood that a female student will be in a space with a motivated offender and seen as a suitable target by the offender.

Table 6. Logistic Regression Predicting the Likelihood of Female Undergraduate Victimization

	S.E.	Wald	Sig.	OR
Demographic Controls				
Freshman	.089	38.631	.000	.575
White	.089	4.188	.041	.834
Heterosexual	.180	1.720	.190	.790
Never married	.199	2.280	.131	1.351
Social and Academic Routine Activities				
High Greek involvement	.084	4.306	.038	1.189
High athletic involvement	.080	.800	.371	1.074
GPA below 2.67	.112	6.617	.010	1.335
Routine Alcohol and Drug Consumption				
Frequent illicit drug use (excluding marijuana)	.128	13.476	.000	1.598
High alcohol consumption	.083	33.801	.000	1.624
Risky drinking behaviors	.072	105.625	.000	2.093
Routine Dating/Hook up Activities				
Over 10 sexual partners in the past 12 months	.459	.680	.410	1.460
Victim of IPV	.087	268.923	.000	4.140
Constant	.263	19.302	.000	.314

CHAPTER V

DISCUSSION AND CONCLUSIONS

Discussion

This thesis project has examined how routine activities of collegiate life may influence sexual assault offending and victimization. I use the routine activities theoretical framework to analyze the frequent behaviors and activities of collegiate sexual assault victims and offenders. In this final section, I discuss some of the salient findings of the multivariate logistic regression results and link these findings to the arguments made throughout this paper. I conclude by providing suggestions for future research.

The findings of the victim logistic regression model are consistent with some previous research. My findings reflect Krebs, et al.'s (2009) conclusion that the longer a woman is enrolled at an institution of higher learning, the more opportunities exist for her to be around motivated offenders without capable guardianship. However, when only sexual assaults that occurred in the past 12 months are examined (excluding freshmen as the previous 12 months included time before college), sophomores report the highest numbers of assaults. My finding is consistent with the previous literature that suggests that freshmen are the most likely of all student classifications to be sexually victimized (Bohmer and Parrot, 1993; Boumil, Friedman, and Taylor, 1993; Franklin et al., 2012, Krebs et al., 2007; Sweeney, 2011) but that the length of time in school increases the

overall chances of being a victim (Krebs et al., 2009). This finding fits with the RAT framework – the longer an individual engages in activities that places them in situations with motivated offenders and no capable guardianship, the more opportunities for victimization occur.

A lack of academic engagement was significantly and positively related to the likelihood of sexual assault victimization. In Mustaine and Tewksbury's (2000) study of the routine activities of undergraduate female victims, the researchers found that women who spent more time studying were less likely to be victims of sexual assault. Similarly, my findings indicate that having a GPA below a 2.67 increase the likelihood of being sexually victimized, as students with higher GPAs would most likely spend more time studying than their lower achieving counterparts.

Interestingly, the predictor variable that has the highest prediction estimate - being a victim of intimate partner violence - has not been discussed in any previous routine activities approaches to collegiate sexual assault. Although it is not possible to ascertain whether the intimate partner violence or sexual assault occurred first with the present data, it is possible that victims of intimate partner violence may have been sexually victimized by their dating partner. A study conducted by Abbey, Ross, McDuffie, and McAuslan (1996) found that in a study of undergraduate women who had been the victim of attempted or completed sexual assault, 55% of victims reported that the perpetrator was a serious dating partner or spouse, and 95% of victims reported knowing their attacker. Routine activities include dating behaviors (Cohen and Felson, 1979) it is logical that if a female student is in an intimate relationship with someone, she is likely to

spend more time around her partner. If her partner is emotionally abusive or physically violent, then she arguably spends an increased amount of time around someone who is more likely to commit predatory crimes, which could increase her likelihood of sexual victimization.

When turning my attention to factors that predict offending patterns, I find that typically consuming alcohol at a sporting event is related to the likelihood of committing sexual assault. While the finding that frequently consuming alcohol at sporting events increases the likelihood of committing sexual violence is not common in the collegiate sexual assault RAT literature, studies have found correlations between spectators of sporting events and violence (Card and Dahl, 2011; Spaaij, 2014; Lanter, 2011; Anderson, 2008; Roberts and Benjamin, 2000). For example, Lanter (2001) found that spectators consuming alcohol while attending the sporting event were more likely to engage in violent behavior after the game. Studies have also linked spectators of sporting events to intimate partner violence or sexual assault (e.g., Card and Dahl, 2011; Lindo, Siminski, Swensen, 2015). Like my present analysis, these studies suggest that drinking alcohol while attending sporting events may have an “effervescent effect” on offenders and increase the likelihood that they will commit sexual violence. Collegiate sport spectators are surrounded by a multitude of peers, many of whom consume alcohol, and collectively (and often wildly) encourage the displays of hypermasculinity occurring on the field or court. Future research should further investigate the relationship between perceived male peer support of sexual violence, sporting events, and sexual assault.

Conclusions

Sexual assault and rape are crimes that affect college students at higher rates than the general population. College students are vulnerable to this crime in ways that other segments of the population are not. Laws have been passed in attempts to protect students; however, these laws are problematic in their adoption by institutions, lack of enforcement, and federal oversight. It is clear that more work needs to be done at the ground level, including educating students about the risks of sexual assault, as well as informed consent, and how to intervene if they perceive a situation to be dangerous.

The purpose of this project is to gain a broad understanding of the factors related to campus sexual assault. This research goes beyond prior studies in its use of recent United States data and the simultaneous examination of two components of RAT. By using RAT to inform this research, I examine the lifestyles and frequent behaviors of individuals enrolled in college to elucidate the risk factors associated with collegiate sexual misconduct and determine if certain activities are related to the commission or victimization of a particular crime.

Sexual assault is no doubt a complex problem, and while the predictors used in this study are not exhaustive, this work investigates many routine activities that college students may engage in during their undergraduate careers. The dataset that I use is extensive, but survey data is unable to fully capture the lived experiences of individuals (see Becker, 2007). Numerical analysis may distance the researcher from excruciating pain and struggle that the survivors of assault cannot escape, but quantitative data provides insight. To create meaningful change, we must understand the broad scope of

the problem. This scope is best gained when we have large amounts of data, which generally require statistical analysis. Nonetheless, given the scarce research on sexual assault on college campuses using a RAT framework, future research should include additional quantitative and qualitative techniques. For example, a quantitative study that measures all three components of RAT could be conducted, with additional qualitative interviews conducted with those whose experiences exemplify what is known about the routine activities of offenders, victims, and both capable and incapable guardians.

Prior reports and research establish that sexualized crime occurs more frequently on college campuses than the general population. We need to examine what it is about college life that is different from life outside the ivory tower. Researchers are in a position to conduct studies that help develop our understanding of factors that could prevent these violent acts. The purpose of this paper is to contribute to this knowledge. I find that certain routine activities that increase a female student's likelihood of victimization and male student's likelihood of offending. As studies continue to identify "risky" behaviors and attitudes, it may become easier to provide targeted and specific assault prevention education to students.

While collegiate sexual assault is a large problem that at times seems insurmountable, I am reminded of a quote from Neil Gaiman's *Coraline* (2002): "Fairy tales are more than true: not because they tell us that dragons exist, but because they tell us that dragons can be beaten." Like Gaiman's dragons, sexual assault victimization is a reality for many female undergraduates, but through education, scholarly research, and informed public policy - it can be beaten

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APPENDIX A

THEORETICAL CATEGORIZATION OF VARIABLES

Offender Variables:

Theoretical category	Variable used
Demographic	
	Year in school (1=freshman)
	Race (1=white)
Non-Romantic Social Routine Activities	
	Frequently involved with hypermasculine organizations (1=yes)
	Highly involved with Greek organization (1=yes, member of Greek organization or frequent frat party attender)
	Since college, member of a sports team (1=yes, member of a sports team)
Alcohol/Drug Routine Activities	
	High alcohol consumption (1=yes, high alcohol consumption)
	Frequent illicit drug use, excluding marijuana (1=yes, frequent use of one or more drug)
Romantic Routine Activities	
	Offender of IPV (1=yes, has committed IPV)

Victim Variables:

Theoretical category	Variable used
Demographic	
	Year in school (1=freshman)
	Race (1=white)
	Sexual orientation (1=straight)
	Marital status (1=never married)
Non-Romantic Social Routine Activities	
	Highly involved with Greek organization (1=yes, member of Greek organization or frequent frat party attender)

	High athletic involvement (1=yes, member of a sports team or when drinking typically drinks alcohol at sporting events)
	Lack of academic engagement (1=GPA below 2.67)
Alcohol/Drug Routine Activities	
	High alcohol consumption (1=yes, high alcohol consumption)
	Frequent illicit drug use, excluding marijuana (1=yes, frequent use of one or more drug)
	Risky drinking behaviors (1=yes, has accepted drink(s) from unknown source(s) or leaves drink unattended)
Romantic Routine Activities	
	Had over 10 sexual partners in the past 12 months (yes=1)
	Victim of IPV (1=yes, has been a victim of IPV)

APPENDIX B

CHI-SQUARE CROSSTABULATION RESULTS

Male Offender Chi-Square Results

Variable	Percentage of Offenders	Percentage of Male Sample	Chi-square Significance
Freshman	14.1%	24.1%	.042
White	83.1%	84.2%	.797
High Greek involvement	27.1%	17.9%	.039
Member of a sports team	23.9%	21.0%	.530
Frequent illicit drug use	25.4%	10.9%	.000
High alcohol consumption	81.2%	67.0%	.001
Drinks at least once a week	71.8%	47.0%	.000
Frequently attends parties and drinks	57.7%	41.6%	.005
Offender of IPV	33.4%	17.2%	.000

Female Victim Chi-Square Results

Variable	Percentage of Victims	Percentage of Female Sample	Chi-square Significance
Freshman	16.2%	23.8%	.000
White	78.8%	79.2%	.635
Heterosexual	94.8%	96.3%	.000
Never married	97%	96.9%	.886
High Greek involvement	25.7%	20.2%	.000
High athletic involvement	26.9%	24.1%	.000
Low GPA	12.7%	10.4%	.000
Frequent illicit drug use	12.5%	7.1%	.000
High alcohol consumption	34.8%	25.7%	.000
More than 10 sexual partners in the past 12 months	.9%	.5%	.010
Frequently drinks or gets high before sex	15.9%	9.7%	.000
Victim of IPV	33.4%	17.2%	.000
Member of a sports team	18.1%	16.4%	.000