INVESTIGATING MULTIPLE LAYERS OF INFLUENCE ON SEXUAL ASSAULT IN A UNIVERSITY SETTING

by

CHRISTINE LOUISE HACKMAN

STUART L. USDAN, COMMITTEE CHAIR
  DAVID A. BIRCH
  JAMES D. LEEPER
  TRICIA H. WITTE
  ADAM P. KNOWLDE

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ABSTRACT

Sexual assault is a major public issue on college campuses; approximately 20 to 50 percent of female and up to 31 percent of male college students report being sexually victimized while in college. To date, little research has been conducted in this area that investigates interactions between intrapersonal, interpersonal, institutional, community, and societal factors that influence campus sexual assault. The main purpose of this study was to examine interactions between different layers of influence on campus sexual assault. The present study utilized a quantitative, cross-sectional design (n=677) with online delivery of survey research. Overall, 191 (28.0 percent) participants reported being sexually assaulted since the beginning of their college career, and a total of 4.8 percent (32 participants) of the sample reported perpetration since the beginning of their college career. Prior victimization was the strongest predictor of both victimization ($\beta=2.779; p<0.001; \text{Odds ratio}=16.100$) and perpetration ($\beta=2.551; p<0.001; \text{Odds ratio}=12.823$) since the start of college. Further, those who received sexual assault prevention education had had better views of the institution than those who did not ($F=5.702; p=0.001$). Being a victim or perpetrator did not have an effect on institutional variables. Lastly, neither rape myth acceptance nor injunctive peer norms significantly moderated the relationship between binge drinking and perpetration since the start of college. This study has promising implications for future research as well as for public health education practitioners, college administrators, and health policy experts. Coordinated national, state, and local efforts are needed to change the climate in institutions of higher education that truly promote safe, healthy relationships and behaviors in college students.
LIST OF ABBREVIATIONS

IHE Institution of Higher Education
IRMA Revised Illinois Rape Myth Acceptance Scale
MRMS Male Rape Myth Scale
DPNS-SA Descriptive Peer Norms Scale – Sexual Assault
IPNS-SA Injunctive Peer Norms Scale-Sexual Assault
SES-V Sexual Experiences Survey – Short Form Victimization
SES-P Sexual Experiences Survey – Short Form Perpetration
UA The University of Alabama
TICSSS Trust in the College Support System Survey
PLPR Perceptions of Leadership, Policies, and Reporting Survey
CHES College of Human Environmental Sciences
MANOVA Multivariate Analysis of Variance
CFA Confirmatory Factor Analysis
EFA Exploratory Factor Analysis
RQ Research Question
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CHAPTER 1

Introduction

Sexual assault is a widespread deviant act that disempowers individuals and groups of people regardless of gender, age, race, class, sexual orientation, or educational level. Sexual assault can be defined in several ways, which likely contributes to differences in prevalence in the literature (Hamby & Koss, 2003). For this proposed study, sexual assault will be viewed as a continuum of deviant sexual behaviors that include unwanted sexual touching, oral, vaginal, and anal intercourse. Globally, one out of every three women will experience lifetime physical or sexual violence (World Health Organization; WHO, 2013). According to a national survey, approximately one in five women and one in 71 men will be raped at some point in his or her lifetime (Black, Basile, Breiding, et al., 2011). Despite increasing attention and awareness to this issue, sexual assault is still one of the most common violent crimes perpetrated in the United States with an estimated 1.3 million rapes in a single year (Black, Basile, Breiding, et al., 2011).

Consequences of sexual assault victimization may be devastating and far-reaching, resulting in negative health, economic, social, and academic outcomes. Victims can experience poor physical health (Linden, 2011), increased risky health behaviors (Gidycz, Orchowski, King, & Rich, 2008), mental health disturbances (Walker, Archer, & Davis, 2005), increased economic burden (National Institute of Justice, 1996), decreased social functioning (Jewkes, Sen, & Garcia-Moreno, 2002), and potential academic issues (Eisenberg, Golberstein, & Hunt, 2009). According to the National Institute of Justice (1996), sexual assault is the most costly of all
crimes to its victims, with total estimated annual cost of $127 billion a year in the United States. Community and societal costs of sexual assault include finite resources to investigate and prosecute sexual assault perpetrators and loss and damage to the victim; the expense of each legal case is estimated to cost upwards of $240,000 (McCollister, French, & Fang, 2010). Additionally, the substantial loss of societal productivity of victims and perpetrators is incalculable. Costs to specific institutions have yet to be explored in the scientific literature.

Campus Sexual Assault

Sexual assault disproportionately affects adolescents and young adults, as the Bureau of Justice Statistics suggests that women between ages 16 and 24 years old are at greatest risk for rape (U.S. Department of Justice, 2000), and 83 percent of rape victims are younger than 25 years old (Tjaden & Thoennes, 1998). Approximately two thirds of high school graduates attend college (US Department of Education, 2006), and college students are more likely to be victimized than their non-college peers (Krebs, Lindquist, Warner, Fisher, & Martin, 2007; Karjane, Fisher, & Cullen, 2005). Between approximately 20 and 50 percent of college females report being the victim of sexual assault while attending college (Abbey, Ross, & McDuffie, 1996; Synovitz & Byrne, 1998), and up to 31 percent of college males report past-year victimization (Palmer, McMahon, Rounsaville, & Ball, 2009).

Adverse life events, such as sexual assault, have been consistently associated with poorer academic performance (Dyregrov, 2004; Saltzman, Pynoos, Layne, Steinbert, & Aisenberg, 2001). In college students, academic issues are often associated with mental issues such as depression and anxiety disorders (Eisenberg, Golberstein, & Hunt, 2009). Since many sexual assault victims develop mental disturbances, academic issues may be an indirect but important consequence of victimization.
Ecological Lens

Increasingly, national public health entities, such as the CDC (2004) and the American College Health Association (ACHA, 2007; 2011) have called for an ecological approach to sexual assault prevention. Recent reviews of scientific literature on campus sexual assault have called for research to take an ecological perspective of this issue as well as create prevention and education approaches that engage different layers of influence (Banyard, 2011; Casey & Lindhorst, 2009; Wandersman & Florin, 2003). To date, little research has been conducted in this area that investigates interactions between intrapersonal, interpersonal, institutional, community, and societal factors that influence campus sexual assault.

Addressing the Problem

Within the last few years, campus sexual assault has gained national media attention, which has provided a platform to examine the scope of sexual assault among institutions of higher education (IHE) across the United States. Recently, several IHE’s have come under national scrutiny for mishandling sexual assaults on their campuses; in May 2014, at least 55 IHE’s were being investigated for violations of federal policies intended to discourage campus sexual assault, and reports from January 2015 indicate that at least 94 IHE’s are currently being investigated (Anderson, 2014; Mangan, 2015). Without proper incentive to appropriately handle the issue of sexual assault on campus, IHE’s may continue to largely ignore sexual assault (Thomason, 2014). Furthermore, implications of campus sexual assault for IHE’s have not been explored in scientific literature. Campus sexual assault is grossly underreported (Bullock & Beckson, 2011), often resulting in only a handful of official reports to each IHE annually. However, scientific research provides overwhelming evidence that campus sexual assault is a widespread problem. By presenting evidence that demonstrates the inherent damage to IHE’s by
overlooking this issue, this study may help promote further IHE action against campus sexual assault.

Purpose of the Study

The main purpose of this study was to examine interactions between different layers of influence on campus sexual assault. Data from this study was used to help quantify the scope of sexual assault on campus. Additionally, it measured and examined the relationships between different layers of influence on campus sexual assault. Lastly, the study served to test what, if any, extent campus sexual assault impacts student views of the institution.

Significance of the Study

Although researchers have called for an ecological perspective, little literature actually examines campus sexual assault through ecological layers of influence (Banyard, 2011). Health educators could use data from this study to tailor primary prevention programs that are framed within an ecological perspective to individuals or groups that are at high risk of perpetrating or being victims of sexual assault. Additionally, results from this study can help inform IHE administrators of the potential harm to the institution that is associated with campus sexual assault.

Limitations

There are several limitations in regard to this study, including the use of self-report (Sharma & Petosa, 2014, p. 100) and convenience sampling techniques (Isaac & Michael, 1995), the use of a broad and vague theoretical model (Sallis, Owen, & Fisher, 2008 p. 480), the examination of a single university, potentially non-optimal response rate (Mitra, Jain-Shukla, Robbins, Champion, & Durant, 2008), interpersonal and institutional levels measured indirectly,
and that researchers cannot guarantee that participants will take the survey alone and in a private setting. These limitations are thoroughly discussed in Chapter 5 of this document.

**Delimitations**

The parameters of this study consisted of students at a large public IHE in the southeastern United States. The study employed quantitative research methods and analyses to examine the scope and layers of influence of campus sexual assault using Qualtrics (Provo, UT) online survey creation software and SPSS for IBM Statistics, Version 21 (IBM Corp, 2012). Participants were enrolled at the IHE and between the ages of 18 and 24 to be eligible to take part in this study.

**Research Questions**

The following research questions were used to guide this study:

1. Which intrapersonal and interpersonal factors predict sexual assault victimization?
2. Which intrapersonal, interpersonal, and organizational factors predict sexual assault perpetration?
3. Do rape myth acceptance and peer norms moderate the relationship between alcohol consumption and sexual assault perpetration?
4. Is there a significant difference in organizational factors between those who have been sexually assaulted, and those who have not?
5. Is there a significant difference in organizational factors between those who are aware of sexual assault on campus, and those who are not?
6. Is there a significant difference in organizational factors between those who have perpetrated sexual assault, and those who have not?
CHAPTER 2

Literature Review

Not exclusive to gender, race, age, sexual orientation, educational level, or socioeconomic status, sexual assault is a major public health crisis in the United States. The term, “sexual assault” refers to a wide range of behaviors in which consent is not explicitly stated, such as forced sexual intercourse, forcible sodomy, fondling, and attempted rape (US Department of Justice, 2014). Davis (2002) defines sexual assault as “a learned behavior acquired through routine social and environmental interaction . . . and an extreme form of the traditionally socialized ways that men and women act in the context of sexual relations”, a definition that emphasizes the ecological factors which are inherent to this behavior.

According to the National Sexual Violence Resource Center (NSVRC; 2012), sexual assault is not motivated by sexual desire, but rather the desire to control, humiliate and harm. Sexual assault is used in many ways; it is a popular and effective way to assert control over individuals and groups, and is a common weapon during times of conflict around the world (United Nations, 1998). Sexual assault is such a precarious behavior because it “endangers critical societal structures through climates of violence and fear” (NSVRC, 2010).

Sexual assault is a broad term that commonly encompasses a continuum of unwanted sexual experiences, from unwanted sexual touching to completed rape (Koss, Gidycz, & Wisnieski, 1987). Rape, although incorporated into the concept of sexual assault, can be examined as a separate entity and is often viewed as the most severe type of sexual assault (Cook, Gidycz, Koss, & Murphy, 2011). Rape refers to “penetration, no matter how slight, of
the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim” (Federal Bureau of Investigation, 2013). The term sexual violence can be used interchangeably with sexual assault, as they are widely known as the same concept. The continuum of sexual assault falls within the larger group of deviant behaviors known as interpersonal violence (IPV), but IPV also includes psychological and physical abuse (Rosenbert, Butchart, Mercy, Narasimhan, Waters, & Marshall, 2006) and is therefore not exclusive to sexual assault. Because many terms are associated with sexual assault, and basic definitions of sexual assault are not consistent within the scientific literature, it is necessary to define the scope of deviant sexual behaviors that will be examined. For the purposes of this dissertation, the term sexual assault will serve as a continuum of deviant sexual behaviors that include unwanted sexual touching, oral, vaginal, and anal intercourse. However, because the term sexual assault may stigmatize certain behaviors, or individuals may not identify their unwanted sexual experiences as sexual assault, the term unwanted sexual experience is used in the survey instrument to reduce the stigma and capture a better picture of the prevalence of sexual assault (Koss & Oros, 1982; Koss, Gidycz, & Wisniewski, 1987).

Sexual Assault Tactics

Sexual assault can be carried out through different tactics, such as through sexual coercion, threats of or through physical force, and incapacitation through alcohol or drugs (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007; Abbey, Beshears, Clinton-Sherrod, & McAuslan, 2004). Sexual coercion, considered to be of moderate severity within the spectrum of sexual assault (Abbey, Beshears, Clinton-Sherrod, & McAuslan, 2004), refers to obtaining sexual acts through continual verbal pressure, and is commonly defined as a gendered concept in which males act and females receive (Koss, Abbey, Campbell, Cook,
Norris, Testa, Ullman, West, & White, 2007). Recent research has suggested, however, that women use sexual coercion as a tactic to obtain sexual acts from males (Krahe, Waizenhofer, & Moller, 2003; Kernsmith & Kernsmith, 2009), and approximately 30 percent of both male and female college students reported experiencing sexual coercion (Chan, Straus, Brownridge, Tiwari, & Leung, 2008; Gross, Winslett, Roberts, & Gohm, 2006). Threats and use of physical force is less common, but still often reported in campus sexual assault with approximately five percent of victims reporting use of force (Krebs, Lindquist, Warner, Fisher, & Martin, 2009). Lastly, incapacitation through alcohol or drugs is commonly reported in sexual assault (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004). During an unwanted sexual experience, more than one tactic can be used; the measure that will be utilized in this study will account for these three tactics and can account for more than one tactic in a single experience (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007).

Prevalence of Sexual Assault

According to the WHO (2013), at least one in every three women globally will experience physical or sexual violence in her lifetime. In the United States, approximately 1 in 5 women and 1 in 71 men report lifetime rape victimization (Black, Basile, Breiding, Smith, Walters, Merrick, Chen, & Stevens, 2011). Specifically, individuals between ages 16 and 24 are at the highest risk of being sexually assaulted (Broach, 2004; Abbey, Zawacki, & McAuslan, 2000).

College students

According to the US Department of Education (2006), two thirds of high school graduates attend college. Sexual assault is the most common violent crime committed on college campuses (Finn, 1995). According to a National Institute of Justice study, approximately 18
percent of college women have experienced an attempted or completed sexual assault since starting college (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). The National College Women Sexual Victimization study estimate that approximately 25 percent of college women experience a completed or attempted rape during her college years (Fisher, Cullen, & Turner, 2000). Another study by Turchik & Hassija (2014) found that approximately 73 percent of college women had reported being sexually assaulted since age 16, while others have estimated that as much as 50 percent of college women experience sexual assault while in college (Abbey, Ross, & McDuffie, 1996; Synovitz & Byrne, 1998; Lynn & Cleree, 2013).

Campus sexual assault is not exclusive to females, as approximately 10 percent of all rape victims are male (US Department of Justice, 2003). Often, males are seen only as perpetrators, and male victimization is widely overlooked. Results from the National Intimate Partner and Sexual Violence Survey (Black et al., 2011) suggest that at least 1 in 71 men reported experiencing sexual assault at some point in their lives. Although male victimization experiences are less common, they seem to pose unique implications, and male victims tend to be more hesitant to report their experiences (King & Woollett, 1997). Rates of college male sexual assault vary; between 14 percent and 31 percent of college males have reported at least one unwanted sexual experience within the last year (O’Sullivan, Byers, & Finkelman, 1998; Larimer, Lyndum, Anderson, & Turner, 1999; Palmer, McMahon, Rounsaville, & Ball, 2009). Research on male sexual victimization is sparse compared to female victimization (Graham, 2006), however, and several gaps in the research exist.

Underreporting is a major issue in both understanding the scope of, and developing research projects that examine campus sexual assault, as less than five percent of attempted or completed rapes are reported to campus authorities or law enforcement (US Department of
Justice, 2005; Bullock & Beckson, 2011). A few important factors contribute to underreporting that must be considered in sexual assault research. Often, victims do not characterize their victimization experience as sexual assault; rather, they understand that it was “unwanted” and have difficulty processing their experience (Fisher, Cullen, & Turner, 2000; Littleton, Axsom, & Grills-Taquechel, 2009). To determine accurate prevalence rates, researchers should use widely accepted, intentionally worded questions that do not directly refer to sexual assault or rape, but instead to unwanted sexual experiences. Also, education efforts should clearly define the range of behaviors that constitute sexual assault. Another crucial factor in underreporting is that victims often report feeling guilt and responsibility for their assault as barriers to reporting to police or campus authorities (Sable, Danis, Mauzy, & Gallagher, 2006). Victim-blaming mentality, in which society generally places fault on the victim’s actions, has been hypothesized to detract from the credibility of sexual assault allegations (Bachman, 1993).

**National Attention**

Although campus sexual assault is not a new issue, renewed interest in this topic has stemmed from recent violations to policies such as Title IX and the Clery Act. Title IX is part of the Education Amendments of 1972, and makes it illegal for IHE’s that receive federal assistance to discriminate based on sex, such as sexual harassment, discrimination based on pregnancy, and providing equal opportunities in athletics (US Department of Education, 1998). The Clery Act, passed in 1990, requires all IHE’s that receive federal assistance to report crimes including sexual assault in and around their campuses in an annual crime report available to the general public (US Department of Education, 2011). Recent amendments to the Violence Against Women Act, specifically the Campus Sexual Violence Elimination (SaVE) Act, has updated the Clery Act to require IHE’s to provide sexual assault preventive education and training, as well as
develop and implement reporting and disciplinary procedures for campus sexual assault (Campus Sexual Violence Elimination Act, 2013).

Sexual assault has become a prominent topic of debate and action in the United States. Healthy People 2020, an organization that develops and monitors 10-year national health objectives, includes a developmental objective to reduce sexual violence (US Department of Health and Human Services, 2014). Concurrently, Healthy Campus 2020 includes three objectives that directly address reducing the prevalence of sexual assault on college campuses (American College Health Association, 2012). In early 2014, the White House commissioned a task force to investigate and combat sexual violence on US college campuses. The task force has since publically released recommendations for college campuses to reduce sexual assault and improve response services (The White House, 2014). As recently as June 2014, members of congress and the national media have called for more effective federal, state, and institutional response to the campus sexual assault epidemic (Thomason, 2014). Further, states such as California, and IHE’s, such as Harvard, University of Virginia, and Ohio State University, have bolstered their sexual assault laws and policies.

*College Environment*

There is some evidence that the college environment allows and even promotes sexual assault; alcohol and other drug use are widespread and many young adults are living away from home for the first time. According to ACHA (2013), at least 44 percent of college students self-reported recent alcohol consumption, 17 percent reported marijuana use, and 13 percent reported other drug use. Research supports the link between regular use of recreational drugs and an increased risk for violence, including sexual assault (Fisher, Sloan, Cullen, & Lu, 1998). Similarly, alcohol reportedly plays a role in approximately 50 percent of campus sexual assaults
There is evidence that the risk of sexual victimization increases with alcohol consumption (Buddie & Miller, 2001; Combs-Lane & Smith, 2002; Parks & Fals-Stewart, 2004). Alcohol may reduce a person’s ability to detect risk of victimization (Davis, Stoner, Norris, George, & Masters, 2009; Testa & Livingston, 2000) as well as his or her capacity to resist unwanted sexual advances (Pumphrey-Gordon & Gross, 2007; Testa, VanZile-Tamsen, Livingston & Buddie, 2006).

**High Risk Individuals and Groups**

College students are particularly vulnerable to sexual assault (Fisher, Cullen, & Turner, 2000), with recent research suggesting that college women are at a higher risk than their non-college peers (Krebs, Lindquist, Warner, Fisher, & Martin, 2007; Karjane, Fisher, & Cullen, 2005), and rates of victimization are about three times greater than in the general population (White & Smith, 2004). Effectively addressing campus sexual assault involves investigating both victims and perpetrators. An overwhelming majority of sexual assaults are perpetrated by someone known to the victim, whether it is a friend, family member, or other acquaintance; approximately 90% of rapes on campus are acquaintance rapes (Sampson, 2002). There is mixed evidence about the gender of most perpetrators. The Department of Justice (1997) reports that 99% of rapists are male, but this statistic only accounts for convicted sex offenders. Studies investigating college sexual assault suggest that both males and females are perpetrators, but a higher percentage of males perpetrate (Krahe & Berger, 2013). For example, study by Palmer, McMahon, Rounsaville, and Ball (2010) reported that 6 percent of women and 13 percent of men reported engaging in sexually coercive behavior. However, few studies have investigated female perpetration and much is left unknown about female perpetrators (Fisher & Pina, 2013). Although a small fraction of the population reports perpetrating sexual assault, it is theorized that
many perpetrators are repeat offenders, thus accounting for the differences between victimization and perpetration rates. By further identifying risk factors for perpetration, college campuses could better identify high risk groups and tailor prevention programming to address risk factors.

Certain groups within the college population may be at higher risk of being both perpetrators and victims. Sorority membership (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Kalof, 1993), especially in a sorority that associates with fraternities that promote social norms supportive of sexual aggression (Mustaine & Tewksbury, 2002), is associated with victimization. One study found that one third of sorority members were raped at some point during the course of her college career, compared to 6 percent of non-sorority peers (Minow & Einolf, 2009). It has also been theorized that because of high risk drinking or socialized traditional gender roles that these sorority members are placed at a higher risk.

Literature suggests that all-male social groups may be at higher risk for sexual perpetration (Schwartz & DeKeseredy, 1997). Evidence from the literature supports the assumption that fraternity membership is associated with sexual assault perpetration (Lackie & deMan, 1997; Murnen & Kohlman, 2007), potentially due to greater acceptance of traditional roles, belief in rape myths (Schwartz & DeKeseredy, 1997); alcohol may also play a role in this relationship (Kingree & Thompson, 2013). Additionally, membership of all-male athletic teams is associated with sexual assault perpetration (Koss & Gaines, 1993; Murnen & Kohlman, 2007). These groups tend to place value in violence, dominance over women, and sexual conquests (Muehlenhard & Cook, 1998).

Individuals identifying as non-heterosexual are at increased risk for many behavioral and health problems, including sexual assault victimization. A systematic review synthesizing the results of 75 studies aimed at sexual orientation and sexual assault concluded that individuals
identifying as gay, bisexual, or lesbian are at an increased risk of being the victim of sexual assault in childhood and adulthood (Rothman, Exner, & Baughman, 2011). Researchers have speculated that this is related to greater prevalence of risky behavior, such as alcohol consumption and drug use (Reed, Prado, Matsumoto, & Amaro, 2010).

Disclosure, when a victim tells someone about his or her sexual assault experience, may be a powerful influence on how people view sexual assault. A majority of female victims of campus sexual assault (66 percent) tell friends but not family or school officials (Fisher, Cullen, & Turner, 2000). This could be for several reasons; commonly reported reasons include shame, guilt, fear of retaliation, and fear of not being believed (Sable, Danis, Mauzy, & Gallagher, 2006). Dunn, Vail-Smith, & Knight (1999) report that about one third of college students indicated that a friend had disclosed to them. College students who have been disclosed to, report feelings of confusion, validation, ineffectiveness, and emotional distress (Ahrens & Campbell, 2000; Banyard, Moynihan, Walsh, Cohn, & Ward, 2010). However, little is known about how the experience of personally knowing of an assault victim effects how individuals view sexual assault.

Sexual Assault Prevention and Response on College Campuses

Federal legislation in the form of the Campus SaVE Act now requires all IHE’s that receive federal funding to deliver sexual assault prevention programming to all students. This is a departure from previous guidelines that only recommended sexual assault prevention programming. However, the language of the Campus SaVE Act is vague, and it has not been established how this new provision will be monitored by the federal government.
Primary Prevention Programming

A growing proportion of universities offer sexual assault education and primary prevention programming. However, many of these programs are yet to be systematically evaluated for effectiveness, and there is mixed evidence in regard to the lasting effects of evaluated programs (Vladutiu, Martin, & Macy, 2011). Further, secondary and tertiary sexual assault prevention programming on college campuses is greatly lacking in the scientific literature (Classen & Palesh, 2005).

Risk Reduction

For decades, researchers have approached sexual assault prevention by targeting potential victims and their potential risky behavior (Hanson & Gidycz, 1993; Breitenbacher, 1999; Gidycz, Layman, Rich, Crothers, Gylys, Matorin, & Jacobs, 2001; Orchowski, Gidycz, & Raffle, 2008). These approaches focus on self-defense skills and efficacy, as well as providing tips to be more assertive in potential dangerous dating situations. They can also incorporate information about the prevalence of sexual assault, identify factors associated with sexual assault, and teach risk reduction strategies (Hanson & Gidycz, 1993). Risk reduction skills include enabling women to assess whether a dating scenario is potentially risky and take assertive or forceful action to resist a sexual assault (Nurius, 2000; Lonsway, Banyard, Berkowitz, et al., 2009).

The overall outcome is to lower likelihood or prevalence of being victimized; however, there has been mixed evidence of these approaches being successful, and subsequent victimization is often not measured (Lonsway, Banyard, Berkowitz, et al., 2009). Furthermore, there are many considerations researchers must make when creating a program that focuses on potential victim behavior. According to Breitenbecher (1999), because some instances of sexual victimization are unavoidable no matter the resistance, developers of resistance and risk
reduction programs for women must ensure that program content does not have the inadvertent effect of increasing feelings of self-blame or guilt resulting from sexual assault. In some situations, people cannot predict intentions or past actions of other people.

Even when potential victims perceive that a sexually dangerous situation is going to occur, they may choose to not act assertively in favor of greater personal safety (Nurius, 2000). Potential victim-focused behavior approaches inherently place blame on the victim. Proving information and teaching skills to resist or reduce risk of sexual assault can be ineffective when perpetrators are not being told that it is unacceptable behavior, and when men are socialized at a young age to believe that to be masculine is to be dominant and sexually aggressive. Without involving men in interventions, health educators are only addressing a small portion of the issue.

*Mens’ Programs*

According to Flood (2011), there is a growing consensus that to end sexual assault, health educators must involve men. Interventions focused on this approach often utilize methods such as providing a legal definition of sexual assault, discussing common rape myths, and giving and explaining real-life sexual assault scenarios. Most results report that there is a significant change in attitudes and social norms, but not likelihood or incidence of perpetrating sexual assault (Lonsway, 1996; O’Donohue, 2003).

These interventions have shown to be incomplete; approaches neglect the role of the female and presuppose that all men are potential perpetrators. Without a proper balance between male-dynamics in sexual situations, and a method to make males feel as if they have a positive role in sexual assault prevention, these interventions leave something to be desired. Alternately, female perpetrators are not addressed in these male-focused programs, leaving out a small, but important segment of perpetrators.
**Bystander Intervention**

According to Schwartz and DeKeseredy (1997), likelihood of sexual assault perpetration is intimately tied to social context, “while it is clear that the ultimate responsibility for sexual violence and its prevention rests squarely with perpetrators and their behavior, research also suggests that these behaviors may be exacerbated, intensified, and camouflaged by the peer norms and community contexts surrounding them” (p. 45). Bystander intervention calls for the greater social community to take responsibility for the prevention of sexual assault.

These programs aim to help members of a community to become more sensitive to sexual assault, teach them intervention skills in high risk sexual situations, and educate them in strategies to support survivors of sexual assault (Banyard, Plante, & Moynihan, 2004). These programs also have the potential to decrease the acceptability of campus sexual assault and shifting responsibility by influencing campus norms and increasing the sense of social responsibility to intervene and assist student peers (Banyard, Plante, & Moynihan, 2004). Evaluations of bystander intervention programs have shown to increase knowledge, decrease rape myth acceptance, reduce sexually aggressive behavior, improve peer norms, and increase bystander behavior (Banyard, Moynihan, & Plante, 2007; Gidycz, Orchowski, & Berkowitz, 2011; Coker, Cook-Craig, Williams et al., 2011).

**Response Services**

Although the majority of victims do not formally report or seek health services for their assaults (McCart, Smith, & Sawyer, 2010), response services such as counseling, health care, and access to formal reporting channels may be crucial for victim recovery, regardless of reporting status. Research has supported the importance for victims to receive positive physical and mental health services shortly after their assaults to improve recovery (Campbell, Dworkin,
 Furthermore, as negative experiences with formal reporting or health services can serve as a further detriment to victim outcomes (Campbell, 2008), it is essential for response providers to create a supportive and positive experience for victims.

Specific to the campus sexual assault, colleges may have their own health center, counseling center, police officers, relevant policies, and judicial processes. Unfortunately, many victims may not utilize these services; one study found that only approximately 20 percent of victims utilized any type of campus service (Nasta, Brahmanandam, Richman, Wittels, Allsworth, & Boardman, 2005), while Walsh, Banyard, Moynihan, Ward, and Cohn (2010) reported that between three and six percent used any campus service following their assault. Shame and embarrassment are commonly reported barriers to not utilizing services (Nasta, Brahmanandam, Richman, Wittels, Allsworth, & Boardman, 2005; Walsh, Banyard, Moynihan, Ward, & Cohn, 2010); furthermore, a majority of students have very limited knowledge about response services (Hayes-Smith & Levett, 2010).

Sexual Assault-Related Negative Consequences

While having severe and enduring physical, psychological, social, and economic consequences on sexual assault victims, societal consequences of sexual assault are broad and have far-reaching implications. Sexual assault is a destructive behavior that not only causes damage to the victim, but also reinforces future perpetration.

Damage to the Individual

Physical Trauma

If physical force is used during an assault, it is likely that a victim has suffered some sort of physical trauma. Approximately half of sexual assault victims experience physical injury (Linden, 2011); this can range from bruises and lacerations, all the way up to head trauma,
internal bleeding, and death (CDC, 2010). Additionally, long-term physical consequences can occur, such as chronic pelvic pain, gastrointestinal disorders, gynecological complications, frequent back and face pain, and other disability (Jewkes, Sen, & Garcia-Moreno, 2002).

Reproductive Issues

According to Holmes, Resnick, Kilpatrick, & Best (1996), more than 32,000 pregnancies result from rape every year, half of which end in abortion. Although rape-related pregnancy is not common, it causes further undue harm by placing financial, social, and psychological stress on the woman. Similarly, women who have been sexually assaulted are more likely than those who engaged in consensual sex to receive a sexually transmitted infection (Williams, Clear, & Coker, 2013). If victims seek out medical care, they often receive prophylaxis for sexually transmitted infections; however, many do not receive medical care directly after an assault.

Mental Issues

Although physical trauma can be severe, many psychological issues arise months and even years after the incident. Society commonly places much, if not all blame on the victim, creating mental distress that can manifest in several forms. The sequelae of mental and emotional issues are well documented, including feeling humiliated and degraded (Smith & Kelly, 2001), guilt, shame, and anger (Burgess, 2000); these issues are common, especially in victims who have not received adequate psychological care after their assaults (Burgess, 2000).

Mental Disorders

Many victims report suffering from depression, Post-Traumatic Stress Disorder (PTSD), anxiety issues, and other mental disorders (Coxell, King, Mezey, & Gordon, 1999; Larimer, Lydum, Anderson, & Turner, 1999; Walker, Archer, & Davis, 2005). Up to half of sexual assault victims meet the diagnostic criteria for depression (Acierno, Brady, Gray, Kilpatrick,
Resnick, & Best, 2002; Clum, Calhoun, & Kimerling, 2000; Golding, 1996). Research suggests that PTSD is a common consequence of victimization, as between 16 and 60 percent of victims develop PTSD (Elliott, Mok & Briere, 2004; Kilpatrick, Edmunds, & Seymour, 1992; Resnick, Holmes, Kilpatrick, Clum, Acierno, Best, & Saunders, 2000). A majority of victims report developing fear and/or anxiety (Ullman & Siegel, 1993; Siegel, Golding, Stein, Burnam, & Sorenson, 1990). Lastly, between one quarter and one half of victims experience thoughts and ideations of suicide (Frank & Stewart 1984; Petrak, Doyle, Williams, Buchan, & Forster, 1997) and between 2 and 19 percent actually attempt suicide (Davidson, Hughes, George, & Blazer, 1996; Kilpatrick, Best, Veronen, Amick, Villeponteaux, & Ruff, 1985).

Academic Issues

Adverse life events, such as sexual assault, have been consistently associated with poorer academic performance (Dyregrov, 2004; Saltzman, Pynoos, Layne, Steinbert, & Aisenberg, 2001). In college students, academic issues are often associated with mental issues such as depression and anxiety disorders (Eisenberg, Golberstein, & Hunt, 2009). Since many sexual assault victims develop mental disturbances, academic issues may be an indirect but important consequence of victimization.

Social Issues

Often, victims of sexual assault can experience a disruption of social functioning. Sexual assault can result in stigmatization by society, significant others, health providers and family (Jewkes, Sen, & Garcia-Moreno, 2002). Research has also reported that victims withdraw from social activities, and even distance themselves from loved ones, negatively affecting friends, family and community members as a result (Jina & Thomas, 2013). Society generally understands sexual assault as a female issue. Recent scientific literature contrasts this view,
however, and sexual assault can pose unique social issues for men. Fear of homophobic backlash is a commonly cited perceived barrier to reporting male rape (Sable, Danis, Mauzy, & Gallagher, 2006). Additionally, men who have been sexually assaulted cite “fear of not being believed” as a common reason to not report (Sable, Danis, Mauzy, & Gallagher, 2006).

**Economic Issues**

Victims bear the economic burden of sexual assault, which can be severe. Not only do many victims utilize health care directly after an assault, but they are more likely to experience expensive long-term physical and psychological issues. According to the National Institute of Justice (1996), sexual assault is the most costly of all crimes to its victims, with total estimated annual cost of $127 billion a year in the United States. In addition, approximately 50 percent of sexual violence victims had to quit or were forced to leave their jobs in the year following their assaults due to the severity of the consequences (Ellis, Atkeson, & Calhoun, 1981).

**Behavioral Issues**

Several negative health behaviors are associated with victimization, such as smoking, alcohol and other drug use, physical violence, and risky sexual behaviors (Gidycz, Orchowski, King, & Rich, 2008; Brener, McMahon, Warren, & Douglas, 1999; Basile, Black, Simon, Arias, Brener, & Saltzman, 2006); however, much is left unknown about the directionality of these relationships. Kilpatrick, Acierno, Resnick, Saunders, & Best (1997) found that drug use increased the likelihood of victimization, and that alcohol and other drug use increased after victimization. Deliriamich and Gray (2008) reported similar findings, in that alcohol use and risky sexual behaviors increased post-assault. Others have only studied a non-directional association. For example, Brener, McMahon, Warren, & Douglas (1999) found that female victims were up to 2.7 times more likely to report engaging in a variety of risky health behaviors.
compared to their non-victimized peers. Another study reported that female victims were significantly more likely to have sudden weight changes and symptoms of anorexia (Laws & Golding, 1996).

*Damage to Interpersonal Relationships*

Individuals who disclose their assaults generally tell friends and peers about their assault (Fisher, Daigle, Cullen, & Turner, 2003). According to Banyard, Moynihan, Walsh, Cohn, and Ward (2010) one third of female undergraduates and one fifth of male undergraduates report receiving a disclosure. However, many individuals who report receiving a disclosure also report increased emotional distress and other negative consequences of disclosure. Some individuals have negative reactions towards the victim, which could cause strain on the relationship. Social support seems to be a crucial factor for victim recovery, (Borja, Callahan, & Long, 2006; Najdowski & Ullman, 2009) and positive social support should be preserved for better victim outcomes.

*Damage to the Institution*

*Negative Media Attention*

Although campus sexual assault is a widely known problem, it is often unreported (Bullock & Beckson, 2011). If campus administration does not act or actively attempts to cover up the assault and the victim garners support through the media, college campuses can receive a firestorm of negative media attention. Recently, reports of such mishandling have occurred at several well-regarded institutions, such as the University of North Carolina at Chapel Hill, Yale University, Swathmore College, Wesleyan University, and Amherst College (Perez-Pena & Lovett, 2013). The negative attention that these institutions receive has yet to be studied in depth, and the full extent of potential damage to the institution is unknown.
Title IX investigations

Currently, at least 94 IHE’s are under investigation for violations of Title IX (Mangan, 2015), which protects students from sexual violence and harassment. To date, this is the biggest push to confront campus sexual assault by the Department of Education, the entity responsible for these investigations. As recently as 2014, however, members of the US Senate have recognized the lack of sanctions imposed on schools found to violate Title IX and The Clery Act (Thomason, 2014). Theoretically, violators of these federal policies are punished by loss of federal funding, but this has never been enforced. Senators have publicly stated that without major consequences for violations, colleges do not have proper incentive to fully comply with the law.

Other Negative Consequences

According to the ACHA Position Statement on Preventing Sexual Violence on College and University Campuses (2011), sexual assault can be devastating to the individual, but has larger implications on the campus community. ACHA states that high levels of sexual assault combined with wide acceptance of rape myths can create an atmosphere where victims are disempowered and alienated from their college, resulting in reduced feelings of safety, barriers to academic achievement, reduced likelihood of graduation, and a range of physical and mental health issues.

There is a dearth of literature that identifies the consequences of sexual assault from an institutional level. Much of the damage is merely speculative, such as: reduced feelings of trust in the university from students, parents, and employees; loss of future alumni donations; reduction of applicants; and civil lawsuits. For example, Wesleyan University recently settled with a sexual assault victim for several million dollars in a highly publicized civil suit (Flanagan,
This study aims to contribute to literature about the negative consequences of sexual assault on IHE’s by examining perceptions of administration, feelings of campus support, and trust in the institution in regard to campus sexual assault.

*Damage to Communities and Greater Society*

Sexual assault poses an unnecessary burden to victims, loved ones, institutions, communities, and greater societal structures. Victims can become withdrawn from their communities, diminishing potential productivity in their personal and professional lives. Similarly, the estimated cost to society of each prosecuted sexual assault is approximately $240,000; this takes into account loss and damage to the victim, resources spent by government agencies, and the perpetrator engaging in criminal acts instead of being a productive member of society (McCollister, French, & Fang, 2010). However, this estimate does not account for unprosecuted sexual assaults, thus giving an incomplete picture of the issue.

Sexual assault has far-reaching implications beyond the college campus. Both a product of and a perpetuation of the culture, sexual violence can create a sense of subordination (Heise, Ellsberg, & Gottemoeller, 1999), particularly for females who are assaulted at higher rates. Society, although explicitly stating that sexual assault is deviant through laws and policies, tends to blame victims and fails to recognize the scope of the problem. Several studies have found that sexual violence is not only present, but normalized and reinforced in mainstream media in various platforms such as advertising, music lyrics, comedy routines, movies, and pornography (Capella, Hill, Rapp, & Kees, 2010; Donnerstein & Linz, 1998; Emmerson, Pauley, Hanzal, & Triplett, 2006; Kahlor & Eastin, 2011). Consequently, society reluctantly accepts sexual assault as inevitable or an unfortunate but unavoidable part of the current social order (O’Neil & Morgan, 2010).
Theoretical Foundation

Theories for Individual-Focused Prevention Programs

Although theoretical frameworks for sexual assault prevention programs are generally lacking (McCall, 1993; Yeater & O’Donohue, 1999; Anderson & Whiston, 2005), there are a few notable exceptions. There is also programming based off Belief Systems Theory (Langhinrichsen-Rohling, Foubert, Brasfield, Hill, & Shelley-Tremblay, 2011) and Elaboration Likelihood Model (Foubert & Newberry, 2006), which will not be examined in detail because these are not generally considered to be health behavior theories. Gidycz, Rich, Orchowski, King, & Miller (2006) utilized the Health Belief Model (Hochman, 1958) and Social learning Theory (Bandura, 1977) to increase female undergraduate student identification of high risk situations. Strategies used in this program were: defining sexual assault; introducing prevalence rates; discussing risk factors; video of sexual assault survivors discussing their acquaintance rapes; identifying protective strategies; and learning self-defense skills. Although this program increased protective behaviors in participants, self-efficacy, assertive communication, and sexual victimization were unchanged. An updated version of this risk reduction program also incorporated intentions to engage in risk reduction, and addressed psychological barriers to resistance, which resulted in increased protective behaviors, self-efficacy, assertive communication, and a potential reduction in rape over 2 month follow-up (Orchowski, Gidycz, & Raffle, 2008).

The Theory of Planned Behavior (TPB; Ajzen, 1991) has been utilized to examine factors predicting sexual assault perpetration or victimization (Thompson, Koss, Kingree, Goree, & Rice, 2010; Kingree & Thompson, 2013; Combs-Lane & Smith, 2002), but is rarely seen as a framework for prevention programming. Gray, Lesser, Quinn, & Bounds (1990) utilized TPB in
implementing a risk reduction program; the intervention resulted in a reduction in intention to implement risk-reduction behaviors, but did not result in fewer sexual assaults. Additionally, the bystander intervention program, “Bringing In The Bystander” incorporates beliefs, social norms, and perceived behavioral control, along with an ecological perspective in regard to bystander behavior (Banyard, Plante, & Moynihan, 2004; Banyard, Moynihan, & Crossman, 2009). This program has been evaluated in different college student populations, and outcomes include an increase in attitudes, knowledge, bystander efficacy, and bystander behaviors (Banyard, Moynihan, & Crossman, 2009; Moynihan, Banyard, Arnold, Eckstein, & Stapleton, 2011).

**The Social Ecological Model**

The Social Ecological Model (SEM; Bronfenbrenner, 1977; 1979) addresses behaviors through multiple layers of influence. McLeroy, Bibeau, Steckler, and Glanz (1988) build upon Bronfenbrenner’s model to include intrapersonal, interpersonal, institutional, community, and public policy or societal layers of influence. Ecological frameworks recognize that individuals are entrenched within society and health outcomes are affected by societal and environmental influences (Sallis, Owen, & Fisher, 2008; Stokols, 1992). The intrapersonal layer refers to attitudes, beliefs, knowledge, and personal experience. Interpersonal factors include connections to friends, family, and other peer groups. The organizational level involves examining the environment of such institutions as schools, workplaces, and religious organizations. Community refers to groups of people that are connected by shared interests or beliefs. The societal or policy layer encompasses local, state, and federal policies that can either regulate or encourage health practices.

Many health education programs, even when utilizing the SEM framework, tend to focus on the intrapersonal and interpersonal levels of influence (Golden & Earp, 2012). Incorporating
all levels into a study or intervention may be impractical (Stokols, 1996), potentially due to the overwhelming resources that would be needed to integrate the entire framework. However, it is important to remember that the social, physical, and cultural aspects of an environment have a collective effect on health, and that the layers are interactive and reinforcing (Stokols, 1992; 1996).

Ecological Approaches to Sexual Assault Prevention

Within the last decade, national public health entities, such as the CDC (2004) and ACHA (2007; 2011) have called for an ecological approach to sexual assault prevention. ACHA recognizes that in order for primary prevention efforts to be successful, the issue needs to be reframed into an ecological framework. Recent reviews of scientific literature on campus sexual assault have called for research to take an ecological perspective of this issue as well as create prevention and education approaches that engage different layers of influence (Banyard, 2011; Casey & Lindhorst, 2009; Wandersman & Florin, 2003). However, little research has been conducted in this area with an ecological approach to date. Additionally, SEM has been applied to similar safety issues such as bullying (Whitaker, Rosenbluth, Valle, & Sanchez, 2004), physical violence (Bowen, Gwiasda, & Brown, 2004), and drunk driving (Wagenaar, Murray, & Toomey, 2000).

Tillman, Bryant-Davis, Smith, & Marks (2010) examined how intrapersonal factors, social context, organizations, and culture interact and shape the context of sexual assault for female African American victims. Other studies use ecological frameworks to understand the complex nature of violence against women, including sexual assault (Heise, Ellsbert, & Gottmoeeller, 2002; Campbell, Dworkin, & Cabral, 2009). Lastly, bystander intervention programs approach sexual assault with an ecological perspective (Banyard, Moynihan, &
Crossman, 2009) by addressing greater community norms and placing responsibility for prevention on everyone involved.

**Intrapersonal Level Factors and Sexual Assault**

**Knowledge/Awareness**

Awareness of or knowing a victim is commonly believed to be related to empathic attitudes about sexual assault. Sorenson, Joshi, and Sivitz (2013) report that those who know a victim may be more compassionate toward victims, employ risk-reduction behaviors, and be less likely to perpetrate sexual assault. A meta-analysis of rape myth acceptance (Anderson, Cooper, & Okamura, 1997) also found that females who experienced sexual assault or had exposure to victims were less likely to agree with rape myths.

Although sexual assault prevention program evaluations have found varied success in improving knowledge, awareness, and other outcomes, programming on college campuses show promise in reducing sexual assaults on campus (Anderson & Whiston, 2005). A common goal of these programs is to create awareness and to provide accurate information about campus sexual assault. Simply participating in a program may raise awareness and even affect attitudes about sexual assault (Anderson & Whiston, 2005). The effects of participating in prevention and education programming have yet to be fully determined, and there has not yet been investigation about how participating in programming affects views of the institution.

**Previous Victimization**

Individuals who have been previously victimized are at greater risk of sexual assault than their non-victimized peers. According to Classen, Palesh, and Aggarwal (2005), two thirds of victims will be re-victimized during their adult lives. In fact, prior child, adolescent, or adult victimization is consistently shown to be a strong predictor of adult sexual assault victimization.
(Testa, Hoffman, & Livingston, 2010; Jankiowski, Leitenbert, Henning, & Coffey, 2002; Aosved, Long, & Voller, 2011), specifically suggesting that prior adolescent victimization poses the greatest risk for young adult victimization (Humphrey & White, 2002). Victims who report higher distress and certain mental disorders are at an elevated risk of re-victimization as well as difficulty with personal relationships and coping, and exhibit greater self-blame and shame (Classen, Palesh, and Aggarwal, 2005). Thus, campus support services can fill a critical need for victims, and may help reduce the recurrence of sexual violence.

**Beliefs and Attitudes**

Originally defined by Burt (1980, p. 217), rape myths are “prejudicial, stereotyped, or false beliefs about rape, rape victims and rapists.” Numerous studies have examined rape myth acceptance, or the level of agreement with rape myths, in several populations. College populations have been the major focus of rape myth acceptance research, in that rape myth acceptance is measurably higher in certain college groups. For example, males generally tend to exhibit higher agreement with rape myths, particularly fraternity members and athletes (McMahon, 2010; Suarez & Gadalla, 2010; Murnen & Kohlman, 2007). Additionally, men who accept rape myths, hold adversarial views about relationships between men and women, excuse violence against women, or believe in traditional sex roles are more tolerant of sexual assault and more likely to perpetrate sexual aggression than their non-aggressive peers (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001; Burt, 1980; Koss, Leonard, Beezley, & Oros, 1985). Research has yet to determine if female perpetrators show greater acceptance of rape myths for either gender. Sexual assault prevention programs often focus on confronting rape myth acceptance; however, effects are short term, suggesting that rape myths are complicated and resistant to change (Rozee & Koss, 2001).
The gender of the victim is an important factor when measuring rape myths, since males and females are subjected to different types of prejudice or false beliefs. For example, individuals tend to perceive male and female rape victims differently; generally, males are perceived to be able to fight off a potential perpetrator (Struckman-Johnson & Struckman-Johnson, 1992), and females invite sexual contact through the clothes they wear (McMahon, 2010). Male and female rape myths are strongly associated (Davies, Gilston, & Rogers, 2012), signifying that rape myths hold true, regardless of the gender of the victim.

Alcohol Consumption

Alcohol is consistently identified as a factor in sexual assaults, as up to 75 percent of acquaintance sexual assaults involve alcohol use by either perpetrators or victims, or both (Testa & Livingston, 1999; Ullman & Brecklin, 2000). Further, approximately half of sexual assaults that occur on college campuses are alcohol related, with one or both parties reporting alcohol consumption before or during the assault (Abbey, McAuslan, & Ross, 1998; Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). Alcohol use functions differently for victims and perpetrators in sexual assault situations. For victims, intoxication may reduce the ability to recognize and resist unwanted sexual advances. Contrarily, perpetrators may mistake friendly gestures as invitations for sexual contact, or perpetrator inhibitions may be reduced, allowing them to justify deviant behavior (Abbey, 2011; Abbey, 2002).

There is still much to be uncovered about the relationship between alcohol use and sexual assault. Although alcohol consumption is not a requirement for sexual assault, their frequent co-occurrence suggests that alcohol may play a type of causal role in some sexual assaults (Abbey, 2011). In a recent review of sexual assault and alcohol use, Abbey (2011) theorized that there were three possible pathways between alcohol use and sexual assault perpetration: alcohol use
may have a causal link to perpetration; perpetration may have a causal link to alcohol use; or, the two variables are indirectly linked through other personal characteristics, such as beliefs and attitudes. Gaining a greater understanding of this relationship is important for sexual assault programming, as targeting alcohol use as a direct cause of sexual assault may not be the most effective approach for prevention.

**Group Affiliation**

Certain demographic characteristics make individuals at higher risk of either perpetration, victimization, or both. Previous studies have established associations between greek-affiliation (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Minow & Einolf, 2009; Franklin, 2010), gender (i.e. Hines, Armstrong, Reed, & Cameron, 2012), year in school (Kimble, Neacsiu, Flack, & Horner, 2008), sexual orientation (Rothman, Exner, & Baughman, 2011), and victimization. For perpetration, gender (Krahe & Berger, 2013), greek-affiliation (Murnen & Kohlman, 2007), and athlete status (Murnen & Kohlman, 2007) have shown as risk factors for perpetration.

**Demographic Characteristics**

There is mixed evidence about race and ethnicity having a relationship to sexual assault victimization; although earlier studies found that white and Native American college women were more likely to be victimized (Koss, Gidyca, & Wisiniewski, 1987), more recent studies have shown that African American college women reported higher rates of victimization particularly when physical force emotional pressure were used, or when they perceived their partner as being too aroused to stop his advances (Gross, Winslett, Roberts, & Gohm, 2006). However, a recent study found that African American college women were less likely to experience incapacitated sexual assault than their white counterparts (Krebs, Barrack, Lindquist,
Crosby, Boyd, & Bogan, 2011), suggesting that this relationship may be due to racial differences in alcohol consumption.

**Interpersonal Level Factors and Sexual Assault**

**Peer Norms**

By allowing or even promoting sexual aggression, peer groups may have an effect on the actions of perpetrators (Malamuth, Sockloskie, Koss, & Tanaka, 1991; Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001). For example, Schwartz and DeKeseredy (2000) reported differences in campus sexual assault rates related to differences on measures of supportive male peer norms for the use of sexual coercion. Several studies have reported that college males overestimate sexist and rape myth acceptance in their male peers (Bruce, 2002; White, 2002), which further adds to false attitudes, and could unintentionally condone the acts of peers prone to sexual violence.

Social norms that are permissive toward sexual assault may put individuals or groups at risk for sexual assault victimization, where potential victims may feel as if they are expected to attract men and engage in sexual activity (Norris, Nurius, & Dimeff, 1996), which may lead to certain experiences, even if they are unwanted. According to Holman and Sillars (2012), peer norms influence initiation of a sexual experience, but have less control over details of the experience such as condom use, coercion, and type of sexual activity, suggesting that these unplanned sexual events can lead to problematic and unwanted sexual behavior. Unlike intrapersonal factors such as attitudes, knowledge, and past experiences, comparatively little research has explored the role of social norms in sexual assault.
**Institutional Level Factors and Sexual Assault**

Much of the campus sexual assault literature has concentrated on intrapersonal and interpersonal characteristics, not features of the university (Cass, 2007). Without fully understanding this layer of influence, researchers and practitioners are missing essential information that could identify risk or protective institutional factors for sexual assault prevention, and further understand the institutional implications of campus sexual assault.

Previous research has found that the larger the student enrollment on campus, the higher the rate of sexual assault on campus (Fernandez & Lizotte, 1995). Additionally, Cass (2007) found that there were no consistent institutional factors (i.e. self-defense classes, security personnel, fenced boundary, key card access, full-time police officers) that were associated with victimization across a sample of 11 US colleges. Fisher, Sloan, Cullen, and Lu (1998) found that having mandatory rape, alcohol, or drug awareness programming and the presence of full-time security guards had little effect on violent victimization on campus.

There is a lack of research on the institutional implications of campus sexual assault. There is evidence that students perceive sexual assault prevention programming to be important, especially those who also report previous victimization (Jozkowski, Henry & Sturm, 2014). Similarly, mishandled sexual assault cases have shown to draw negative attention, but consequences on the institution are yet to be quantified. Understanding the institutional implications of campus sexual assault can provide universities the evidence and support they need to direct resources to effectively prevent and respond to sexual assault on campus.

**Community and Societal Level Factors and Sexual Assault**

Health policy can be used to implement sweeping changes in public health, by either inhibiting or promoting certain behaviors. Federal and local laws that classify sexual assault as
both a deviant behavior and a criminal offense, have been in place for decades, but have only since defined sexual assault in gender-neutral terms (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). However, definitions of sexual assault vary widely by state, and criminal punishment is inconsistent.

Specific to campus sexual assault, Title IX and the Clery Act (described previously in this chapter) prohibit sex discrimination and require reporting of campus sexual assault in institutions of higher education (IHE). More recently, the Campus Safety Elimination of Violence (SaVE) Act, passed in 2013 and takes effect for the 2014-2015 academic year, requires IHE’s proper reporting of dating violence, stalking, and domestic violence, provide education on primary prevention of these crimes, maintain victim confidentiality, and to develop and make available procedures for reporting and going through the process of filing disciplinary reports (Clery Center, 2012). Non-compliance with these policies can result in sanctions and withholding of federal funding; however, withholding of funding has never occurred as a result of non-compliance. These policies, although not perfect, represent a continued national effort to combat campus sexual assault.

Conclusions

Gaps in the field

Despite the increasing interest and research on campus sexual assault there are still many inconsistencies and gaps in the literature in terms of victimization, perpetration, and the greater social context in which sexual assault occurs. Relative to this study, the relationship between peer norms and victimization is not well understood; there is a dearth of information about institutional implications of sexual assault; the relationship between alcohol and sexual assault is complex and needs further investigation; and there is a general lack of information regarding
female perpetrators. This study will add to the field by attempting to contribute information to fill the gaps in our current understanding of the different layers of influence on campus sexual assault.
CHAPTER 3

Methods

Overview

The data for this dissertation were collected from one large public university in the southeastern region of the United States. Dissertation methodology employed quantitative approaches to explore perceptions and prevalence of sexual assault and associated factors on college campuses. The assessment battery that was utilized in this study was developed and modified from previous work in the areas of unwanted sexual experiences (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007), attitudes and beliefs about sexual assault (McMahon & Farmer, 2011; Melanson, 1999), social norms of sexual assault, (Rinker & Neighbors, 2013a, Rinker & Neighbors, 2013b), alcohol use among young adults (Core Institute, 2000) and perceptions of the campus community (Summers, Beretvas, Svinicki, & Gorin, 2005; Sulkowski, 2011; US Defense Equal Opportunity Management Institute, 2014; US Office on Violence Against Women, 2014), as seen in Table 3.1. The survey consisted of a mix of Likert Type, yes/no, short-answer and multiple-choice questions. This methodology section details the development of the assessment battery, sample selection, data collection protocol, and statistical procedures.

Research Questions

The following research questions were used to guide this study:

1. Which intrapersonal and interpersonal factors predict sexual assault victimization?
2. Which intrapersonal interpersonal, and institutional factors predict sexual assault perpetration?

3. Do rape myth acceptance and peer norms moderate the relationship between alcohol consumption and sexual assault perpetration?

4. Is there a significant difference in perceived institutional factors between those who have been sexually assaulted, and those who have not?

5. Is there a significant difference in perceived institutional factors between those who are aware of sexual assault on campus, and those who are not?

6. Is there a significant difference in perceived institutional factors between those who have perpetrated sexual assault, and those who have not?

Institutional Review Board Approval

A proposal was submitted for Institutional Review Board (IRB) expedited review at the University of Alabama (UA) and approval was granted on June 24th, 2014 (Appendix A). Based on feedback from the dissertation committee and further investigation of the literature, minor revisions were submitted, and approval was granted on October 3rd, 2014.

Assessment Battery Development

The survey that was used in this study was developed and modified from previous work in work in the areas of unwanted sexual experiences (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007), attitudes and beliefs about sexual assault (McMahon & Farmer, 2011; Melanson, 1999), social norms of sexual assault, (Rinker & Neighbors, 2013a, Rinker & Neighbors, 2013b; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007), alcohol use among young adults (Core Institute, 2000) and perceptions of the campus community (Summers, Beretvas, Svinicki, & Gorin, 2005; Sulkowski, 2011; US Defense
Equal Opportunity Management Institute, 2014; US Office on Violence Against Women, 2014). Once the assessment battery was finalized, several undergraduate and graduate students piloted the battery to determine that it would take approximately 25 to 30 minutes to complete.

**Survey Measures**

*Demographic Variables*

Commonly measured and relevant demographic variables were measured for this study such as gender, ethnicity, race, year in school, sexual orientation, age; greek-affiliation, and varsity athlete status. Biological sex was also included as a demographic variable because several of the victimization and perpetration questions classified different sexual experiences based on anatomical structures (i.e. participants identifying their biological sex as male did not answer questions about unwanted sexual vaginal victimization). Each of the demographic variables is categorical in nature and was used to create sub-groups in various analyses.

*Alcohol Use*

The survey included two items addressing alcohol use that are taken from the CORE Alcohol and Other Drug Survey (Core Institute, 2000). The CORE survey has been utilized in the college population for over a decade, and is one of the most widely used substance use surveys in college research. Items referring to current binge drinking status and typical drinks consumed per week sufficiently measured alcohol use for this study. Overall reliability and validity of the CORE survey in college samples has been previously established (Core Institute, 2000).

The average weekly drinks question, an open-ended continuous item, states, “What is the Average number of drinks you consume per week? ____ (a drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink).” The binge measure is a
categorical item, which states, “Think back over the last two weeks. How many times have you had five or more drinks at a sitting?”

Female Rape Myth Acceptance

The revised version of the Illinois Rape Myth Acceptance Scale (IRMA; Payne, Lonsway, & Fitzgerald, 1999; McMahon & Farmer, 2011) was used to measure rape myth acceptance, which focuses on male-on-female sexual assault. This scale was chosen because of its recently updated language for college populations. The IRMA includes a total of 19 items, which are scored on a 5-point Likert scale from 1 (strongly disagree with rape myths) to 5 (strongly agree). The alpha coefficients in previous studies in a college sample were .87 (McMahon & Farmer, 2011) and .86 (McMahon, 2010). The scale includes 5 subscales. The subscale “She asked for it”, which includes 5 items (α = .72), refers to the attitude that victim behaviors enabled sexual assault. An example of this subscale is, “If a girl acts like a slut, eventually she is going to get into trouble.” The subscale “It wasn’t really rape”, refers to denying that an assault occurred because of either victim blaming or excusing the perpetrator. An example of this subscale is, “If a girl doesn’t physically fight back, you can’t really say it was rape.” This subscale consists of 3 items (α = .74). The subscale “She lied”, which includes five items (α = .83), support the belief that the victim falsified a sexual assault, such as, “Rape accusations are often used as a way of getting back at guys.” The subscale “He didn’t mean to”, the fourth subscale, reflects beliefs that the perpetrator did not intend to assault, with items such as, “Rape happens when a guy’s sex drive gets out of control.” Four items are included (α = .69) in this subscale. “Alcohol” is the fifth subscale, and includes three items (α = .60). The Alcohol construct is psychometrically related to “He didn’t mean to”, but focuses on the perpetrator being intoxicated. An example item from this subscale is, “If both people are drunk, it can’t be rape.”
This subscale shares one item that cross-loads with “He didn’t mean to”, “If a guy is drunk, he might rape someone unintentionally.”

**Male Rape Myth Acceptance**

In the Male Rape Myth Scale (MRMS; Melanson, 1999) measure, participants indicate how much they agreed with 22 items that reflect culturally held myths about men as victims. This scale was chosen because it accounts for both male and female perpetrators of male sexual assault, and it is the only male rape myths scale to be continually found psychometrically valid (Kassing, Beesley, & Frey, 2005). This one-dimensional measure uses a 6-point Likert scale that ranges from strongly disagree (1) to strongly agree (6), with higher scores indicating greater endorsement of these male rape myths. An example of this scale is “A man can enjoy sex even if it is being forced on him.” Melanson (1999) calculated a Cronbach’s alpha of .90 and a test-retest reliability of .89 for this scale.

**Unwanted Sexual Experiences - Victimization**

The revised Sexual Experiences Survey – Short Form Victimization (SES-V; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007; Koss & Oros, 1982) was used to assess gender-neutral sexual assault victimization such as if and how many times an individual experienced completed rape, attempted rape, sexual coercion, and other common types of unwanted sexual contact. Previous versions of this scale, as well as other scales that measure sexual assault did not use gender-neutral wording, thus reducing the scale’s utility to fully capture different cases of sexual assault (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). The SES-V is a widely used measure of sexual violence perpetration of college populations (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). Previous studies have demonstrated adequate reliability and validity for the
SES-V (Gylys & McNamara, 1996; Koss & Gidycz, 1985). According to Thompson, Koss, Kingree, Goree, & Rice (2010), the specificity of these questions may help reduce the potential for underreporting sexual assault.

Scoring for this scale can render either categorical or continuous outcome responses. Researchers have used the result of this scale to categorize individuals as either victim or non-victim (i.e. Sigre-Leiros, Carvalho, & Nobre, 2013), which yields a categorical variable. The revised SES-V can also account for both the severity and frequency of sexual assault perpetration. Severity of perpetration is assessed according to the instructions of the scale authors (Koss et al., 2007). Higher scores indicate more severe forms of sexual violence (i.e., in order of unwanted sexual contact, attempted or completed coercion, attempted rape, and completed rape). Frequency can be calculated as a range of scores from 0 (no perpetration) to 15 (perpetrators of at least three acts of completed rape). Scoring includes assigning frequency scores within each type of unwanted sexual experience. Victims are then assigned a score for their most severe type of sexual violence. For example, victims of a single act of unwanted sexual contact will be classified as 1, victims of two acts of unwanted sexual contact are assigned a 2, and victims of three or more acts of unwanted sexual contact are given scores of 3. Victims of a single act of attempted coercion are assigned scores of 4, victims of two acts of attempted sexual coercion are given scores of 5, and so on, with victims of three or more acts of completed rape being assigned scores of 15. For the purposes of this investigation, victimization was viewed as a binary categorical variable; either a participant has been victimized, or a participant has not been victimized, as previous literature has utilized SES data as binary (Gidycz, Orchowski, King, & Rich, 2008).
Unwanted Sexual Experiences - Perpetration

The revised Sexual Experiences Survey – Short Form Perpetration (SES-P; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007) will be utilized in this survey to assess gender-neutral sexual assault perpetration. The SES-P is the most widely used measure of sexual violence perpetration of college populations (Thompson, Koss, Kingree, Goree, & Rice, 2010). Internal consistency reliability for the previous version of the SES - P has been reported as good, and validity studies have shown that responses to the scale have a strong correlation with face-to-face interview responses (Koss, Gidycz, & Wisniewski, 1987; Koss & Gidycz, 1985; Koss & Oros, 1982). The scale examines if and how many times an individual perpetrated completed rape, attempted rape, sexual coercion, and any other type of unwanted sexual contact.

Scoring for this scale can render either categorical or continuous outcome responses. Researchers have used the result of the SES to categorize individuals as either perpetrator or non-perpetrator (i.e. Sigre-Leiros, Carvalho, & Nobre, 2013), which will be a categorical variable. The revised SES can also account for both the severity and frequency of sexual assault perpetration. Severity of perpetration is assessed according to the instructions of the scale authors (Koss et al., 2007). Higher scores indicate more severe forms of sexual violence (i.e., in order of unwanted sexual contact, attempted or completed coercion, attempted rape, and completed rape). Frequency can be calculated as a range of scores from 0 (no perpetration) to 15 (perpetrators of at least three acts of completed rape). Scoring includes assigning frequency scores within each type of unwanted sexual experience. Perpetrators are then assigned a score for their most severe type of sexual violence. For example, perpetrators of a single act of unwanted sexual contact will be classified as 1, perpetrators of two acts of unwanted sexual contact are assigned a 2, and perpetrators of three or more acts of unwanted sexual contact are given scores
of 3. Perpetrators of a single act of attempted coercion are assigned scores of 4, perpetrators of two acts of attempted sexual coercion are given scores of 5, and so on, with perpetrators of three or more acts of completed rape being assigned scores of 15. For the purpose of this study, perpetration was used as a Yes/No binary variable, as previous literature has utilized SES data as binary (Loh, Gidyucz, Lobo, & Luthra, 2005).

**Peer Norms**

Since there is no standardized instrument to measure sexual assault peer norms, two scales were developed specifically for this study. Although other scales to assess peer norms have been developed (i.e. Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003), those have focused on particular aspects of sexual assault prevention, and do not directly address peer attitudes and beliefs about the act of sexual assault.

The Descriptive Peer Norms Scale – Sexual Assault (DPNS-SA) examines “what percentage of UA students” and “what percentage of your close friends at UA” have engaged in different tactics used to perpetrate sexual assault. Response options are percentages between 0 percent and 100 percent for each of the 12 questions (six for “UA students” subscale and six for “close friends at UA” subscale). The Injunctive Peer Norms Scale (IPNS-SA) measures “how your close friends feel about” using different tactics to perpetrate sexual assault. Response options are from Strongly Disapprove (1) to Strongly Approve (7), and scores are summed with a possible range between seven and 42. Internal consistency reliability was examined using Cronbach’s alpha for the IPNS-SA, resulting in a .948, which is considered good reliability.

Both the DPNS-SA and the IPNS-SA were developed and modified from other injunctive and descriptive norms scales that measure related behaviors, such as alcohol use (Rinker & Neighbors, 2013a, Rinker & Neighbors, 2013b) in college students. Further, both scales utilize
similar language and the same tactics measured in the Sexual Experiences Survey (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007; Koss & Oros, 1982).

Campus Connectedness

Adapted from the social connectedness scale from Lee and Robbins (1995), the social connectedness sub-scale measures how much students feel that they are cared for and are a part of their school (Summers, Beretvas, Svinicki, & Gorin, 2005). There are 12 questions that represent connectedness, all of which are Likert-type scales ranging from Strongly Disagree (1) to Strongly Agree (4), such as “I feel disconnected from campus life.” Responses to the items are summed, and a higher score indicates greater connectedness. High internal consistency (α = .93) for CCS was found in a recent study (Sulkowski, 2011).

Trust in the Campus Support System

The Trust in Campus Support System Scale (TICSSSS; Sulkowski, 2011) includes six items that address student feelings of trust in various campus services. These items are four-point, Likert-scale, which are summed up to make a range of possible answers from 9 to 36. Higher scores suggest greater trust in the campus support system. A sample item from this scale is, “If a crisis happened on campus, my college would handle it well.” The TICSSSS has displayed good internal consistency (α = .83), convergent validity, and discriminant validity (Sulkowski, 2011).

Perceptions of Leadership, Policies, and Reporting

The Perceptions of Leadership, Policies, and Reporting (PLPR) scale was adapted from a measure in the Defense Equal Opportunity Management Institute’s (DEOMI) Organizational Climate Survey (DEOCS) 4.0, which is housed in the United States Department of Defense. Permission to employ the survey was granted by the DEOMI Executive Director of Research,
Development, and Strategic Initiatives, Dr. Daniel McDonald. Dr. McDonald and Dr. Steinhauser, DEOMI Senior Analyst, shared development, psychometrics, and scoring information for this particular scale.

The adapted PLPR measures the degree to which students perceive that university administration would take appropriate actions to address a report of sexual assault and whether retaliation would occur due to reporting a sexual assault. The PLPR was first introduced to the DEOCS in 2014 after development, testing, revision, and psychometric analysis. This scale consists of 10 four-point Likert scale items, which are scored from 1 (not at all likely) to 4 (very likely). Three items are reverse coded; all items are summed then computed into a mean score, where higher scores indicate a more favorable response. An example item from this scale is, “The University would support the person making the report.” Reliability has been reported as adequate (α = .87) and an Exploratory Factor Analysis (EFA) resulted in a one-dimensional factor structure for this scale. As part of this study, a reliability check (internal consistency) was completed to investigate this scale’s utility in a college sample. Additionally, a CFA was performed on this scale to reinforce the one factor structure, as it was the first time this scale will be used in a college sample.
### Table 3.1

*Summary of Survey Instruments*

<table>
<thead>
<tr>
<th>Scale or Item</th>
<th>Construct/Level of SEM</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revised Illinois Rape Myth Acceptance Scale</td>
<td>Beliefs/Intrapersonal</td>
<td>19</td>
</tr>
<tr>
<td>Male Rape Myth Scale</td>
<td>Beliefs/Intrapersonal</td>
<td>22</td>
</tr>
<tr>
<td>Injunctive Peer Norms Sexual Assault</td>
<td>Peer Norms/Interpersonal</td>
<td>6</td>
</tr>
<tr>
<td>Descriptive Peer Norms Sexual Assault</td>
<td>Peer Norms/Interpersonal</td>
<td>12</td>
</tr>
<tr>
<td>Awareness of Sexual Assault on Campus</td>
<td>Education on Sexual Assault</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prevention/Intraperson</td>
<td></td>
</tr>
<tr>
<td>Sexual Experiences Survey – Short Form Victimization</td>
<td>Current, Previous victimization/Intraperson</td>
<td>10</td>
</tr>
<tr>
<td>Sexual Experiences Survey – Short Form Perpetration</td>
<td>Current, Previous Perpetration/Intraperson</td>
<td>10</td>
</tr>
<tr>
<td>Social Connectedness</td>
<td>Campus Connectedness/Organizational</td>
<td>12</td>
</tr>
<tr>
<td>Trust in the Campus Support System</td>
<td>Trust in the Campus Support</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>System/Organizational</td>
<td></td>
</tr>
<tr>
<td>Perceptions of Leadership, Policies, and Reporting</td>
<td>Perceptions Sexual Assault</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Reporting/Organizational</td>
<td></td>
</tr>
<tr>
<td>Core Survey Alcohol Use Items</td>
<td>Alcohol Use/Intraperson</td>
<td>2</td>
</tr>
</tbody>
</table>

### Participant Recruitment

The sample was taken from undergraduate classes in the College of Human Environmental Sciences (CHES) at The University of Alabama. Approval to recruit from the following classes was given by the Dean of CHES (Appendix B): HES 100; HES 310; HHE 270; HHE 378; HHE 440; HD 101; CSM 204; and NHM 101. The researcher sent recruitment emails to instructors, informing them of the study and to gain permission to enter classes for participant recruitment (Appendix C). With each instructor, the researcher set up a recruitment time to
recruit from each class, which occurred during class time. The researcher recruited students within classes volunteered by the associated instructor. Prior to study recruitment, the researcher asked the instructor to leave the room in order to reduce the potential of coercion for those wishing to participate in the study.

Once the instructor exited the classroom, the researcher delivered the Student Recruitment Script (Appendix D). This script explained that the study was an online “Campus Life Perceptions Survey” (Appendix E) designed to examine health-related issues such as sexual assault along with perceptions of the campus community, and alcohol use among college students. Additionally, the script made students aware of the risks, incentives, and requirements for participating in the study and were explicitly instructed that participation is anonymous, voluntary, and took about 25 minutes to complete. Lastly, the researcher informed potential participants that if they do choose to participate, they would be asked personal questions and that they should take the survey alone and in a private setting. At the end of the recruitment session, the researcher thanked the class for their time. The researcher then emailed the survey link to the instructor to distribute to students in his or her classes.

Survey Completion

Each participant, at a time and place that was private and convenient to him or her, clicked on the link provided by the instructor and took the Qualtrics (Qualtrics, Provo, UT) survey. Qualtrics is a widely used research company that assists in collecting qualitative and quantitative online survey information. The link first took them to a disclaimer, which reminded participants that they should take the survey alone and in a private setting because of the personal nature of the questions. Once participants clicked “next page”, they were taken to the Information Sheet (Appendix F) section of the survey. If students chose to participate, they
checked a box, indicating that they understood what is being asked of them, they were between the ages of 18 and 24 and that they agreed to participate. If not, they were thanked for their time, told that they did not meet survey criteria, and asked to exit the survey at that time. If participants chose to keep a copy of the informed consent, there was an option to save a PDF version of the information sheet on that page. Once the information sheet was read and checked, the survey took approximately 25 minutes to complete. Survey instructions informed participants that they must take the survey in one sitting, and that they could not access the survey once they have already opened it. They were also instructed to only complete the survey one time. Students completing this survey were free to skip any questions that they do not feel comfortable answering (except for their consent to participate and participant age) and were free to discontinue completion of it at any time. Additionally, the logic function on Qualtrics enabled for branching and skipping based on participant answers (i.e. males did not need to answer certain questions and those who indicate their biological sex as male automatically skipped these designated questions).

At the end of the survey, each participant was thanked for his or her time and provided with the contact information to the UA Counseling Center and Women’s Resource Center in the unlikely event of psychological distress. Recent literature has indicated that questions pertaining to interpersonal violence may result in psychological distress that is typically mild and dissipates quickly (Edwards, Black, Dhingra, McKnight-Eily, & Perry, 2009; Martin, Perrott, Morris, & Romans, 1999). Information provided at the end of the survey also instructed participants to click on a link that took them to a separate Qualtrics survey if they chose to be entered into the drawing for incentives. Once participants clicked on the link, they were asked the following question “What is your university’s mascot? A) Tiger B) Alligator C) Elephant D) Dog”. If they
chose the correct answer, they were asked to provide an email address that served as their entrance into a raffle for one of 20 Amazon® gift cards, which were funded through the University of Alabama Graduate School Research and Travel Fund. Participants were informed that in no way would their email be linked to their responses, or used in any way except to email gift cards to those who were randomly chosen in the drawing. Winners were be chosen by utilizing the random number generator in Microsoft Excel. Gift cards were distributed on December 19th, 2014 through email.

Participant Population

The sample size goal of this particular study was approximately 600 students from the University of Alabama. A power analysis was conducted with G*Power Version 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009) to calculate the sample size for a multiple binary logistic regression with designated parameters (Odds Ratio = 1.3; effect size= 0.2; $\alpha = 0.05$; Power = 0.8). The calculation yielded a sample size of n = 568, which was rounded up to 600. Additionally, a review of recent sexual assault literature utilizing multiple binary logistic regression yielded seven studies that had a broad sample size range from 195 (Senn, Desmarais, & Verberg, 2000) to 1086 (Young, Grey, & Boyd, 2009). It was decided that 600 students would be a sufficient sample size for this proposed study, as it was at or above five of the seven sample sizes from the literature (Halpern, Spriggs, Martin, & Kupper, 2009; DeGue, DiLillo, & Scalora, 2010; Young, Grey, & Boyd, 2009; Porter & McQuiller-Williams, 2011; Loh, Gidycz, Lobo, & Luthra, 2005; Buddie & Testa, 2005; Senn, Desmarais, & Verbert, 2000).

Moreover, in order to remain consistent with the literature in this area, undergraduate students aged 18-24 were eligible for this study. Because Alabama law states that those individuals that are under 19 years of age are still considered to be minors, minors were involved
in this study since the inclusion criteria for age range began at 18. Additionally, a waiver of parental consent was approved for this study. Due to the increasing percentage of students who live away from home at this university, the researcher decided that it would not be feasible to obtain parental consent for 18 year old minors in this study. Written consent was also waived for all participants since this is a web-based survey. Any individual that did not fall under this specified age range, or inclusion criteria, was not qualified to participate in this particular study. The researcher instructed students not to participate if they are not within the specified age range. Further, a preliminary question in the survey asked about age, with choices being: Under 18; 18; 19; 20; 21; 22; 23; 24; Over 24. If participants chose either Under 18 or Over 24, they were told that they did not meet the inclusion criteria, thanked for their time, and told to exit the survey at that time. Undergraduate students currently enrolled in undergraduate classes that were taught through the College of Human Environmental Sciences (CHES) during the Fall 2014 semester were qualified for this study. These students that were enrolled in undergraduate CHES classes were either male or female and identified with an array of ethnic backgrounds.

Participant Protections

The privacy of students was protected through asking participants to take the survey alone in a setting that was private and comfortable to them. Several studies have demonstrated the utility of web-based surveys to reduce social desirability (Knapp, Whittier, Seeley, & St. Lawrence, 2004; Thornton & Gupta, 2004) and for participants to be more forthcoming with sensitive information, particularly with victimization, than with other survey platforms (Parks, Pardi, & Bradizza, 2006). Disclosure in web-based surveys addressing high-risk sexual experiences has shown to be greater than in face-to-face data collection, which is attributed to the impression that web-based surveys provide greater anonymity (Gerbert, Bronstone, Pantilat,
McPhee, Allerton, & Moe, 1999). Furthermore, students were asked to please not disclose any of the information that was discussed in this study with others or those that are not willing to participate in this study.

In order to protect the information of students, survey data was contained within an SPSS file and protected on a flash drive that is kept in a locked cabinet in the researcher’s locked office. There is also a back-up flash drive containing the data that is locked in a separate part of the researcher’s office. Access to this data has been granted to the researchers associated with the study. At no time will data be left unattended by the researchers. Additionally, no labels are attached to completed surveys. The researcher transferred all completed surveys and placed them in the same file. At no time was each instructor made aware of who participated in the study. After collecting all of the needed participants, a data file was created in SPSS.

Furthermore, survey results were password protected on Qualtrics with access only being granted to the principal researcher. Data in an SPSS file was put onto a flash drive and protected in a locked cabinet in the researcher’s office, within the College of Human Environmental Sciences. There is no way to link study participants with their surveys since the surveys did not contain any identifying information. Lastly, since the researcher obtained a large sample size, data from study surveys were entered automatically from Qualtrics to SPSS on the researcher’s computer once data collection was completed. The survey data entered into SPSS contain no identifying information at all and was only entered into the computer for data analysis purposes. The researcher’s computer is contained in a locked office and no one has access to this data other than the researchers included in the IRB application.
Compensation

Compensation in the form of a drawing for an Amazon® gift card was included at the end of the survey. Funding for the incentive gift cards was received through the UA Graduate School Research and Travel Fund. A drawing was used to potentially increase response rate of the sample. Although there is conflicting evidence of the effectiveness of web-based survey raffles in boosting response rates in the college population, some success has been demonstrated (i.e. Laguilles, Williams, & Saunders, 2011). Each participant, once he or she reached the end of the survey, was thanked for his or her time, and directed to click on a link if they choose to be entered in the drawing for one of 20 gift cards, each valued at $10. The link took participants to another Qualtrics survey, where they were asked to show specific knowledge of their university by answering the multiple-choice question “What is your university’s mascot? A) Tiger B) Alligator C) Elephant D) Dog”? Once they correctly answered, a space was provided to enter their email address to be officially entered into the drawing. If participants did not answer the question correctly, they were eligible to enter the drawing. This was in accordance with Alabama law, which requires proof of skill or knowledge to be entered into a raffle or drawing. After data collection was completed, 20 emails were randomly selected for receipt of an Amazon® gift card. In no way were any data tied to an email address; since the email address was entered into a separate survey, there was no way to link the original data to each email. Each of 20 emails was randomly selected through the “RAND” function in Microsoft Excel, and gift cards were purchased and distributed through email on December 19th, 2014.

Analysis Overview

Using SPSS for IBM Statistics, Version 21, various levels of analyses were performed on the completed and cleaned data set. Descriptive analyses were calculated for several variables to
describe the sample population. Additionally, preliminary correlations, regressions, and chi-square analyses were performed to determine basic relationships between variables. Based off preliminary analyses, a series of multiple logistic regressions and Multivariate Analyses of Variance (MANOVA) tests were used to uncover complex relationships between variables at each of three layers of SEM.

Psychometrics

Cronbach’s Alpha assessed the reliability of each scale in this study. The alpha coefficient measures the consistency of participant responses to the entire scale. A score of at least .60 is considered to be acceptable internal consistency for an instrument (Hair, Black, Babin, Anderson, & Tatham, 2006), although several scales in this study have previously calculated Cronbach alpha’s of above .70 or .80. Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA) were also used to assess validity of new or adapted scales.

Research Questions

The following research questions were utilized in the investigation of interplay of the ecological layers of campus sexual assault.

Research Question 1: Which intrapersonal and interpersonal factors predict sexual assault victimization?

This question focuses on two layers of SEM, intrapersonal and interpersonal, to investigate the variables that contribute to victimization. First, to create the final multivariate regression model, univariate regressions or Chi square analyses were calculated to determine which individual variables significantly predict victimization. Chi squares were used to determine significant relationships between categorical predictors (gender, greek-affiliation, athlete status, prior victimization, sexual orientation, binge drinking status) and sexual assault victimization while at UA, while univariate logistic regressions were used to determine
significant relationships between continuous predictors (peer norms, rape myth acceptance) and victimization while at UA. A logistic regression using backward stepwise elimination was utilized to predict which intrapersonal (female rape myth acceptance, gender, greek-affiliation, athlete status, prior victimization, sexual orientation) and interpersonal factors (perceived peer norms) predict sexual assault victimization. Logistic regression was appropriate for this analysis because the outcome variable was dichotomous and there was a mix of categorical and continuous predictor variables; additionally, regression was appropriate because we attempted to predict a Yes or No outcome, which is the purpose of logistic regression analyses (Gross Portney & Watkins, 1993, pg. 549). The p-values, standardized beta coefficients, variance explained and odds ratios were used to determine statistical and practical significance, as seen in Table 4.8.

Hypothesis of RQ 1: High scores on rape myth acceptance, high scores on peer norms, female gender, greek-affiliation, current binge drinking status, identifying as non-heterosexual, and reporting a prior victimization will predict sexual assault victimization since the start of college.

Research Question 2: Which intrapersonal, interpersonal, and organizational factors predict sexual assault perpetration?

This question utilizes three layers of SEM to examine the factors that contribute to perpetration. To determine the final multivariate regression model, univariate regressions or Chi Square analyses will be performed to determine which individual variables significantly predict victimization. Only female rape myth acceptance will be utilized in this research question due to the strong correlation between female and male rape myth acceptance (Davies, Gilston, & Rogers, 2012). A multiple regression using backward stepwise elimination will be performed to predict which intrapersonal (female rape myth acceptance, gender, greek-affiliation, athlete status, prior victimization), interpersonal factors (perceived female and male peer norms), and
organizational factors (social connectedness, trust in the campus support system, and perceptions of leadership, policies and reporting) predict sexual assault perpetration. Logistic regression is appropriate for this analysis because the outcome variable is dichotomous and there is a mix of categorical and continuous variables (Field, 2013, pg. 761). The p-values, standardized beta coefficients, variance explained and odds ratios will be used to determine statistical and practical significance.

Hypothesis of RQ 2: High scores on rape myth acceptance, high scores on peer norms, male gender, greek-affiliation, athlete status, identifying as non-heterosexual, and greater alcohol use will predict sexual assault perpetration since the start of college.

Research Question 3: Do rape myth acceptance and peer norms moderate the relationship between alcohol consumption and sexual assault perpetration?

This question attempts to further understand the complex relationship between alcohol use and sexual assault perpetration. Before moderated regression can be utilized, a binary logistic regression will determine if alcohol use is a significant predictor of sexual assault perpetration. Additionally, the standardized interaction term between the predictor and the moderator will be computed. A moderated logistic regression will be performed to determine if rape myth acceptance and peer norms affect the relationship between alcohol and perpetration. A separate moderated logistic regression will be performed to determine if female peer norms affect the relationship between alcohol and perpetration. Moderated logistic regression is appropriate for this research question because the outcome variable, perpetration, is dichotomous, and the moderator variables may affect the relationship between the predictor and the outcome variable (Field, 2013, pg. 395).
Assumptions of RQ3: An assumption for this question is that alcohol use will significantly predict sexual assault perpetration. This will be determined in research question 2 analyses.

Hypothesis of RQ 3: The relationship between alcohol consumption and perpetration will be strengthened by higher scores of rape myth acceptance and peer norms.

Research Question 4: Is there a difference in organizational factors between those who have been sexually assaulted, and those who have not?

Preliminary correlational analyses were performed to determine the strength of relationship between institutional factors. Then, MANOVA was performed; sexual assault victimization is the predictor variable and CCS, TICSS, and PLPR are the outcome variables. A MANOVA is the appropriate test in this case because the predictor variable is categorical and there is more than one outcome variable, all of which are continuous (Field, 2013, pg. 624). Additionally, it is expected that the outcome variables will be weakly or moderately correlated with each other, and a MANOVA has greater power in this case than ANOVA because it takes these correlations into account (Huberty & Morris, 1989).

Assumptions of RQ 4: CCS, TICSS, and PLPR are assumed to be weakly or moderately correlated with each other. Additionally, it is assumed that the outcome variables will be normally distributed, and that there is equality of covariance.

Hypothesis of RQ4: Those who have been victims of sexual assault will exhibit less favorable (lower) scores on institutional factors than those who have not been victims of sexual assault.

Research Question 5: Is there a difference in organizational factors between those who have been made aware of sexual assault on campus, and those who have not?

A MANOVA will be performed in which awareness of sexual assault is the predictor variable and CCS, TICSS, and PLPR are the outcome variables. Preliminary correlational
analyses will be performed to determine the strength of relationship between institutional factors. A MANOVA is the appropriate test in this case because the predictor variable is categorical and there is more than one outcome variable, all of which are continuous (Field, 2013, p. 624). Additionally, it is expected that the outcome variables will be weakly or moderately correlated with each other, and a MANOVA has greater power in this case than ANOVA because it takes these correlations into account (Huberty & Morris, 1989).

Assumptions of RQ5: CCS, TICSS, and PLPR are assumed to be weakly or moderately correlated with each other. Additionally, it is assumed that the outcome variables will be normally distributed.

Hypothesis of RQ5: Those who are aware of sexual assault on campus will exhibit higher scores on institutional factors than those who are not aware of sexual assault on campus.

Research Question 6: Is there a significant difference in organizational factors between those who have perpetrated sexual assault, and those who have not? Research question 6 examined how the intrapersonal and institutional factors interact. A MANOVA analysis was used to determine whether there are differences in perceptions of institutional factors between individuals who self-report perpetration and those who do not. Preliminary correlation analyses were performed to determine the strength of relationship between institutional factors. A MANOVA is the appropriate test in this case because the predictor variable was categorical and there is more than one outcome variable, all of which are continuous (Field, 2013, p. 624). Additionally, it was expected that the outcome variables would be weakly or moderately correlated with each other, and a MANOVA has greater power in this case than ANOVA because it takes these correlations into account (Huberty & Morris, 1989).
Assumptions of RQ6: CCS, TICSS, and PLPR are assumed to be weakly or moderately correlated with each other. Additionally, it is assumed that the outcome variables will be normally distributed.

Hypothesis of RQ6: Those who have perpetrated sexual assault will exhibit higher scores on institutional factors than those who have not perpetrated sexual assault.

Data Cleaning

New Variables

Several new variables were created from existing data to prepare for advanced statistical analysis. For sexual assault victimization and perpetration, existing variables were combined together to create binary the binary variables for: victimization since the start of college; victimization from 14 years old up to the start of college; perpetration since the start of college; and perpetration from 14 years old up to the start of college. The binge drinking status variable, defined as drinking five or more alcohol drinks in one sitting at least once in the past two weeks (Serras, Saules, Cranford, & Eisenberg, 2010), was created as a binary variable. The binary awareness of sexual assault variable, as seen in RQ 5, was created from two items which assessed whether participants had received education in policies of sexual assault and/or education on prevention of sexual assault. The binary sexual orientation variable which identified participants as either heterosexual or non-heterosexual, was created from an initial item that identified five options. Because there were so few people reporting one of the non-heterosexual categories, the non-heterosexual categories were combined. The gender identity variable initially included three options (male, female, transgender); however, transgender was excluded from analyses because the extremely small amount of respondents who indicated that they were transgender (n=5).
**Missing Data**

Through descriptive analysis, it was determined that each scale initially housed missing data, with missing data for any individual item being under 10 percent, which is acceptable in health research (Dodeen, 2003). In each of these cases, a mean was calculated and substituted for the missing items. Complete data sets were then used to calculate a sum for each individual participant to be used in advanced analysis.

**Limitations**

There are several limitations that were acknowledged regarding this study, including the use of self-report and convenience sampling techniques, the use of a broad and vague theoretical model, the examination of a single university, potentially non-optimal response rate, interpersonal and institutional levels measured indirectly, and that researchers cannot guarantee that participants will take the survey alone and in a private setting. These limitations are addressed and discussed further in Chapter 5 of this document.

**Conclusions**

This study utilized a cross-sectional survey design and was therefore correlational. Survey administration was web-based, and quantitative in nature. This proposed study examined the interactions of the layers of influence on campus sexual assault in one IHE in the Southeastern United States.
CHAPTER 4

Results

Introduction

The purpose of this study was to examine interactions between different layers of influence on campus sexual assault. Data from this study were used to help quantify the scope of sexual assault on campus. Additionally, it measured and examined the relationships between different layers of influence on campus sexual assault. Lastly, the study served to test what, if any, extent campus sexual assault impacts student views of the institution. All quantitative analyses were performed on SPSS version 22.0 and AMOS version 22.0.

Sample Population

Overall, 923 clicked on the link to the survey; however, 241 did not give consent to participate, meet the age requirement, or answer any perpetration or victimization questions, and were therefore excluded from all analyses. Students were recruited from classes in CHES with instructor permission. A total of 13 instructors were contacted for class recruitment, and 12 instructors gave permission to recruit in 18 classes during class time, reaching a potential 1561 students, although there was likely some co-enrollment across courses. The response rate for this study was 43.7 percent of the total, which is higher than expected for online surveys.

Of the 682 participants included in the analysis, 81.8 percent identified as female, mean age was 19.2 (±1.33), 48.1 percent were first year college students, 81.0 percent identified as white, 95.4 percent were non-Hispanic or Latino, and 94.6 percent reported being heterosexual (Table 4.1). Further, 45.2 percent of participants were greek-affiliated, 4.3 percent were
National Collegiate Athletic Association (NCAA) athletes, and 12.5 percent were transfer students (Table 4.2).

Table 4.1

**Demographic Characteristics of Study Sample**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>123</td>
<td>18.0</td>
</tr>
<tr>
<td>Female</td>
<td>559</td>
<td>82.0</td>
</tr>
<tr>
<td>Gender Identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>118</td>
<td>17.5</td>
</tr>
<tr>
<td>Female</td>
<td>551</td>
<td>80.8</td>
</tr>
<tr>
<td>Transgender</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>256</td>
<td>37.5</td>
</tr>
<tr>
<td>19</td>
<td>209</td>
<td>30.6</td>
</tr>
<tr>
<td>20</td>
<td>95</td>
<td>13.9</td>
</tr>
<tr>
<td>21</td>
<td>70</td>
<td>10.3</td>
</tr>
<tr>
<td>22</td>
<td>38</td>
<td>5.6</td>
</tr>
<tr>
<td>23</td>
<td>9</td>
<td>1.3</td>
</tr>
<tr>
<td>24</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisexual</td>
<td>29</td>
<td>4.3</td>
</tr>
<tr>
<td>Gay</td>
<td>3</td>
<td>0.4</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>633</td>
<td>94.6</td>
</tr>
<tr>
<td>Lesbian</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>Asian</td>
<td>26</td>
<td>3.9</td>
</tr>
<tr>
<td>Black or African American</td>
<td>68</td>
<td>10.1</td>
</tr>
<tr>
<td>Native Hawaiian / Other Pacific Islander</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Biracial or Multiracial</td>
<td>29</td>
<td>4.3</td>
</tr>
<tr>
<td>White</td>
<td>545</td>
<td>81.0</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>31</td>
<td>4.6</td>
</tr>
<tr>
<td>Non-Hispanic or Latino</td>
<td>639</td>
<td>95.4</td>
</tr>
</tbody>
</table>
Table 4.2

*College-Related Characteristics of Study Sample*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year in School</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>324</td>
<td>48.1</td>
</tr>
<tr>
<td>Second</td>
<td>185</td>
<td>27.5</td>
</tr>
<tr>
<td>Third</td>
<td>75</td>
<td>11.1</td>
</tr>
<tr>
<td>Fourth</td>
<td>75</td>
<td>11.1</td>
</tr>
<tr>
<td>Fifth +</td>
<td>14</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Greek Affiliation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>304</td>
<td>45.2</td>
</tr>
<tr>
<td>No</td>
<td>369</td>
<td>54.8</td>
</tr>
<tr>
<td><strong>NCAA Athlete</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>29</td>
<td>4.3</td>
</tr>
<tr>
<td>No</td>
<td>641</td>
<td>95.7</td>
</tr>
<tr>
<td><strong>Transfer Student</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>84</td>
<td>12.3</td>
</tr>
<tr>
<td>No</td>
<td>589</td>
<td>86.4</td>
</tr>
</tbody>
</table>

**Sexual Assault Prevalence**

For sexual assault prevalence, 191 (28.0 percent) participants reported being sexually assaulted since the beginning of their college career at UA. Additionally, more than one third of participants (36.3 percent) reported being victimized since age 14 until the start of their college career at UA. A further breakdown of victimization is shown in Table 4.3. A total of 4.8 percent (32 participants) of the sample reported perpetration since the beginning of their college career at UA. Of reported perpetrators, 50 percent were female, 40.6 percent were male, and 9.4 percent were transgender. Table 4.4 provides more detail about self-reported perpetrators in this sample.
Table 4.3

*Percent of Sample Reporting Victimization*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>% of Gender Victimized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since UA</td>
<td>191</td>
<td>28.0</td>
</tr>
<tr>
<td>Male</td>
<td>24</td>
<td>20.3</td>
</tr>
<tr>
<td>Female</td>
<td>160</td>
<td>29.0</td>
</tr>
<tr>
<td>Transgender</td>
<td>3</td>
<td>60.0</td>
</tr>
<tr>
<td>Since 14</td>
<td>232</td>
<td>36.3</td>
</tr>
<tr>
<td>Male</td>
<td>30</td>
<td>26.5</td>
</tr>
<tr>
<td>Female</td>
<td>197</td>
<td>37.8</td>
</tr>
<tr>
<td>Transgender</td>
<td>5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.4

*Percent of Sample Reporting Perpetration*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>% of Gender Perpetrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since UA</td>
<td>32</td>
<td>4.8</td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>11.2</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>3.0</td>
</tr>
<tr>
<td>Transgender</td>
<td>3</td>
<td>60.0</td>
</tr>
<tr>
<td>Since 14</td>
<td>25</td>
<td>3.9</td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>2.7</td>
</tr>
<tr>
<td>Transgender</td>
<td>2</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Psychometrics

Most of the scales utilized in this study have previously established measures of reliability and validity in college populations. For the purposes of this study, internal consistency reliability was determined for each scale utilizing Cronbach’s alpha. The reliability
for each scale was within the range of acceptability (Kline, 2000), and can be seen in Table 4.5.

In addition, an exploratory factor analysis (EFA) was performed on the IPNS-SA. Utilizing varimax rotation, a one factor solution which explained 82.5 percent of variance was suggested for this scale, meaning this scale is measuring one concept and is therefore one dimensional.

Further, PLPR had not been previously tested in a college population, and was checked for validity utilizing a Confirmatory Factor Analysis (CFA) and reliability utilizing Cronbach’s alpha. The resulting one factor structure occurred from removing three of the items that were non-significant in the CFA (Appendix G), and the resulting model fit conventional criteria provided by Schumacker & Lomax (2010: Chi-Square=19.447, p=0.100; GFA=0.992; RMSEA=.027; NFI=0.992).

Table 4.5

*Cronbach’s Alphas for Study Scales*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
<th>Level of Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated Illinois Rape Myth Acceptance</td>
<td>0.926</td>
<td>Excellent</td>
</tr>
<tr>
<td>Male Rape Myth Scale</td>
<td>0.913</td>
<td>Excellent</td>
</tr>
<tr>
<td>Campus Connectedness Scale</td>
<td>0.932</td>
<td>Excellent</td>
</tr>
<tr>
<td>Trust In the College Support System Scale</td>
<td>0.807</td>
<td>Good</td>
</tr>
<tr>
<td>Perceptions of Leadership, Policies, &amp; Reporting</td>
<td>0.764</td>
<td>Good</td>
</tr>
<tr>
<td>Injunctive Peer Norms Scale-Sexual Assault</td>
<td>0.948</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Research Questions

*RQ1: Which intrapersonal and interpersonal factors predict sexual assault victimization?*

Initial univariate analyses were necessary to determine the final multivariate binary logistic regression model. Chi squares were used to determine significant relationships between
categorical predictors (gender, greek-affiliation, athlete status, prior victimization, sexual orientation, binge drinking status, refer to Table 4.6) and sexual assault victimization while at UA, while univariate logistic regressions were used to determine significant relationships between continuous predictors (peer norms, rape myth acceptance) and victimization while at UA (Table 4.7). Significant relationships for victimization were found with the following predictors: greek-affiliation ($\chi^2 = 13.860, p<.001$); prior victimization ($\chi^2 = 192.797, p<.001$); binge drinking status ($\chi^2 = 39.544, p<.001$); and injunctive norms ($\beta = .033, p = .012$).

Significant univariate predictors were then included in a binary logistic regression utilizing enter method to determine how much variance in victimization could be explained by the combination of predictors. As shown in Table 4.8, all predictors were significant in the multivariate model. Further, this model explained 43.9 percent of variance (Nagelkerke’s $R^2$ value = 0.439) in victimization while at UA.
Table 4.6

*Categorical Univariate Predictors of Victimization since UA*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>% Victimized</th>
<th>$\chi^2$ Value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20.3</td>
<td>3.689</td>
<td>0.055</td>
</tr>
<tr>
<td>Female</td>
<td>29.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek Affiliation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34.9</td>
<td>14.785</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>No</td>
<td>21.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA Athlete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>28.6</td>
<td>0.160</td>
<td>0.889</td>
</tr>
<tr>
<td>No</td>
<td>27.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Victimization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>59.9</td>
<td>192.227</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>No</td>
<td>8.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>27.1</td>
<td>1.664</td>
<td>0.197</td>
</tr>
<tr>
<td>Non-heterosexual</td>
<td>37.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge Drinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>37.2</td>
<td>35.945</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>No</td>
<td>16.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.7

*Continuous Univariate Predictors of Victimization since UA*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injunctive Norms</td>
<td>0.028</td>
<td>0.038</td>
<td>1.029</td>
<td>1.002, 1.057</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>0.006</td>
<td>0.343</td>
<td>1.006</td>
<td>0.993, 1.016</td>
</tr>
</tbody>
</table>

*OR=Odds Ratio, CI = Confidence Interval*
Table 4.8

Results of RQ1 Multivariate Binary Logistic Regression

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek Affiliation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.635</td>
<td>0.007</td>
<td>1.887</td>
<td>1.188, 2.997</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge Drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.888</td>
<td>&lt;0.001</td>
<td>2.430</td>
<td>1.516, 3.896</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Victimization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.779</td>
<td>&lt;0.001</td>
<td>16.100</td>
<td>10.164, 25.503</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injunctive Norms</td>
<td>0.400</td>
<td>0.026</td>
<td>1.040</td>
<td>1.005, 1.077</td>
</tr>
</tbody>
</table>

OR=Odds Ratio, CI = Confidence Interval

RQ2: Which intrapersonal interpersonal, and institutional factors predict sexual assault perpetration?

Initial univariate analyses were necessary to determine the final multivariate binary logistic regression model. Chi square statistics were used to determine significant relationships between categorical predictors (gender, greek-affiliation, athlete status, prior victimization, binge drinking status, refer to Table 4.9) and sexual assault perpetration while at UA, while univariate logistic regressions were used to determine significant relationships between continuous predictors (peer norms, rape myth acceptance, perceptions of policies leadership and reporting) and perpetration while at UA (Table 4.10). Significant relationships for perpetration were found with the following predictors: gender ($\chi^2 = 15.407, p<0.001$); prior victimization ($\chi^2 = 25.542, p<0.001$); binge drinking status ($\chi^2 = 5.978, p=0.014$); rape myth acceptance ($\beta = 0.055, p<0.001$), and injunctive norms ($\beta = .079, p<0.001$). Significant univariate predictors were then
included in a binary logistic regression utilizing enter method to determine how much variance in victimization could be explained by the combination of predictors. Enter method was chosen for the final binary logistic regression model in both RQ1 and RQ2 because enter it would allow for the researchers to examine the combination of the univariately significant variables, and to maximize predictive power of the model. As shown in Table 4.11, injunctive norms, gender, and prior victimization remained significant in the multivariate model, while binge drinking and rape myth acceptance were no longer significant. Further, this model explained 28.7 percent of variance (Nagelkerke’s R² value = 0.287) in perpetration while at UA.

Table 4.9

**Categorical Univariate Predictors of Perpetration since UA**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>% Perpetrated</th>
<th>χ² Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11.2</td>
<td>15.407</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek Affiliation</td>
<td></td>
<td>0.509</td>
<td>0.475</td>
</tr>
<tr>
<td>Yes</td>
<td>5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA Athlete</td>
<td></td>
<td>0.012</td>
<td>0.913</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Victimization</td>
<td></td>
<td>29.524</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Yes</td>
<td>10.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge Drinking</td>
<td></td>
<td>5.978</td>
<td>0.014</td>
</tr>
<tr>
<td>Yes</td>
<td>6.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.10

*Continuous Univariate Predictors of Perpetration since UA*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injunctive Norms</td>
<td>0.079</td>
<td>&lt;0.001</td>
<td>1.082</td>
<td>1.037, 1.128</td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>0.055</td>
<td>&lt;0.001</td>
<td>1.057</td>
<td>1.026, 1.088</td>
</tr>
<tr>
<td>PLPR</td>
<td>-0.073</td>
<td>0.081</td>
<td>0.93</td>
<td>0.875, 1.009</td>
</tr>
</tbody>
</table>

Table 4.11

*Results of RQ2 Multivariate Binary Logistic Regression*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.092</td>
<td>0.027</td>
<td>2.982</td>
<td>1.131, 7.860</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge Drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.889</td>
<td>0.08</td>
<td>2.433</td>
<td>0.900, 6.575</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Victimization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.551</td>
<td>&lt;0.001</td>
<td>12.823</td>
<td>4.133, 39.789</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rape Myth Acceptance</td>
<td>0.028</td>
<td>0.126</td>
<td>1.029</td>
<td>0.992, 1.066</td>
</tr>
<tr>
<td>Injunctive Norms</td>
<td>0.071</td>
<td>0.012</td>
<td>1.074</td>
<td>1.015, 1.136</td>
</tr>
</tbody>
</table>

*RQ3: Do rape myth acceptance and peer norms moderate the relationship between alcohol consumption and sexual assault perpetration?*

Two separate moderated regressions were performed to answer this research question; the first moderated regression utilized injunctive norms as the moderator, while the second moderated regression utilized rape myth acceptance as the moderator. For the first moderated regression, initial exploratory analyses were performed to determine significant relationships between the predictor (binge drinking) and the outcome (perpetration since UA), and between
the moderator (injunctive norms) and the outcome. A Chi Square analysis was performed to
determine the significant relationship between binge drinking and perpetration since UA ($\chi^2 = 5.978, p=0.014$). A binary logistic regression was performed to determine the significant
relationship between injunctive norms and perpetration since UA ($\beta = 0.079, p<0.001$). Since
both relationships were significant, the moderator variable, injunctive norms, was standardized
and an interaction term was calculated from the binge drinking and standardized injunctive
norms variables. A hierarchical moderated binary logistic regression (HMR) was then run to
determine if injunctive norms moderated the relationship between binge drinking and
perpetration since UA ($\beta = 0.032, p=0.911$), as seen in Table 4.12. HMR is recognized as the
most effective method to determine the presence of moderating effects (Aiken & West, 1991).
Non significance of the interaction term indicates that injunctive norms did not moderate the
relationship between binge drinking and perpetration since UA.

Table 4.12

**RQ3 Moderated Binary Logistic Regression - Injunctive Norms**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binge Drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.035</td>
<td>0.032</td>
<td>2.815</td>
<td>1.095, 7.238</td>
</tr>
<tr>
<td>No</td>
<td>0.472</td>
<td>0.046</td>
<td>1.602</td>
<td>1.009, 2.545</td>
</tr>
<tr>
<td>Standardized Injunctive Norms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction Injunctive Norms * Binge Drinking</td>
<td>0.032</td>
<td>0.911</td>
<td>1.033</td>
<td>0.587, 1.818</td>
</tr>
</tbody>
</table>

For the second moderated regression, initial exploratory analyses were performed to
determine significant relationships between the predictor (binge drinking) and the outcome
(perpetration since UA), and between the moderator (rape myth acceptance) and the outcome. A
Chi Square analysis was performed to determine the significant relationship between binge drinking and perpetration since UA ($\chi^2 = 5.978, p=0.014$). A binary logistic regression was performed to determine the significant relationship between rape myth acceptance and perpetration since UA ($\beta = 0.055, p<0.001$). Since both relationships were significant, the moderator variable, rape myth acceptance, was standardized and an interaction term was calculated from the binge drinking and standardized injunctive norms variables. A moderated binary logistic regression was then run to determine if rape myth acceptance moderated the relationship between binge drinking and perpetration since UA ($\beta = -0.192, p=0.825$), as seen in Table 4.13. Non significance of the interaction term indicates that rape myth acceptance did not moderate the relationship between binge drinking and perpetration since UA.

Table 4.13

**RQ3 Moderated Binary Logistic Regression - Rape Myth Acceptance**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>$p$</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binge Drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.159</td>
<td>0.039</td>
<td>3.186</td>
<td>1.062, 9.556</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standardized Rape Myth Acceptance</td>
<td>0.889</td>
<td>0.037</td>
<td>2.432</td>
<td>1.055, 5.607</td>
</tr>
<tr>
<td>Interaction Rape Myth Acceptance * Binge Drinking</td>
<td>-0.192</td>
<td>0.692</td>
<td>0.825</td>
<td>0.319, 2.136</td>
</tr>
</tbody>
</table>

**RQ4: Is there a significant difference in perceived institutional factors between those who have been sexually assaulted, and those who have not?**

For RQ4, RQ5, and RQ6, MANOVA was utilized for two main reasons: it was suspected that the three dependent variables would be correlated (Huberty & Morris, 1989); and to control the alpha level at 0.05. As hypothesized, the three dependent variables (CCS, TICSSS, PLPR) were significantly correlated, as seen in Table 4.14.
Table 4.14

*Correlations for RQ4, RQ5, RQ6 Dependent Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CCS</td>
<td>1</td>
<td>0.337**</td>
<td>0.291**</td>
</tr>
<tr>
<td>2. TICSSS</td>
<td>1</td>
<td>0.454**</td>
<td></td>
</tr>
<tr>
<td>3. PLPR</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**correlation significant at p<.01 level

Further, assumptions of MANOVA include: independent random sampling; normal distributions; and homogeneity of variance. Convenience sampling is a known limitation for this study. In addition, the dependent variable TICSSS was slightly kurtotic, making this a known violation to MANOVA tests.

A MANOVA was run to determine if there were significant differences in perceptions of institutional variables between victims and non-victims of sexual assault while at UA (Table 4.15). There were no significant differences between victims and non-victims in perceptions of institutional variables.

Table 4.15

*MANOVA results of RQ4 – Victimization*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victimization</td>
<td>Pillai’s Trace</td>
<td>0.008</td>
<td>1.743</td>
<td>3</td>
<td>0.157</td>
<td>0.008</td>
<td>0.456</td>
</tr>
</tbody>
</table>

*df = degrees of freedom*
RQ5: Is there a significant difference in perceived institutional factors between those who are aware of sexual assault on campus, and those who are not?

A MANOVA was run to determine if there were significant differences in perceptions of institutional variables between participants who had received education about sexual assault (awareness), and those who had not (Table 4.16). Univariately, there were differences in each of the institutional variables, as seen in Table 4.17. Further, descriptive statistics were used to determine the directionality of the differences between groups (Table 4.17). There were significant differences between these two groups. To gain a further understanding into the relationship between perceptions of institutional variables and awareness, a discriminant analysis was performed (Table 4.18). The result of this analysis yielded a new variable that represents the largest difference between awareness and non-awareness for perceptions of institutional variables \( X_c = [0.098]X_{CCS} + [0.106]X_{TICSS} + [0.064]X_{PLPR} - 8.513 \). This newly generated equation can be used to predict sexual assault victimization based on organizational variables.

Table 4.16

**MANOVA results of RQ 5 – Awareness**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>Pillai's Trace</td>
<td>0.025</td>
<td>5.702</td>
<td>3</td>
<td>0.001</td>
<td>0.025</td>
<td>0.948</td>
</tr>
</tbody>
</table>
Table 4.17

Means and Standard Deviations of Dependent Variables for RQ5

<table>
<thead>
<tr>
<th>Variable</th>
<th>Awareness</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Univariate ANOVA P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCS</td>
<td>No</td>
<td>35.33</td>
<td>7.29</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>38.62</td>
<td>6.93</td>
<td></td>
</tr>
<tr>
<td>TICSSS</td>
<td>No</td>
<td>25.7</td>
<td>3.8</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>26.8</td>
<td>2.89</td>
<td></td>
</tr>
<tr>
<td>PLPR</td>
<td>No</td>
<td>28.81</td>
<td>4.44</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>30.48</td>
<td>4.84</td>
<td></td>
</tr>
</tbody>
</table>

Std. Deviation = standard deviation

Table 4.18

Discriminant Analysis Results and Equation of RQ 5 – Awareness

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCS</td>
<td>0.098</td>
</tr>
<tr>
<td>TICSSS</td>
<td>0.106</td>
</tr>
<tr>
<td>PLPR</td>
<td>0.064</td>
</tr>
<tr>
<td>Constant</td>
<td>-8.513</td>
</tr>
</tbody>
</table>

Equation  \[ X_c = (0.098)X_{CCS} + (0.106)X_{TICSSS} + (0.064)X_{PLPR} - 8.513 \]

\( X_c = \) combination of original perceptions of institutional variables

RQ6: Is there a significant difference in perceived institutional factors between those who have perpetrated sexual assault, and those who have not?

A MANOVA was run to determine if there were significant differences in perceptions of institutional variables between perpetrators and non-perpetrators of sexual assault while at UA (Table 4.19). There were no significant differences between perpetrators and non-perpetrators in perceptions of institutional variables.
Table 4.19

*MANOVA results of RQ6 – Perpetration*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetration</td>
<td>Pillai’s Trace</td>
<td>0.011</td>
<td>2.346</td>
<td>3</td>
<td>0.072</td>
<td>0.011</td>
<td>0.589</td>
</tr>
</tbody>
</table>
CHAPTER 5

Discussion

Introduction

Sexual assault victimization remains a common occurrence despite increased national efforts for primary prevention programming and increased national scrutiny on the issue. In this particular sample, 58.9 percent of respondents had been victimized either since 14, while at UA, or both. Over one quarter of participants reported sexual victimization while at UA, with 29.0 percent of females and 20.3 of males reporting victimization, which is consistent with established ranges in the literature: between 20 and 50 percent for females; and between 18 and 31 percent for males (Lynn & Cleree, 2013; Turchik, 2012; Fisher, Cullen, & Turner, 2000; Abbey, Ross, & McDuffie, 1996). Further, approximately half of respondents were in their first year at UA, suggesting that the actual rate of victimization throughout the course of college in this sample may be higher than what is being reported in this study. It is well established in the scientific literature that sexual assault victimization is associated with a myriad of negative health, economic, social, and academic outcomes, emphasizing the need to understand and develop prevention programming that effectively reduces sexual assault on college campuses.

Sexual assault perpetration continues to be a deviant, but widely perpetrated behavior despite a growing wealth of research in this area. Measurement of sexual assault is a widely known problem since perpetration is self-reported and there are many biases that may affect reporting, and researchers must acknowledge this limitation. In this study, 4.8 percent of participants reported perpetrating sexual assault while at UA, 3.9 percent reported perpetration
from age 14 until attending UA, and an overall 5.6 percent reported perpetration since 14, while at UA, or both. Reported ranges for sexual assault perpetration in a college sample vary from 17.4 percent over a three month period (Loh, Gidycz, Lobo, & Luthra, 2005) to 14.2 percent over a 12 month period (Abbey & McAuslan, 2004), to even 34.5 percent over a four year period (Wite & Smith, 2004) for college males. For perpetration while at UA, there were gender differences: 3.0 percent of females reported perpetration, while 11.2 percent of males reported perpetration ($\chi^2 = 15.407, p<0.001$). While members of both genders reported perpetration, a significantly higher percentage of males were perpetrators, which is consistent with the literature (Krahe & Berger, 2013). In addition, three of five transgender participants reported perpetration. This information helps support the concept that non-males can, and do, perpetrate sexual assault (Fisher & Pina, 2013).

Theory

The theoretical framework of this study was both appropriate and innovative, as it is increasingly recognized that sexual assault is a complex, multilayered issue, but that researchers have yet to examine sexual assault from an ecological perspective. Bronfenbrenner’s Social Ecological Model (1977) was employed to provide insight into the intrapersonal, interpersonal, and organizational layers of influence on sexual assault victimization and perpetration in a university setting.

Purpose of the Study

The main purpose of this study was to examine interactions between different layers of influence on campus sexual assault. Data from this study was used to help quantify the scope of sexual assault on campus. Additionally, it measured and examined the relationships between
different layers of influence on campus sexual assault. Lastly, the study served to test what, if any, extent campus sexual assault impacts student views of the institution.

**Significance of the Study**

Although researchers have called for an ecological perspective, little literature actually examines campus sexual assault through ecological layers of influence (Banyard, 2011). Results from this study can help inform IHE administrators of the potential harm to the institution that is associated with campus sexual assault. Additionally, health educators could use data from this study to tailor primary prevention programs that are framed within an ecological perspective to individuals or groups that are at high risk of perpetrating or being victims of sexual assault.

**Research Questions**

*RQ1: Which intrapersonal and interpersonal factors predict sexual assault victimization?*

This research question examined risk factors for sexual assault victimization while in college. Univariately, the following predictors had a significant relationship with victimization: greek affiliation; binge drinking status; previous victimization; and injunctive norms. Other factors such as gender, sexual orientation, and athlete status have previously been shown to significantly predict victimization (Krahe & Berger, 2013; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Rothman, Exner, & Baughman, 2011), but were not significant predictors in this study. However, such a small percentage of participants reported being an athlete, and a sexual minority, that under-sampling these sub-groups may help explain the lack of significance. The most surprising finding for this research question is the non-significance for gender, which goes against consistent findings in the literature that being female is associated with victimization while in college (Krahe & Berger, 2013). However, the p-value was very close to significance
(0.055), and with a truly random sample of participants instead of self-selection into the study, significance may have been achieved. Regardless, this serves as a reminder that sexual assault prevention education should not just focus on female victims, and should be addressed as affecting both genders.

In the multivariate model, all predictors remained significant, suggesting that the combination of these factors help predict sexual victimization while in college. By far the strongest predictor was previous victimization with an OR of 12.823, meaning that individuals who have been sexually victimized in adolescence are almost 13 times more likely to be victimized while in college. Prior victimization is consistently viewed as a strong predictor of victimization (Messman-Moore & Long, 2003), and results of this study were no different. Previous studies have shown that individuals who were victimized in childhood were between two and 11 times more likely to be rec victimized in adulthood (Fergusson et al., 1997). This emphasizes the need to focus on two things: to begin primary prevention programming at an earlier age, perhaps in early adolescence; and to provide programming that addresses secondary and tertiary prevention in later adolescence or young adulthood. Lastly, injunctive norms was a significant univariate and multivariate predictor of sexual assault victimization. This scale was developed for this study and still needs to undergo further psychometrics testing, but has promising potential for future investigation of the impact of peers in sexual assault. A potential next step for this research question is to run a multinomial logistic regression with either different severity of sexual assault victimization (mild, moderate, severe) or different tactics used during sexual assault (verbal coercion, physical force, incapacitation through alcohol or other drugs) as the outcome categories. This would enable researchers to have a more detailed examination of predictors of sexual assault victimization.
RQ2: Which intrapersonal, interpersonal, and institutional factors predict sexual assault perpetration?

This research question examined risk factors for sexual assault perpetration while in college. The univariate predictors that were significant were the following: gender, binge drinking status, prior victimization, rape myth acceptance, and injunctive norms. Other predictors that were not univariately significant such as greek-affiliation and athlete status have previously been shown to be significantly associated with perpetration (Murnen & Kohlman, 2007), which is contrary to the findings of this study. Additionally, the representative institutional variable, PLPR, was not significantly related to perpetration. Gender is consistently related to sexual assault perpetration, with significantly more males reporting perpetration than females (Palmer et al., 2010). Similarly, alcohol is associated with perpetration (Abbey, 2011); however, binge drinking was no longer significant in the multivariate model, suggesting that other factors within the multivariate model such as gender accounted for the variance explained by binge drinking. Similarly, rape myth acceptance has been shown to be associated with victimization in previous studies (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001), and it was no different in this study, which may also be explained between an interaction between rape myth acceptance and gender (Aosved & Long, 2006). In the multivariate model, however, rape myth acceptance was no longer significant. Injunctive norms, the scale specifically developed in this study to measure how much participants though their peers found various acts of sexual assault perpetration to be acceptable, significantly predicted perpetration both the univariate and multivariate models.

Lastly, prior victimization was the strongest predictor of sexual assault perpetration in the multivariate model, as is consistent with recent literature that cites prior victimization as a contributing factor to perpetration (Merrill, Thomsen, Gold, & Milner, 2001). Recent research
has cited that early consensual sexual experiences (Abbey & McAuslan, 2004) as well as childhood and adolescent sexual assault victimization experiences (Calhoun, Bernat, Clum, & Frame, 1997; Merrill, Thomsen, Gold, & Milner, 2001; Senn, Desmarais, Verberg, & Wood, 2000) predict sexual assault perpetration. There are several theories as to why childhood or adolescent sexual victimization predict subsequent perpetration, including developing hostile attitudes about sexual relationships, attempting to gain a feeling of power over one’s life, and taking back feelings of masculinity (Lisak, 1997; Romano & Deluca, 2000). Based off this evidence, sexual assault victimization and perpetration may be self-perpetuating behaviors that reinforce each other. In order to eliminate this vicious and destructive cycle, primary prevention education would be appropriate at an early age, before college begins, and would need to involve the greater community. Further, secondary and tertiary programming and services for victims may help lead to a reduction in both revictimization and perpetration of sexual assault in young adulthood.

*RQ3: Do rape myth acceptance and peer norms moderate the relationship between alcohol consumption and sexual assault perpetration?*

In separate moderated regressions, neither peer norms nor rape myth acceptance significantly moderated the relationship between binge drinking and sexual assault perpetration. While it is widely reported that heavy and frequent alcohol consumption is a risk factor for sexual assault perpetration (Abbey et al., 1998; Abbey & McAuslan, 2004), this link may be indirect, and other factors may play a role in this relationship. In this analysis, although peer norms was not a significant moderator, this concept should be studied further to understand exactly what role both injunctive and descriptive peer norms play in sexual assault perpetration. Similarly, rape myth acceptance was not a significant moderator in the relationship between binge drinking and sexual assault perpetration, leaving other possible moderators to be
examined. Because this analysis was exploratory, separate mediation analyses should be performed to determine if either rape myth acceptance or peer norms do in fact play a role in this relationship. Additionally, prior victimization may be a variable worth exploring as a potential moderator; those who have experienced previous sexual victimization are more likely to consume alcohol (Brener, McMahon, Warren, & Douglas, 1999; Basile, Black, Simon, Arias, Brener, & Saltzman, 2006) and previous sexual victimization is a strong predictor of perpetration (Merrill, Thomsen, Gold, & Milner, 2001).

**RQ4: Is there a significant difference in perceived institutional factors between those who have been sexually assaulted, and those who have not?**

This question attempted to explore any potential negative effects of sexual assault victimization to the institution. The non-significant MANOVA for institutional variables indicates that those who have been sexually victimized while at college do not perceive the greater college environment differently than those who have not been sexually victimized. It was hypothesized that those who had been victimized would have more negative view of the institution, indicated by lower scores on each of the three institutional scales. This hypothesis was not accepted based on the results in this study. However, these findings need to be interpreted in light of low statistical power (0.336), which may not have been great enough to detect any differences in this analysis.

A possible explanation for this result is that some participants who were assaulted actually received university support and services, and therefore may have a positive view of the institution. On the other hand, participants identifying as victims may not associate their assault with failings of the institution, rather, that they blame themselves, which is a common occurrence in acquaintance sexual assault and drug-facilitated sexual assault (Ullman, 1996). Lastly, creating a covariate that accounts for receiving needed services and support may help
distinguish between the victims who may have had negative experiences with the university regarding their sexual assault.

**RQ5:** *Is there a significant difference in perceived institutional factors between those who are aware of sexual assault on campus, and those who are not?*

The significant MANOVA indicates that there were differences in perceptions of the institution between those who had received sexual assault prevention education, and those who have not. In addition, the means for those who had received education were higher for each variable, suggesting that those who received sexual assault education had more favorable views of the institution (i.e. felt more connected to campus, had greater trust in the campus support system, and had a better perception of leadership, policies, and reporting regarding sexual assault). This could provide administrators another reason to readily offer sexual assault prevention education to all students.

The result of the discriminant analysis yielded a new variable that represents the largest difference between awareness and non-awareness for perceptions of institutional variables \( (X_c=[0.098]X_{CCS} + [0.106]X_{TICSSS} + [0.064]X_{PLPR} - 8.513) \). This newly generated equation can be used to predict group membership based the combination of dependent variables. In this case, the equation would be used to predict which students had received sexual assault prevention education based on student perceptions of their institution.

**RQ6:** *Is there a significant difference in perceived institutional factors between those who have perpetrated sexual assault, and those who have not?*

This question attempted to explore any potential negative effects of sexual assault perpetration to the institution. The non-significant MANOVA for institutional variables indicates that those who have perpetrated while at college do not perceive the greater college environment differently than those who have not perpetrated. It was hypothesized that perpetrators would have a more positive view of the institution, which was not seen in the results.
of the study. Similar to RQ4, these findings need to be interpreted in light of low statistical power (0.515), which may not have been great enough to detect any differences in this analysis. The dependent variables examined in RQ4, RQ5, and RQ6 were indirectly measuring institutional variables. This was a fundamental limitation to the study; because one university was examined, institutional variables could not have been feasibly measured and therefore weaker measures were used in their place in an attempt to investigate the institutional layer of influence.

Implications

This study has promising implications for future research as well as for public health education practitioners, IHE administrators, and health policy experts. The high rates of prior victimization, which is sexual assault victimization between the age of 14 until the start of college at UA, suggests the need for earlier primary prevention health education programming for adolescents. Advocating for policies, stakeholder support, and other resources for middle school and high school administrators to incorporate sexual assault prevention programming as part of a comprehensive health education curriculum is of vital importance for reducing the incidence of sexual assault during adolescence. Further, prior victimization was the strongest predictor of both victimization and perpetration while at UA; this signifies that secondary and tertiary prevention education is warranted in some capacity in IHE’s. By addressing previous victimization and related consequences, college re-victimization may be reduced, as well as perpetration.

Injunctive norms significantly predicted both victimization and perpetration in the final regression models for RQ1 and RQ2. These results serve as preliminary evidence that peer norms may play a role in both sexual assault victimization and sexual assault perpetration.
Because the injunctive norms scale is newly created and requires further validation and evaluation in the college population, these results are purely exploratory and require additional examination into the relationship between injunctive norms and sexual assault. Moreover, an initial investigation into the potential relationship between descriptive norms and sexual assault is warranted.

Those who had received education in sexual assault prevention reported better views of their IHE. This could boost rationale for providing sexual assault prevention education to all college students; providing sexual assault prevention education could increase student trust in administration regarding issues of sexual assault. Also, although sexual assault prevention education is required for the vast majority of IHE’s in the United States, this could promote the use of programming that effectively reaches a wide audience of college students, instead of utilizing a canned program that may not necessarily reach its audience.

The relationship between alcohol use and sexual assault perpetration is complex and requires additional exploration. Both injunctive norms and rape myth acceptance did not significantly moderate this relationship. These results suggest that this relationship may not be affected by attitudes or injunctive norms that are supportive of sexual assault.

Although the co-occurrence of victimization and perpetration was not specifically examined in a research question, 29 of the 32 participants reporting perpetration since at UA (90.6 percent of perpetrators) also reported victimization since at UA. The high percentage of co-occurrence may be due in part to these participants self-selecting to take this survey to report their experiences, as stated above. This finding suggests that there may be several college students in severely harmful sexual relationships, who both perpetrate and experience victimization. Further, the vast majority of perpetrators since UA were victimized as
adolescents. This points to potentially ongoing harmful sexual relationships that perpetuate at least throughout adolescence and young adulthood. Through a search of recent literature, the co-occurrence has not been readily examined; however, this phenomenon has been examined in other dating violence (verbal and physical). Within dating relationships, both physical and verbal violence have been shown to be reciprocal, where both parties perpetrate and are victimized by dating violence (Swahn, Alemdar, & Whitaker, 2010; Whitaker, Haileyesus, Swahn et al., 2007). Further, recent research has shown associations between sexual, physical, and verbal violence in dating relationships (Gidycz, Warkentin, & Orchowski, 2007). Sexual violence may occur reciprocally, or those who perpetrate may also be victimized in one or more sexual relationships.

Limitations

There are several limitations that were acknowledged regarding this study, including the use of self-report and convenience sampling techniques, the use of a broad and vague theoretical model, the examination of a single university, non-optimal response rate, interpersonal and institutional levels measured indirectly, researchers could not guarantee that participants took the survey alone and in a private setting, and the sample including an oversampling of females, greek-affiliated students, and non-athletes. The sample was also approximately half first year students; since first year students had only experienced college for less than three months, there was little time for either perpetration or victimization to occur. If a sample that included more equal proportions of academic year or significantly more third and fourth year participants, rates of perpetration and victimization may have been higher because there would simply have been more time that participants were in college. Though three of the five identified transgender participants reported sexual assault perpetration and victimization, no conclusions can be drawn
because of the extremely small sample of transgender individuals, but research in this area that focuses on transgender populations may be warranted (Stotzer, 2009). Lastly, males were vastly underrepresented in this sample. This may explain the lower than expected participants reporting perpetration. Intentional oversampling of males may be necessary in future research to attain a more accurate picture of college sexual assault.

Self-report is standard practice in measuring potentially illicit behaviors such as sexual assault, and is a known limitation of this research (Koss, Gidycz, & Wisniewski, 1987). Other, less biased forms of data collection are not feasible with certain illicit behaviors because of the potential for major privacy and ethical issues. Further, because participation was voluntary, potential participants who may not have felt as if the content of the survey was relevant to them may have chosen not to take the survey, or individuals who had perpetrated may have selected to not participate in this study because of the potential to admit to illicit and deviant acts while taking the survey. Concurrently, those who had been victimized may have selected to take the survey as a way of disclosing their victimization experience; trauma literature has shown that some sexual assault victims undergo a cathartic experience when they disclose their victimization in research such as a survey (Jorm, Kelly & Morgan, 2007; Cromer, Freyd, Binder, DePrince, & Becker-Blease, 2006), or they could have self-selected to not take participate because of fear of negative emotional reactions that is seen in a small amount of sexual assault victims participating in sexual assault research (Edwards, Kearns, Calhoun, & Gidycz, 2009).

The combination of these potential self-selections may have skewed the reported percentages of perpetration as well as victimization in this study.

Another limitation to this study was the use of convenience sampling as opposed to random sampling. This may have led to oversampling of certain populations such as females,
and therefore weaken the ability to generalize these results to a greater United States college student population. However, convenience sampling is not uncommon, particularly for projects that are unfunded or have a limited amount of resources. Further, random sampling would have done little to alleviate issues of self-selection and other sources of bias in this study.

In addition, the cross-sectional nature of the study limits the conclusions that could be drawn from the results. For example, because only a snapshot in time was being examined, causation cannot be drawn, but correlational relationships could be established. Conclusions drawn from this study are also limited by the small sample (n=677) and by the sampling from a single IHE in the Southeastern United States.

Follow-up research should include a bigger sample that includes regional and national representation to make more meaningful comparisons and to draw deeper conclusions about college sexual assault from an ecological perspective. Sampling from multiple IHE’s would also allow for more direct measurement and comparison of institutional variables, which were significantly limited in scope because of the limited sample.

Future Research

The results and interpretation of this study clearly point to several areas of follow-up research. First, a longitudinal research design that investigates campus sexual assault from an ecological perspective is warranted. By looking at incidence of behaviors over time, researchers can draw broader conclusions about risk factors of victimization and perpetration, and observe any changes over a period of time.

A regional or national sample of data from various IHE’s could bolster generalizability, as well as enable researchers to directly measure institutional-level variables and make
comparisons across IHE’s. Regional differences could be explored, as well as potential differences between different types of IHE’s.

Since many sexual assaults occur before college, sexual assault research prevention research is sorely needed in samples of children and adolescents. Because minors are a protected population, it is particularly difficult to conduct research with children and adolescents; however, it does not signify that researchers should not and do not work with this population. Further, it is unclear what types of prevention programming is reaching these populations, and whether this programming is effective.

The relationship between sexual assault victimization and sexual assault perpetration should be studied further. This study uncovered the co-occurrence of these behaviors, but more information is needed about these sexual experiences to understand this relationship, such as relationship to the victim or perpetrator and context of the sexual assault. Moreover, previous victimization is a strong predictor of both victimization and perpetration, and conducting qualitative explorations into this particular risk factor may be beneficial when for planning secondary and tertiary prevention education.

Conclusions

The present study represents a novel investigation into campus sexual assault from an ecological perspective. The study was grounded within a social ecological framework and has the potential to provide greater insight into this major public health issue. As expected with this novel approach, several questions arose from the findings, prompting the need for several areas of follow-up research. This study added to the recent literature in that it provided further evidence for risk factors of both perpetration and victimization, examined the alcohol-sexual
assault perpetration relationship, and incorporated preliminary findings that examine the effect of sexual assault on the institution.

Sexual assault victimization is an all too common experience for both male and female college students. Coordinated national, state, and local efforts are needed to change the climate in IHE’s that truly promote safe, healthy relationships and behaviors in college students. Public health education can play an important part in sexual assault prevention efforts for IHE’s, and advocacy to promote safe, supportive environments are vital to reducing or eventually eliminating sexual assault in IHE’s.
REFERENCES


US Department of Education. (2010). Title IX and sex discrimination. Retrieved from [http://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html](http://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html)


Appendix A

Institutional Review Board Approval
June 24, 2014

Christine Hackman  
College of Human Environmental Sciences  
The University of Alabama  
Box 870311

Res: IRB # 14-OR-242, “Investigating unwanted sexual experiences from an ecological perspective”

Dear Ms. Hackman:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent.  
Approval has been given under expedited review category 7 as outlined below:

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

Your application will expire on June 22, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

[Signature]

Director & Research Compliance Officer  
Office for Research Compliance  
The University of Alabama
Appendix B

Approval Letter from the Dean of the College of Human Environmental Sciences
College of
Human Environmental Sciences
Office of the Dean

THE UNIVERSITY OF
ALABAMA
HUMAN SCIENCES

UA Office of Research Compliance
Box 870127
358 Rose Administration Building
Tuscaloosa, Al. 35487-0127

To whom it may concern,

As the dean of the College of Human Environmental Sciences I give
Christine Hackman permission to recruit students by contacting CHES
professors to seek permission to use some of their class time. I understand
that her need to recruit students within CHES is solely for research
purposes and I am willing to support her efforts.

Sincerely,

[Signature]

Dean
College of Human Environmental Sciences
University of Alabama
Appendix C

Instructor Recruitment Email
Hello Colleagues,

My name is Christine Hackman and I am a doctoral student in Health Education and Health Promotion. I am working with Dr. Stuart Usdan and Dr. Tricia Witte, and we are interested in exploring the issue of unwanted sexual contact in college students for my dissertation. I am emailing you to request your class time in order to recruit students from your class and/or classes for the Fall 2014 semester. I am requesting approximately 5 minutes of class time to describe the survey to students, inform them of participation criteria, and explain their rights as potential participants. I will then send you an email with the link to the survey, which is anonymous and can be completed at a time and place of each participant’s convenience. If you would be willing to let me use your class/classes for recruitment purposes please let me know, via e-mail, to schedule a class time that is most convenient for you. My e-mail address is clhackman@crimson.ua.edu. Thank you in advance for your willingness to support our research efforts.

Sincerely,

Christine Hackman, MA
Appendix D

Student Recruitment Script
Hello, my name is Christine Hackman and I am affiliated with the Department of Health Sciences at the University of Alabama. I am conducting a study on college students and their experiences with unwanted sexual contact, alcohol use, and perceptions of college life. If interested in participating, you will be asked questions about unwanted sexual contact, alcohol use, your beliefs and attitudes, and perceptions of campus life. The study will involve taking an online survey. You will only be asked to take this survey once. You must be enrolled in this class and between 18 and 24 years old to participate. The study should take approximately 25 to 30 minutes to complete. Your instructor will email a link for the survey; if you choose to participate, at a time and place that is convenient to you, click on the link that will take you to the survey. Also, if you do participate, make sure to take this survey alone and in a private place because of the personal nature of the questions. Please know that your participation is completely voluntary and you may choose to not participate. If you do participate, you can withdraw from the study at any time without any penalty to you. Lastly, if you choose to participate in this study, you can choose to be entered into a drawing for one of 20 Amazon gift cards. Also, for your benefit, please do not disclose survey information with other students. Thank you for your time.
Appendix E

Assessment Battery
Perceptions of Campus Life Survey

Due to the personal nature of some of the survey questions, please make sure to take this survey alone and in a private place. You can choose to stop participating in the study at any time by simply exiting out of the survey; however, you must complete the survey in one sitting and will not be able to “save” answers and come back to the survey at a later time.

Informed Consent - Campus Life Perceptions Survey

If you would like to keep a copy of this informed consent for your records, you can download the above file.

Informed Consent for a Non-Medical Study
UNIVERSITY OF ALABAMA
HUMAN RESEARCH PROTECTION PROGRAM

Study Title: “Campus Life Perceptions Survey”

Researchers: Christine Hackman, Doctoral Student; Dr. Stuart Usdan, Professor of Health Science; Dr. Tricia Witte, Associate Professor of Human Development and Family Studies

What is this study about? What will I be asked to do in this study?
The purpose of this project is to learn about unwanted sexual contact, alcohol use, and perceptions of campus life among college students. If you agree to be in this study, you will be asked to complete a brief online survey. This survey will ask questions about unwanted sexual contact (if you have experienced or taken part in unwanted sexual touching, activities etc.), alcohol use, perceptions of campus life, and other things about your health behaviors and beliefs.

Why is this study important or useful?
This information will help us learn about important issues college student’s face, such as unwanted sexual contact...
and alcohol use. This information may help us to inform programming on college campus to help college students remain happy, healthy, and successful during college.

Why have I been asked to be in this study?
You have been asked to be in this study because you are between 18-24 years of age. You are also an undergraduate student that is enrolled in a class through the College of Human Environmental Sciences at the University of Alabama.

How many people will be in this study?
About 650 college students will be in this study.

What will I be asked to do in this study?
If you agree to be in this study, you will be asked to complete a brief online survey. This survey will ask questions about unwanted sexual contact (if you have experienced or taken part in unwanted sexual touching, activities etc.), alcohol use, perceptions of campus life, and other things about your health behaviors and beliefs.

How much time will I spend being this study?
This study will only be conducted once and should take approximately 25 to 30 minutes since you are only being asked to fill out a survey.

Will being in this study cost me anything?
The only cost to you for participation in this study is the time it will take to complete the survey.

Will I be compensated for being in this study?
For your participation in this study, you can choose to be entered into a drawing for one of 20 Amazon gift cards, each worth $10.

Can the investigator take me out of this study?
Since this is an online survey and participants will be completing the survey away from the classroom setting, the investigators will not know if the survey is upsetting you; however, you can choose to stop participating in the survey at any time.

What are the risks (dangers or harms) to me if I am in this study?
Minimal or no risk is foreseen by your participation in this study. Based on individual experiences or responses to the survey, you may feel minor discomfort thinking about or reporting your sexual experiences. If you are not comfortable answering a question contained within the survey you are free to skip the question. If you become uncomfortable and feel that you cannot continue, please feel free to stop participating in the survey at any time. If further assistance with these problems is needed, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.
What are the benefits (good things) that may happen if I am in this study? There are no direct benefits from participating in this study.

What are the benefits to science or society? Society may benefit from a greater understanding of important issues college student’s face, such as unwanted sexual experiences.

How will my privacy be protected? If you choose to participate, you will be asked to take an online survey alone in a private setting of your choice. Participation in this study is anonymous, which means your name will not be recorded as part of this research at all. Survey responses will be reported anonymously and in combination with all other participants.

How will my confidentiality be protected? There will be no consent forms to sign so your survey responses can remain anonymous. Instead, if you choose to participate, you will click a box at the bottom of this page that indicates your consent to participate. The surveys will not contain any identifying information and will be stored on a flash drive kept in a locked filing cabinet in a UA campus office belonging to one of the investigators. The investigators of the study will be the only people that have access to this room and the locked cabinet. At the end of the survey, you will be asked to click on a link if you wish to be entered into a drawing for an incentive. This link will take you to a separate survey page where you will enter your email address to be entered into the drawing. Since this is a separate online survey your email address cannot be connected to your survey data. Additionally, your email address will only be used to contact you if you are randomly chosen to receive the incentive.

What are the alternatives to being in this study? Do I have other choices? Participation in this study is voluntary. There are no alternatives to this study but you do have the choice not to participate in this study.

What are my rights as a participant in this study? Taking part in this study is voluntary. It is your free choice to participate. You can refuse to be in the study. Furthermore, if you start the study, you can skip any questions you feel uncomfortable answering or stop at any time. Whether or not you choose to participate in this study will have no effect on your grade in the current course or with your relations with your instructor or the College of Human Environmental Sciences or the University of Alabama. The University of Alabama Institutional Review Board (“the IRB”) is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that those involved in research studies are being treated fairly and that the study is being executed as planned.

Who do I call if I have questions or problems?
If you have questions about the study right now, please ask them. If you have questions, concerns, or complaints about the study later on, please Christine Hackman at 205-348-4313 or Dr. Stuart Uslan at 205-348-1948. If you have questions, concerns, or complaints about your rights as a person in this research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at http://osp.ua.edu/site/PRCO_Welcome.html or email us at participant/outreach@bama.ua.edu.

After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website or you may ask the investigator for a copy of it and mail it to the UA Office for Research Compliance, Box 870127, 358 Rose Administration Building, Tuscaloosa, AL 35487-0127.

How do I agree to participate?
Checking the box at the bottom of this page is your consent to participate. If you agree with the following statement, please proceed with the survey:

“I have been informed of this study and I have had a chance to ask questions. I agree to participate in this study, am between 18 and 24 years old, and understand that clicking the following box is my consent to participating in this study.”

---

I agree  
I disagree  

---

Thank you for taking the time to participate in this study! Please do your best to answer the following questions honestly, and to keep the answers to yourself.

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.

---

1. What is your current age?

---

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.
2. What is your biological sex?

Female
Male

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.

3. Please indicate your level of agreement to the following statements:

   a. I feel disconnected from campus life
   b. There are people on campus with whom I feel a close bond
   c. I don’t feel that I really belong around the people I know
   d. I feel that I can share personal concerns with other students
   e. I feel so distant from other students
   f. I have no sense of togetherness with my peers.
   g. I catch myself losing all sense of connectedness with college life
   h. I feel that I fit right in on campus
   i. There is no sense of brotherhood/sisterhood with my college friends
   j. I don’t feel related to anyone on campus
   k. Other students make me feel at home on campus
   l. I don’t feel I participate with anyone or any group
4. Please indicate your level of agreement to the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. College officials (administrators, public safety officers) should do more to protect students from harm</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b. If a crisis happened on campus, my college would handle it well</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c. The college responds too slowly in difficult situations</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d. College officials handle incidents in a fair and responsible manner</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e. My college does enough to protect the safety of students</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>f. There is a good support system on campus for students going through difficult times</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>g. I am happy to be at this college/university</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>h. The faculty, staff, and administrators at this school treat students fairly</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>i. I feel safe on this campus</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

5. If someone were to report a sexual assault to a campus authority, how likely is it that:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very Likely</th>
<th>Likely</th>
<th>Somewhat Likely</th>
<th>Not at all Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The university would take the report seriously</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b. The university would keep knowledge of the report limited to those who need to know in order to respond promptly</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c. The university would forward the report outside the campus to criminal investigators</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d. The university would take steps to protect the safety of the person making the report</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e. The university would support the person making the report</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>f. The university would take corrective action to address factors that may have led to the sexual assault</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
6. Have you received education in policies and procedures regarding sexual assault (e.g. definition of unwanted sexual experiences, how to report an incident, confidential resources, procedures for investigating)?

Yes
7. Have you received education in prevention of sexual assault?

- Yes
- No

8. In what manner have you received education on prevention of sexual assault (mark all that apply)?

- Through freshman orientation
- Through an academic course
- Through the Women’s Resource Center
- Through residence hall programming
- Through the Haven online education program
- Other
9. How useful would you rate your education on prevention of sexual assault?

- Very
- Moderately
- Somewhat
- Slightly
- Not useful

10. Please indicate how much you agree with the following statement:

I don’t think sexual assault is a problem on this campus.

- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counselling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.

11. Please indicate how much you agree with the following statements:

a. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
b. When girls go to parties wearing slutty clothes, they are asking for trouble

o o o o o

c. If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped

o o o o o

d. If a girl acts like a slut, eventually she is going to get into trouble

o o o o o

e. When girls get raped, it’s often because the way they said “no” was unclear.

o o o o o

f. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex

o o o o o

g. When guys rape, it is usually because of their strong desire for sex

o o o o o

h. Guys don’t usually intend to force sex on a girl, but sometimes they get too sexually carried away

o o o o o

i. Rape happens when a guy’s sex drive goes out of control

o o o o o

j. If a guy is drunk, he might rape someone unintentionally

o o o o o

k. It shouldn’t be considered rape if a guy is drunk and didn’t realize what he was doing

o o o o o

12. Please indicate how much you agree with the following statements:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>o o o o o o o o</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. If both people are drunk, it can’t be rape

b. If a girl doesn’t physically resist sex—even if protesting verbally—it can’t be considered rape
13. Please indicate how much you agree with the following statements:

a. It is a terrible experience for a man to be raped by a

- Strongly Agree
- Agree
- Somewhat Agree
- Somewhat Disagree
- Disagree
woman

b. The extent of a man’s resistance should be a major factor in determining if he was raped

c. Any healthy man can successfully resist a woman if he really wants to

d. If a man obtained an erection while being raped it probably means that he started to enjoy it

e. A man can enjoy sex even if it is being forced on him

f. Most men who are raped by a woman are very upset by the incident

g. Many men claim rape if they have consented to homosexual relations but have changed their minds afterwards

h. Most men who are raped by a woman are somewhat to blame for not escaping or fighting off the woman

i. If a man engages in kissing and petting and he lets things get out of hand, it is his fault if his partner forces sex on him

j. Male rape is usually committed by homosexuals

k. Most men who are raped by a man are somewhat to blame for not escaping or fighting off the man

14. Please indicate how much you agree with the following statements:

a. A man who has been raped has lost his manhood

b. Most men who are raped by a woman are somewhat to blame for not being more careful

c. If a man told me that he had been raped by another
man, I would suspect that he is homosexual

d. Most men who have been raped have a history of promiscuity

e. No self-respecting man would admit to being raped

f. Women who rape men are sexually frustrated individuals

g. A man who allows himself to be raped by another man is probably a homosexual

h. Most men would not enjoy being raped by a woman

i. Men who parade around nude in a changing room are asking for trouble

j. Male rape is more serious when the victim is heterosexual than when the victim is homosexual

k. I would have a hard time believing a man who told me that he was raped by a woman

15. What is the Average number of drinks you consume per week? (a drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink)

*Please enter a number.

16. Think back over the last two weeks. How many times have you had five or more drinks at a sitting?
<table>
<thead>
<tr>
<th>Frequency</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td></td>
</tr>
<tr>
<td>Twice</td>
<td></td>
</tr>
<tr>
<td>3 to 5 times</td>
<td></td>
</tr>
<tr>
<td>6 to 9 times</td>
<td></td>
</tr>
<tr>
<td>10 or more times</td>
<td></td>
</tr>
</tbody>
</table>

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.

17. For the following items, please indicate what percentage of UA students you think have done the following things:

- a. Engage in sexual activity (e.g., kissing, fondling, rubbing against private areas, sex) with someone when that person didn’t want to
- b. Get someone to engage in sexual activity by telling lies, threatening to spread rumors, or verbally pressuring someone
- c. Get someone to engage in sexual activity by showing displeasure, criticizing sexuality or attractiveness, or getting angry
- d. Get someone to engage in sexual activity by taking advantage of someone when they were too drunk or out of it to stop what was happening
- e. Get someone to engage in sexual activity by threatening physical harm
- f. Get someone to engage in sexual activity by using physical force (i.e., pinning them down, using a weapon)
18. For the following items, please indicate what percentage of your close friends at UA you think have done the following things:

a. Engage in sexual activity (e.g., kissing, fondling, rubbing against private areas, sex) with someone when that person didn’t want to

b. Get someone to engage in sexual activity by telling lies, threatening to spread rumors, or verbally pressuring someone

c. Get someone to engage in sexual activity by showing displeasure, criticizing sexuality or attractiveness, or getting angry

d. Get someone to engage in sexual activity by taking advantage of someone when they were too drunk or out of it to stop what was happening

e. Get someone to engage in sexual activity by threatening physical harm

f. Get someone to engage in sexual activity by using physical force (i.e. pinning them down, using a weapon)

19. For the following items, please indicate how your close friends at UA feel about:
a. Engaging in sexual activity (e.g., kissing, fondling, rubbing against private areas, sex) with someone when that person didn’t want to
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

b. Getting someone to engage in sexual activity by telling lies, threatening to spread rumors, or verbally pressuring someone
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

c. Getting someone to engage in sexual activity by showing displeasure, criticizing sexuality or attractiveness, or getting angry
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

d. Getting someone to engage in sexual activity by taking advantage of someone when they were too drunk or out of it to stop what was happening
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

e. Getting someone to engage in sexual activity by threatening physical harm
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

f. Getting someone to engage in sexual activity by using physical force (i.e. pinning them down, using a weapon)
   - Strongly Disapprove
   - Disapprove
   - Slightly Disapprove

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5840.

The following questions (questions 20-30) concern sexual experiences that you may have had that were unwanted. We know that these are personal questions, so we do not ask your name or other identifying information. Your information is completely confidential. We hope that this helps you to feel comfortable answering each question honestly.

Click the circle showing the number of times each experience has happened to you. If several experiences occurred on the same occasion—for example, if one night someone told you some lies and had sex with you when you were drunk, you would click both circles a and c. Since the start of your college career at UA refers to the day you started your first day of school at UA. Since age 14 refers to your life starting on your 14th birthday and stopping the day before you started your first day of school at UA.
20. Someone fondled, kissed, or rubbed up against the private areas of my body (lips, breast/chest, crotch or butt) or removed some of my clothes without my consent *(but did not attempt sexual penetration)* by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3+</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3+</td>
<td></td>
</tr>
</tbody>
</table>

- a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.
- b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.
- c. Taking advantage of me when I was too drunk or out of it to stop what was happening.
- d. Threatening to physically harm me or someone close to me.
- e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.

21. Someone had oral sex with me or made me have oral sex with them without my consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3+</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3+</td>
<td></td>
</tr>
</tbody>
</table>

- a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.
- b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.
- c. Taking advantage of me when I was too drunk or out of it to stop what was happening.
22. A man put his penis into my vagina, or someone inserted fingers or objects without my consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

| a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to. |
| b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to. |
| c. Taking advantage of me when I was too drunk or out of it to stop what was happening. |
| d. Threatening to physically harm me or someone close to me. |
| e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon. |
23. A man put his penis into my butt, or someone inserted fingers or objects without my consent by:

<table>
<thead>
<tr>
<th></th>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3+</td>
<td>0 1 2 3+</td>
</tr>
<tr>
<td>a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>c. Taking advantage of me when I was too drunk or out of it to stop what was happening.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>d. Threatening to physically harm me or someone close to me.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
</tbody>
</table>

24. Even though it didn’t happen, someone TRIED to have oral sex with me, or make me have oral sex with them without my consent by:

<table>
<thead>
<tr>
<th></th>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3+</td>
<td>0 1 2 3+</td>
</tr>
<tr>
<td>a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>c. Taking advantage of me when I was too drunk or out of it to stop what was happening.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
<tr>
<td>d. Threatening to physically harm me or someone close to me.</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○</td>
</tr>
</tbody>
</table>
25. Even though it didn’t happen, a man TRIED to put his penis into my vagina, or someone tried to stick in fingers or objects without my consent by:

<table>
<thead>
<tr>
<th>a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.</th>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c. Taking advantage of me when I was too drunk or out of it to stop what was happening.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. Threatening to physically harm me or someone close to me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
26. Even though it didn’t happen, a man TRIED to put his penis into my butt, or someone tried to stick in objects or fingers without my consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn’t want to.</td>
<td>○</td>
</tr>
<tr>
<td>b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.</td>
<td>○</td>
</tr>
<tr>
<td>c. Taking advantage of me when I was too drunk or out of it to stop what was happening.</td>
<td>○</td>
</tr>
<tr>
<td>d. Threatening to physically harm me or someone close to me.</td>
<td>○</td>
</tr>
<tr>
<td>e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.</td>
<td>○</td>
</tr>
</tbody>
</table>

27. What was the sex of the person or persons who did these things to you?

- Female only
- Male only
- Both Females and Males
- I did not experience unwanted sexual activity

28. Have you ever been raped?
29. Did you use university formal procedures to report any of the above incident(s)?

- Yes
- No
- I did not experience unwanted sexual activity

30. Did university formal procedures help you deal with the problem?

- Didn’t help me at all
- Helped me a little
- Helped, but could have helped more
- Helped me a lot
- Completely solved the problem
The following questions (questions 31-39) concern sexual experiences. We know these are personal questions, so we do not ask your name or other identifying information. Your information is completely confidential. We hope this helps you to feel comfortable answering each question honestly.

Click the circle showing the number of times each experience has happened. If several experiences occurred on the same occasion—for example, if one night you told some lies and had sex with someone who was drunk, you click both circles a and c. Since the start of your college career at UA refers to the day you started your first day of school at UA. Since age 14 refers to your life starting on your 14th birthday and stopping the day before you started your first day of school at UA.

31. I fondled, kissed, or rubbed up against the private areas of someone’s body (lips, breast/chest, crotch or butt) or removed some of their clothes without their consent (but did not attempt sexual penetration) by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.</td>
<td>○</td>
</tr>
<tr>
<td>b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.</td>
<td>○</td>
</tr>
<tr>
<td>c. Taking advantage when they were too drunk or out of it to stop what was happening.</td>
<td>○</td>
</tr>
<tr>
<td>d. Threatening to physically harm them or someone close to them.</td>
<td>○</td>
</tr>
<tr>
<td>e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.</td>
<td>○</td>
</tr>
</tbody>
</table>

32. I had oral sex with someone or had someone perform oral sex on me without their consent by:
33. I put my penis (men only) or I put my fingers or objects (all respondents) into a woman’s vagina without her consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3+</td>
<td>0 1 2 3+</td>
</tr>
</tbody>
</table>

a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.

b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.

c. Taking advantage when they were too drunk or out of it to stop what was happening.

d. Threatening to physically harm them or someone close to them.

e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.
34. I put in my penis (men only) or I put my fingers or objects (all respondents) into someone’s butt without their consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3+</td>
<td>0 1 2 3+</td>
</tr>
</tbody>
</table>

- a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.

- b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.

- c. Taking advantage when they were too drunk or out of it to stop what was happening.

- d. Threatening to physically harm them or someone close to them.

- e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.
35. Even though it did not happen, I TRIED to have oral sex with someone or make them have oral sex with me without their consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.

b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.

c. Taking advantage when they were too drunk or out of it to stop what was happening.

d. Threatening to physically harm them or someone close to them.

ea. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.
36. Even though it did not happen, I TRIED put in my penis (men only) or I tried to put my fingers or objects (all respondents) into a woman’s vagina without their consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

- a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.

- b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.

- c. Taking advantage when they were too drunk or out of it to stop what was happening.

- d. Threatening to physically harm them or someone close to them.

- e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.
37. Even though it did not happen, I TRIED to put in my penis (men only) or I tried to put my fingers or objects (all respondents) into someone’s butt without their consent by:

<table>
<thead>
<tr>
<th>How many times since the start of your college career at UA?</th>
<th>How many times since age 14?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3+</td>
<td>0 1 2 3+</td>
</tr>
</tbody>
</table>

a. Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn’t want to.

b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn’t want to.

c. Taking advantage when they were too drunk or out of it to stop what was happening.

d. Threatening to physically harm them or someone close to them.

e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.
38. What was the sex of the person or persons to whom you did these things?

- Female only
- Male only
- Both females and males
- I reported no experiences

39. Do you think you have ever raped someone?

- Yes

If you become uncomfortable during the survey, and feel as if you need to talk to someone, you can contact the Counseling Center at (205) 348-3863 or the Women’s Resource Center at (205) 348-5040.

40. What is your current gender identity?
- Female
- Male
- Transgender

41. What is your ethnicity (as you define it)?
- Hispanic or Latino
- Non-Hispanic or Latino

42. What is your race (as you define it)? (mark all that apply)
- American Indian or Alaska Native
43. Which term best describes your sexual orientation?

- Bisexual
- Gay
- Heterosexual
- Lesbian

44. What is your current academic status? (Please mark only one)

- First year student
- Second year student
14. What is your Greek-organization affiliation?

- Greek Affiliated
- Not Greek Affiliated

46. Are you currently a NCAA athlete?

- Yes
- No

47. Did you transfer to UA after attending another college?
48. What semester and year did you begin your academic career at UA?

Thank you for participating in this survey! Your time and effort are much appreciated!

If you choose, please click on the following link to be entered into a drawing for one of 20 Amazon gift cards, each worth $10:
(https://universityofalabama.az1.qualtrics.com/SE/?SId=SY_emoNrWceFXcov7D)

If you have experienced psychological discomfort during this survey and you feel that you need to speak to someone about your discomfort, you can contact the Counseling Center at (205) 348-3863 or the Women's Resource Center at (205) 348-5040.

Thank you for your interest in participating in this study. Since you either do not meet the criteria for participation, or you do not consent to participating in this survey, please exit out of the survey at this time.
Appendix F

Information Sheet
Information Sheet for a Non-Medical Study
UNIVERSITY OF ALABAMA
HUMAN RESEARCH PROTECTION PROGRAM

Study Title: “Campus Life Perceptions Survey”

Researchers: Christine Hackman, Doctoral Student in Health Science; Dr. Stuart Usdan, Professor of Health Science; Dr. Tricia Witte, Associate Professor of Human Development and Family Studies

You are being asked to participate in a research study.

What is this study about? What is the investigator trying to learn?
The purpose of this project is to learn about unwanted sexual contact, alcohol use, and perceptions of campus life among college students.

Why is this study important or useful?
This information will help us learn about important issues college student’s face, such as unwanted sexual contact and alcohol use. This information may help us to inform programming on college campuses to help college students remain happy, healthy, and successful during college.

Why have I been asked to be in this study?
You have been asked to be in this study because you are between 18-24 years of age. You are also an undergraduate student that is enrolled in a class through the College of Human Environmental Sciences at the University of Alabama.

How many people will be in this study?
About 550 college students will be in this study.

What will I be asked to do in this study?
If you agree to be in this study, you will be asked to complete a brief online survey. This survey will ask questions about unwanted sexual contact (if you have experienced or taken part in unwanted sexual touching, activities etc.), alcohol use, perceptions of campus life, and other things about your health behaviors and beliefs.

How much time will I spend being this study?
This study will only be conducted once during regular class time and should take approximately 20 minutes since you are only being asked to fill out a survey.

Will being in this study cost me anything?
The only cost to you for participation in this study is the time it will take to complete the survey.

Will I be compensated for being in this study?
For your participation in this study, you can choose to be entered into a drawing for one of 20 Amazon gift cards, each worth $10.
Can the investigator take me out of this study?
Since this is an online survey and participants will be completing the survey away from the classroom setting, the investigators will not know if the survey is upsetting you; however, you can choose to stop participating in the survey at any time.

What are the risks (dangers or harms) to me if I am in this study?
Little or no risk is foreseen by your participation in this study. The main risk for participating in this study is that you may experience minor discomfort thinking about or reporting your sexual experiences. If you are not comfortable answering a question contained within the survey you are free to skip the question. If you become uncomfortable and feel that you cannot continue, please feel free to stop participating in the survey at any time. If further assistance with these problems is needed, you can contact the Counseling Center at (205) 348-3586 or the Women’s Resource Center at (205) 348-5040.

What are the benefits (good things) that may happen if I am in this study?
There are no direct benefits from participating in this study.

What are the benefits to science or society?
Society may benefit from a greater understanding of important issues college student’s face, such as unwanted sexual experiences.

How will my privacy be protected?
If you choose to participate, you will be asked to take an online survey alone in a private setting of your choice. Participation in this study is anonymous, which means your name will not be recorded as part of this research at all. Survey responses will be reported anonymously and in combination with all other participants.

How will my confidentiality be protected?
There will be no consent forms to sign so your survey responses can remain anonymous. Instead, if you choose to participate, you will click a box at the bottom of this page that indicates your consent to participate. The surveys will not contain any identifying information and will be stored on a flash drive kept in a locked filing cabinet in a UA campus office belonging to one of the investigators. The investigators of the study will be the only people that have access to this room and the locked cabinet. At the end of the survey, you will be asked to click on a link if you wish to enter into a drawing for an incentive. This link will take you to a separate survey page where you will enter your email address to be entered into the drawing. Since this is a separate online survey your email address cannot be connected to your survey data. Additionally, your email address will only be used to contact you if you are randomly chosen to receive the incentive.

What are the alternatives to being in this study? Do I have other choices?
Participation in this study is voluntary. There are no alternatives to this study but you do have the choice not to participate in this study and remain in your desk.

What are my rights as a participant in this study?
Taking part in this study is voluntary. It is your free choice to participate. You can refuse to be in the study. Furthermore, if you start the study, you can skip any questions you feel
uncomfortable answering or stop at any time. Whether or not you choose to participate in this study will have no effect on your grade in the current course or with your relations with your instructor or the College of Human Environmental Sciences or the University of Alabama. The University of Alabama Institutional Review Board ("the IRB") is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that those involved in research studies are being treated fairly and that the study is being executed as planned.

Who do I call if I have questions or problems?
If you have questions about the study right now, please ask them. If you have questions, concerns, or complaints about the study later on, please Christine Hackman at 205-348-4313 or Dr. Stuart Ussan at 205-348-1948. If you have questions, concerns, or complaints about your rights as a person in this research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at http://osp.ua.edu/site/PRCO_Welcome.html or email us at participantoutreach@bama.ua.edu.

After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website or you may ask the investigator for a copy of it and mail it to the UA Office for Research Compliance, Box 870127, 358 Rose Administration Building, Tuscaloosa, AL 35487-0127.

How do I agree to participate?
Checking the box at the bottom of this page is your consent to participate. If you agree with the following statement, please proceed with the survey:

"I have been informed of this study and I have had a chance to ask questions. I agree to participate in this study, am between 18 and 24 years old, and understand that clicking the following box is my consent to participating in this study."

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 6.27.14
EXPIRATION DATE: 6.27.15
Appendix G

Final CFA Model for PLPR