

**Bystander Intervention: Examining Recognition and Response
to Sexual Violence on a College Campus**

by

Cathy Cooper

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Approved by

Maria M. Witte, Chair, Professor of Educational Foundations, Leadership and Technology
James E. Witte, Professor of Educational Foundations, Leadership and Technology
Chih-hsuan Wang, Associate Professor of Educational Foundations, Leadership and Technology
Leslie Cordie, Assistant Professor of Educational Foundations, Leadership and Technology

Abstract

The prevalence of sexual assault on college campuses is well documented with findings revealing both men and women experience victimization. Sexual assault often results in physical and mental issues, poor academic performance, and financial burdens for victims, families, and society. Traditional prevention efforts to reduce sexual violence include security officers, late-night escort services, and self-defense training. These programs have mixed results and recent strategies have shifted toward a bystander intervention approach that focuses on engaging community members by teaching them to recognize warning signs, take safe and effective action to prevent possible assaults, and provide support to victims.

To explore further the effect of bystander intervention training on behavior and attitudes related to sexual violence, this study surveyed a random sample of 324 college students. Bystander efficacy and rape-myth acceptance attitudes were assessed as primary outcome variables, with selected demographic variables serving as exploratory outcomes.

Using one-way and factorial ANOVAs, this study found few significant differences between the experimental and control groups, the outcome variables, and the demographic variables. Students participating in bystander intervention training reported higher bystander efficacy and lower rape myth acceptance than non-trained students; however, the difference in bystander efficacy scores was not statistically significant ($p > .05$). Rape-myth acceptance test results indicated a statistically significant difference between trained and non-trained students; yet, the differences were small. Bystander efficacy outcomes indicated a statistically significant

interaction effect between bystander intervention training and academic level and statistically significant main effects were recorded for age, academic level, other training, and knowing a victim of sexual violence/assault. No statistically significant interactions were observed for IRMA outcomes; however, simple main effects were documented for gender, being a victim of sexual violence/assault, or knowing a victim of sexual violence/assault. All significant outcomes were small, with 7% or less of the total variation in average scores attributed to differences in trained and untrained students.

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Dedication

I would like to dedicate this dissertation to those who have been affected by acts of sexual violence. Although many diverse strategies exist and others are being developed to prevent sexual violence, a great deal more research is needed to understand how best to prevent sexual violence from occurring and respond most effectively to meet the needs of survivors.

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Chapter I: Introduction

Sexual violence is a widespread public health issue for college communities and is reported to be one of the most common violent crimes committed on college campuses (Brome et al., 2004). During a college career, one in four to one in five college women will experience an attempted or completed sexual assault (Banyard et al., 2007; Canan, Jozkowski, & Crawford, 2016; Carr, 2005; Fisher, Cullen & Turner, 2000; Krebs, Lindquist, Warner, Fisher, & Martin, 2009; Moynihan & Banyard, 2008) making them more at risk for sexual assault compared to non-college females (Karjane, Fisher, & Cullen, 2005). Although the prevalence is much less, evidence exists that college men are also victims of unwanted sexual experiences (Banyard et al., 2007; Koss, Gidycz, & Wisniewski, 1987; Krebs et al., 2009; Larimer, Lydum, Anderson, & Turner, 1999; Sinozich & Langton, 2014).

These statistics become even more disturbing when you consider that many incidences of sexual violence go unreported (Tjaden & Thoennes, 2000). A national study of college women revealed that only two percent of sexual violence incidents were reported to police and less than three percent involved notification of any campus authority (Fisher, Daigle, Cullen, & Turner, 2003). Non-reporting not only results in underestimating the occurrence of sexual violence but also may be indicative of victims' reluctance to recognize the seriousness of the crime and consequently influence decisions to seek medical attention and other professional services needed for recovery (Karjane et al., 2005; Kitzrow, 2003). Under-reporting may also negatively impact allocation of funding and resources available for prevention initiatives and without adequate resources sexual violence may continue to plague U.S. campuses (Canan et al., 2016).

Effects of Sexual Violence

Research indicates that survivors of sexual assault can experience numerous adverse psychological and physical health outcomes such as suicidal ideation, depression, guilt, substance dependence and abuse, chronic fatigue, development of unhealthy behaviors to lose weight, and engagement in risky sexual activity (Abdullah, Salleh, Mahmud, Ahmad, & Ghani, 2011; Gidycz, Orchowski, King, & Rich, 2008). In addition, sexual assault often results in problems unique to college students. For example, as a result of sexual assault, female victims are more likely to drop out or transfer to another college than other female students and their academic performance may decline (Carr, 2005; Jordan, Combs, & Smith, 2014). Survivors are more prone to develop post-traumatic stress disorder, suffer from episodic major depression, and actually attempt suicide (Kilpatrick, Edmunds, & Seymour, 1992). These factors underscore the need for effective prevention and intervention programs to reduce sexual assault on campus and provide support to survivors.

Historical Overview of Sexual Violence Prevention Programs

In response to the serious nature of sexual violence and federal requirements enacted to ensure colleges have strategies to prevent and respond to campus sexual assault, school administrators have responded by implementing prevention strategies to improve campus safety. Historically, programs focused on decreasing the occurrence of sexual violence by informing women about sexual violence and providing them strategies such as self-defense training to improve their abilities to avoid or successfully resist violence (Coker et al., 2011; Lonsway, 1996). These programs are often criticized because they typically portray the female as the victim and the male as the perpetrator, which is not always true (Lonsway, 1996; Söchting, Fairbrother, & Koch, 2004). They often fail to address the frequent occurrence of acquaintance

or date rape, instead focusing on rape by an unknown offender (Fisher et al., 2000; Karjane et al., 2005). Unfortunately, little evidence exists to indicate the effectiveness of these strategies in reducing sexual violence among the college community. Considering that college campuses should be an environment where students can complete their education without fear of sexual violence, better strategies to prevent sexual violence are needed (Breitenbecher, 2000; Lonsway, 1996).

The Bystander Intervention Approach

A review of sexual violence prevention programs conducted by the Division of Violence Prevention within the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control (CDC, 2016a) revealed that prevention programs often did not include community-level strategies. The literature review conducted by DeGue et al. (2014) examined the effectiveness of sexual violence prevention strategies of 104 published documents including journal articles, book chapters, and government reports and unpublished manuscripts, such as conference presentations, theses, and dissertations covering a thirty-year period. The investigator's review revealed only a few programs were effective in decreasing the occurrence of sexual violence.

Programs that promoted negative attitudes toward sexual violence and endorsed non-violent intervening behaviors and actions by potential bystanders have been found to be more effective (CDC, 2016a). Rather than providing potential victims with skills to prevent sexual violence, strategies focused on empowering the community to intervene and take an active role to stop sexual violence against women are becoming more prevalent on college campuses (Banyard, Plante, & Moynihan, 2004; Banyard, Plante, & Moynihan, 2005; Banyard, Moynihan, & Plante, 2007). Commonly referred to as bystander intervention these models concentrate on

raising awareness about sexual violence and changing community attitudes about sexual violence by providing every member a specific and important role in the fight against sexual violence. The intent of a bystander intervention program is to educate male and female participants to recognize situations that could result in sexual violence and to intervene in a safe and effective manner before, during, or after an incident. Emerging in the mid 1990's, this concept also encourages bystanders to take a stand against social attitudes that are apathetic about sexual violence and to be a sympathetic resource and advocate to victims (Banyard et al., 2004; Banyard et al., 2005; Banyard, Moynihan, & Crossman, 2009; Burn, 2009).

The Green Dot Bystander Intervention Program

A bystander intervention program that is showing promising results in addressing sexual violence on college campuses is the Green Dot Bystander Intervention Program. Developed by Dr. Dorothy Edwards, a former Director of the Violence Intervention and Prevention Center at the University of Kentucky, this bystander intervention program focuses on reducing dating and sexual violence on college campuses by promoting proactive bystander behaviors that establish intolerance to sexual violence and promote proactive intervention techniques (Coker et al., 2011).

Similar to other bystander intervention programs, the Green Dot Program's goal is to build an awareness of the prevalence and effects of sexual violence and encourage community members to get involved in prevention of sexual violence. Training and education help students develop safe, effective intervention strategies, confidence in their ability to provide assistance, and a commitment to intervene before, during, or after any situation they view as potentially violent. By presenting bystander actions as simple and manageable, students are encouraged to engage their peers to bystand with them, thereby increasing the probability that new norms that

no longer ignore or support sexual violence will be diffused and established throughout the community (Banyard et al., 2004; Banyard et al., 2005; Banyard et al., 2009; Burn, 2009; Coker et al., 2011).

Numerous studies evaluating the impact of Green Dot training on behaviors and attitudes toward sexual violence of college students have reported positive results. Coker et al. (2011) evaluated 2,000 undergraduate students from the University of Kentucky and found that those receiving 50-minute Green Dot presentations reported considerably more bystander behaviors than students receiving no information. A subsequent study by Coker et al. (2015) reported that a college sponsoring Green Dot bystander intervention education had lower rates of sexual violence victimization and perpetration when compared to campuses without a bystander program. A similar follow-up study by Coker et al. (2016) supported the previous findings. These findings provide evidence that bystander intervention programs may have the ability to transform attitudes and foster bystander behaviors.

Statement of the Problem

Sexual violence on college campuses is a serious problem that can have mental, emotional, and physical effects on victims. Universities have used a variety of sexual assault prevention programs since the 1980's to control the occurrence of sexual violence on their campuses; however, college aged women continue to be victims of sexual assault with studies indicating one in four to one in five will experience an attempted or completed sexual assault (Anderson & Whiston, 2005; Banyard et al., 2007; Fisher et al., 2000; Krebs et al., 2009). Prevention strategies have included peer education, mentoring, rape awareness, and self-defense training to provide resources to potential victims or perpetrators (Lonsway, 1996). Unfortunately, there is little evidence to show these strategies have reduced the incidence of

sexual violence (DeGue et al., 2014). In contrast, the bystander model takes a different approach by focusing on the role of the bystander (Banyard, 2004). Bystander intervention strategies center on educating community members to recognize signs of sexual violence, learn skills to safely and effectively intervene, and understand how to provide support to victims (Banyard, Moynihan, & Plant, 2007; Burn, 2009; Coker et al., 2011). This method is expected to be beneficial in the university setting where bystanders (friends, roommates, or classmates) are often the first to recognize signs of sexual violence and best positioned to intervene to prevent or mitigate violence (Banyard et al., 2004; Burn, 2009; Foubert, 2000). By increasing community awareness, these bystanders can potentially prevent violence from occurring, provide effective first response, and or offer victim support for their friends (Banyard et al., 2005).

Theoretical Framework

The prevalence and negative consequences of sexual violence on college campuses underscore the need for effective prevention and intervention efforts. Many college students that survive sexual violence do not report the incident to law enforcement or other campus officials; however, many turn to friends and family for support (Fisher et al., 2003). This highlights the important role that societal changes in attitudes and awareness can play in mitigating sexual violence. Research by Banyard et al. (2004) and DeGue et al. (2012) suggested that social norms held by the campus community must change before sexual violence prevention methods can be successful.

“Social norms theory describes situations in which individuals incorrectly perceive the attitudes and/or behaviors of peers and other community members to be different from their own when in fact they are not” (Berkowitz, 2005, p. 193). Although research indicates that bystanders are likely to intervene in situations that violates established social norms, current

social norms often support sexual violence as acceptable behavior and have contributed to creating a climate in which violence against women is expected and at times, encouraged (Carr, 2005; McMahon, 2015).

Kilmartin (2001) speaks to college men about gender roles and describes how masculine ideologies are responsible for many harmful attitudes toward women. In his book, he states:

...rape and partner violence as the worst symptom of a larger problem: a continuum of disrespect toward women....Such an analysis also emphasizes power imbalances between sexes and the social forces that create and maintain these imbalances. (p. 3)

Social norms research suggests that most men hold false views about other men's attitudes and actions toward women. Most men do not condone violence against women and oppose attitudes, behaviors, and language that disrespect women. However, men are reluctant to take a stand against violence toward women because they falsely believe other men support negative attitudes and actions toward women (Berkowitz, 2002, 2003; Burt, 1980). Bystander intervention methods seek to dispel these social norms that support violence against women by encouraging everyone to act on their true feelings and take a stand against violence toward women (Berkowitz, 2002, 2003).

Purpose of the Study

Bystander intervention educational programs are becoming an increasingly accepted approach to deter sexual violence on college campuses. Bystander intervention portrays sexual violence as a community problem and teaches everyone to take individual responsibility by intervening in safe, proactive ways to prevent violence from occurring or to support victims after the assault has occurred (Banyard et al., 2004). The Green Dot intervention program aims to

reduce sexual violence on college campuses by building an awareness of the problem, teaching safe and effective intervention techniques, and promoting skills that support survivors. Data from previous studies offer encouraging results (Coker et al., 2011, 2015, 2016). Studying 2,504 undergraduates attending the University of Kentucky, investigators (Coker et al., 2011) found that students participating in Green Dot education scored significantly higher on actual and observed bystander behavior and had significantly lower rape myth acceptance scores compared to peers with no training. Expanding this study, Coker and colleagues (2015) compared University of Kentucky students to students from two control campuses and found lower rates of sexual violence victimization and perpetration at the intervention campus. Continued studies by this researcher (Coker et al., 2016) revealed more evidence that Green Dot has the potential to reduce sexual violence among college populations. The multi-year study reported lower rates for unwanted sexual harassment, unwanted sexual victimization, stalking, and psychological dating violence for the intervention campus.

The purpose of the study was to (a) examine whether participation in bystander intervention training affected attitudes and behavior with regard to sexual violence, and (b) examine the relationship between attitudes and behavior with regard to sexual violence and selected demographic variables of a sample of college students. The ability to evaluate prevention programs is critical in determining if the programs are producing envisioned outcomes and help university administrators develop frameworks that reduce sexual violence at their institutions.

Research Questions

This study was conducted to address the following research questions:

1. What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale?
2. What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form?
3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

Significance of the Study

Colleges and universities face a difficult task when committing to protect their students from sexual violence on their campuses. Many different prevention and risk reduction programs are available and campus leaders are left with the arduous task of selecting the best fit for their school. Although little conclusive evidence exists to indicate they reduce the prevalence of sexual violence, promising results have been reported from studies examining bystander intervention as a method to promote community level opposition to sexual violence. Multiple studies by Baynard et al. (2007) and Banyard et al. (2009) indicated that participation in a bystander intervention program increased the participants' knowledge, attitudes, and behaviors related to prosocial bystander attitude. A review of the effects of the Women's Program, a bystander intervention program designed specifically for female audiences that teaches women

how to identify high risk behaviors and high risk situations and teaches safe and effective bystander skills, revealed significantly greater bystander efficacy, significantly greater willingness to help, and a decline in rape myth acceptance compared to the control group (Foubert, Langhinrichsen-Rohling, Brasfield, & Hill, 2010). Studies examining the effects of bystander intervention model also report positive results with improvements in actual and observed bystander behaviors and reduction in rape myth acceptance reported by participants and decreased sexual victimization rates reported by campuses sponsoring the program (Coker et al., 2001; 2015; 2016).

This study was designed to contribute to the body of existing research knowledge that currently exists on the effects of bystander intervention programs. Numerous bystander intervention programs are available, including Bringing in the Bystander, The Men's Program, The Women's Program, and Mentors in Violence, and campuses have reported mixed results (Anderson & Whiston, 2005). Responsibility rests on campus leaders to select a curriculum that is well suited for the campus demographics, can influence the intended audience, and deliver the desired results of preventing and or mitigating sexual violence. This study focused primarily on the Green Dot Bystander Intervention program by comparing the attitudes and behavior of student participants to non-participants attending a large public university in the Southeast that promotes the Green Dot program. The results provide college and university authorities with information and insight into the bystander approach and how "it increases community receptivity and support for intervening against sexual violence and reducing implicit societal support for sexual violence.... gives all participants and indeed all community members a specific role with which they can personally identify and adopt in preventing the community problem of sexual violence" (Banyard et al., 2004, p. 28).

Limitations

The major limitations of this study were:

1. Caution must be used in generalizing the results of this study due to response bias.
Students that participated in this study may have varying levels of knowledge regarding sexual violence against women or participated in previous training.
2. Participants in the study may not be a good representation of the campus population.
Students that participated in this study may have elected to do so because they held stronger opinions or biases about the subject matter than those unaware or impassive about the subject,
3. Participant attitude reported in the study may have been affected if the participant had previous experience or exposure to sexual violence or knew someone who had been a victim of sexual violence.
4. The study focused on students attending a 4-year public university in the southeastern United States and results may not be generalizable to other campuses.
5. This study measured bystander perceived intent as an outcome and may not be generalizable to ones' actual bystander behavior.

Assumptions

The following assumptions were made when collecting and analyzing data for this study:

1. Student participants understood the data collection survey instrument questions and provided honest and accurate responses.
2. Student participant responses to the questions regarding their interpersonal, social and practical skills reflect their own perceptions of sexual violence.

Definition of Terms

- Bystander: individuals who witness signs or acts of sexual violence and have the ability to make the situation worse, do nothing, or intervene to provide assistance (Burn, 2009).
- Bystander behaviors: “actions taken to intervene in sexual violence situations” (McMahon et al., 2015, p. 46).
- Bystander efficacy: an individual’s “confidence to intervene” in sexual violence situations (McMahon et al., 2015, p. 46).
- Bystander Efficacy Scale: survey instrument developed to measure the effectiveness of bystander intervention education on the confidence to practice bystander behavior during at risk situations (Banyard & Moynihan, 2011).
- Bystander effect: failure to provide assistance in emergency situations when other people are present (Latané & Darley, 1968).
- Bystander intentions: probability an individual will intervene in situations involving sexual violence (McMahon et al., 2015).
- Bystander intervention: proactive behavior taken by individuals to recognize and intervene in safe and proactive ways to mitigate sexual violence before, during, or after it occurs and includes speaking out against ideas and behaviors that support sexual violence and providing support to victims (Banyard, 2005).
- Campus Sexual Assault Study: study funded by the National Institute of Justice to document the distinct types of sexual assault among women from two large universities (with “types” defined by how the assault was achieved, such as the use of

- physical force or incapacitation of the victim due to drugs or alcohol), as well as the context, consequences, and reporting of sexual assault (Krebs et al., 2009).
- **Campus Sexual Violence Elimination Act (SaVE):** amends the Jeanne Clery Act to impose new obligations on colleges and universities in terms of reporting, response, and prevention education requirements related to rape, acquaintance rape, domestic violence, dating violence, sexual assault, and stalking (American Council on Education, 2014).
 - **Green Dot:** bystander invention program developed by Dr. Victoria Banyard that seeks to engage all community members as potential bystanders, and through awareness, education, and skills practice, seeks to establish attitudes that no longer condone violence and encourage proactive intervention behaviors in high-risk situations (Coker et al., 2011, 2015, 2016; Cook-Craig et al., 2014).
 - **National College Women Sexual Victimization study (NCWSV):** nationally representative study conducted in 1997 assessing sexual victimization among 4,446 college women attending a 2 or 4-year college or university (Fisher et al., 2000).
 - **National Violence Against Women Survey (NVWS):** study funded by the National Institute of Justice and the Centers for Disease Control and Prevention that sampled women and men to gather information on rape, physical assault, and stalking (Tjaden & Theonnes, 2000).
 - **Rape:** the definition of rape varies by state, but when used in this document it shall mean, nonconsensual oral, anal, or vaginal penetration of the victim by body parts or objects using force, threats of bodily harm, or by taking advantage of a victim who is incapacitated or otherwise incapable of giving consent. Incapacitation may include

mental or cognitive disability, self-induced or forced intoxication, status as minor, or any other condition defined by law that voids an individual's ability to give consent (DOJ, 2017).

- Rape myth: “prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (Burt, 1980, p. 217).
- Sexual assault: “any nonconsensual sexual act proscribed by Federal, tribal, or State law, including when the victim lacks capacity to consent” (DOJ, 2018, 1st para.).
- Sexual violence: “sexual act committed against someone without that person’s freely given consent” (The Centers for Disease Control and Prevention, 2016b).
- Updated Illinois Rape Myth Acceptance Scale-Short Form: survey instrument developed to measure the extent to which participants agree with misconceptions about rape. This study uses the terms sexual assault and sexual violence interchangeably and reflects a combination of the DOJ and CDC definitions.
- Violence Against Women Reauthorization Act of 2013 (VAWA): federal legislation that established new mandatory grant guidelines for institutions of higher education in their incident response procedures and development of programs to prevent domestic violence, sexual assault, stalking, and dating violence. VAWA 2013 also addressed mandatory crime reporting and safety procedures on college campuses (American Council on Education, 2014).

Organization of the Study

The purpose of this study was to explore whether participation in bystander intervention training impacted the attitudes and behaviors of college students regarding sexual violence.

Chapter I provided an introduction to the prevalence and effects of sexual violence on the higher

education community. Sexual violence prevention programs, including traditional methods and newer models requiring community involvement are also introduced in this chapter. Chapter II includes a review of the literature of sexual violence and the college campus environment. This chapter examines the at-risk campus population, describes the impact of sexual violence, reporting behavior, federal requirements imposed to promote safe campus environments, explains traditional risk reduction strategies, and features new risk reduction bystander intervention models including the Green Dot Program, the intervention model used at one four-year public Southeastern university. Chapter III provides detailed information about the procedures used in this study, including how the study was conducted, a description of the population sample, the research site, instrumentation, an account of the data collection process, and an explanation of how the data were analyzed. Chapter IV presents the findings of the study and a discussion of the findings. Chapter V includes a summary of the study, conclusions, implications, and suggestions for further research.

Chapter II: Literature Review

Chapter I provided background information for this study, the statement of the research problem, the theoretical framework, the purpose of the study, the research questions, the significance of the study, the limitations of the study, the assumptions of the study, the definition of terms, and the organization structure of the study. Chapter II provides a review of literature and research on the prevalence of sexual violence, sexual violence in the college environment, consequences of sexual violence, reporting behavior, federal requirements to address sexual violence on the college campus, traditional risk reduction and prevention methods, bystander research, bystander intervention framework, current bystander prevention programs, and information describing the Green Dot Bystander Intervention Program at the surveyed university.

Purpose of the Study

The purpose of the study was to (a) examine whether participation in bystander intervention training affected attitudes and behavior with regard to sexual violence, and (b) examine the relationship between attitudes and behavior with regard to sexual violence and selected demographic variables of a sample of college students. The ability to evaluate prevention programs is critical in determining if the programs are producing envisioned outcomes and help university administrators develop frameworks that reduce sexual violence at their institutions. The results of this study will benefit campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate bystander intervention training as a strategy for combatting sexual violence on their campuses.

Research Questions

This study was conducted to address the following research questions:

1. What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale?
2. What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form?
3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

Prevalence of Sexual Violence

Over three decades ago, the National Crime Survey (BJS, 1983) reported the sexual violence victimization rate to be “3.9 per 1,000 for 16-19 year-old women and 2.5 per 1,000 for 20-24 year-old women” (Koss et al., 1987, p. 168). Ten years later, the National Violence Against Women Survey (NVWS), funded by the Center for Policy Research and co-sponsored by the National Institute of Justice and the Centers for Disease Control and Prevention, documented the pervasiveness of sexual violence against women in the United States and branded it a public health and public safety concern. During the 1995-1996 NVWS, 8,000 U.S. women and 8,005 U.S. men ages 18 years and older participated in a telephone survey designed to gather information detailing the prevalence, incidence, and consequences of violence against women. The study revealed that 1 in 6 women (18%) and 1 in 33 men (3%) age 18 years and

older had experienced an attempted or completed rape at some time in their life. Based on these figures, the study concluded that approximately 876,100 rapes were committed against women in the U.S. during the 12 months preceding the survey (Tjaden & Thoennes, 1998a. p. 4).

More recently the CDC's National Center for Injury Prevention and Control, with the support of the National Institute of Justice and the Department of Defense, launched the National Intimate Partner and Sexual Violence Survey (2010). Similar to the NVWS (1995-1996), a telephone survey was used to gather information from 9,086 women and 7,421 men. Survey items included prevalence and characteristics of sexual violence, population vulnerability, and consequences of violence. Key findings showed nearly 1 in 5 women (18.3%) and 1 in 71 men (1.4%) in the United States had been raped at some time in their lives, including completed forced penetration, attempted forced penetration, or alcohol/drug facilitated completed penetration (Black et al., 2011). These findings indicated that sexual violence continues to be an important public health concern affecting many men and women in the U.S.

Sexual Violence and the College Environment

Koss et al. (1987) created a growing awareness of the increasing rates of violent crime on college campuses by looking at victimizations rates reported by college students. Studying a national sample of 6,159 men and women enrolled in 32 institutions of higher education such as, technical schools, community colleges, Ivy League schools, and public universities, the research team evaluated the type and prevalence of unwanted sexual contact. The Sexual Experience Survey (SES) (Koss et al., 2007), a 10-item self-reporting questionnaire was used to collect data. Responses were weighted to correct for regional disproportions, overrepresentation in the Northeast and Southwest and underrepresentation in the West. The researchers found that since the age of 14, more than 15% of college women reported experiencing completed rape and more

than 12% reported experiencing an attempted rape. The results also revealed that more than 7% of college men reported committing an act of completed or attempted rape. Based on this data, it was determined that during the previous six-month period, 38 out of 1,000 women experienced an attempted or completed rape. Men perpetrated attempted or completed rape at a rate of 9 per 1,000 men, leading Koss to conclude, “rape is much more prevalent than previously believed” (Koss et al., 1987, p. 170).

Recently the National Center for Educational Statistics (NCES, n.d.) estimated that during the fall of 2016, approximately 20.5 million students attended an American college or university. Yet, these learning environments are not a safe haven; violence on college campuses is a harsh reality. For the academic year 2012, the NCES (2014) reported the following crime statistics:

- Murder - 11
- Negligent manslaughter - 1
- Sex offenses (forcible) - 3,885
- Sex offenses (non-forcible) - 44
- Robbery - 1,362
- Aggravated assault - 2,403
- Burglary - 18,099
- Motor vehicle theft - 3,033
- Arson - 689

Consistent with NCES findings, high rates of sexual violence are consistently reported across other campus studies (Fisher et al., 2000; Koss et al., 1987; Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007; Schwartz, DeKeseredy, Tait, & Alvi, 2001) ranking second

behind burglary as the most perpetrated crime on higher education campuses (NCES, 2014). This problem is so widespread that the Centers for Disease Control and Prevention labels it a public health issue (Brome et al., 2004).

More recent findings revealed that during a college career one in four to one in five college women experienced an attempted or completed sexual assault (Banyard et al., 2007; Carr, 2005; Fisher et al., 2000; Krebs et al., 2009) making them more at risk for sexual assault compared to the general U.S. population that report less than 4% experiencing rape during a comparable time period (Karjane et al., 2005; Kilpatrick et al., 2007). Fisher and colleagues (2000) projected that for every 1,000 female college students nearly 50 will be victims of sexual assault during a 12-month academic term. Although the prevalence is much less, evidence indicates 5 – 15% of college men are also victims of unwanted sexual experiences (Abbey, 2002; Carr, 2005; Koss et al., 1987; Larimer et al., 1999) with the perpetrator usually being male (Abbey, 2002).

Contrary to the stereotype belief that most sexual violence is perpetrated by a stranger, at least two thirds of sexual violence against college women is committed by someone known to the victim such as a husband, ex-husband, father or step-father, boyfriend, ex-boyfriend, classmate, neighbor, co-worker, or friend (Banyard et al., 2005; Carr, 2005; Fisher et al., 2000, Fisher, Cullen, & Daigle, 2005; Karjane et al., 2005; Koss et al., 1987; Lonsway, 1996; DOJ, 2008b; Kilpatrick et al., 1992; Planty & Langton, 2013, rev. 2016; Smith, White, & Holland, 2003) with over one-half (57%) occurring during a dating relationship (Koss et al., 1987). Commonly referred to as “acquaintance rape”, this act of violence is described as “rape that is committed by an individual known to the victim in some capacity” (Lonsway, 1996, p. 230). Unfortunately, victims of acquaintance rape often feel reluctant to label the incident as a sexual

assault because they believe they are at least partially responsible for the assault and they view the matter as private, personal, and embarrassing (Koss et al., 1987).

The literature on sexual violence provides credible evidence identifying college women as a vulnerable population. Risk factors such as alcohol or drug use and social status (Greek or student athlete status) increase the probability that a student will hold significantly greater rape myth acceptance beliefs or be the victim or perpetrator of sexual assault (Crosset, Benedict, & McDonald, 1995; Finley & Corty, 1993; Larimer et al., 1999; McMahan, 2010). For example, research by Mohler-Kou, Dowdall, Koss, and Wechsler (2003) indicated that sorority women were at greater risk for rape compared to non-sorority women; other research has determined that use of drugs or alcohol increases the possibility of being a victim or perpetrator of sexual violence (Abbey, 2002; Banyard, et al., 2005; Carr, 2005; Fisher et al., 2000; Krebs et al., 2007, 2009; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2003; Schwartz et al., 2001).

Although college women are at risk for sexual violence both on and off campus, they are more vulnerable to violence off-campus. According to the National College Women Sexual Victimization (1997) study, 66% of completed rapes and 55% of attempted rapes occurred off-campus (Fisher et al., 2000). The Campus Sexual Assault Study (Krebs et al., 2007) reported similar results with approximately 60% of sexual assaults occurring at off campus locations with most taking place in a residential setting. The majority of on-campus assaults also occurred in residential settings with 60% of completed rapes taking place in the victim's residence, 31% occurring in other living space, and 10% taking place in a fraternity (Fisher et al., 2000). Other risk factors that increase the probability of sexual victimization are discussed in the following section.

Age related factors. Conducted by the U.S. Census Bureau and the Bureau of Justice Statistics, the National Crime Victimization Survey (NCVS) collects information on nonfatal crimes reported and not reported to law enforcement from a national sample of persons age 12 or older. The victims of these nonfatal crimes are initially interviewed in person with follow up phone or in person interviews occurring every six months for three years (Perkins, 1997; Sinozich & Langton, 2014). During the 1992 to 1994 period, the NCVS reported rates of sexual assault for individuals 18 to 21 were almost 22 times higher than females ages 25 to 29 (Perkins, 1997). An analysis of data from a subsequent period, 1995 to 2013, reported females ages 18 to 24 had higher rates of sexual assault victimization than any other age group. For example, the 1995 - 2013 data indicated the rate of sexual assault for college aged women (18 to 24 years of age) was approximately 4.3 per 1,000 students. In comparison to the victimization rate of non-college age females (ages 12 to 17 and 25 or older) was only 1.4 per 1,000 women (Sinozich & Langton, 2014). Other studies are consistent with findings reported by the NCVS. Findings from Koss and colleagues' (1987) national study of 32 higher education institutions determined the sexual violence victimization rate of college women to be 38 per 1,000 female students during a six-month period.

Not only are college age women more vulnerable to sexual assault when compared to non-college age women, but younger female students or female students new to the college environment are more at risk (Jordan et al, 2014; Krebs et al., 2007, 2009) than more mature students. The Campus Sexual Assault Study (CSA) conducted by Krebs and colleagues (2007, 2009) examined the prevalence, nature, and reporting of sexual assault with a sample of 5,446 undergraduate women enrolled at two large public, four year universities. Not surprising, cumulative prevalence rates for sexual violence increased as the risk period increased with senior

students reporting the highest rates, followed by juniors, sophomores and freshman. Differing results were reported when the researchers focused on the prevalence rates of sexual violence by restricting the data to the prior 12-month period. Freshmen were excluded from this analysis because they did not have 12 months of campus experience. The study reported higher prevalence rates of sexual violence for sophomore women (9%) when compared to junior (7.2%) and senior (6%) students. Another study conducted by Jordan et al. (2014) at the University of Kentucky produced additional evidence that younger students are more vulnerable to sexual assault. Incoming female freshmen student ($N = 750$) were surveyed at three different times; summer before their freshman year, end of their first freshman semester, and the end of their second freshmen semester. Results indicated that 24% of participants reported some type of sexual assault occurring during their first college semester, and another almost 20% were victims during their second semester (Jordan et al., 2014). These results are not surprising considering freshman students are likely experiencing lack of parental control for the first time, coping with new social situations, and not equipped with necessary skills to protect themselves (Finley & Corty, 1993; Kitzrow, 2003).

Greek status. Greek organizations provide students with strong social support and some evidence exists that students engaged in fraternity and sorority life are retained and graduate at higher rates than their non-affiliated peers (Walker, Martin, & Hussey, 2015). After graduation, former Greek affiliates are more likely to be prospering in five elements of well-being (purpose, social, financial, community, and physical) as measured by a 2014 Gallup poll of 30,000 college students. However, research shows that women who are members of a sorority are more likely to be sexually assaulted than non-sorority women (Kalof, 1993; Moynihan, Banyard, Arnold, Eckstein, & Stapleton, 2011; Miow & Einolf, 2009; Mohler-Kuo et al., 2003) and in one study

(Mohler-Kuo et al., 2003), undergraduate sorority women were found to be three times more likely to experience sexual assault when compared to overall female student population. To explore the link between Greek membership and rape supportive attitudes and sexual experience, Kalof (1993) sampled sorority ($n = 21$) and non-sorority ($n = 195$) women attending a state university in New York. Although the number of sorority members that participated in the survey was small (10% of the sample), the numbers were proportionally similar to the college population. Kalof (1993) concluded that sorority members were more accepting of rape myths and interpersonal violence and had significantly higher rates of sexual victimization due to alcohol and physical coercion when compared to non-sorority women. A similar study at a Midwestern university and a Southern university reported higher rates of rape myth acceptance among sorority women when measured against non-sorority members (Canan et al., 2016).

Researchers theorize the association between sorority membership and sexual attitudes and experience may occur because sorority membership places female students at a higher risk for sexual assault because they are more likely to drink and are often placed in an environment that provides extensive opportunities to interact with fraternity men, who in general, are more prone to hold rape-supportive attitudes compared to non-Greek students. Regrettably colleges and universities may unknowingly foster rape culture on their campuses by allowing Greek sponsored parties, which have been recognized as high-risk settings for sexual assault (Canan et al., 2016; Kalof, 1993; Mustaine & Tewksbury, 2002).

Numerous studies examining fraternity status and its potential causal influence on sexual violence are inconclusive. For example, the CSA study (Krebs et al., 2007) found that over 25% of incapacitated sexual assaults were perpetrated by a fraternity member with a large percentage (20%) of respondents reporting they were at a sorority or fraternity house when the incident

occurred. In contrast, Boeringer's (1999) comparison of the rape-supportive beliefs of 113 fraternity members to 312 non-Greek students attending a southeastern university did not fully support a significant link between Greek status and rape-support behavior. Although Boeringer (1999) reported a measurable relationship between rape-supportive attitudes and fraternity membership, it should be noted that even though fraternity members scored significantly higher than non-Greeks on only 5 questions out of more than 30 questions, both groups largely opposed rape-supportive beliefs.

Studying the relationship between sexual assault and fraternity membership, Murnen and Kohlman's (2007) meta-analysis of data from 29 studies relating fraternity membership to behaviors and attitudes associated with sexual aggression also found that outcomes were often influenced by variables other than the independent variables, such as the size of the college, gender of the study designer, age of participants, and the internal validity of the study. Reviewing 13 studies involving 3,330 men the investigators found a significant relationship between fraternity membership and rape myth acceptance ($z = 7.85, p \leq .001$), but significant variability was detected between studies ($X^2 = 87.85, p < .001$). For example, studies with older participants reported a larger average effect size ($d = .347$) than studies with younger participants ($d = .243$); smaller schools reported larger effect sizes ($d = .661$) compared to larger ones ($d = .122$).

Other studies provided additional evidence that fraternity members differ from non-members in regards to their propensity for sexual aggression, but extraneous variables often influence results. Acknowledging that fraternities and athletic teams are often identified as high-risk groups for sexual aggression, yet understanding that results have been inconclusive, Humphrey and Kahn (2000) investigated the differences between high-risk and low-risk

fraternities and sports team members and non-members. Fraternities and sports teams were assigned a high-risk or low-risk rating based on student respondents' perception of that groups' reputation to create an environment conducive to sexual aggression. The researchers successfully supported their hypothesis; the perceived high-risk groups scored higher (mean rank = 105.55) for sexual aggression than did the perceived low-risk and non-member participants combined (mean rank = 83.50). Comparing only the high and low risk groups, a significant difference was identified between the perceived high-risk group (mean rank = 75.98) and the perceived low-risk group (mean rank = 61.45). No significant differences were reported between the low-risk and non-members. Even though members of high-risk groups differ from non-members in regards to their propensity for sexual aggression, more research establishing conclusive results are needed (Humphrey & Kahn, 2000).

Intercollegiate athletes. Violence against women perpetrated by student-athletes was seldom studied until the 1990s (McCray, 2015). Since that time research investigating the prevalence of sexual assault perpetrated by student athletes compared to non-athletes has reported mixed results; yet, a significant proportion of studies point to a relationship between sexually aggressive behavior and sport participation (Crosset et al., 1995; McCray, 2015; Moynihan & Banyard, 2008). McCray's review of the literature (2015) summarized key research in this area:

- Randomly sampling approximately 1,000 female students, Fritner and Rubinson (1993) reported that 22.6% of sexual assaults were perpetrated by student athletes; yet, student athletes represented less than 2% of the male student population.
- Crosset and colleagues (1995) studied police records at 20 Division I institutions during the 1992-1993 school year and records of 10 judicial affairs offices from 1991

through 1993 and reported mixed results. Findings revealed that intercollegiate male students were responsible for a significantly higher percentage of sexual assaults reported to judicial affairs officials. For the periods studied, male student athletes accounted for 3.3 percent of the total male student population but were responsible for 19 percent of the reports made to judicial affairs. Despite these findings, reports to law enforcement did not support student athletes as perpetrators of sexual violence at higher rates compared to non-athletes. The investigators noted these results were likely not an accurate representation of perpetration considering that many incidents of sexual assault go unreported to law enforcement (Crosset et al., 1995).

- Koss and Gaines (1993) also reported a relationship between participation in organized sports and sexual aggression. Interestingly, the relationship between sexual aggression and alcohol and/or nicotine was greater than the relationship between athlete status and sexual aggression.

Prior victimization. Prior sexual violence has been linked to an increased probability that a woman will be re-victimization during her college career (Fisher et al., 2000; Krebs et al., 2009; Smith et al., 2003). To gather data on the extent and nature of sexual victimization of college women, the National Institute of Justice funded the NCWSV (1997) survey to investigate the conditions that potentially put women at risk for sexual assault. Prior victimization was ranked third as one of the top four reasons that consistently increased the risk of sexual victimization: “(1) frequently drinking enough to get drunk, (2) being unmarried, (3) having been a victim of a sexual assault before the start of the current school year, and (4) living on campus (for on-campus victimization only)” (Fisher et al., 2000, p. 23).

The CSA, another national study of undergraduate women ($N = 5,446$) that compared sexual victimization before and during college, revealed that victimization prior to entering college increased the risk of sexual assault during their college years. This 2006 research found that females experiencing sexual assault before attending college due to drug or alcohol use or abuse were three times more likely to be re-victimized. The same study also revealed that survivors of forced sexual assault were almost four times more likely to suffer repeat victimization (Krebs et al., 2009). Similar results were reported from a four year long longitudinal study of women age 18 to 19 entering the University of North Carolina at Greensboro in 1990 and 1991. Women with a history of both childhood and adolescent physical victimization were most likely to be victims of sexual violence during their four years of college. College women at the lowest risk for victimization were those reporting neither childhood nor adolescent perpetration (Smith et al., 2003).

Alcohol use. Research shows that alcohol use by the victim and/or the offender is often a contributing factor to sexual violence (Abbey, 2002; Banyard et al., 2005; Carr, 2005; Finley & Corty, 1993; Fisher et al., 2000; Koss et al., 1987; Krebs et al., 2007, 2009; Mohler-Kuo et al., 2003; Schwartz & Nogrady, 1996). Previous studies have found that alcohol was involved in at least 50% of sexual assaults reported by college women (Abbey, 2002; Koss et al., 1987; Mohler-Kuo et al., 2003). Alcohol inhibits cognitive processes and motor skills thereby affecting a women's ability to make sound decisions or resist sexual attack. Abbey's (2002) literature review of the role of alcohol in sexual assaults reported by college women indicated that some women believed that their consumption of alcohol significantly impaired their judgement, putting them in a vulnerable position to be sexually assaulted. Data from the 1997, 1999, and 2001 Harvard School of Public Health College Alcohol Study that surveyed 119 four-

year public (32%) and private (68%) universities linked sexual assault to alcohol use. Randomly selected undergraduate students included 8,567 college women in the 1997 survey, 8,425 in the 1999 study, and 6,988 in the 2001 study. Participants were asked a series of nine questions to evaluate if they had experienced forced or threatened rape. To assess the relationship between rape and intoxication they were asked “since the beginning of the school year, have you had sexual intercourse when you were so intoxicated that you were unable to consent” (Mohler-Kuo et al., 2003, p. 39). Possible responses included were “0 times, 1 time, 2 times, 3 or more times” (Mohler-Kuo et al., 2003, p. 39). Findings suggested that 4.7% of college women were victims of rape since the beginning of each school year. Results also indicated that 72% of rape victims were so intoxicated at the time of the assault they were unable to consent. Additionally, heavy episodic drinking, consumption of enough alcohol that placed the drinker at increased risk to health and safety, was identified as the strongest risk factor for rape while intoxicated (Mohler-Kuo et al., 2003) and associated with more severe sexual victimization of women (Ullman, Karabatsos, & Koss, 1999).

Banyard, Plante, and Moynihan (2005) surveyed 87 female sexual assault victims at a New England state university to evaluate the involvement of alcohol in the assault experience. Use of alcohol by the perpetrator was reported in 64% of incidents; use of alcohol by the victim was reported in 46% of incidents. Evidence exists that indicates that students may be somewhat familiar with the role alcohol plays in sexual assault. Two hundred undergraduate students at the University of Tennessee, Knoxville were asked to respond to the following question: “What do you see to be the reasons why the rates of sexual assault among college women are higher than those among the general population?” Over half (64%) of the respondents noted they felt alcohol was a contributing factor for the higher assault rates (Raines, 2006).

All considered, these data demonstrate that college campuses are at risk environments for sexual violence. Prevention programs are needed that increase awareness and understanding of the problem, educate students about high risk behavior and situations, increase attitudes of responsibility, and foster a commitment to protect one's self and others. The bystander intervention model takes this broad approach to prevention by integrating these components into its educational framework and giving all community members an active role to play in ending sexual violence.

Consequences of Sexual Violence

Labeled as a public health and safety concern (Brome et al., 2004), sexual violence often results in physical and mental health complications. Victims are more prone to suicidal ideation, depression, anxiety, guilt, substance dependence and abuse, chronic fatigue, eating disorders, and engagement in risky sexual activity (Abdullah et al., 2011; Faravelli, Giugni, Salvatori, & Ricca, 2004; Gidycz et al., 2008). Sexual assault often creates additional problems specific to college students. For example, victims may drop out, take a leave of absence, or transfer to another school and or academic performance may decline (Carr, 2005; Jordan et al., 2014).

Physical injury. The NVWS (1995 – 1996) found that in more than one third of all rapes and assaults committed by a dating partner, the woman experienced a physical injury (Tjaden & Thoennes, 1998a, 2000). Another study ($N = 863$) conducted at a private college in the south and another in the mid-Atlantic region reported similar findings with 32% of women experiencing violence by a dating partner sustaining physical injuries (Amar & Gennaro, 2005). Although, injuries were predominantly minor and included bruises, black eyes, cuts, scratches, busted lips, and swellings (Fisher et al., 2000), more serious injuries requiring medical treatment such as chipped or broken teeth, broken bones, lacerations, and head injuries were reported by at

least one fifth of the victims (Amar & Gennaro, 2005; Sinozich & Langton, 2014; Tjaden & Thoennes, 1998a, 1998b, 2000). Rarely, was a weapon involved. Data collected from the NCVS during the years 1995 through 2013, indicated the offender used a weapon in only 10% of attacks (Planty & Langton, 2013 rev. 2016; Sinozich & Langton, 2014). The assailant was more likely to incapacitate the victim by using their body weight as a physical restraint, furnish drugs or alcohol, or verbally threaten harm (Peters, 2012).

Mental health issues. Rape in America: Report to the Nation (1992), a summary report of two nationwide studies conducted by the National Victim Center and the Crime Victims Research and Treatment Center at the University of South Carolina, found evidence that victims of rape experienced more mental health issues compared to women who had never been sexually assaulted (Kilpatrick, et al., 1992). Significant findings of this study were:

- Almost one-third of rape victims developed post-traumatic stress disorder at some point in their lifetime. In some cases, symptoms of the disorder persisted for years following the assault;
- Rape victims were three times more likely to experience a major depressive event than non-victims; and
- Rape victims were over 4 times more likely to have contemplated suicide and 13 times more likely to have attempted suicide than non-victims. (p. 7)

Academic achievement. Existing research validates that sexual assault can influence an individual's academic success (Carr, 2005; Jordan, Combs, & Smith, 2014). To determine the impact that sexual violence has on academic achievement, Jordan et al. (2014) surveyed incoming freshman from the University of Kentucky. A sample of 750 women were surveyed the summer before their freshman year, at the end of the first semester of their freshman year,

and the end of their second semester freshman year. Results of the research indicated that rape or sexual assault negatively influenced grade point average during the freshman year. The researchers also reported that women with a history of sexual violence predictively entered college with a lower grade point average and were over three times more likely than non-victims to have a GPA below 2.5 at the end of the first semester and almost twice as likely to have that low GPA at the end of the second semester (Jordan et al., 2014).

Financial impact. In addition to mental and physical complications, rape can create significant financial burdens for victims, families, and communities. On a national level, rape is the costliest of all violent crime with annual costs estimated at \$127 billion. Cost projections vary significantly because intangible costs such as quality of life and productivity are difficult to quantify and no established measurement exists (U.S. Department of Justice, 1996). Several studies have estimated the costs for medical treatment, advocacy services, loss of productivity/time from work, impaired quality of life, and law enforcement services to range from \$81,000 to \$240,000 per incident (The White House Council on Women and Girls and the Office of the Vice President, 2014).

United Educators (2017), a risk retention group insurance company owned and governed by the 1,300 schools, colleges, and universities it insures, publicized that from 2011 through 2015 it received notice of approximately 1,000 incidents in which a student from a higher education institution was a victim of campus sexual assault. Although many of these incidents were never litigated, a minority of incidents resulted in settlements, verdicts, and/or defense costs averaging nearly \$350,000 each. In a few cases, United Educators incurred over \$1 million to resolve the incident. Common allegations included:

- Failure to properly train staff on the institution's sexual violence policies and how to respond to reports of sexual violence;
- Failure of the institution to take reasonable steps to protect the student population;
- Institution had a flawed reporting process that discouraged students from reporting victimization;
- Failure to discipline known sexual harassers in accordance with the institution's student code of conduct; and
- Failure to prevent known underage drinking.

College environments are not always safe havens for students to live, mature, and earn a degree; sexual victimization is a reality that must be recognized and school leaders have implemented a variety of strategies to safeguard students. Some institutions require all students to participate in sexual violence prevention education; others, like Dartmouth College (Sanburn, 2015) have banned alcohol at fraternity parties, improved their investigation and adjudication processes, or enhanced resources for victims. Many have focused on bystander intervention as a means to improve campus safety.

Reporting Behavior

The consequences of sexual violence combined with low reporting rates emphasize the importance of recognizing and implementing tactics to change the culture, behavior and attitudes that cause sexual violence in a college setting. Lonnie Bristow, M.D., American Medical Association President (1995) characterized sexual assault as a:

silent-violent epidemic growing at an alarming rate and traumatizing the women and children of our nation. This crime is shrouded in silence, caused by unfair social myths and biases that incriminate victims rather than offenders. These myths push victims into

the shadows, afraid to step forward and seek help from their physicians (The Washington Post, 1995, para. 4 & 5).

Occurrences of sexual violence among the college community is likely higher than institutional records reveal because few incidents are reported to law enforcement or other campus authority (DOJ, 2008b; Fisher et al., 2000, 2003; Karjane et al., 2005). According to the National Crime Victimization Survey, one of the largest continuous household studies conducted by the U.S. Census Bureau for the Bureau of Justice Statistics that collects information on the frequency, characteristics, and results of criminal victimization (Baum & Klaus, 2005), during the period 1995 – 2002, 35% of violent crimes against students were reported to police. The reporting rate for acts of sexual violence is even lower. A national study of college women by Fisher et al. (2003) revealed that only two percent of sexual violence incidents were reported to police and less than three percent involved notification of any campus authority. These findings are consistent with Koss et al.'s (1987) study that found less than 1 in 20 sexual victimizations were reported to law enforcement. Other research reveals adult women not attending college are also reluctant to report their victimization to the police. Funded by the National Institute of Drug Abuse the National Women's Study, a three-year longitudinal study of 4,008 U.S. adult women (age 18 or older), found that only 16% of rapes were reported to law enforcement and the summary report (Kilpatrick et al., 1992) stated "rape remains the most underreported violent crime in America" (p. 5).

The Fisher et al. (2003) study provided evidence that rape victims were more likely to report to law enforcement when the assault involved an unknown perpetrator, weapons were present, physical injury was sustained by the victim, or the assailant was not the same race/ethnicity. Contacting a victim's crisis or health care center for assistance was also rare with

only 16% of physically forced sexual assault victims and 8% of incapacitated sexual assault victims reaching out to these agencies for support (Krebs et al., 2007; Sinozich & Langton, 2014).

Evidence exists that reporting to informal supporters is more probable. A study of 102 female survivors of sexual violence revealed that 75% of victims first reported the incident to informal support providers such as friends, family, co-workers, or partner, with a friend being the most likely individual a victim turns to for help, followed by a family member (Ahrens, Campbell, & Ternier-Thames, 2007). These findings are consistent with previous research that found high rates of disclosure (64 – 78%) to informal support providers (Banyard, Plante, & Moynihan, 2005; Fisher et al., 2000; Fisher et al., 2003; Krebs et al., 2007).

The primary reason for disclosing was for emotional support and assistance from others followed by a need to share the experience with someone else. Notifying formal support providers, such as law enforcement, doctors, therapists, and clergy was significantly less accounting for only 15% of reports (Ahrens et al., 2007). In addition, few victims reporting the incident to law enforcement choose to pursue any further action against the perpetrator by “seeking a restraining order, filing civil charges, pursuing criminal action, or filing a grievance or initiating other disciplinary action with university officials” (Krebs et al., 2007, p. 5-26). Considering that victims first seek assistance from friends and family directs the focus to strengthening community awareness of sexual violence and how each individual can make a difference (Ahrens et al., 2007).

Literature reveals a variety of reasons explaining why women are often hesitant to report sexual violence. Fisher et al. (2000, 2003) and Krebs et al. (2007) found the most frequent reason for non-reporting to law enforcement was the victim believed the incident would not

considered serious enough by authorities. Rape victims often blame themselves for the assault and feel like they should have done more to prevent or manage the situation (Fisher et al., 2003; Kilpatrick et al., 1992); others cannot fully recall the details. This may be especially true for victims under the influence of alcohol and/or drugs because they may view their use of these substances as contributing to the assault or diminishing their credibility (Fisher et al., 2003).

Other research indicates that victims may fear retaliation by the offender, fear they will not being treated with respect by the police, lack confidence that reporting will lead to an arrest, and have concerns that school adjudication processes will be unfair or ineffective (Fisher et al., 2000; Fisher et al., 2003; Ridolfi-Starr, 2016; Sinozich & Langton, 2014; Tjaden & Theonnes, 2000). Other reasons given by victims for not reporting include embarrassment, not wanting their families to know, or considering the situation to be a personal matter and choose to resolve it internally rather than being exposed as a victim of crime (Fisher et al., 2003). Lastly, the Campus Violence White Paper prepared by Carr (2005) suggested that schools without anonymous reporting options or choices to opt out of the adjudication process may deter reporting of sexual violence.

Unfortunately, campus-wide policies meant to ensure the health and safety of students campus may unintentionally inhibit reporting. The CSA study (Krebs et al., 2007) found that approximately 75% of schools studied have policies on drug and alcohol. Because alcohol and/or drug use is often a contributing factor, victims are reluctant to report for fear of punishment by campus authorities. In addition, victims may also be hesitant to report if their institution requires them to participate in the adjudication of the incident (Karjane et al., 2005).

Requirements to Address Sexual Violence on College Campuses

Title IX. Higher education institutions face significant challenges in their quest to protect their students from sexual assault. Administrators have increased their efforts and created new strategies to prevent sexual assault; yet, victimization rates continue to be troubling and the issue is considered a public health problem (Brome et al., 2004). In response, the U.S. Federal Government has enacted legislation that calls for action plans that work by systemically improving campus safety.

Title IX of the Education Amendments of 1972 (“Title IX”), 20 U.S.C. §1681 *et seq.*, is a Federal civil rights law that prohibits discrimination on the basis of sex in education programs and activities. Under Title IX, discrimination on the basis of sex can include sexual harassment or sexual violence, such as rape, sexual assault, sexual battery, and sexual coercion. Title IX requires educational institutions receiving federal funding to take necessary action to prevent sexual assault on their campuses, to respond promptly and effectively to reports of sexual assault, to have and distribute a policy against sexual discrimination, to designate at least one employee who is responsible for coordinating the school’s compliance with Title IX, and to adopt and publish grievance procedures for students to file complaints of sex discrimination, including complaints of sexual harassment or sexual violence (U.S. Department of Education, 2011).

Student Right-to-Know and Campus Security Act of 1990. In response to the growing prevalence of sexual violence on college campuses, Congress enacted the Student Right-to-Know and Campus Security Act of 1990 (20 U.S.C. § 1092), followed by the Campus Sexual Assault Victims’ Bill of Rights of 1992. The 1990 act was renamed in 1998 to the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act in memory of a Lehigh University (Bethlehem, Pennsylvania) freshman that was murdered in 1986 in her campus dormitory room. Commonly known as the Clery Act, it requires all colleges and universities

participating in the Federal Student Aid Program to “prepare, publish, and distribute” an Annual Security Report including information about campus security policies and crime, including specific sexual crime categories that are reported on and around campus. It also requires universities to describe their crime prevention programs and deliver timely warnings about crimes that pose a threat to the campus community. This information must be delivered to all current students and employees, and upon request, made available to any applicant for enrollment or employment, and any anyone else who has an interest in campus crime (DOJ, 2008a). In addition, institutions are required to provide survivors of sexual violence with accommodations such as changes to academic schedules or alternative choices of transportation, living, or working arrangement. Institutions are also required to provide support should the victim wish to report the incident to law enforcement (DOJ, 2008a).

The United States Department of Education has responsibility for monitoring compliance with the Clery Act and has the authority to suspend federal student financial aid to non-compliant universities or impose civil penalties on a per violation basis.

Campus Sexual Assault Victims’ Bill of Rights. Passed by Congress in 1992, the Campus Sexual Assault Victims’ Bill of Rights, an amendment to the Clery Act, requires schools to develop violence prevention policies and provide certain basic right to victims of sexual violence (DOJ, 2008a). These rights include:

- Accuser and accused must have the same opportunity to have others present during a disciplinary proceeding;
- Both parties shall be informed of the outcome of any disciplinary proceeding;
- Survivors shall be informed of the options to notify law enforcement;
- Survivors shall be notified of counseling services, and;

- Survivors shall be notified of options for changing academic and living situations.

(DOJ, 2008a)

In 1998 the Clery Act was amended again to expand reporting obligations and to add requirements for implementation and disclosure of practices specific to emergency notification, evacuation procedures, and missing student notification.

Campus Sex Crimes Prevention Act. To further promote safer campuses, the Campus Sex Crimes Prevention Act, an amendment to the Family Educational Rights and Privacy Act of 1974 (FERPA), 20 U.S.C. § 1232g was passed in 2000. This act requires colleges and universities to collect and disclose information about convicted, registered sex offenders enrolled or employed by the institution (DOJ, 2008a).

Violence Against Women Reauthorization Act of 2013 (VAWA). On March 7, 2013, President Obama signed a bill that strengthened and reauthorized the Violence Against Women Act originally established in 1994 by the Clinton Administration. The bill includes a provision known as the Campus Sexual Violence Elimination Act (SaVE), Section 304 that amends the Jeanne Clery Act and imposes new obligations on colleges and universities to include incidences of dating violence, domestic violence, and stalking, including hate crimes related to gender identity and national origin, in their annual security reports (American Council on Education, 2014). In addition, SaVE requires all colleges and universities, both public and private, participating in federal student aid programs to offer “primary prevention and awareness programs” that promote awareness of rape, acquaintance rape, domestic violence, dating violence, sexual assault, and stalking. (ACE, 2014, p. 3). The training programs must include:

- A statement that the institution prohibits rape, acquaintance rape, domestic violence, dating violence, sexual assault or stalking;

- The definition of those offenses in the applicable jurisdiction;
- The definition of consent, with reference to sexual offenses, in the applicable jurisdiction;
- “Safe and positive” options for bystander intervention an individual may take to “prevent harm or intervene” in risky situations;
- Recognition of signs of abusive behavior and how to avoid potential attacks; and,
- Ongoing prevention and awareness campaigns for students and faculty on all of the above.

Institutions are required to inform students about procedures victims should follow and must include information on a victims’ option to:

- Seek assistance from campus authorities if reporting a crime to law enforcement;
- Request the institution change an academic, living, transportation, or work setting to prevent a hostile environment;
- Obtain or enforce a no contact directive or restraining order;
- Acquire information about the university’s disciplinary process and sanctions; and,
- Seek contact information for counseling, health, mental health, victim advocacy, legal assistance, and other services available to victims on campus and the surrounding community. (ACE, 2014)

Enforced by the U.S. Department of Education, the Clery Act affects all colleges participating in federal financial aid programs. Campuses that fail to comply with the act can be penalized with fines and may be suspended from participating in the federal financial aid program (U.S. Department of Education, 2014). Unfortunately, after more than forty years of legal attempts to end sexual violence, this crime continues to plague our communities (Banyard,

Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Carr, 2005; Fisher et al., 2000; Krebs et al., 2009).

Traditional Risk Reduction and Prevention Methods

Sexual violence is a serious matter for colleges and universities and attempts to prevent campus sexual assault are challenging. To tackle this health and safety issue, higher education administrators have implemented a diverse assortment of prevention and mitigation strategies to prevent students from becoming a victim or perpetrator. These approaches include; crisis, advocacy, and counseling services for victims, hotlines, late-night escort services, and emergency call stations located at multiple campus locations (Jones, 2014; Potter & Banyard, 2011). Educational awareness programs have centered on informing women about sexual violence and providing them strategies such as self-defense training to improve their abilities to avoid or successfully resist violence, warnings about consuming alcohol at parties and other public places, and encouraging them not to walk alone at night (Cook-Craig et al., 2014; Coker et al., 2011). Men have been provided strategies to avoid behavior that might portray them as violent or sexist. These programs have mixed results (Anderson & Whiston, 2005) and are often criticized because they typically represent females as potential victims who are responsible for their own safety, and males as potential perpetrators whose attitudes are misguided and must change. For example, Lonsway et al. (1996) described programs for men that target the behavior of potential offenders as rape-prevention programs and programs for women aimed at reducing the risk of victimization as risk-reduction programs. As a result of this treatment, participants may become defensive, reject the idea they could become victims or offenders, or refuse to accept their roles and responsibilities; thereby, failing to realize the benefits the program has to offer (Lonsway, 1996; Söchting et al., 2004).

Studies evaluating the results of these traditional risk reduction methods have found these strategies may result in behavior and attitude change; however, changes are often short-term. Anderson, Hieger, Stoelb, Kling, Duggan, & Payne (1998) surveyed 215 undergraduate students from a midsized Midwestern public university to determine the effectiveness of two rape prevention programs. One-third of the group participated in an interactive talk show program, a second group watched a structured video program, and another group received no intervention. Findings revealed that participation in the talk show and the video program were effective at reducing rape-supportive attitudes at post-test as measured by Burt's (1980) Rape Myth Acceptance Scale; however, when the survey was repeated in seven weeks, both groups had experienced a rebound effect with scores consistent with the control group. Results of this study suggested that rape prevention programming alone was not effective at permanently reducing rape-supportive beliefs (Anderson et al., 1998). As a result, bystander education that fosters community wide involvement to end sexual violence is gaining momentum as a recommended mitigation strategy (American College Health Association, 2011).

Bystander Research

Researchers have been trying to understand the actions of bystanders since Kitty Genovese was attacked and stabbed to death at 3:00 in the morning on March 13, 1964 outside her apartment. According to initial reports, thirty-eight of Ms. Genovese's New York City neighbors watched or heard as she begged for help; however, no one came to her aid or contacted law enforcement during the thirty minute assault (Latané & Darley, 1970). Later it was discovered that initial reports exaggerated the facts. There were less than a dozen actual witnesses present during the attack, at least two on-lookers contacted police, and another witness offered first-hand aid; yet the majority did nothing. This incident prompted Latané and Darley

(1970) to determine why some individuals step in to provide helpful assistance in times of need, while others do nothing.

Bystander Effect. Professors Bibb Latané from the University of Minnesota and John Darley from New York University conducted a series of staged emergency experiments to explain the lack of action on the part of witnesses during emergency situations. They concluded that before a bystander can decide to take action in an emergency he must process a five-step series of cognitive and behavioral decisions with only one set of choices leading to a decision to act. First, he must become aware the event is occurring; second, the bystander must interpret the event as an emergency; third, he must perceive it is his responsibility to provide assistance; fourth, the individual must plan a response; and fifth, the bystander must decide to take action (Darley & Latané, 1968; Latané & Darley, 1968, 1970).

Grounded in social psychology, the bystander effect influences the choices made by the individual during the five-step decision making process. Darley and Latané determined the presence of others often affected how an individual will react in an emergency situation. They found that when the number of bystanders is increased in an emergency situation, the less likely any of the bystanders will provide assistance (Darley & Latané, 1968; Latané & Darley, 1968, 1970). When deciding if and or how to react, individuals are socially influenced by others and model their actions according to the behavior of those around them, a phenomenon they referred to as the “bystander effect” (Latané & Darley, 1968, p. 40). They discovered the presence of others often discourages onlookers from intervening in an emergency and when the number of bystanders is increased in an emergency situation, the less likely any of the bystanders will offer assistance. In Genovese’s case, onlookers viewed the inaction of other onlookers as an indication that intervention on their part was not necessary. Latané and Darley (1970)

determined that bystanders are less likely to feel personal responsibility to intervene when other bystanders are present because responsibility is “diffused” (Latané & Darley, 1970, p. 215) to others and concluded that bystanders are more likely to intervene when there are few or no other witnesses present because they feel a greater sense of responsibility (Darley & Latané, 1968; Latané & Darley, 1968, 1970).

A more recent meta-analysis (Fisher et al., 2011) sought to update the bystander effect research base by determining whether threatening situations were associated with a smaller bystander effect than non-threatening situations. The researchers examined the literature and identified 105 studies involving the bystander effect and prosocial behavior that met their minimum criteria such as empirical evidence, relevant measure of the bystander effect, and sufficient data to compute an effect size (Fisher et al., 2011, p. 522). Results supported Darley and Latané’s (1968) and Latané and Darley’s (1968, 1970) previous findings and reported that, 1) onlookers were more likely to provide assistance in emergency situations than non-emergency situations, and 2) the bystander effect becomes stronger as the number of bystanders increase. It was also concluded that the bystander effect was stronger in females than in males and stronger in strangers than in acquaintances.

Bystander Intervention Framework

Community level support. The bystander intervention framework differs from traditional risk prevention and reduction programming by engaging community level support for deterring sexual violence and by educating participants to view themselves as allies, rather than potential victims or perpetrators (Banyard et al., 2004; Burn, 2009; Foubert, 2000; McMahon,

2010). Additionally, by endorsing designs aimed at changing social norms that condone violence against women, the bystander model works to engage all members of the community in cultural change (Banyard et al., 2004). Studies evaluating the results of traditional risk reduction and prevention methods have mixed results (Anderson & Whiston, 2005) and often report minimal and short-term improvements in rape-supportive attitudes (Anderson et al., 1998; Orchowski, Gidycz, & Raffle, 2008). Rape prevention and rape reduction programs are often criticized because they typically represent females as potential victims who are responsible for their own safety, and males as potential perpetrators whose attitudes are misguided and must change (Anderson & Whiston, 2005). This approach often fails because it can increase resistance to adopting prevention strategies. Bystander intervention seeks to dispel social norms that support violence against women by expanding traditional sexual violence prevention strategies to establish a new community culture that no longer condones sexual violence (Banyard et al., 2004).

The 2005 American College Health Association Campus Violence White Paper (Carr, 2005) asserts that prevention and reduction programs will only be successful if a paradigm shift occurs at the community level and recommends that college communities provide programming that teaches bystander intervention skills. The bystander intervention model minimizes the belief that most men are assailants and women are at least partially to blame for their victimization. In contrast, the bystander model considers everyone as a potential advocate that can take action to mitigate or prevent sexual violence (Anderson & Whiston, 2005; Banyard et al., 2009; Cares, Banyard, Moynihan, Williams, Potter, & Stapleton, 2015). The bystander approach works to establish new community standards that oppose rape myths, teach pre-assault strategies that encourage intervention in situations that could lead to sexual assault, and promote skills to

provide support and resources to victims of violence (Banyard et al, 2014; Katz & Moore, 2013; Potter & Banyard, 2011).

Rape myths. Considering the prevalence and serious consequences of sexual assault, it is not surprising that significant research has focused on understanding this crime and developing methods to end this form of violence. Studies have been specifically designed to evaluate societal behaviors and attitudes related to sexual violence against women that excuses unwanted aggressive sexual behavior (Lonsway & Fitzgerald, 1994; Schwartz et al., 2001). Often referred to as “rape myths” these behaviors and attitudes were first defined by Burt (1980) as “prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (p. 217). Rape myths can be harmful and result in reluctance to accept the victim’s account of the incident, defend male peer support networks that seek to cast the rape survivor as contributing to his or her victimization, and overlook resulting injuries sustained by the victim (Burt, 1980). Lonsway and Fitzgerald (1994) expanded the concept of rape myth by re-defining it as “attitudes and beliefs that are generally false yet widely and persistently held and that serve to deny and justify male sexual aggression against women” (p. 134). For example, a common rape myth is, if a woman is raped while she is intoxicated, she likely contributed to the assault and the perpetrator should not be held solely accountable for the assault. Failure to report the perpetration because the victim believed she was partially responsible for the assault is another example of rape myth attitudes prevalent across the university environment (Burt, 1980; Lonsway & Fitzgerald, 1994).

Higher education sexual violence prevention strategies have traditionally focused on providing resources to students to increase awareness of sexual violence, teaching risk avoidance techniques, familiarizing students with laws and campus policies related to sexual assault, or furnishing medical and mental health resources to victims. Additionally, men have been

counseled to avoid behavior that might be considered sexually aggressive and women have been encouraged to avoid risky situations, such as walking alone at night (Cook-Craig et al., 2014; Coker, 2011; Peters, 2012). Despite these efforts, the literature reveals that high levels of rape myth acceptance continue to exist in the general population (Lonsway & Fitzgerald, 1994). To evaluate the level of rape myths held by college students, McMahon (2010) conducted an exploratory study involving 2,338 first-year undergraduate students at a large, northeastern public university. Findings indicated that victim blaming viewpoints and perpetrator defending attitudes were present in this population. Specifically, over 53% of students “strongly agreed” or “agreed” that “If a girl acts like a slut, she is eventually going to get into trouble” (McMahon, 2010, p. 9). Elimination of false beliefs related to rape such as this one is an objective of the bystander intervention approach.

Definition of bystander intervention. For the purpose of this study, bystander intervention is considered proactive behavior taken by individuals to recognize and intervene in safe and proactive ways to stop sexual violence before, during, or after it occurs and includes speaking out against ideas and behaviors that support sexual violence (Banyard, Moynihan, & Plante, 2007). The bystander intervention concept portrays sexual violence as a community problem and posits that everyone has a responsibility to take action to end the problem of sexual violence in our communities. Its objective is to inspire both men and women to change social norms so violence against women is no longer supported (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007).

Because bystanders are often present during the pre-assault phase and may witness warning signs of sexual violence their intervention actions have the potential to prevent sexual violence from occurring (Banyard, 2004; Burn, 2009; Foubert, 2000). Bystander intervention

education programs seek to increase awareness of sexual violence warning signs of at-risk situations, provide participants with skills to safely intervene and prevent sexual violence, encourage bystanders to provide assistance to victims, and motivate everyone to speak out against social norms that support sexual violence. This approach seeks to instill a sense of individual responsibility and encourages community members to work together to end sexual violence (Banyard et al., 2004, Banyard, Moynihan, & Plante, 2007; Potter & Banyard, 2011). For example, if a bystander witnesses an intoxicated female student being coerced by a male student to accompany him to his room, the bystander should intervene to safeguard the female student. The bystander model provides everyone an opportunity to identify as a prosocial bystander who can take an active role in interrupting sexual violence and offer reassurance to victims (Banyard, Moynihan, & Plante, 2007).

Bystander intervention training outcomes. Research by Banyard, Moynihan, & Plante (2007) and Banyard et al. (2009) indicated that participation in a bystander intervention program increased the participants' knowledge, attitudes, and behaviors related to prosocial bystander attitude. The 2007 study involved 389 undergraduate male and female undergraduate students who were randomly assigned to one of two treatment groups or a control group. Students in one treatment group ($n = 137$) attended a 90-minute prevention program that included basic information about sexual violence. After participants learned about the prevalence of sexual violence and resulting consequences, they were informed how to recognize risky situations, taught safe and effective intervention techniques, and coached on how to support a victim. Students in the second treatment group ($n = 137$) attended three 90-minute sessions within a one week period and two months later attended a follow-up session. Program format for the two treatment groups were similar; however, the content was expanded for the second treatment

group. The control group ($n = 115$) received no training. The results of study revealed that participation in a bystander intervention program resulted in significant and sustained improvements in knowledge of sexual violence, increased bystander efficacy, increases in self-reported bystander behaviors, and increases in prosocial bystander attitudes among male and female participants (Banyard, Moynihan, & Plante, 2007).

Bystander intervention programs aimed at target audiences also report promising results. To determine if unique college populations are impacted by bystander intervention education, Moynihan and Banyard (2008) surveyed 46 fraternity members, 46 sorority members, 21 male intercollegiate athletes, and 18 women intercollegiate athletes. All participants attended a 90-minute program that included content on identification of risky behavior, safe and effective intervention tactics, and techniques to support survivors. Multiple scales (6) including the Knowledge of Interventions, Don't Know, Bystander Attitudes, Bystander Efficacy, Post-Program Evaluation Questions (Banyard, Plante, & Moynihan, 2005), and Illinois Rape Myth Acceptance Scale – Short Form (Payne, Lonsway, & Fitzgerald, 1999), were used to gather and evaluate pre and post-test results. A repeated measures analysis of variance was used to compare scores from pre-test to post-test for all participants and then for men and women separately. The overall results measuring both genders indicated a significant improvement from pre-test to post-test scores in four of the six variables, (1) knowledge of interventions strategies, (2) helping attitudes, (3) bystander efficacy, and; (4) the number of times “don't know” was given as an answer. Similar results were documented for women only with the same outcome variables changing significantly from pre-test to post-test; however, only two outcome variables changed significantly for the men as a group (Moynihan & Banyard, 2008).

Methods other than in-person training have also been used to convey the importance of bystander action in risky situations. Modeled on the bystander intervention approach, a campus-wide poster campaign intended to increase participants' knowledge, attitudes, and behaviors related to prosocial bystander behavior was evaluated by Potter, Moynihan, Stapleton, and Banyard (2009). Four posters portraying campus situations and clearly exhibiting bystander intervention behavior were distributed for four weeks throughout campus, including campus residence halls. All posters featured the campaign slogan, "Know your power. Step in, Speak up, You can make a difference" (p. 109). When compared to students in residence locations not participating in the poster campaign ($n = 81$), students exposed to the bystander posters ($n = 291$) exhibited a greater awareness of sexual violence and greater willingness to take action against sexual violence. Although the researchers suggested that poster campaigns should be used in combination with in-person education to practice learned skills, the findings did indicate the poster delivery of the bystander message was successful in increasing awareness about campus sexual violence and the important role everyone has to play to end violence against women (Potter et al., 2009).

Bystander Intervention Prevention Programs

Numerous bystander intervention programs intended to raise awareness about campus sexual assault, its prevalence, its effects, and practical actions to prevent or stop acts of sexual violence are now being implemented by higher education institutions (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Exner & Cummings, 2011; Foubert et al., 2000; Foubert et al., 2010; Gidycz, Orchowski, & Berkowitz, 2011; Hines & Reed, 2015; Katz, 1995; Moynihan & Banyard, 2008; Potter et al., 2009). Each program has their own unique format and delivery style and may target a specific audience; however, they all seek to promote prosocial attitudes

and behaviors that take a community level stand against sexual violence and delivers support to victims (Katz & Moore, 2013). Bystander intervention efforts shift the focus from individual prevention strategies to actively involving the community in societal change. Many of these intervention models including the Men's Program, Women's Program, Mentors in Violence Prevention, and Bringing in the Bystander target same-gender audiences because men and women differ in their understanding of their prosocial role within the community, their willingness to take action, and their fear of physical harm (Banyard et al., 2004; Exner & Cummings, 2011; Foubert, 2000; Foubert et al., 2010; Gidycz et al., 2011; Hines & Reed, 2015; Katz, 1995).

The Men's Program. The Men's Program was developed, practiced, and distributed by John Foubert, a Professor of Higher Education and Student Affairs at Oklahoma State University, and is usually presented by peer educators associated with the national non-profit organization, One in Four. It is designed to target a specific audience, such as fraternity or sports team members, with the purpose of teaching all-male audiences the importance of treating sexual assault survivors with empathy by facilitating their understanding that sexual assault is an act of violence and not a sexual act. The curriculum is structured and facilitators often follow a universal program designed to dispel rape-supportive beliefs and behaviors, diminish men's defensiveness, encourage intervention to prevent sexual assault or interrupt sexism, and foster victim empathy (Berkowitz, 2002; Langhinrichsen-Rohling, Foubert, Brasfield, Hill, & Shelley-Tremblay, 2011).

The primary goals of The Men's Program are:

- To help men understand how to help women recover from rape;

- To increase the likelihood of bystander intervention in potentially high-risk situations; and,
- To challenge men to change their own behaviors and influence the behaviors of others (“Goals of The Men’s Program,” para. 4).

To assess how participation in The Men’s Program impacts rape myth acceptance, likelihood of raping, and sexually coercive behavior of fraternity men, Foubert and colleagues (2000) studied 145 fraternity men representing 23 fraternities located at a mid-Atlantic public university campus. The fraternity members attended a one hour program entitled “How to help a sexual assault survivor: What men can do” that included an informative speech about rape and specific guidance on how to determine when an incident might be considered rape. After viewing a training video that simulated a sexual assault victim’s experience, the fraternity members were taught basic skills to promote survivor recovery. The program concluded with a message and challenge to the men to end societal norms that tolerate rape. Study results revealed a significant decline in rape myth acceptance and the likelihood of committing rape among program participants persisted seven months post participation. However, no evidence of change in sexually coercive behavior was reported (Foubert et al., 2000).

Results from a study of 179 freshmen at a southeastern urban university that participated in the Men’s Program recorded similar results. Men who attended the program ($n = 85$) self-reported significantly higher bystander efficacy, a greater willingness to intervene as a bystander, and significantly decreased attitudes of rape-supportive behavior from pre-test to post-test and no significant difference from pre-test to post-test for the control group (Langhinrichsen-Rohling et al., 2011). A comparable study of 635 male students conducted at a Midwestern university provided more evidence that the Men’s Program produced positive outcomes. Compared to the

control group, college men participating in a 1.5 hour program and a 1 hour booster session were less likely to engage in or condone sexually aggressive behavior, associate with sexually aggressive peers, and indicated less exposure to sexually explicit material when surveyed four months after completing the program. In addition, participants' beliefs that their peers would intervene if they witnessed a risky situation was higher at a 4 month follow-up ($M = 30.58, SE = 0.80$) compared to baseline data ($M = 28.69, SE = 0.79$). However, other variables studied, such as rape myth acceptance, negative attitudes toward women, and participant's likelihood to intervene in an inappropriate dating situation did not reveal a significant time or group difference (Gidycz et al., 2011).

The Women's Program. Serving as a compliment to the Men's Program, the Women's Program was also authored and circulated by John Foubert and is usually presented by peer educators associated with One in Four. Presented to all female audiences, this program teaches women how to identify high risk behaviors and high risk situations and teaches safe and effective bystander skills including being a resource to victims. The One in Four website lists the primary goals of the Women's Program as:

- To enable women to recognize characteristics of high-risk perpetrators;
- To enable and empower women to intervene in potentially high-risk situations, and;
- To enable women to help rape survivors by giving them pertinent information about rape, a victim's recovery from rape, and resources where more information can be found ("Goals of The Women's Program," para. 2).

To understand how the Women's Program might impact bystander efficacy and willingness to provide assistance, Foubert et al. (2010) studied 279 college women, of which 95% were first year students. The Bystander Efficacy Scale (Banyard et al., 2005) and the

Bystander Willingness to Help Scale (Banyard et al., 2005) were used to assess bystander behavior. To determine how effective the Women's Program was at changing rape related beliefs, the researchers used the Illinois Rape Myth Acceptance Scale (Payne et al., 1999). After seeing the Women's Program, the treatment group ($n = 189$) reported significantly greater bystander efficacy, significantly greater willingness to help, and a decline in rape myth acceptance compared to the control group ($n = 90$). This study provided evidence that the Women's Program could be an effective strategy for decreasing sexual assault on college campuses (Foubert et al., 2010). Similar studies of the Women's Program have reported comparable results (Bannon, 2017).

Mentors in Violence Prevention Program. One of the original sexual violence prevention programs using a bystander intervention approach was created by Jackson Katz in 1993 at Northeastern University's Center for the Study of Sports in Society (Katz, 1995). The Mentors in Violence Prevention Program (MVP) was designed to redefine masculinity by inspiring male college athletes to use their privileged social status to act as role models, peer leaders, and mentors to promote others to adopt healthier attitudes and behaviors toward women. Since its inception, the program has expanded its audience beyond the college student athlete to include university students that are not athletes, high school and middle school students, and military personnel (Katz, Heisterkamp, & Fleming, 2011).

The MVP applies techniques of the bystander model to portray men as empowered bystanders who can recognize at-risk conditions, are willing to speak up and take action against offensive or abusive behavior, and are prepared to provide support to victims. Peer educators use the MVP Playbook as a training tool to lead team members through three 90-minute interactive discussions using real life scenarios that portray aggression toward women, domestic

violence, and sexual assault. Participants learn to identify signs that may indicate an individual is being victimized, discuss when it appropriate to intervene, and become familiar with safe and effective techniques for intervention before, during, or after an incident (Katz, 1995). MVP has been found to produce significant positive changes in attitudes and predicted behaviors associated with sexual violence among high school students (Ward, 2001) and to reduce sexism and increase self-efficacy at a state university (Cissner, 2009).

Bringing in the Bystander. Bringing in the Bystander is another promising sexual violence prevention program based on the bystander framework. This model, developed by Vicki Banyard and colleagues (2004) at the University of New Hampshire, is based on the idea that increasing wide-spread awareness of sexual violence and proactive behaviors to take before, during, and after sexual violence will result in a community that is less tolerant of sexual violence and more willing to take action. Typically administered to single-gender groups, it discredits rape-supportive behaviors, promotes compassion for victims, (Banyard et al., 2004), and teaches prevention strategies that bystanders can use when observing risky situations (Banyard, et al., 2004; Cares, 2015). This program is available in a 90-minute or one-half day version, includes active learning exercises that build intervention skills, and concludes with participants taking a pledge to intervene should they witness risky situations in the future (Banyard et al., 2004).

Studies assessing Bringing in the Bystander as a method to deter sexual violence have reported positive results (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Cares, 2015; Hines & Reed, 2015; Moynihan et al., 2011). Two separate studies (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007) revealed that male and female students who participated in this particular bystander training demonstrated an increased knowledge of sexual violence,

bystander efficacy, and willingness to intervene, and decreased rape myth acceptance that was significantly different when compared to the control group that were untrained (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007) and within groups of students considered as high risk such as members of Greek organizations and students athletes (Moynihan & Banyard, 2008). Cares et al. (2015) evaluated the effectiveness of this model by studying first-year students from two universities (one rural, primarily residential; one urban, heavily commuter). Participants were randomly assigned to the treatment group ($n = 466$) or the control group ($n = 482$). There were no significant differences between the treatment and control group prior to implementation of the program. Participants were surveyed again approximately 2 weeks (64% retention rate) and 1 year (36.5% retention rate) after participation in the program. Significant differences were found in bystander attitudes between the treatment and control groups. Students participating in the Bringing in the Bystander training demonstrated a reduction in rape myths and an increase in bystander efficacy that persisted for 12 months following the pretest. This group also reported lower scores for pre-contemplation and higher scores for willingness to help; however, these effects were not seen for men attending the urban campus (Cares et al., 2015).

Green Dot Program. The focus of this study was to assess the impact the Green Dot Program had on student participants' attitudes and behaviors related to sexual aggression. Similar to other bystander intervention programs, the Green Dot Program was designed to help students proactively recognize situations that might potentially lead to violence. Training and education helps students develop safe, effective intervention strategies, become confident in their ability to provide assistance, and commit to intervene before, during, or after any situation they view as potentially violent (Coker et al., 2011). By taking a comprehensive approach to violence prevention that focuses on the power of peer and cultural influences, the Green Dot strategy

engages all community members as potential bystanders, and through awareness, education, and skills practice, seeks to establish attitudes that no longer condone violence and encourage proactive intervention behaviors in high-risk situations. A green dot represents an individual's choice to intervene in a situation involving harmful or violent words, actions, or behaviors; a red dot represents an individual's choice to ignore or accept a similar situation (Coker et al., 2011, 2015, 2016; Cook-Craig et al., 2014).

The Greet Dot program is implemented in two phases. During the first phase, participants attend a 50-minute motivational speech to introduce the bystander method and foster an allegiance to the concept. Unlike other bystander programs, Green Dot uses Popular Opinion Leaders (POL) to further promote bystander behavior as the preferred response to sexual violence. POLs are recruited from the student body and typically include classmates who are believed to be highly respected by other students such as student leaders, intercollegiate sport team members, sorority and fraternity leaders, or honor students. Using the POL strategy, these students are invited to attend phase two known as Students Educating and Empowering to Develop Safety (SEEDS). During this phase, participants attend small group sessions where they receive intensive training on recognizing and implementing bystander intervention techniques (Coker et al., 2011; Coker et al., 2015).

Results from previous studies appear promising (Coker et al., 2011, 2015, 2016). Coker et al. (2011) surveyed a random sample ($N = 2,504$) of college undergraduates from the University of Kentucky to determine if participation in the Green Dot program influenced actual and observed self-reported bystander behaviors and violence acceptance norms. Following the recommended curriculum design, the Greet Dot program was implemented in two phases with varying amounts and types of coaching. Six hundred ninety three students attended only phase

one, a 50-minute motivational speech delivered by VIP staff and Dr. Edwards during a one hour class designed to acclimate first year students to university life and foster academic and personal growth. The speech introduced the bystander theory and focused on creating a concern for the consequences of sexual assault and inspiring attendees to make a difference by getting involved in the quest to end sexual violence. Peer Opinion Leaders ($n = 351$) were recruited for phase two and attended SEEDS sessions where they learned to recognize the warning signs of violence and proactive bystander intervention skills. Included in this group were 159 students who had a strong interest in violence prevention having been involved with or received services from the Violence Intervention and Prevention (VIP) Center at the University of Kentucky. The control group ($n = 1,301$) received no intervention training.

Three survey instruments were used to collect data. The 20-item Illinois Rape Myth Acceptance Scale (Payne et al., 1999) was reduced to seven items and selected to measure students' opinions about sexual violence. The scale was reduced because the original survey took almost 45 minutes to complete and the researchers believed students would not participate in a survey of that length. A 4-point Likert-type scale with options ranging from "strongly agree to strongly disagree" was used to record responses. Higher scores indicated a stronger level of rape myth acceptance. The internal consistency for this reduced scale was high with the Cronbach's alpha reported to be .85 (Coker et al., 2011).

Norms supporting dating violence were measured with the Acceptance of General Dating Violence Scale (Foshee, Linder, Bauman, Langwick, Arriaga, Heath,...& Bangdiwala, 1996). This scale asked students to respond to questions such as (a) "There are times when dating violence between couples is okay", and (b) "Sometimes violence is the only way to express your feelings." A 4-point Likert-type scale with options ranging from "strongly agree to strongly

disagree” was used to record responses with higher scores indicating a greater acceptance of dating violence. The internal consistency for this scale was high with the Cronbach’s alpha reported to be .79.

A modified version of the Bystander Behaviors Scale (Banyard, Plante, Moynihan, 2005) was used to assess the observed and actual active bystander behaviors exercised to prevent sexual violence. Survey questions asked participants to indicate how often they actually exhibited active bystander behavior in the previous school year. A 4-point Likert scale was used to measure responses. Options included 0 (not at all), 1 (1 – 2 times), 2 (3 -5 times), and 3 (6 or more times.) with higher scores indicating greater actual bystander behavior. Similar to the other scales, the Cronbach’s alpha (.80) indicated high internal consistency (Coker et al., 2011).

Students who attended only the Green Dot motivational speeches scored significantly higher on actual and observed bystander behavior and had significantly lower rape myth acceptance scores compared to students who had received no training. It was also observed that adding SEEDS training to the Green Dot speech further increased self-reported actual and observed active bystander behaviors and reduced rape myth attitudes beyond those reported for just the motivational speech (Coker et al., 2011).

A subsequent study (Coker et al, 2015) compared violence between a campus with the Green Dot bystander intervention program and two campuses without a bystander intervention program. During spring 2010, a stratified random sample of 2,768 students from the intervention campus of the University of Kentucky and 4,258 students from the two control campuses (University of Cincinnati and the University of South Carolina) were surveyed. Data were collected by combining and reducing multiple instruments including the National Intimate Partner and Sexual Violence Survey (Black et al., 2011), Sexual Experiences Questionnaire

(Fitzgerald, Magley, Drasgow, & Waldo, 1999), and National Violence Against Women Survey (Tjaden & Thoennes, 1998a). Findings indicated the college sponsoring Green Dot bystander intervention education had significantly lower ($p \leq .01$) rates for sexual violence and stalking victimization (11% lower) and perpetration (19% lower), and total violent victimization (9% lower) when compared to the two campuses without a bystander programs. Other results showed no significant differences in victimization between students receiving the 50-minute Green Dot speech and students who received no intervention. However, the victimization rate for students participating in the intensive Green Dot bystander training (4 – 6 hour training session), was 13% lower when compared to students receiving no Green Dot training ($p \leq .001$). Collectively, these results suggest the Green Dot model of bystander intervention may reduce sexual violence among the campus environment (Coker et al., 2015).

A follow-up study by Coker and colleagues (2016) extended the 2010 study to include a four-year period (2010 – 2013). In the spring of 2011 – 2013, first year students attending the same campuses were asked to complete on-line surveys similar to the 2010 survey. After adjusting for demographic factors and time (2010 – 2013), violence rates were found to be lower for the intervention campus (46.4%) as compared to the control campus (55.7%) for unwanted sexual harassment, unwanted sexual victimization, stalking, and psychological dating violence victimization and perpetration ($p < 0.01$). These findings provide additional evidence that bystander intervention programs may have the ability to transform attitudes, foster bystander behaviors, and reduce sexual violence at the community level (Coker et al., 2016).

Chapter III: Methods

Chapter I provided an introduction and background for this study, statement of the research problem, theoretical framework, purpose of the study, research questions, significance of the study, limitations, assumptions of the study, definition of terms, and the organizational structure of the study. Chapter II provided a review of literature and research on the prevalence of sexual violence, sexual violence in the college environment, consequences of sexual violence, reporting behavior, federal requirements to address sexual violence on the college campus, traditional risk reduction and prevention methods, bystander research, bystander intervention framework, current bystander prevention programs, and the Green Dot bystander intervention program at the surveyed university. This chapter discusses the research methods of this study including the research design, population and participants, the survey instruments, data collection, data security measures, and data analysis in order to address the research questions presented.

Purpose of the Study

The purpose of the study was to (a) examine whether participation in bystander intervention training affected attitudes and behavior with regard to sexual violence, and (b) examine the relationship between attitudes and behavior with regard to sexual violence and selected demographic variables of a sample of college students. The ability to evaluate prevention programs is critical in determining if the programs are producing envisioned outcomes and help university administrators develop frameworks that reduce sexual violence at

their institutions. The results of this study will benefit campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate bystander intervention training as a strategy for combatting sexual violence on their campuses.

Research Questions

This study was conducted to address the following research questions:

1. What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale?
2. What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form?
3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

Design of Study

In this study, a non-experimental quantitative research design was used to investigate the effect participation in bystander intervention training had on rape myth acceptance and bystander efficacy of students attending a four-year Southeastern public higher education institution. Consistent with much of social science research, the non-experimental research design was selected because many of the variables of interest (age, gender, class level) could not be manipulated (Belli, 2009). Participants were not randomly assigned to groups and variables were not controlled by the researcher; instead they were studied as they occur naturally.

Although a cause and effect between variables cannot be determined and non-experimental research designs are viewed as having the lowest internal validity, the quantitative design allowed the researcher to measure the relationship between the variables, making it possible to replicate the study or compare the results to similar studies (Trochim, 2006; Wiersma, 1985).

Independent variables in this study, included: (a) Green Dot Bystander Intervention Training, (b) sexual violence/assault prevention training, other than Green Dot, (c) age, (d) gender, (e) academic level, (f) race, (g) Greek status, (h) student-athlete status, (i) prior victimization, and (j) knowing a survivor of sexual violence. Dependent variables included: (a) rape myth acceptance, and (b) bystander efficacy. All measures have been used previously to evaluate bystander intervention programs.

Participants

Approval to conduct this study using the Bystander Efficacy Scale (BES) (Appendix A) developed by Banyard (2005), the updated Illinois Rape Myth Acceptance Scale–Short Form (IRMA-SF) (Appendix B) developed by McMahon and Farmer (2011), and a brief demographic questionnaire (Appendix C) was obtained from the surveyed university’s Institutional Review Board (IRB) for the Protection of Human Subjects prior to initiating the research (Appendix D). Participation was voluntary and all data were collected in an anonymous fashion with no names received. The target population was graduate and undergraduate students enrolled at a 4-year southeastern public university during Fall 2017 and Spring 2018 semesters.

The surveyed university’s Office of Institutional Research (2017) reported enrollment of 23,964 undergraduate students and 5,812 graduate students. Men accounted for 50.5% of the total enrollment and women 49.5%. For the 2017 academic term, fraternity membership was reported to be approximately 19% of the male student body and sorority membership was

reported to be approximately 30% of the female student body. The surveyed university's Athletic Department website indicated that male and female intercollegiate athletes account for less than one percent of the student population.

The survey for this study was initially distributed to 3,000 graduate and undergraduate students enrolled at the surveyed university. The sample population comprised a stratified random sample of students by class standing and gender. An on-line survey was used to collect information allowing data to be collected from multiple participants in a way that was cost efficient, accessible, and that allowed for easy data access and export for analysis (Saxon, Garratt, Gilroy, & Cairns, 2003). Considering that, "online surveys are much less likely (33%) to achieve response rates as high as surveys administered on paper (56%)" (Nulty, 2008, p. 302) an attempt was made to boost participation by sending the survey URL in the email invitation to each potential respondent and following up with two week and four week reminders (Nulty, 2008; Sheehan, 2006). The participants read an electronic version of the informed consent and participation represented agreement.

The survey yielded a response rate of 5.4% with 163 students completing the survey. Due to the low response rate, permission was granted by the IRB to re-distribute the survey to another 3,000 graduate and undergraduate students, following up with two week and four week reminders. The second distribution resulted in a response rate of 4.6%; 161 students completed the survey. Combined, the surveys yielded a response rate of 5% for a sample total of 324 respondents.

Description of the Instruments

Demographic questionnaire. Part I of the questionnaire consisted of ten demographic questions to collect information about characteristics to help examine the possibility of a

relationship between specific demographic variables and attitudes and behaviors related to sexual violence. The first six questions gathered descriptive information about age, gender, academic level, race, and membership status as a Greek or intercollegiate athlete. Remaining questions included questions to assess participants' prior participation in other sexual violence/assault prevention programs, or any past exposure to sexual violence that might skew the data collected. For example, two questions addressed whether the respondents had previously participated in Green Dot Bystander Intervention training or any other sexual violence/assault prevention training. The last two questions inquired if the respondent had ever been a victim of sexual violence/assault or knew someone who had been a victim.

Bystander Efficacy Scale. For this study confidence in one's ability to perform as a bystander was measured using the Bystander Efficacy Scale (BES) designed by Banyard, Moynihan, and Plante (2007) because prior research has found that individual self-efficacy is positively correlated with actual bystander behavior (Banyard, 2008; Banyard & Moynihan, 2011). Modeled on the work of LaPlant (2002) in her development of academic and eating disorders self-efficacy scales, Banyard, Moynihan, and Plante (2007) developed this scale to compare the effectiveness of bystander intervention education on the confidence to practice bystander behavior during at risk situations. Commonly used in prior research to assess confidence in intervening in situations at risk for sexual violence (Cares et al., 2014; Moynihan et al., 2011), the scale was selected because "data derived from surveys are likely to be somewhat more easily and validly used if the surveys themselves are appropriately designed and used for particular targeted purposes" (Nulty, 2008, p. 311). The 5-point Likert scale asked participants to indicate whether they believed they could do each of 18 bystander behaviors and, if so, to indicate their confidence on a scale of "1 = can't do" to "5 = very certain can do". Some

of the questions include rating self-confidence to “express discomfort if someone says that rape victims are to blame for being raped” and “get help and resources for a friend.” Higher scores indicate greater perceived bystander efficacy; lower scores indicate lesser perceived bystander efficacy. The mean across all 18 items became the total score used. Prior research has established the construct validity of this measure (Banyard, 2008; Banyard & Moynihan, 2011).

Cronbach’s alpha is a measure of internal consistency that indicates how closely related a set of items are as a group and commonly relied upon by researchers when data are collected using multiple Likert questions. Correlations between the two scores reflect the test’s reliability; high correlations (0.8 to 1.0) indicate high reliability, low correlations (< 0.5) indicate low test reliability, and correlations between 0.6 and 0.7 are questionable (Pallant, 2011). Previous research with different samples of participants established a good internal consistency of this scale with Cronbach’s alphas above .80 (Banyard, 2008; Banyard, Moynihan, & Cares, 2014). The Cronbach’s alpha was calculated for this survey and reported to be .90, indicating adequate internal consistency.

Illinois Rape Myth Acceptance Scale. The Illinois Rape Myth Acceptance Scale (IRMA) was originally developed over a series of six studies that were specifically conducted to create a scale to evaluate the structure underlying rape myths. The first two studies revealed seven consistent and interpretable components of rape myth acceptance and were labeled as: 1) She asked for it, 2) It wasn’t really rape, 3) He didn’t mean to, 4) She wanted it, 5) She lied, 6) Rape is a trivial event, and 7) Rape is a deviant event (Payne et al., 1999, p. 59). These components were consistent to those found in the Rape Myth Acceptance Scale (Burt, 1980) and the Attitudes Toward Rape Scale (Field, 1978). During the third study, a 45-item IRMA scale was developed using these seven components. Testing was conducted using a sample of 604

undergraduate students resulting in an overall scale reliability of .93 with individual subscales ranging from .74 to .84. The correlation of the subscales to the general score suggested good internal consistency with scores ranging from .54 to .74 (Payne et al., 1999, p. 48).

Concerned the length of the IRMA might negatively limit its use, a 20-item scale (IRMA-SF) was developed using questions from the 45-item scale that pertained to rape myth acceptance. The uncorrected correlation between the IRMA (45 items) and the IRMA-SF (20 items) was determined to be acceptable, $r(602) = .97, p < .001$, suggesting the IRMA-SF was a satisfactory substitute for the 45-item version when analysis is limited to general rape myth acceptance (Payne et al., 1999). By examining the relationship between the IRMA, IRMA-SF, and related variables, Payne found that both scales correlated well with sex stereotyping ($r = .55$ and $.52$, respectively), hostility toward women ($r = .57$ and $.56$, respectively), and attitudes toward violence ($r = .50$ and $.47$, respectively); thereby, establishing construct validity.

Recognizing the IRMA no longer represented the language used by today's college students, McMahon and Farmer (2011) created the updated Rape Myth Acceptance Scale – SF to more closely reflect subtle myths and contemporary language. Three IRMA subscales were removed; 1) She wanted it, 2) Rape is a trivial event, and 3) Rape is a deviant event, because these items were viewed as representative of rape myths that are no longer relevant because they have become less socially acceptable over time. For example, the item, "Many women secretly desire to be raped" was removed because feedback from the student focus group participating in the review believed that "No one would say that." (p. 74). Other changes include replacing the word "women" or "woman" with "girls" and replacing "man" with "boy" to more closely model campus vernacular. Following several modifications and updates, the final version contains 19 items (McMahon & Farmer, 2011) and includes the following subscales: "She Asked for It" that

reflects the belief that the victims behavior incited the sexual assault; “It Wasn’t Really Rape” that rejects that an assault occurred by blaming the victim or absolving the assailant; He Didn’t Mean To” posits the perpetrator did not intend to rape; and “She Lied” that indicates the victims’ allegations of rape are false. The IRMA and IRMA-SF, including the recently updated version used for this study, use a five-point Likert scale to measure the extent to which participants agree with each item with possible answers ranging from “1 = strongly agree” to “5 = strongly disagree.” For example, “If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.” Higher scores indicated a greater acceptance of rape myth.

Piloting the instrument with a sample of 951 undergraduate students as part of their new-student orientation, McMahon and Farmer (2011) reported the overall Cronbach’s alpha for the updated IRMA – SF to be .87. The Cronbach’s alpha was calculated for this survey and reported to be .90, indicating adequate internal consistency.

Permission to Use the Instrument

The researcher obtained permission from Dr. Victoria Banyard, a Professor in the Department of Psychology and member of the Prevention Innovations Research Center at the University of New Hampshire, to conduct this study using the Bystander Efficacy Scale. A copy of the letter granting the researcher permission to use the BES is included in Appendix E.

Permission was also received from Dr. Susan McMahon, Assistant Professor and Associate Director at the Center of Violence Against Women at the School of Social Work, Rutgers University, to use the IRMA – SF to collect data for this study. A copy of the letter granting the researcher permission to use the IRMA-SF is included in Appendix F.

Data Collection Procedures

Electronic surveys, relying only on e-mail contacts to obtain data, are the fastest growing form of surveying occurring in the United States, as well as throughout most of the world. Speed, low cost, the ability to reach a large number of individuals, and flexibility that allows respondents to participate in the survey on their own time and at their own pace have contributed to their popularity (Dillman, Smyth, & Christian, 2014, p. 301; Tuten, Urban, & Bosnjak, 2002). The Pew Internet & American Life Project conducted in 2013 reported that 85% of American adults use the Internet and 70% have broadband access in their homes. An earlier project (2011) reported 61% of adults in the U.S. use the Internet to conduct banking activities, 71% use it to purchase products, and 65% make their travel arrangement on-line. Mobile devices, such as smartphones and tablets, have contributed to the growth of on-line behavior as people often use these devices to connect to the Internet (Dillman et al., 2014). Dillman (2000) posits that “no other method of collecting survey data...offers so much potential for so little cost (p. 400).”

For this study, the survey was designed using a web-based Qualtrics survey platform that allowed the researcher to easily create the survey, collect and store the data, and produce reports. An e-mail invitation including the IRB approval (see Appendix G) and the URL link to the survey were e-mailed to students on October 25, 2017. The invitation letter included detailed information regarding the nature of the study, time needed to complete the survey, and contact information for the principal researcher and faculty advisor. Participants completed the questionnaire by clicking on the link, responding to the questions, and submitting the completed survey by using the submit button on the final page. The data students provided through the on-line survey served as their agreement to participate in the study. No names were collected and all data remained anonymous and confidential.

Qualtrics software allows participants to move through the survey at their own pace, pause and return at a later time, or withdraw from the survey at any time by closing the browser window. Follow-up emails were sent two weeks and four weeks after the initial release on November 9, 2017 and November 28, 2017. Due to a low response rate (5.4%), permission was granted by the IRB to re-distribute the survey. On January 18, 2018, the survey was re-distributed to another stratified random sample 3,000 graduate and undergraduate students with reminder emails following on February 6, 2018 and February 26, 2018.

Privacy and Confidentiality of Data

The surveyed university's Institutional Review Board for the Protection of Human Subjects in Research granted permission to collect data using the previously mentioned instruments and procedures (Appendix D). All participants were informed through an Institutional Research Board (IRB) information letter (Appendix H) that their identities and response were anonymous and participation in the study was voluntary. Proper steps were strictly followed to ensure the privacy and confidentiality of the data collected. Data were gathered with an electronic database through Qualtrics which uses Transport Layer Security encryption to ensure protection of all transmitted data. Data were stored on an encrypted flash drive. Providing data through the online Qualtrics survey served as an agreement to participate in the study.

Data Analysis

This study sought to evaluate the relationship between participation in bystander intervention training and scores on the described instruments. Data from the surveys were exported from Qualtrics into Excel and then coded to be analyzed using the Statistical Package for the Social Sciences (SPSS, version 25) software. Average scores across all 18 (BES) and 19

(IRMA-SF) items were calculated to reflect participants' overall confidence in their ability to perform the specific bystander behaviors or beliefs about rape.

The following research matrix was used to guide the organization of the research into a practical format and address the questions of the study (see Table 1).

Table 1

Domains, Research & Survey Questions, and Statistical Analysis

Domains	Research Questions	Survey Questions	Statistical Analysis
Confidence in performing bystander behaviors	What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale	Bystander Efficacy Scale 18 Questions (1 -5 Likert Scale)	One-Way ANOVA
Students' beliefs about rape	What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence	Illinois Rape Myth Acceptance Scale – SF 19 Questions (1 – 5 Likert Scale)	One-Way ANOVA
Demographic characteristics	What effect did age, gender, academic level, race, Greek and student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?	The Demographic Survey: age, gender, academic level, race/ethnicity, Greek status, intercollegiate athlete status, sexual violence/assault training, & experience with sexual violence	Factorial ANOVA

Summary

Sexual violence is a significant concern for college communities with studies indicating that one in four to one in five college women will experience an attempted or completed sexual assault during a college career (Banyard, Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Canan et al., 2016; Carr, 2005; Fisher et al., 2000; Krebs et al., 2009; Moynihan & Banyard, 2008).

Universities have used a variety of sexual assault prevention strategies to mitigate sexual violence including peer education, mentoring, rape awareness, and self-defense training (Lonsway, 1996); however, there is little evidence to show these strategies have reduced the incidence of sexual violence (DeGue et al., 2014). The bystander model takes a different approach by focusing on educating community members to recognize signs of sexual violence, learn skills to safely and effectively intervene, and understand how to provide support to victims (Banyard, Moynihan, & Plante, 2007; Burn, 2009; Coker et al., 2011). This method is expected to be beneficial in the university setting where bystanders (friends, roommates, or classmates) are often the first to recognize signs of sexual violence and best positioned to intervene to prevent or mitigate violence (Banyard, 2004; Burn, 2009; Foubert, 2000). By increasing community awareness, these friends and acquaintances can potentially prevent violence from occurring, provide effective first response if it does, and or offer victim support (Banyard, Plante, & Moynihan, 2005).

This study examined whether participation in bystander intervention training by university students resulted in reduction in rape myth ideology and an increase in confidence to offer assistance in situations at risk for sexual violence. The ability to evaluate sexual violence prevention programs is critical in determining if the programs are producing the envisioned outcomes. The results of this study will benefit campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate bystander intervention training as a strategy for combatting sexual violence on their campuses.

Chapter IV: Results

Chapter IV focuses on the results of descriptive statistics to describe the research sample and present the findings of the research questions undertaken to examine students' attitudes and behaviors related to sexual violence at a four-year public institution. The chapter is divided into two sections. The first section describes the demographic profile of the participants and the second section reports the results of statistical analysis to address the three research questions.

Purpose of the Study

The purpose of the study was to (a) examine whether participation in bystander intervention training affected attitudes and behavior with regard to sexual violence, and (b) examine the relationship between attitudes and behavior with regard to sexual violence and selected demographic variables of a sample of college students. The ability to evaluate prevention programs is critical in determining if the programs are producing envisioned outcomes and help university administrators develop frameworks that reduce sexual violence at their institutions. The results of this study will benefit campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate bystander intervention training as a strategy for combatting sexual violence on their campuses.

Research Questions

This study was conducted to address the following research questions:

1. What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale?

2. What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form?
3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

Description of the Sample

The participants answered ten demographic questions related to their age, gender, academic level, race, and membership status as a Greek or intercollegiate athlete. In addition, two questions inquired about prior participation in Green Dot bystander intervention education or any other sexual assault prevention programs. Recognizing that past experiences with sexual assault might skew the data collected, the two remaining questions inquired if the respondent had ever been a victim of sexual violence/assault or knew someone who had been a victim.

Overall, there was very little missing data for participants who completed the survey. Responses missing data were excluded only if the missing data were required for the specific analysis. The demographic profile of the participants is presented below:

Age. Age data were categorized into four age groups (see Table 2). The percentage of each age interval was similar to the age distribution data for student enrollment reported by the Office of Institutional Research for Fall Semester 2017. A total of 258 participants (79.6%) were between the ages of 19 and 25 compared to 84.9% reported by the OIR. Forty-one respondents (12.7%) were between the ages of 26 and 35 compared to 10.8% reported by the OIR, and 16 respondents (4.9%) were between the ages of 36 and 45 compared to 3% reported by the OIR.

The remaining participants (2.8%) indicated they were 46 or above compared to 1.3% reported by the OIR.

Table 2

Age of Participants

Age Groups	Frequency	Percent	Fall 2017 Percent
19 - 25	258	79.6	84.9
26 – 35	41	12.7	10.8
36 - 45	16	4.9	3.0
46+	9	2.8	1.3
Total	324	100	100

Gender. The majority of participants (71.3%) self-reported as female, compared to 28.7% that reported as male. This is inconsistent with the surveyed university’s demographics reported by OIR for Fall 2017 (49.5% female versus 50.5% male) and in higher education nationwide reported by the National Center for Educational Statistics (42.1% male, 57.9% female). Since the survey was distributed to a stratified random sample of students by gender and academic level, it is unclear why female participation was notably greater than male participation. However, similar studies have reported that females are more likely to complete comparable surveys (Anderson et al., 1998; Banyard, Moynihan, & Plante, 2007; Banyard, 2008; Canan et al., 2016; Coker et al., 2011, 205, 2016) (see Table 3).

Table 3

Gender of Participants

Gender	Frequency	Percent	Fall 2017 Percent
Female	231	71.3	49.5
Male	93	28.7	50.5
Total	324	100	100

Academic Level. The composition of the participants was found to be fairly equally distributed between academic levels. The freshman population was least represented (10.8%) with graduate students accounting for the highest response rate, 29.3%. Sophomore, junior, and senior were more equally represented at 18.8%, 20.7%, and 20.4%, respectively. Comparably, survey participation was similar to figures reported by OIR with the exception that freshman participation (10.8%) was lower than Fall 2017 enrollment (21.6%) and graduate students response was higher (29.3%) than OIR (19.5%). Low representation by freshman was not unexpected since students had to be 19 years of age or older to participate in the survey (see Table 4).

Table 4

Academic Level of Participants

Academic Level of Participants	Frequency	Percent	Fall 2017 Percent
Freshman	35	10.8	21.6
Sophomore	61	18.8	18.2
Junior	67	20.7	18.2
Senior	66	20.4	22.5
Graduate Student	95	29.3	19.5
Total	163	100	100

Race. The study sample was fairly homogenous with regard to race with 86.1% ($n = 279$) of respondents reporting as White and 3.7% ($n = 12$) reporting as Black or African American. The remaining 10.2% ($n = 33$) self-identified as other. The study sample was somewhat consistent with the demographics reported for Fall 2017 at the surveyed university (see Table 5).

Table 5

Race of Participants

Race of Participants	Frequency	Percent	Fall 2017 Percent
Black or African American	12	3.7	6.4
White	279	86.1	76.4
Other	33	10.2	17.2
Total	324	100	100

Greek organization status. Similar to the overall student body at the surveyed university, 29.0% of the participants were members of a campus fraternity or sorority (see Table 6).

Table 6

Greek Organization Status

Greek Organization Status	Frequency	Percent	Fall 2017 Percent
Member	94	29.0	24.0
Non-member	226	69.8	76.0
Missing	4	1.2	0
Total	324	100	100

Intercollegiate sports team status. The majority of participants, 318 (98.1%) reported as non-members of an intercollegiate sports team. Since sport team membership was so poorly represented ($n = 6$), it was not possible to conduct data analysis on this demographic variable to determine if sport team status effected bystander efficacy or rape myth acceptance (see Table 7).

Table 7

Intercollegiate Sports Team Status

Intercollegiate Sports Team Status	Frequency	Percent
Member	6	1.9
Non-member	318	98.1
Total	324	100

Green Dot Bystander Intervention Training. The majority of participants, 237 (73.1%) reported no participation in Green Dot Bystander Intervention Training provided by their university or other resource. Within the participation group, more females (70.1%) completed training compared to males (29.9%)

Table 8

Green Dot Training

Green Dot Training	Total		Male		Female	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Participation	87	26.9	26	27.9	61	26.4
Non-participation	237	73.1	67	72.1	170	73.6
Total	324	100	93	100	231	100

Participation in other sexual violence/sexual assault prevention education. More students ($n = 124$) reported participating in a sexual violence/sexual assault prevention program other than Green Dot compared to those who reported taking part in the Green Dot program ($n = 87$) (see Table 9).

Table 9

Participation in Sexual Violence/Sexual Assault Prevention Education – other than Green Dot

Sexual Violence Education, other than Green Dot	Total		Male		Female	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Participation	124	38.3	40	37.0	84	26.4
Non-participation	199	61.4	67	62.0	132	73.6
Missing	1	.3	1	1.0	-	-
Total	324	100	108	100	216	100

Victim of sexual violence or assault. Consistent with recent studies of college populations that report one in four to one in five college women will experience an attempted or completed sexual assault (Banyard, Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Carr, 2005;

Fisher et al., 2000; Krebs et al., 2009), 23.8%, or approximately one in four, of the current survey respondents reported as victims of sexual violence or assault (see Table 10).

Table 10

Victim of Sexual Violence/Assault

Victim of Sexual Violence or Assault	Frequency	Percent
Yes	77	23.8
No	246	76.2
Missing	1	.0
Total	324	100

Know someone that has been a victim of sexual violence or assault. Approximately 70% of survey respondents had knowledge of someone that had been a victim of sexual violence or assault (see Table 11).

Table 11

Indirect Exposure to Sexual Violence/Assault

<i>Indirect Exposure to Sexual Violence/Assault</i>	Frequency	Percent
Yes	226	69.8
No	98	30.2
Total	324	100

Results

Research Question 1. What effect did participation in bystander intervention education have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale (Banyard, Moynihan, & Plante, 2007)?

Research question 1 was answered by conducting a one-way analysis of variance (ANOVA) to determine whether or not statistically significant differences existed in the mean BES scores of students participating in Green Dot training compared to students that did not

participate in Green Dot training. ANOVA was selected because it is an appropriate method when comparing dichotomous independent variables (e.g., training versus no training) and dependent variables with continuous scale scores (Salkind, 2011).

The one-way ANOVA was conducted to assess the relationship between participation in Green Dot training and confidence to practice bystander behavior when faced with potential sexual assault situations. The independent variables included two levels: Green Dot training and no training. The dependent variable was the average BES score of students participating in the survey. Alpha level was set to .05.

Prior to conducting the ANOVA, the Shapiro-Wilks test was conducted to examine normality. Results indicated normality was violated ($p \leq .001$); however, with samples sizes of 30 or greater, the violation of normality should not cause a major problem (Field, 2005, p. 64). The Levene's test of homogeneity indicated equal variances, $F(1,319) = .48, p = .49$. Results of the one-way ANOVA indicated no statistically significant difference between group means, $F(1,319) = .01, p = .98$. Results of the one-way ANOVA are presented in Table 12.

Table 12

Means, Standard Deviations, and One-Way Analysis of Variance for the Effects of Green Dot training compared to no Green Dot training on Bystander Efficacy

Training	n	Mean	SD	F	Sig.
Green Dot Bystander Intervention Training	85	72.20	10.50		
No Training	236	72.16	11.07	$F(1, 319) = .01$	$p = .98$
Total Sample	321	72.17	10.91		

Overall the mean scores of both groups were very similar (trained students, $M = 72.20$ compared to untrained students, $M = 72.16$). In addition, the percentages of individual responses to the statements measuring BES ranged from 14% to 70% for Very Certain compared to 0% to

10% for Very Uncertain, suggesting that both groups reported high confidence to intervene as a bystander.

Average bystander efficacy scores for this study ($M = 72.20$) were lower than the means from published studies using this measure. Published mean scores for the BES ranged from 77.45 (Cares et al., 2015) to 87.53 (Banyard et al., 2009) for students participating in bystander intervention programs. This indicates that the current sample exhibited less confidence to intervene as a bystander when compared to other research studies examining this topic.

Research Question 2. What effect did participation in bystander intervention training have on students' beliefs about rape as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form (IRMA-SF) (McMahon & Farmer, 2001)?

In addition to evaluating students' confidence to intervene when encountering potential sexual violence situations, this study examined the relationship between rape myth acceptance and bystander intervention education. Rape myth acceptance perpetuates the social misrepresentation that condones sexual aggression and blames victims for contributing to their misfortune (Burt, 1980). Research question 2 was answered by conducting a one-way analysis of variance (ANOVA) to determine whether or not statistically significant differences existed in the mean IRMA-SF scores of students participating in Green Dot training compared to students that did not participate in Green Dot training. The independent variable included two levels: Green Dot training and no training. The dependent variable was the average IRMA-SF score of students participating in the survey. Alpha level was set to .05.

Prior to conducting the ANOVA, the Shapiro-Wilks test was conducted to determine if the data were from normally distributed populations. Similar to results related to bystander efficacy, the outcome ($p \leq .001$) revealed the population was not normally distributed; however,

this was not an issue due to the size ($n = 324$) of the sampled population. The Levene's test of homogeneity violated the assumption of equal variances, $F(1,313) = 7.44, p \leq .001$. As a result, a Welch test was used to attain an adjusted F statistic. The Welch test is more reliable when working with unequal variances and sample sizes (Field, 2005). Results of the Welch test indicated statistically significant differences between group means, Welch's $F(1, 192.71) = 6.55, p \leq .001$. However, the differences between the means was determined to be small (Field, 2005, p. 32); the effect size ($\eta^2 = .02$) indicated that approximately only 2% of the total variation in IRMA average scores was attributable to differences between Green Dot trained and untrained students. Results of the one-way ANOVA are presented in Table 13.

Table 13

Means, Standard Deviations, and One-Way Analysis of Variance for the Effects of Green Dot training on Rape Myth Acceptance

Training	n	Mean	SD	Welch's F	Sig.	η^2
Green Dot Bystander Intervention Training	85	32.56	9.66			
No Training	230	35.97	12.48	$F(1,192.71) = 6.55$	$p \leq .001$	0.02
Total Sample	315	35.05	11.87			

Average rape myth scores obtained from this study were 32.56 (Green Dot trained) which is higher than the means from published studies using this measure. Published scores for IRMA scores ranged from 27.90 (Banyard, et al., 2014) to 28.38 (Banyard, Moynihan, & Plante, 2007) for students participating in bystander intervention programs. This indicates that the current sample endorsed more rape myths than samples found in research studies in this area.

Research Question 3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

To answer this research question, eight two-way ANOVAs were conducted to assess the main effect of students receiving Green Dot training compared to untrained students, the main effect of each independent variable, and the interaction of the two variables on bystander efficacy. The two-way ANOVAs were repeated to evaluate rape myth acceptance. The variable, student-athlete status, was not included because of low representation ($n = 6$). Similar to the one-way ANOVA, the two-way ANOVA is robust with respect to violations of the assumptions of normality, outliers, and homogeneity (Fields, 2005). Alpha level was set to .05 for all tests.

Bystander Intervention Results

The effect of age. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of age, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(7, 313) = 1.52, p = .159$. As Table 14 shows, there was no significant main effect of Green Dot training on bystander efficacy, $F(1, 313) = .01, p = .94$, meaning that Green Dot training had no overall effect on participant's confidence to intervene as a bystander in situations at risk for sexual violence. There was a significant main effect of age group on bystander efficacy, $F(3, 313) = 2.66, p = .05$; bystander efficacy for students ages 19 – 25 was significantly lower ($M = 71.35, SE = .74$), compared to students ages 26 – 35 ($M = 77.61; SE = 2.23, p \leq .001$). Although a significant main effect of age group on bystander efficacy was identified, the effect size was small, accounting for only 1% of the variation in bystander efficacy scores. No other significant differences were identified between all other age groups. There was no statistically significant interaction effect between Green Dot training and age group, $F(3, 313) = 2.384, p = .07$.

Table 14

Two-Way ANOVA: Effect of Green Dot Training and Age Group on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	.59	1	.59	.01	.94	.01
Age Group	921.54	3	307.18	2.66	.05	.01
Green Dot Group*Age Group	825.76	3	275.25	2.38	.07	.01
Error	36134.29	313	115.45			

The effect of gender. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of gender, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(3, 317) = 1.28, p = .28$. As Table 15 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 317) = .86, p = .35$. Meaning the training had no overall effect on participant's confidence to intervene. Although, females reported higher bystander efficacy levels ($M = 72.33, SE = .79$) compared to males ($M = 72.27, SE = 1.40$), there was no statistically significant main effect of gender on bystander efficacy, $F(1, 317) = .00, p = .97$. There was no statistically significant interaction effect between Green Dot training and gender, $F(1, 317) = 3.78, p = .06$.

Table 15

Two-Way ANOVA: Effect of Green Dot Training and Gender on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	101.90	1	101.90	.86	.35	.01
Gender	.18	1	.18	.00	.97	.00
Bystander Group*Gender	446.14	1	446.14	3.78	.06	.01
Error	37440.46	317	118.11			

The effect of academic level. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of

academic level, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(9, 311) = 1.04, p = .41$. As Table 16 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 311) = .15, p = .70$. Meaning the training had no overall effect on participant's confidence to intervene.

Table 16

Two-Way ANOVA: Effect of Green Dot Training and Academic Level on Bystander Efficacy

	Sum of Squares	df	Mean Square	F	Sig.	Partial η^2
Green Dot Training	17.32	1	17.32	.15	.70	.00
Academic Level	1791.30	4	447.83	3.97	.01	.05
Bystander Group* Academic Level	1439.06	4	359.77	3.19	.01	.04
Error	35064.16	311	112.75			

There was a significant main effect of academic level on bystander efficacy, $F(4, 311) = 3.97, p = .01$. Senior level students ($M = 67.25, SE = 1.61$) scored significantly lower when compared to freshman level students ($M = 73.64, SE = 1.86, p = .01$), junior level students ($M = 72.10, SE = 1.42, p = .02$), and graduate level students ($M = 75.21, SE = 1.34, p \leq .001$). In addition, sophomore level students reported significantly lower bystander efficacy scores ($M = 70.89, SE = 1.49$) when compared to graduate level students ($M = 75.21, SE = 1.34, p = .03$). Although significant differences were reported, the effect size was small (partial $\eta^2 = .05$), accounting for only 5% of the difference in scores. Post hoc test results are reported in Table 17.

Table 17

Academic Level & Bystander Efficacy

Academic Level	Academic Level	Mean Difference	Standard Error	Sig.
Freshman	Sophomore	2.76	2.38	.25
	Junior	1.54	2.34	.51
	Senior	6.39*	2.46	.01
	Graduate	-1.57	2.29	.49
Sophomore	Freshman	-2.76	2.38	.25
	Junior	-1.21	2.06	.56
	Senior	3.64	2.19	.10
	Graduate	-4.33*	2.00	.03
Junior	Freshman	-1.54	2.34	.51
	Sophomore	1.21	2.06	.56
	Senior	4.85*	2.15	.02
	Graduate	-3.11	1.95	.11
Senior	Freshman	-6.39*	2.46	.01
	Sophomore	-3.64	2.19	.10
	Junior	-4.85*	2.15	.02
	Graduate	-7.97*	2.09	.00
Graduate	Freshman	1.57	2.29	.49
	Sophomore	4.33*	2.00	.03
	Junior	3.11	1.95	.11
	Senior	7.97*	2.09	.00

*The mean difference is significant at the .05 level.

Additionally, there was a significant interaction effect between Green Dot training and academic level, $F(4, 311) = 3.19, p \leq .001$. Senior and junior level students participating in Green Dot training scored lower ($M = 63.71$) and ($M = 70.50$) respectively than senior and junior level students that did not participate in Green Dot training ($M = 70.78$) and ($M = 73.70$). BES scores were higher for freshman ($M = 77.70$), sophomore ($M = 72.89$), and graduate level ($M = 75.65$) students participating in Green Dot compared to their untrained peers ($M = 69.60, M = 68.88, \& M = 74.77$, respectively). Despite these differences, the effect size was small (partial $\eta^2 = .04$), accounting for only 4% of the difference in scores. See Figure 1.

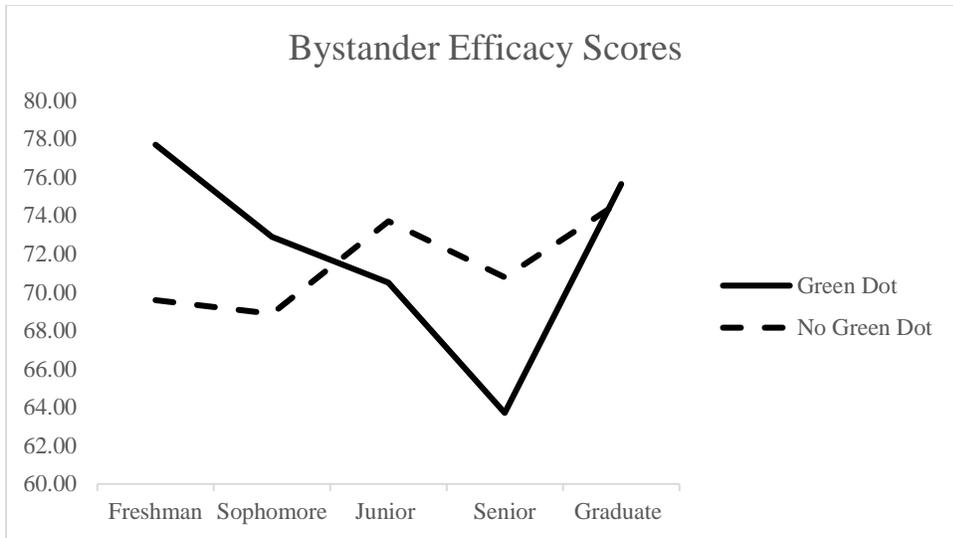


Figure 1. Interaction Effect between Green Dot training and Academic Level

The effect of race. A two-way analysis of variance was run to look at the difference between the groups (training versus no training) on bystander efficacy when comparing students of different races. The Levene's test of homogeneity indicated equal variances, $F(5,315) = 1.37$, $p = .24$. As Table 18 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 315) = .16$, $p = .69$. Meaning the training had no overall effect on participant's confidence to intervene. Overall, students reporting their race as Black had the highest bystander scores ($M = 74.25$, $SE = 3.34$), followed by Caucasian students ($M = 72.20$, $SE = .74$), and Others ($M = 71.73$, $SE = 2.33$); however, the main effect of race on bystander efficacy was not statistically significant, $F(2, 315) = .21$, $p = .81$. There was no statistically significant interaction effect between Green Dot training and race, $F(2, 315) = 1.25$, $p = .29$.

Table 18

Two-Way ANOVA: Effect of Green Dot Training and Race on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	19.20	1	19.20	.16	.69	.01
Race	49.16	2	24.58	.21	.81	.01
Bystander Group*Race	298.93	2	149.46	1.25	.29	.01
Error	37548.55	315	119.20			

The effect of Greek status. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of Greek Status, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(3,313) = 1.03, p = .38$. As Table 19 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 313) = .03, p = .87$. Meaning the training had no overall effect on participant's confidence to intervene. Students that were not members of Greek organization ($n = 225$) reported higher bystander efficacy levels, ($M = 72.93, SE = .95$) compared to members ($n = 92$) of Greek organizations, ($M = 70.97, SE = 1.15$); however, the difference was not statistically significant, $F(1, 313) = 1.72, p = .19$. The interaction between Green Dot training and Greek status was also not statistically significant, $F(1, 313) = .27, p = .61$.

Table 19

Two-Way ANOVA: Effect of Green Dot Training and Greek Status on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	3.29	1	3.29	.03	.87	.00
Greek Status	207.61	1	207.61	1.72	.19	.01
Bystander Group*Greek Status	32.48	1	32.48	.27	.61	.01
Error	37836.54	313	120.88			

The effect of sexual violence/assault prevention training, other than Green Dot. A

two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of sexual violence/assault prevention training other than Green Dot, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(3,316) = .99, p = .40$. As Table 20 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 316) = .08, p = .77$. Meaning the training had no overall effect on participant's confidence to intervene. There was a significant main effect of other training on bystander efficacy, $F(1, 316) = 4.37, p = .04$; however, the effect size was small, accounting for only 1% of the difference in scores. Students completing a form of sexual assault prevention training, other than Green Dot ($n = 122$), scored higher in bystander efficacy ($M = 73.93, SE = 1.10$) compared to students ($n = 198$) without training ($M = 70.98, SE = .88$) and slightly higher than students ($n = 85$) who participated in Green Dot training ($M = 72.66, SE = 1.20$). There was no statistically significant interaction effect between Green Dot training and other sexual violence prevention training, $F(1, 316) = 1.42, p = .24$. Overall, students receiving both Green Dot and other training ($n = 34$) reported the highest scores, ($M = 74.97, SD = 11.21$).

Table 20

Two-Way ANOVA: Effect of Green Dot Training and Other Training on Bystander Efficacy

	Sum of Squares	df	Mean Square	F	Sig.	Partial η^2
Green Dot Training	9.96	1	9.96	.08	.77	.00
Other Training	515.48	1	515.48	4.37	.04	.01
Bystander Group*Other Training	167.07	1	167.07	1.42	.24	.01
Error	37316.15	316	37316.15			

The effect of victimization. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, victimization, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(3,316) = .95, p = .42$. As Table 21 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 316) = .69, p = .41$, indicating the training had no overall effect on participant's confidence to intervene. Victims of sexual violence ($n = 77$) scored slightly higher in confidence to intervene ($M = 72.24, SE = 1.34$) compared to students ($n = 243$) reporting as non-victims ($M = 72.25, SE = .81$). The main effect of victimization on bystander efficacy was not statistically significant, $F(1, 316) = 0.00, p = .10$ and there was no statistically significant interaction effect between Green Dot training and victimization, $F(1, 316) = 3.12, p = .08$.

Table 21

Two-Way ANOVA: Effect of Green Dot Training and Victimization on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	80.62	1	80.62	.68	.41	.01
Victimization	.01	1	.01	.00	.10	.00
Bystander	371.553	1	371.55	3.12	.08	.01
Group*Victimization						
Error	37584.74	316	118.94			

The effect of knowing a survivor of sexual violence. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of knowing a survivor of sexual assault, and the interaction of these two variables on bystander efficacy. The Levene's test of homogeneity indicated equal variances, $F(3,317) = 3.46, p = .17$. As Table 22 shows, there was no statistically significant main effect of Green Dot training on bystander efficacy, $F(1, 317) = .52, p = .47$, indicating the training had no

overall effect on participant’s confidence to intervene. There was a significant main effect of survivor knowledge on bystander efficacy, $F(1, 317) = 4.87, p = .03$. Students acquainted with a victim of sexual assault, ($n = 225$) reported higher bystander efficacy levels, ($M = 73.24, SE = .78$), than students ($n = 96$) with no experience with victims of sexual violence ($M = 69.86, SE = 1.32$); however, the effect size was small (partial $\eta^2 = .02$). Knowing a victim of sexual assault accounted for only 2% of the variance in bystander efficacy scores. The interaction effect between Green Dot training and acquaintance with a sexual assault survivor, was not significant, $F(1, 317) = 3.80, p = .06$.

Table 22

Two-Way ANOVA: Effect of Green Dot Training and Knowing a Survivor of Sexual Assault on Bystander Efficacy

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	58.57	1	58.57	.52	.47	.01
Survivor Knowledge	552.82	1	552.82	4.87	.03	.02
Bystander Group*Survivor Knowledge	432.08	1	432.08	3.80	.06	.01
Error	36010.97	317	113.60			

Rape Myth Acceptance Results

The impact of age. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of age, and the interaction of these two variables on rape myth acceptance. The Levene’s test of homogeneity violated the assumption of equal variances, $F(7, 307) = 2.90, p \leq .001$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 23 shows, there was no statistically significant main effect of Green Dot training on rape myth acceptance, $F(1, 307) = 1.12, p = .29$, meaning the training had no overall effect on participant’s false beliefs

about rape. There was no statistically significant main effect of age on rape myth acceptance, $F(3, 307) = 1.45, p = .23$; students age 26 – 35 reported the lowest scores ($M = 29.60, SE = 2.47$), followed by students age 19 - 25, ($M = 34.53, SE = .82$), students age 36 – 45, ($M = 35.85, SE = 3.54$), and students age 46 and older ($M = 38.63, SE = 6.30$). There was no significant interaction effect between Green Dot training and age, $F(3, 307) = 1.47, p = .22$.

Table 23

Two-Way ANOVA: Effect of Green Dot Training and Age Group on Rape Myth Acceptance

	Sum of Squares	df	Mean Square	F	Sig.	η^2
Green Dot Training	156.26	1	156.26	1.12	.29	.01
Age Group	606.35	3	202.12	1.45	.23	.01
Bystander Group*Age Group	612.56	3	204.19	1.47	.22	.01
Error	42698.52	307	139.08			

The effect of gender. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of gender, and the interaction of these two variables on rape myth acceptance. The Levene’s test of homogeneity violated the assumption of equal variances, $F(1,311) = 2.94, p = .03$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 24 shows, there was a significant main effect of Green Dot training on rape myth acceptance, $F(1, 311) = 4.17, p = .04$, indicating that Green Dot trained students ($n = 87$) differed in their beliefs about rape compared to students that did not complete Green Dot training ($n = 237$) when controlling for gender. Results revealed that IRMA scores for trained students were significantly lower ($M = 34.45; SE = 1.47$) compared to non-trained students ($M = 37.87, SE = .79$) indicating Green Dot trained individuals held fewer rape myth beliefs than untrained individuals; yet, the effect size was small (partial $\eta^2 = .01$). Additionally, there was a significant main effect of gender on rape

myth acceptance, $F(1, 311) = 23.50, p \leq .001$. Females ($M = 32.10, SD = .81$) reported lower levels of rape myth acceptance than males ($M = 40.22, SD = 1.468$). The effect size for this main effect was moderate (partial $\eta^2 = .07$). There was no statistically significant interaction effect between Green Dot training and gender, $F(1, 311) = .88, p = .35$.

Table 24

Two-Way ANOVA: Effect of Green Dot Training and Gender on Rape Myth Acceptance

	Sum of Squares	df	Mean Square	F	Sig.	Partial η^2
Green Dot Training	513.73	1	513.73	4.17	.04	.01
Gender	2894.98	1	2894.98	23.50	.00	.07
Bystander Group*Gender	108.76	1	108.75	.88	.35	.01
Error	38313.65	311	123.20			

The effect of academic level. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of academic level, and the interaction of these two variables on rape myth acceptance. The Levene's test of homogeneity violated the assumption of equal variances, $F(9, 305) = 1.99, p = .04$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 25 shows, there was a significant main effect of Green Dot training on rape myth acceptance, $F(1, 305) = 5.64, p = .02$. Students participating in Green Dot training reported fewer misconceptions about rape ($M = 32.54; SE = 1.29$) compared to students that did not participate in Green Dot training ($M = 36.21, SE = .83$) when controlling for academic level; however, the effect size was small (partial $\eta^2 = .02$). There was no statistically significant main effect of academic level on rape myth acceptance, $F(4, 305) = 1.06, p = .37$ and no statistically significant interaction effect between Green Dot training and academic level, $F(4, 311) = 1.63, p = .17$.

Table 25

Two-Way ANOVA: Effect of Green Dot Training and Academic Level on Rape Myth Acceptance

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	779.23	1	779.23	5.64	.02	.02
Academic Level	588.59	4	147.15	1.06	.37	.01
Bystander Group* Academic Level	902.70	4	225.68	1.63	.17	.02
Error	42161.59	305	138.24			

The effect of race. A two-way ANOVA was run to look at the difference between the groups (training versus no training) on bystander efficacy when comparing students of different races. The Levene's test of homogeneity indicated equal variances, $F(5, 309) = 2.29, p = .05$. As Table 26 shows, there was no statistically significant main effect of Green Dot training on rape myth acceptance, $F(1, 309) = .02, p = .90$. Meaning the training had no overall effect on participant's false beliefs about rape. There was no statistically significant main effect of race on rape myth acceptance, $F(2, 309) = .52, p = .60$ and there was no statistically significant interaction effect between Green Dot training and race, $F(2, 309) = 2.55, p = .08$.

Table 26

Two-Way ANOVA: Effect of Green Dot Training and Race on Rape Myth Acceptance

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	2.03	1	2.03	.02	.90	.00
Race	141.19	2	70.60	.52	.60	.01
Bystander Group*Race	691.43	2	345.71	2.55	.08	.02
Error	41967.31	309	135.82			

The effect of Greek status. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of Greek Status, and the interaction of these two variables on rape myth acceptance. The Levene's test of

homogeneity violated the assumption of equal variances, $F(3, 307) = 3.27, p = .02$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 27 shows, there was a significant main effect of Green Dot training on rape myth acceptance, $F(1, 307) = 4.57, p = .03$. Students participating in Green Dot training reported fewer misconceptions about rape ($M = 32.99, SE = 1.30$) compared to students that did not participate in Green Dot training ($M = 36.43, SE = .94$) when controlling for Greek status. The effect size was small (partial $\eta^2 = .02$), accounting for only 2% of the variance between means. There was no statistically significant main effect of Greek status on rape myth acceptance, $F(1, 307) = 1.71, p = .19$ and there was no statistically significant interaction effect between Green Dot training and Greek Status, $F(1, 307) = .08, p = .79$.

Table 27

Two-Way ANOVA: Effect of Green Dot Training and Greek Status on Rape Myth Acceptance

	Sum of Squares	df	Mean Square	F	Sig.	Partial η^2
Green Dot Training	636.29	1	636.29	4.57	.03	.02
Greek Status	237.85	1	237.85	1.71	.19	.01
Bystander Group*Greek Status	10.40	1	10.40	.08	.79	.01
Error	42750.66	307	139.25			

The effect of bystander training and other than Green Dot Bystander Training. A

two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of sexual violence prevention training other than Green Dot, and the interaction of these two variables on rape myth acceptance. The Levene's test of homogeneity violated the assumption of equal variances, $F(3, 310) = 3.47, p = .02$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 28 shows, there was a significant main effect of Green Dot training on rape

myth acceptance, $F(1, 310) = 6.08, p \leq .001$. Results indicated that students receiving Green Dot training reported fewer false beliefs about rape ($M = 32.06, SE = 1.31$) compared to students that did not participate in Green Dot training ($M = 35.85, SE = .80$), yet the effect size was small (partial $\eta^2 = .02$). There was no statistically significant main effect of other training on rape myth acceptance, $F(1, 310) = 3.28, p = .07$ and there was no statistically significant interaction effect between Green Dot training and other sexual violence prevention programs, $F(1, 310) = 1.23, p = .27$.

Table 28

Two-Way ANOVA: Effect of Green Dot Training and Other Training on Rape Myth Acceptance

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	842.96	1	842.96	6.08	.01	.02
Other Training	454.75	1	454.75	3.28	.07	.01
Bystander Group*Other Training	170.80	1	170.80	1.23	.27	.01
Error	43014.58	310	138.76			

The effect of victimization. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of being a victim of sexual assault, and the interaction of these two variables on rape myth acceptance. The Levene's test of homogeneity violated the assumption of equal variances, $F(3, 310) = 4.00, p \leq .001$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 29 shows, there was no statistically significant main effect of Green Dot training on rape myth acceptance, $F(1, 310) = 2.06, p = .15$, suggesting that training had no overall effect on survey participants' false beliefs about rape. There was a significant main effect of victimization on rape myth acceptance, $F(1, 310) = 7.56, p = .01$. Victims of sexual assault scored lower ($M = 30.80, SE = 1.43$) on the IRMA-SF scale compared to non-victims (M

= 35.40, $SE = .86$), indicating victims were less supporting of attitudes that condone sexual aggression and blame victims for contributing to their misfortune. Similar to other significant main effects reported in this research, the effect size was small (partial $\eta^2 = .02$). There was no statistically significant interaction effect between Green Dot training and victimization, $F(1, 310) = .85, p = .36$.

Table 29

Two-Way ANOVA: Effect of Green Dot Training and Victimization on Rape Myth Acceptance

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	278.07	1	278.07	2.06	.15	.01
Victimization	1019.01	1	101.01	7.56	.01	.02
Bystander	115.19	1	115.19	.85	.36	.01
Group*Victimization						
Error	41815.16	310	134.89			

The effect of knowing a survivor of sexual violence. A two-way ANOVA was conducted to assess the main effect of Green Dot trained students compared to non-trained students, the main effect of knowing a survivor of sexual assault, and the interaction of these two variables on rape myth acceptance. The Levene's test of homogeneity violated the assumption of equal variances, $F(3, 311) = 7.00, p \leq .001$; however, the two-way ANOVA is robust with respect to violations of homogeneity (Fields, 2005). As Table 30 shows, there was no statistically significant main effect of Green Dot training on rape myth acceptance, $F(1, 311) = 3.75, p = .06$, implying false beliefs about rape did not differ significantly between groups. There was a significant main effect of knowing a victim of sexual assault on rape myth acceptance, $F(1, 311) = 18.83, p \leq .001$. Students acquainted with a victim of sexual assault, reported higher bystander efficacy levels, ($M = 32.26$), than students with no experience with victims of sexual violence ($M = 39.42$); however, the effect size was moderate (partial $\eta^2 = .06$).

There was no statistically significant interaction effect between Green Dot training and knowing a victim of sexual violence, $F(1, 311) = .26, p = .61$.

Table 30

Two-Way ANOVA: Effect of Green Dot Training and Knowing a Survivor of Sexual Assault on Rape Myth Acceptance

	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial η^2
Green Dot Training	478.51	1	478.51	3.75	.06	.01
Survivor Knowledge	2402.51	1	2402.51	18.83	.00	.06
Bystander	33.11	1	33.11	.26	.61	.01
Group*Survivor Knowledge						
Error	39687.94	311	127.61			

Summary

This chapter presented the results of the data analysis. The demographic profile of the students who participated in this study were presented by using descriptive data including frequency and percentage of respondents. Two separate one-way ANOVAs were conducted to examine whether or not participation in Green Dot training impacted rape myth acceptance and confidence to intervene in instances of sexual violence/assault. The results of the first one-way ANOVA was not significant suggesting no statistically significant differences in bystander efficacy between trained and untrained students. The second one-way ANOVA produced significant results, $p < .05$, indicating students trained in Green Dot techniques held lower rape attitudes than non-trained students. Finally, the results of this chapter provided the results of multiple two-way ANOVAs to determine the effect of age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention education other than Green Dot, victimization, and knowledge of victimization had on participants' false attitudes about rape and their confidence to intervene in potentially risky situations. Bystander efficacy scale outcomes

indicated a statistically significant interaction effect between Green Dot participation and academic level and statistically significant main effects were recorded for age, academic level, other training, and knowing a victim of sexual violence/assault. No statistically significant interactions were observed for IRMA outcomes; however, main effects were documented for gender, being a victim of sexual violence/assault, or knowing a victim of sexual violence/assault. An overview of this study, summary of results, limitations, implications, recommendations, and conclusions are presented in Chapter 5.

Chapter V: Summary of Results, Limitations, Implications, Recommendations for Future Research, and Conclusions

Despite relentless efforts to provide safe learning environments for students, colleges and universities across the United States continue to report incidents of sexual assault. Reported to be one of the most common violent crimes committed on college campuses (Brome et al., 2004; Fisher et al., 2000; Koss et al., 1987; Kilpatrick et al., 2007; Schwartz et al., 2001), attempted or completed sexual assault will be reported by one in four to one in five college women during their college career (Banyard, Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Canan et al., 2016; Carr, 2005; Fisher et al., 2000; Krebs et al., 2009; Moynihan & Banyard, 2008). Although most victims are female, males also report victimization. (Abbey, 2002; Carr, 2005; Koss et al., 1987; Larimer et al., 1999).

Nationwide, colleges and universities are taking action to prevent sexual assault by promoting cultures that no longer tolerate sexual violence. Title IX provides the underlying principles that outline the minimum sexual violence prevention standards higher education institutions must follow to remain eligible for federal funding (U.S. Department of Education, 2011). Traditional efforts have largely focused on protection strategies including security officers, hotlines, self-defense training, late-night escort services, and emergency call stations (Anderson & Whitson, 2005; Jones, 2014; Lonsway, 1996; Potter & Banyard, 2011). Recognizing that prevention efforts must take a broader approach and move beyond minimum compliance requirements to create a culture change, a new theory has gained traction over the last two decades to stop the pervasive nature of sexual violence. Known as bystander intervention, this theory seeks

to build campus-wide prevention support against sexual violence that focuses on changing the cultural beliefs that condone and or support sexual violence. Participants are taught to identify high-risk situations, select and exhibit safe and effective intervention techniques, provide support to victims, and encourage others to do likewise when violence-prone behavior is witnessed. By sending the message that sexual violence will no longer be accepted, this community-based program shows promise that it can raise the bar of what society considers suitable behavior (Banyard et al., 2004; Burn, 2009; Foubert, 2000; McMahon, 2010).

This chapter discusses the findings of the study in three sections. The first section presents a summary of the results with interpretation. In the second section, limitations and implications of the findings as they relate to higher education are discussed. The chapter concludes with recommendations for future research and conclusions.

The Purpose of the Study

The purpose of the study was to (a) examine whether participation in bystander intervention training affected attitudes and behavior with regard to sexual violence, and (b) examine the relationship between attitudes and behavior with regard to sexual violence and selected demographic variables of a sample of college students. The ability to evaluate prevention programs is critical in determining if the programs are producing envisioned outcomes and help university administrators develop frameworks that reduce sexual violence at their institutions. The results of this study will benefit campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate bystander intervention training as a strategy for combatting sexual violence on their campuses.

Research Questions

This study was conducted to address the following research questions:

1. What effect did participation in bystander intervention training have on students' confidence to intervene in situations at risk for sexual violence as measured by the Bystander Efficacy Scale?
2. What effect did participation in bystander intervention training have on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the updated Illinois Rape Myth Acceptance Scale–Short Form?
3. What effect did age, gender, academic level, race, Greek status, student-athlete status, sexual violence/assault prevention training other than Green Dot, prior victimization, and knowing a survivor of sexual violence have on participants' attitudes about rape and their confidence to intervene in potentially risky situations?

Summary

Overall, this study found few differences between the experimental and control groups, the outcome variables, and the other demographic variables. Additionally, the majority of statistically significant differences that were observed, were small. The research questions are discussed in the following section.

Research Question 1: Bystander Efficacy. To examine the first research question, a one-way ANOVA was conducted to evaluate whether the mean of the dependent variables (bystander efficacy) differed when compared to groups differing in their exposure to training aimed at preventing sexual violence. Bystander efficacy was selected for study because “it theoretically predicts both intentions and actual behavior” (McMahaon et al., 2015, p. 47) and

confidence to intervene is more likely to occur if a bystander “feels able, competent, and confident to intervene” (McMahon et al., 2015, p. 47).

Based on the first outcome measure, bystander efficacy, differences did not exist between students receiving Green Dot training and those who did not. A statistically significant difference in scores for bystander efficacy would have indicated that participants were more confident in their ability to intervene to prevent sexual assault after participating in Green Dot training. Although no significant differences were identified, the overall mean score for each bystander efficacy item ranged from 2.81 to 4.53, indicating the results were skewed towards higher confidence to exhibit bystander behavior.

These findings are inconsistent with much of the literature that tends to show self-reported bystander confidence to intervene and provide assistance in risky situations is higher for individuals participating in some form of bystander intervention training compared to individuals without training (Banyard, Moynihan, & Plante, 2007; Banyard, 2008; Coker et al., 2011; Katz & Moore, 2013; Langhinrichsen et al., 2011; McMahon et al., 2014; Potter et al., 2009). For example, male and female undergraduate students participating in a one or three-session program aimed at increasing prosocial bystander behavior showed improvements in attitudes, knowledge, and behavior while the control group did not (Banyard, Moynihan, & Plante, 2007). Media campaigns, such as poster campaigns, have also reported positive results, documenting increased knowledge of the consequences sexual violence and a greater willingness on the part of trainees to take action aimed at reducing this crime (Potter et al., 2009).

Even though evidence suggests that bystander intervention training programs may increase bystander behavior, similar to this study, positive results are not always reported. Gidycz et al. (2011) surveyed 1st year students ($N = 1,285$) attending a medium-sized

Midwestern university by comparing a control group to a treatment group that completed a 1.5-hour bystander intervention program and a 1-hour booster session. Findings revealed no statistically significant differences in bystander behavior between groups.

Similarities with other studies were also observed. For example, students were most likely to indicate efficacy with statements from the BES scale such as “Express my discomfort if someone says that rape victims are to blame for being raped” (70%, Strongly Agree), and “Get help and resources for a friend who tells me they have been raped” (63.60%, Strongly Agree). The lowest perceived efficacy was related to statements such as “Ask a stranger if they need to be walked home from a party” (23.6%, Strongly Agree) and “Speak up in class if a professor is providing misinformation about sexual assault” (14.3%, Strongly Agree). This is consistent with previous studies that found college students were more likely to intervene and offer assistance if the victim is known to them (Amar, Sutherland, & Laughon, 2014; Banyard, 2008; Pugh, Ningard, Ven & Butler, 2016) and in situations clearly characterized as sexual violence (McMahon, 2010). Given the conflicting nature of these published outcomes, continued evaluation is necessary to document the ability of bystander intervention training to promote confidence to take action when opportunities to intervene arise.

Research Question 2: Rape Myth Acceptance. To examine the second research question, a one-way ANOVA was conducted to evaluate whether the mean of the dependent variables (rape myth acceptance) differed when compared to groups differing in their exposure to training aimed at preventing sexual violence. Findings indicated a statistically significant differences ($p < .05$) in group means between students receiving training and those who were not trained and their false beliefs about sexual assault. Although the variation between the treatment

and control groups was small ($\eta^2 = .02$) it is important to consider that Green Dot training may have resulted in lower rape myth acceptance by the treatment group.

These results reflect findings reported by other bystander intervention research. Multiple studies examining whether bystander intervention programs impact rape myth acceptance from pre to post-test indicate treatment groups being less likely to endorse rape myths when compared to control groups (Banyard, Moynihan, & Plante, 2007; Banyard, 2008; Banyard et al., 2009; Coker et al., 2011; Langinrichsen-Rohling et al., 2011; McMahon et al., 2014). However, larger effect sizes were presented by these previous studies compared to the current study. For example, a larger effect size, partial $\eta^2 = .23$, was recorded for rape myth acceptance between pre-test to post-test program participants in The Men's Program, $F(1,157) = 47.98$, $p \leq .001$ (Langinrichsen-Rohling et al., 2011) and a mixed gender program, $F(12,706) = 18.45$, $p \leq .001$, partial $\eta^2 = .14$ (Banyard, Moynihan, & Plante, 2007).

The average rape myth score of Green Dot trained students obtained from this study was 32.56 which is higher than the means from published studies using this measure. Published scores for IRMA scores ranged from 27.90 (Banyard, et al., 2014) to 28.38 (Banyard, Moynihan, & Plante, 2007) for students participating in bystander intervention programs. This indicates that the current sample endorsed more rape myths than samples found in research studies in this area. Yet, the overall mean score for each rape myth item ranged from 1.05 to 2.36, indicating the results were skewed towards a lower acceptance of rape myths.

Also noted, several items on the IRMA had a floor effect, the tendency of a measure to demonstrate a distinct lower score with a large concentration of participants scoring close or at the lower limit (Jennings & Cribbie, 2016). For example, the mean score for question 13 ("If the accused "rapist" doesn't have a weapon, you really can't call it a rape") for the treatment group

was 1.02 ($SD = .151$) and the mean score for the control group that was 1.06 ($SD = .270$) signifying the majority of respondents strongly disagreed with this question which implies that regardless of participation in Green Dot, both groups strongly disagreed with this item. Cares et al. (2015) acknowledged a similar floor effect for the majority of his responses when he used the same scale to measure pre-and post-tests scores of Bringing in the Bystander survey contributors.

Research Question 3: Effect of Demographic Variables. Two-way ANOVAs were conducted to study the effect of participation in bystander training on bystander efficacy and rape myth acceptance across all levels of the other independent variables. One demographic variable did not have a sufficient number of individuals (student athletes, $n = 6$) to justify representative findings; therefore, differences were not explored for this group. Considering that student athletes often hold esteemed positions on campus and one tenet of Green Dot is to encourage highly respected students to promote bystander behavior as the preferred response to sexual violence, further research in this area is prudent.

Age. There was a significant main effect of age group on bystander efficacy, $F(3, 313) = 2.66, p = .05$ with students ages 19 – 25 scoring significantly lower than students ages 26 – 35. However, significant decreases in rape myth acceptance were not detected, $F(3, 307) = 1.45, p = .23$. Interestingly, students in the 26 – 35 age group reported the highest bystander efficacy scores ($M = 77.61$) and the lowest rape myth acceptance scores ($M = 33.76$) meaning this age group self-reported the highest confidence to demonstrate bystander behavior and the lowest levels of false beliefs about rape.

These results were contradictory to previous findings that reported younger students (between the ages of 19 and 21) were more likely to intervene as a bystander than other age groups (Banyard & Moynihan, 2011). The researchers suggested this may have occurred

because younger students may be more inclined to report greater bystander behaviors and attitudes because of their connectivity with others. The sense of belonging may be stronger among younger students because they spend more time interacting with a close group of individuals such as dorm mates and campus staff assigned to work with new students. This connectivity appears to diminish as the student matures and establishes a more diverse network of less closely held peers (Banyard & Moynihan, 2011). Limited studies were discovered investigating the influence of age on bystander efficacy and rape myth acceptance; instead, more research was found that focused on the influence of academic level on bystander efficacy (Banyard & Moynihan, 2011; Brown, Banyard, & Moynihan, 201). How academic level effects bystander efficacy and rape myth acceptance is discussed later in this report.

Gender. Considering the attention gender plays in the attitudes and behavior related to sexual violence, gender was also a variable of interest in the current study. Many studies have revealed that both male and female students participating in bystander intervention training demonstrate an increased knowledge of sexual violence, bystander efficacy, willingness to intervene, decreased rape myth acceptance, and a greater responsibility for doing something about sexual violence that was significantly different when compared to untrained students (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Cares et al., 2015; Cissner, 2009; Coker et al., 2011; Foubert et al., 2010; Moynihan & Banyard, 2008). However, results are mixed and differences reported are often gender specific (Banyard, Moynihan, & Plante, 2007; Banyard, 2008; Banyard et al., 2009; Cares et al., 2015; McMahon, 2010). Banyard et al. (2009) and Amar et al. (2014) found male participants were more likely to self-report higher levels to intervene than females; whereas, other studies indicate women are more likely to exhibit bystander behavior and less endorsing of general rape myths when compared to men (Banyard,

Moynihan, & Plante, 2007; Banyard, 2008; McMahon, 2010). To explain why females often react differently than males it has been suggested that women are often portrayed as victims. Since they can more easily picture themselves as victims, women tend to be more sympathetic and willing to offer assistance than men (Katz et al., 2014).

Findings from this study partially reinforced previous outcomes. There was a significant difference ($p < .05$) in rape myth acceptance with males ($M = 41.70$) endorsing more rape condoning attitudes compared to females ($M = 32.48$); and although females reported higher confidence to intervene as a bystander ($M = 72.68$) than males ($M = 70.92$), there was no statistical significant difference, $p > .05$. These findings add to bystander intervention literature that seeks to identify whether men and women respond differently when deciding to speak out against sexual violence or act as a bystander. Understanding gender differences is important and supports the need to tailor programs as needed to deliver optimum outcomes.

Academic Level. In addition to studying age, it is important to understand how prosocial behaviors and attitudes related to sexual violence may vary over time across year in college. Although, similarities in finding would be expected between academic level and age, no differences in IRMA scores were discovered when comparing freshman, sophomore, junior, senior, and graduate students, but there was a significant main effect of academic level on bystander efficacy, $F(4, 311) = 3.97, p \leq .001$. Senior level students were less prone to report confidence to intervene when compared to all other class levels and sophomore level students reported significantly lower bystander efficacy scores when compared to graduate level students.

Similar to many of the other outcomes discussed so far in this report, results from previous studies were mixed. Two studies investigating academic level as a predictor of bystander intentions and behaviors reported the year in college was not a significant predictor. It

should be pointed out that none of the surveyed students in these studies had taken part in a college sponsored bystander educational program before completing the survey (Brown, Banyard, & Moynihan, 2014). In contrast, Banyard and Moynihan (2011) found that freshmen expressed less denial of the problems of sexual violence, greater realization that ending sexual violence was a community responsibility, greater confidence to act as a bystander, and were more likely to perform bystander behavior when compared to upper classmates with these prosocial behaviors declining with each academic level. The same study found evidence that pro-social behaviors decreased with each year in college.

Race. A meta-analysis of 74 articles and dissertations published between 1997 and 2007 (Suarez & Gadalla, 2010) found evidence that in the general population, White individuals held lower rape myth beliefs ($p < .05$) compared to non-White individuals; yet, a study conducted in 1997 and limited to undergraduate women, revealed no significant differences between Blacks and Whites (Carmody & Washington, 2001). In contrast to these findings, Brown's et al. (2014) review of students between the ages of 18 and 24 showed that Black participants reported more bystander behaviors than White participants. It should be noted that none of these studies followed an intervention program, rather reflected naturally occurring behaviors.

To learn more about whether race impacts bystander behavior or rape myth acceptance, this study examined the impact of race and Green Dot training on the outcome variables. The current study did not identify a main effect of race on bystander efficacy or rape myth acceptance. Additionally, there was no statistically significant interaction of race and Green Dot on both variables.

Greek Status. Understanding the influence of bystander education within the Greek community can be useful when evaluating this form of sexual violence prevention. The

bystander intervention approach to preventing sexual violence sets the stage for societal change where individuals are taught to stand up or speak out against sexual violence, hold offenders accountable, and encourage others to respond accordingly rather than remaining quiet and taking no action (Banyard et al., 2004). By diffusing this message through peer networks, the bystander model focuses on establishing new social norms that support active bystanding and oppose interpersonal violence. Considering that strong peer networks are common to Greek organizations (Canan et al., 2016) and that they are high-risk environments for sexual assault (Kalof, 1993; Moynihan et al., 2011; Mohler-Kuo et al., 2003) where high rape myth attitudes are common (Canan et al., 2016; Kalof, 1993), understanding how bystander training impacts these organizations can help evaluate the utility of the bystander model.

This study discovered no statistically significant differences in bystander efficacy or rape myth acceptance between members and non-members of Greek organization. The overall BES mean for Non-Greek members was greater ($M = 72.60$) compared to Greek members ($M = 71.00$) and as expected, the overall IRMA mean for Non-Greek members was less ($M = 34.89$) compared to Greek members ($M = 35.90$) but as indicated, neither were statistically significant, $p > .05$. Some investigations analyzing whether Greek-status impacts bystander efficacy and rape myth beliefs yield significant differences, while others do not. McMahon's (2010) discovered that students intending to pledge a fraternity or sorority tend to have significantly higher rape myth beliefs compared to non-pledging students. However, it is important to point out that McMahon's research was conducted during new student orientation and participants had not been exposed to university sexual violence prevention programming. Somewhat different results were obtained by Moynihan and Banyard (2008) after surveying members of one fraternity ($N = 42$) and one sorority ($N = 46$) following their participation in mandatory bystander training.

Significant changes from pre-test to post-test for women were obtained, including, increase in their knowledge of interventions, a reduction in the number of times they answered “don’t know” to the knowledge questions, an increase in willingness to help, and an increase in confidence to intervene. Results for the men’s group reported only two outcome variables changed significantly: an increase in knowledge of interventions and a decrease in the frequency they answered “don’t know” to the knowledge questions. Considering the inconsistency of previous research and the findings of this study, research should continue to explore the role of bystander intervention training as a deterrent to sexual violence.

Training other than Green Dot. Examining the impact of sexual violence/assault prevention training, other than Green Dot, revealed interesting results. Respondents completing this alternative education had significantly higher BES score ($M = 73.47$) than students without training ($M = 71.29$), $p < .05$; yet, no significant differences in rape beliefs were identified. Results obtained for the impact of Green Dot were reversed. Lower bystander efficacy was recorded for students participating in Green Dot training ($M = 72.20$) compared to non-participants ($M = 72.09$) but were not statistically significant, $p > .05$, and significantly higher rape myth beliefs were reported for participants ($M = 35.99$) compared to non-participants ($M = 32.56$). It is unclear why Green Dot trained students reported less confidence to intervene as a bystander compared to students completing an alternative form of sexual assault prevention training. One explanation is the survey included two questions to learn about prior sexual violence prevention education; one question asked the respondent to indicate if they had completed Green Dot training by answering “yes” or “no” and another question asked them to indicate if they had completed another form of sexual violence prevention training (other than Green Dot) by also answering “yes” or “no”. As such, the questionnaire did not account for

overlaps of Green Dot and other sexual violence prevention training and this may have influenced the findings. Future studies should address this measurement concern.

Another theory to consider is the consistently positive results reported by single-gender programs, such as The Men's Program, The Women's Program, and Brining in the Bystander (Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Langhinrichsen-Rohling et al., 2011). The fact that there is evidence that gender-specific bystander programs may have more influence on changing attitudes compared to mixed-gender curriculum may also explain why no significant differences in rape beliefs were identified. Programs that target all-male audiences or all female audience are describing promising results. For example, The Men's Program focuses on teaching men that sexual assault is an act of violence, it encourages men to intervene and prevent sexual assault or interrupt sexism, and encourages empathy for sexual assault survivors (Berkowitz, 2002; Langhinrichsen-Rohling et al., 2011). The Women's Program targets all female audiences and teaches skills to identify high risk behaviors and high risk situations and imparts safe and effective bystander skills including being a resource to victims. Multiple studies of both programs have demonstrated the ability of these single-gender programs bystander to significantly reduce rape myth acceptance (Bannon, 2017; Banyard et al., 2004; Banyard, Moynihan, & Plante, 2007; Cares et al., 2015; Foubert et al., 2000).

Victimization. The literature shows that survivors of sexual violence are far more likely to report their victimization to family, friends, co-workers, and other informal providers (Ahrens et al., 2007; Banyard et al., 2005; Fisher et al., 2000; Fisher et al., 2003 Krebs et al., 2007) than to law enforcement, campus administrators, doctors, or other officials. Considering that victims of sexual assault tend to be more interested in obtaining emotional support and assistance from others (Ahrens et al., 2007) than pursuing action against the perpetrator (Krebs et al., 2007) one

could assume that prior victimization would increase bystander behavior and debunk attitudes that place blame on the victim.

The current study did not fully support this assumption. Victims of sexual assault did self-report higher bystander efficacy ($M = 73.00$) compared to non-victims ($M = 71.88$), but the difference was not significant, $p > .05$. However, a significant difference in rape myth acceptance was found with victims reporting lower tolerance for beliefs supportive of rape ($M = 30.96$) compared to non-victims ($M = 36.36$). Most of the literature examining whether bystander behaviors and rape myth beliefs are influenced by previous sexual victimization have limited their research to women. Similar to this study's findings, Amar et al. (2014) discovered women were less endorsing of rape supportive beliefs if they have been previously victimized; however, another study focusing only on undergraduate college women found no significant differences in rape myth acceptance between victims and non-victims (Carmody & Washington, 2001). Obviously, evidence demonstrates that bystander intervention and social beliefs that excuse sexual violence are complex subjects and research must continue before we can fully understand bystander behavior in the context of sexual abuse and what prevention efforts are most effective to address sexual violence on our college campuses.

Knowing a Survivor. Participants having knowledge of a victim of sexual assault reported greater bystander efficacy and lower rape myth acceptance than individuals with no similar experience and the results were significant, $p < .05$. Interestingly, this is the only independent variable studied where significant results were reported for both outcome measures, bystander efficacy and rape myth acceptance.

Surveying a group of college students with a similar demographic profile, Banyard (2008) also found evidence that knowing a victim of sexual violence resulted in greater

willingness to engage in bystander behavior and lesser rape myth acceptance. Amar et al. (2014), also found that knowing a victim influenced bystander behavior, with women more likely to take intervention action than men when the victim is known to them. Having knowledge of someone that has been sexually victimized has also been shown to influence rape myth acceptance with males having no knowledge of someone that has been victimized reporting higher rape myth beliefs compared to women who knew survivors of sexual assault, but these results were limited to men and women who pledged Greek organizations (McMahon, 2010). Other studies have shown that bystanders having even a casual acquaintance with the victim will have a greater sense of responsibility and confidence to intervene (Burn, 2009; McMahon, 2010).

Overall these findings indicate that prosocial behaviors and attitudes were higher among students who were more acquainted with victims of sexual violence. This seems to fit well with the five step conclusions about bystander behavior identified by Latané & Darley five decades ago (1968 & 1970) which indicated that prosocial bystander behaviors were higher among individuals with greater knowledge of the event. Their research suggested that before a bystander can decide to take action in an emergency he must process a five-step series of cognitive and behavioral decisions before intervening as a bystander. They must be able to (1) identify warning signs of sexual violence, (2) interpret the event as an emergency, (3) take responsibility to provide assistance; (4) plan a response, and (5) take action (Darley & Latané, 1968; Latané & Darley, 1968, 1970). Perhaps having knowledge of a survivor of sexual violence creates a more informed bystander; one that is more aware of the problem and feels a social responsibility to act, an important tenet of the bystander model.

Discussion

Although, Green Dot trained students reported higher bystander efficacy and lower rape myth acceptance than non-trained students, the difference in BES scores was not statistically significant ($p > .05$). In addition, even though IRMA test results indicated a statistically significant differences between group means of Green Dot trained and non-trained students, the differences between the means were small (Field, 2005, p. 32). Only 2% of the total variation in IRMA average scores could be attributed to differences between Green Dot trained and untrained students.

It was unclear why the results revealed little or no significant change in bystander attitudes and behaviors, given the existing literature on bystander intervention. However, change is typically measured using a pre-test and post-test design where data are collected before students participate in training and then after the program has ended. Studies using the BES scale have reported statistically significant results between treatment and control groups of college students when data were collected using a pre-test and post-test design (Banyard et al., 2009; Banyard, et al., 2014; Cares et al., 2015; Langhinrichsen-Rohling et al., 2011; Moynihan & Banyard, 2008; Moynihan et al., 2011). For example, significant improvements were reported from pre to post-test for knowledge of intervention, intent to help, bystander efficacy (Banyard et al., 2009; Cares et al., 2015; Langhinrichsen-Rohling et al., 2011; Moynihan & Banyard, 2008; Moynihan et al., 2011), and rape myth acceptance (Banyard et al., 2009; Cares et al., 2015; Langhinrichsen-Rohling et al., 2011) with some improvements persisting for 12 months following the pre-test (Langhinrichsen-Rohling et al., 2011). The current study did not establish pre-training scores to compare to post-training scores; rather, results were analyzed by

comparing the attitudes and beliefs about sexual violence of non-trained students to trained students and this may have influenced results.

Nationwide, colleges and universities are emphasizing the importance of consent before engaging in a sexual experience (Banyard, Plante, & Moynihan, 2005). Likewise, the university studied by this researcher actively supports a campus-wide initiative emphasizing the importance of getting consent before sex. Could such marketing efforts have equally affected all students? In addition, efforts such as education at the high school level, nationwide social media promotions, widely distributed awareness posters, and designating April as Sexual Assault Awareness Month have focused on curbing the prevalence sexual assault by endorsing the bystander model. Perhaps trained and untrained participants in this study were exposed to the bystander philosophy prior to contributing to this research and were already knowledgeable of the warning signs of an abusive relationship, cognizant of misconceptions about rape and sexual assault, more sensitized to the topic of sexual violence, and confident in their ability to act as a bystander and reject misconceptions about sexual assault.

Another explanation lends support to the core principles of the bystander model. Perhaps attitudes and behaviors of trained peers was diffused through social networks to those not receiving training, resulting in community level change of social norms for both groups. After all, bystander intervention awareness portrays sexual violence as a community problem, aimed at changing social norms by creating awareness and diffusing responsibility to every individual to intervene in safe, proactive ways (Banyard et al., 2004, Banyard, Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Coker et al., 2015, 2016).

Although the results of this study found few statistically significant differences between trained and untrained students, the results are noteworthy. Overall, regardless of whether

participants had received training, the majority of students indicated confidence to intervene in situations at risk for sexual assault and low rape myth beliefs were observed. Considering the critical role that bystanders can play in preventing sexual violence within the campus community, this is promising and can be used to refine prevention efforts. In summary, the lack of significant findings in this study probably has multiple explanations and efforts to develop effective intervention strategies should continue.

Limitations

Multiple limitations should be considered when interpreting the results of this study. The topics addressed were sensitive in nature and considering all scores were self-reported, social desirability bias, “the tendency for people to present a favorable image of themselves on questionnaires” (van de Mortel, 2008), may have influenced the responses. Research has shown that individuals will often “underestimate the true prevalence and frequency of the frowned upon activities in questions” (Krumpal, 2013, p. 2014) and will overestimate socially desirable activities because they care about what others think about them (Krumpal, 2013). This is especially true when the matter is sensitive in nature and involves subjects such as sexual activities, racism, alcohol abuse, illicit drug use, and mental health (Krumpal, 2013, van de Mortel, 2008) and religious ideology (Silber, Lischewski, & Leibold, 2013). As such, the self-reported scores may be inflated. Considering the sensitive nature of this study and evidence of social desirability in other bystander research studies (Banyard, Moynihan, & Plante, 2007) participants may have provided answers that portrayed themselves more positively by society standards.

Selection bias may have impacted the results of this study. It is possible that those who volunteered to participate in the study, differed in significant ways from students that choose not

to participate. Previous findings point out differences such as increased interest in the subject matter, previous sexual violence prevention training, or greater empathy for victims may influence study results (Dillman et al., 2014, p. 456). Therefore is it possible that students who volunteered to participate in this study were unlike from those that did not participate.

Although every effort was made to increase generalizability and attain a sample consistent with the population distribution at this university, the study sample was relatively small ($n = 234$), predominantly Caucasian (86.1%) female (71.3%) students. The low participation of student athletes ($n = 6$) did not provide a representative sample of athletes and therefore it was not possible to accurately evaluate this demographic class. Therefore, caution should be taken when generalizing these results to the population at large. In the social sciences, being able to assume that our conclusions are not only true for our sample, but also can be applied to a larger population is preferred (Field, 2005). Gender, races, and subgroups not equally represented may have different viewpoints that were not captured by this study. Future research should recruit a more diverse, representative sample to achieve a better portrayal of the campus population. This might be accomplished by collaborating with the Athletic Department, Black Student Union, international student organizations, Inter-fraternity Council, and the Student Government Association to improve diversification. In addition, considering the elevated position some of these sub populations have on campus, Greeks and student athletes may be able to influence others to participate in survey efforts (Moynihan et al., 2011).

Additionally, this study was limited by the low number of respondents. The survey was initially released in October 2017, but due to a low response rate (5.4%, $n = 163$), the survey was distributed again during Spring semester 2018. Similar to the first distribution, response was low (4.6%, $n = 161$). In total, the surveys yielded a response rate of 5% for a sample total of 324. A

larger sample would have been preferred since larger samples are more likely to reflect the whole population (Fields, 2005).

The survey did not ask trained students to provide the date they received training; therefore, possible differences in short-term or long-term effects of bystander intervention training were not tested. Studies examining sustainability of changes in behaviors and attitudes report inconsistent and mixed findings. For example, research has shown significant improvements in bystander knowledge and attitudes for both male and female undergraduate students with improved scores continuing to be reported for up to one year after bystander training was completed (Banyard, Moynihan, & Plante, 2007; Gidycz et al., 2011). Inconsistent with these results, Breitenbecher's (2000) literature review of college student sexual assault prevention programs reported attitudes, behavioral intentions, and rape myth acceptance showed short term improvements; however, they regressed to their original state over time. Future studies should evaluate immediate and extended results of trained and untrained students to determine the sustainability of changes in attitudes and behavior before bystander intervention training can be endorsed as an effective sexual assault prevention strategy. Despite these limitations, important discoveries were made that can assist university administrators evaluate sexual violence preventions strategies sponsored on their campuses.

Implications

The findings of this study are important given the continued prevalence of sexual assault on college campuses (Banyard, Ward, Cohn, Plante, Moorhead, & Walsh, 2007; Canan et al., 2016; Carr, 2005; Fisher et al., 2000; Krebs et al., 2009; Moynihan & Banyard, 2008) and the failure of previous sexual violence prevention programs to provide favorable results (Breitenbecher, 2000; Lonsway, 1996). Knowledge gained from this study will add to the

evidence base evaluating the impact of bystander intervention. The results may assist in the development of educational programs that could ultimately reduce the likelihood of sexual violence.

As colleges and universities struggle to identify and develop policies and practices to reduce sexual violence within their communities, the benefits of a multifaceted approach are well documented (Karjane et al., 2005). Greater improvements in efficacy, intentions, and behaviors are generally reported the longer the participant is exposed to the training content (Anderson & Whitson, 2005; Banyard, Moynihan, & Plante, 2007; Gibbons, 2013) and multi-session programs are more effective compared to single session approaches (CDC, 2014; Gibbons, 2013; Gidycz et al., 2011; McMahon et al., 2015). Smaller group sessions tend to affect confidence and willingness to intervene as a bystander (McMahon et al., 2015). Additionally, programs designed for single gender audiences tend to be more effective than mixed gender programs. The CDC (2014) posits that training is more effective when it includes; longer, multi-sessions, program staff are well-trained and skilled at relating to students, training design is culturally relevant and appropriate, and there is a focus on risk factors that are common to the college environment (e.g., sex, drugs, alcohol, parties, and sporting events). This suggests that even though prior bystander intervention research has reported positive results, when planning and selecting sexual assault prevention programs, campus administrators should consider program designs that seem to influence outcomes. It seems there is no “one best” option that works for all institutions; rather, choices should be made that reflect a wide variety of variables.

This study also draws attention to the value of life-long learning and the importance of increasing knowledge, teaching practical and interpersonal skills, and instilling self-confidence and critical thinking skills throughout a person’s lifetime. Designed as a method to prevent

sexual violence, the bystander intervention model will be better positioned to accomplish this goal if participants are able to retain and apply knowledge and skills learned for weeks, months, and years after the course is completed. Follow-up, refresher courses at the university level may promote this competency at the college level. Additionally, bystander intervention programs designed for learning in various environments outside the classroom (e.g., adults, senior adults, young professionals, vocational tradespersons) might promote these concepts to a larger audience, continuing or adding to the momentum to prevent sexual violence by recognizing potentially harmful situations, safely and effectively intervening, and providing support to victims.

Future Research

Sexual violence is a serious problem and colleges and universities are actively seeking to safeguard their campuses against this crime. The use of bystander intervention awareness has the potential to create a safer college environment where everyone can learn, live, and work without fear of sexual violence.

It is recommended that future research continue to compare differences between programs that are offered to single gender audiences and those that target mixed gender groups to determine which model is most effective at transforming participants into informed, active bystanders. While some findings provide evidence that mixed gender programs may be more effective than single gender programs (Breitenbecher, 2000), other studies report conflicting outcomes (Anderson & Whitson, 2005). A meta-analysis (Anderson & Whitson, 2005) of 69 studies evaluating the effectiveness of college sexual assault prevention programs reported that training delivered to all-female audiences was more effective at improving behavioral intentions than mixed gender programs. In contrast, the findings of the same meta-analysis indicated

mixed-gender groups were more effective than all-female groups at improving rape attitudes among women; yet, found no significant difference between single and mixed gender groups for men (Anderson & Whitson, 2005). Comparing models such as the Men's Program, Women's Program, Safe Sisters, Mentors in Violence Prevention, and Bringing in the Bystander that target same-gender audiences to models such as Green Dot and Step Up that are disseminated to mixed gender audiences will help identify strengths and weakness of each delivery style. Doing so will enable decision-makers to consider approaches that have the strongest evidence of effectiveness for the intended audience.

Additionally, programs that target specific sub-populations, such as student athletes or members of Greek organizations, should continue to be evaluated to add to existing evidence that indicates they have the ability to encourage others to bystand because of their elevated status positions on campus (Moynihan et al., 2011). More research is needed to explore this issue.

Research should continue to investigate if changes in behaviors and attitudes are maintained over time. For example, Banyard, Moynihan, & Plante (2007) and Anderson et al. (1998) both reported prevention programs were effective in reducing rape supportive beliefs; however, the noted improvements in these behaviors did not persist past the 2-month (Banyard, Moynihan, & Plante, 2007) and 7-week (Anderson et al., 1998) follow-up. Such results may be indicative that violence prevention education is helpful in the short term, but does not result in long-standing changes in bystander behaviors without additional intervention. Conducting a multi-year study would assist in determining if changes in behaviors persist over time.

Another recommendation for future research is to explore whether or not bystander intervention programs actually influence actual behavior. This study and the majority of the

literature address bystander confidence and intentions, and thus does not capture real life behaviors.

It is possible the floor effect in the current study eliminated any variability present between participant groups because strong disagreement with statements as noted above is very likely and expected (Orsini, Pezzuti & Hulbert, 2015). Future studies should remove these types of questions to determine if different results are reported. As a final recommendation, emphasis should be placed on determining if bystander programs result in decreasing sexual violence.

Conclusion

This study did not provide strong evidence that Green Dot Bystander Intervention education at a public university was effective at increasing bystander efficacy or reducing rape myth acceptance. In many other similar studies, the bystander intervention model has shown promise as an effective tool for encouraging individuals to intervene when they recognize signs of violence and to offer assistance to the victim. If the bystander intervention model can influence individuals to intervene in situations at risk for sexual assault, could it be suited as a prevention technique in other fields of study? For example, Dartmouth College, eight campuses across the University of Texas system, Cornell University, the University of Mississippi, and Indiana University at Bloomington are just a few schools that are encouraging students to watch out for classmates and intervene as a bystander if they recognize signs of suicide, binge drinking, hazing, hate speech, academic dishonesty, drug abuse, and depression (Mangan, 2015). Currently studies are limited, but show promise that bystander intervention programs may also increase an individual's willingness to step in and provide assistance in situations that show warning signs of bullying or risky drinking behavior (Midgett, Dumas, & Trull, 2016; Salmivalli, 2014; White & Malkowski, 2014). Perhaps the bystander intervention approach

could be expanded to fields of study such as suicide prevention, alcohol abuse, or hate crimes (Banyard et al., 2009) or to other sub-populations such as high schools, middle schools, military, or professional sports teams, (Katz et al., 2011).

Evaluation of the effectiveness of sexual violence prevention programs is a priority for university administrators striving to provide safe, violence-free learning environments for students entrusted in their care. Sexual violence occurs too frequently, resulting in adverse consequences for it to be treated as a silent epidemic. As reported by the White House Task Force to Protect Students from Sexual Assault, “The success of sexual violence prevention efforts on college campuses is dependent on identifying and implementing effective prevention strategies” (DeGue et al., 2014, p. 11). Nationwide, higher education is responding by developing diverse strategies (Karjane et al., 2005) to safeguard their campuses and eliminate sexual violence from their communities and bystander intervention programs are among the most promising strategies (DeGue et al, 2014). It is important that colleges and universities consider bystander intervention training and education programs that increase knowledge and awareness about the prevalence of sexual victimizations, teach practical bystander skills, and foster support for victims as they seek to find an effective solution. The bystander model has shown to be effective at improving bystander behaviors and false beliefs about rape myth; however, little is known if these outcomes will translate into a reduction of sexual violence. Continued research evidence is needed to guide development and implementation of strategies that effectively address sexual violence and safeguard university communities across the nation. No “one size fits all” approach has been recognized as the preeminent solution (Dills, Fowler, & Payne, 2016); work to end sexual violence on our college campuses is not finished.

References

- Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. National Institute on Alcohol Abuse and Alcoholism grant AA-11996. *Journal of Studies on Alcohol/Supplement 14*. Retrieved from:
<https://www.collegedrinkingprevention.gov/media/Journal/118-Abbey.pdf>
- Abdullah, A., Salleh, A., Mahmud, Z., Ahmad, J., & Ghani, S. (2011). Cognitive distortion, depression and self-esteem among adolescent rape victims. *World Applied Science Journal 14*, 67-73. Retrieved from:
<http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=AB2CD3E230D8753F15ECF788C81ED664?doi=10.1.1.389.7389&rep=rep1&type=pdf>
- Ahrens, C., Campbell, R., & Ternier-Thames, N. (2007). Deciding whom to tell: Expectations and outcomes of rape survivors' first disclosure. *Psychology of Women Quarterly*, 31(1)38-49. Retrieved from: <http://pwq.sagepub.com/content/31/1/38.full.pdf+html>
- Amar, A., & Gennaro, S. (2005). Dating violence in college women: Associated physical injury, healthcare usage, and mental health symptoms. *Nursing Research*, 54(4), 235-242. doi: 10.1097/00006199-200507000.
- Amar, A., Sutherland, M., & Laughon, K. (2014). Gender differences in attitudes and beliefs associated with bystander behavior and sexual assault. *Journal of Forensic Nursing*, 10(2), 84 – 91. doi: 10.1097/JFN.0000000000000024
- American College Health Association. (2008). *Shifting the paradigm: Primary prevention of sexual violence*. Retrieved from:
http://www.acha.org/documents/resources/ACHA_PSV_toolkit.pdf

- American College Health Association, (2011, December). *Position statement on preventing sexual violence on college and university campuses*. Hanover, MD. Retrieved from: https://www.acha.org/documents/resources/guidelines/ACHA_Statement_Preventing_Sexual_Violence_Dec2011.pdf
- American Council of Education. (2014). *New Requirements Imposed by the Violence Against Women Reauthorization Act*. Memorandum prepared by Hogan Lovells US LLP. Retrieved from: <http://www.acenet.edu/news-room/Documents/VAWA-Summary.pdf>
- Anderson, L., Hieger, B., Stoelb, M., Kling, K., Duggan, P., & Payne, J. (1998). The effectiveness of two types of rape prevention programs in changing the rape-supportive attitudes of college students. *Journal of College Student Development*, 39(2), 131 – 141. Retrieved from: <http://search.proquest.com/openview/3da2536cdc42385af7abd400d332d13b/1?pq-origsite=gscholar&cbl=34426>
- Anderson, L., & Whiston, S. (2005). Sexual assault education programs: A meta-analytic examination of their effectiveness. *Psychology of Women Quarterly*, 29(4), 374-388. Retrieved from: <http://pwq.sagepub.com/content/29/4/374.full.pdf+html>
- Bannon, R. & Foubert, J. (2017). The bystander approach to sexual assault risk reduction: Effects of risk recognition, perceived self-efficacy, and protective behavior. *Violence and Victims*, 32(1), 46 – 59. doi: 10.1891/0886-6708.VV-D-15-00057
- Banyard, V. (2005). Measurements and correlates of prosocial bystander behavior: The case of interpersonal violence. *Violence and Victims*, 23(1), 85 – 99. Retrieved from: http://www.ncdsv.org/images/ViolandVic_MeasurementandCorr_2008.pdf

- Banyard, V. (2008). Measurements and correlates of prosocial bystander behavior: The case of interpersonal violence. *Violence and Victims*, 23(1), 83 – 97. doi: 10.1891/0886-66708.23.1.83
- Banyard, V., Plante, E., & Moynihan, M. (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, 32(1), 61-79. doi: 10.1002/jcop.10078
- Banyard, V., Plante, E., Cohn, E., Moorehead, C., Ward, S., & Walsh, W. (2005). Revisiting unwanted sexual experiences on campus: A 12 year follow-up. *Violence Against Women*, 11(4), 426-446. Retrieved from: <http://vaw.sagepub.com/content/11/4/426.full.pdf+html>
- Banyard, V., Plante, E., & Moynihan, M. (2005). *Rape prevention through bystander education: Bringing a broader community perspective to sexual violence prevention. Final report to NIJ for grant 2002-WG-BX-0009*. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/grants/208701.pdf>
- Banyard, V., Moynihan, M., & Plante, E. (2007). Sexual violence prevention through bystander education: An experimental evaluation. *Journal of Community Psychology*, 35(4), 463-481. DOI: 10.1002/jcop.20159
- Banyard, V., Ward, S., Cohn, E., Plante, E., Moorhead, C., & Walsh, W. (2007). Unwanted sexual contact on campus: A comparison of women's and men's experiences. *Violence and Victims*, 22(1), 52-70. doi: 10.1891/088667007780482865
- Banyard, V., Moynihan, M., & Crossman, M. (2009). Reducing sexual violence on campus: The role of student leaders as empowered bystanders. *Journal of College Student Development*, 50(4), 446-457. doi: <https://doi.org/10.1353/csd.0.0083>

- Banyard, V., & Moynihan, M. (2011). Variation in bystander behavior related to sexual and intimate partner violence prevention: Correlates in a sample of college students. *Psychology of Violence, 1* (4), 287 – 301. doi: 10.1037/a0023544
- Banyard, V., Moynihan, M., & Cares, A. & Warner, R. (2014). How do we know if it works? Measuring outcomes in bystander-focused abuse prevention on campus. *Psychology of Violence, 4*(1), 101 – 115. doi: 10.1037/a0033470
- Baum, K., & Klaus, P. (2005). Violent Victimization of College Students, 1995-2002. Bureau of Justice Statistics, Special Report, National Crime Victimization Survey, NCJ 206836. Retrieved from: <https://www.bjs.gov/content/pub/pdf/vvcs02.pdf>
- Belli, G. (2009). Chapter 4, Nonexperimental quantitative research, in S. Lapan & M. Quartaroli, *Research essentials: An introduction to designs and practices*, (pp 59 – 77). San Francisco, CA: Jossey-Bass. Retrieved from: https://www.k4health.org/sites/default/files/migrated_toolkit_files/0470181095-1.pdf
- Berkowitz, A. (2002). Fostering men’s responsibility for preventing sexual assault. In P. Schewe (Ed.). *Preventing violence in relationships: Interventions across the life span*. (pp. 163 – 196). Washington, DC: American Psychological Association. Retrieved from: <http://www.alanberkowitz.com/articles/responsibility.pdf>
- Berkowitz, A. (2003). The social norms approach to violence prevention. Family Violence Prevention Fund. Retrieved from: https://www.ndhealth.gov/Injury/ND_Prevention_Tool_Kit/docs/The-Social-Norms-Approach-to-Violence-Prevention.pdf

- Berkowitz, A. (2005). Chapter 13, An overview of the social norms approach in L. Lederman & L. Stewart, *Changing the culture of college drinking: A socially situated prevention campaign*, (pp 193 – 214). Cresskill, New Jersey: Hampton Press.
- Black, M., Basile, K., Breiding, M., Smith, S., Walters, M., Merrick, M., Chen, J., Stevens, M. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved from:
https://www.cdc.gov/violenceprevention/pdf/nisvs_report2010-a.pdf
- Boeringer, S. (1999). Associations of rape-supportive attitudes with fraternal and athletic participation. *Violence Against Women*, 5(1), 81 – 90. doi: 10.1177/10778019922181167
- Breitenbecher, K. (2000). Sexual assault on college campuses: Is an ounce of prevention enough? *Applied & Preventative Psychology*, 9(1), 23-52. doi:
[http://dx.doi.org/10.1016/S0962-1849\(05\)80036-8](http://dx.doi.org/10.1016/S0962-1849(05)80036-8)
- Brome, M., Saul, J., Lang, K., Lee-Pethel, R., Rainford, N., & Wheaton, J. (2004). *Sexual violence prevention: Beginning the dialogue*. Centers for Disease Control and Prevention, Atlanta, GA. Retrieved from: <https://www.cdc.gov/violenceprevention/pdf/svprevention-a.pdf>
- Brown, A., Banyard, V.m & Moynihan, M. (2014). College students as helpful bystanders against sexual violence: Gender, race, and year in college moderate the impact of perceived peer norms. *Psychology of Women Quarterly*, 38(3), 350 – 362. doi: 10.1177/0361684314526855
- Burn, S. (2009). A situational model of sexual assault prevention through bystander intervention. *Sex Roles*, 60(11-12), 779-792. doi: 10.1007/s11199-008-9581-5

- Burt, M. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology*, 38(2), 217-230. Retrieved from:
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.5745&rep=rep1&type=pdf>
- Canan, S., Jozkowski, K., & Crawford, B. (2016). Sexual assault supportive attitudes: Rape myth acceptance and token resistance in Greek and non-greek college students from two university samples in the United States. *Journal of Interpersonal Violence*, March 3, 2016. DOI:[10.1177/0886260516636064](https://doi.org/10.1177/0886260516636064)
- Cares, A., Banyard, V., Moynihan, M., Williams, L., Potter, S., & Stapleton, J. (2015). Changing attitudes about being a bystander to violence: Translating an in-person sexual violence prevention program to a new campus. *Violence Against Women*, 21(2), 165-187. doi: 10.1177/1077801214564681
- Carmody, D., & Washington, L. (2001). Rape Myth Acceptance among college women. *Journal of Interpersonal Violence*, 16(5), 424 – 436. Retrieved from:
<http://journals.sagepub.com/doi/pdf/10.1177/088626001016005003>
- Carr, J. (2005, February). *American College Health Association campus violence white paper*. Baltimore, MD: American College Health Association. 304-320. Retrieved from:
<http://cra20.humansci.msstate.edu/Campus%20Violence%20White%20Paper%20-%202005%20ACHA.pdf>
- Centers for Disease Control and Prevention (2016^a). Injury Prevention and Control: Division of Violence Prevention. *Sexual Violence Prevention Strategies*. Retrieved from:
<http://www.cdc.gov/ViolencePrevention/sexualviolence/prevention.html>

Centers for Disease Control and Prevention (2016^b). Injury Prevention and Control: Division of Violence Prevention. *Sexual Violence Defined*. Retrieved from:

<http://www.cdc.gov/violenceprevention/sexualviolence/definitions.html>

Centers for Disease Control and Prevention (2014). Injury Prevention and Control: Division of Violence Prevention. *Preventing Sexual Violence on College Campuses: Lessons From Research and Practice*. Retrieved from:

<https://www.justice.gov/ovw/page/file/909811/download>

Cissner, A. (2009, January). Evaluating the Mentors in Violence Prevention Program: Preventing Gender Violence on a College Campus. Submitted to the U.S. Department of Education. Retrieved from:

http://www.courtinnovation.org/sites/default/files/MVP_evaluation.pdf

Coker, A., Bush, H., Fisher, B., Swan, S., Williams, C., Clear, E., & DeGue, S. (2015).

Evaluation of the green dot bystander intervention to reduce interpersonal violence among college students across three campuses. *Violence Against Women*, 21(12), 1507-1527. doi: 10.1177/1077801214545284

Coker, A., Bush, H., Fisher, B., Swan, S., Williams, C., Clear, E., & DeGue, S. (2016). Multi-college bystander intervention evaluation for violence prevention. *American Journal of Preventative Medicine*, 50(3), 295-302. Retrieved from: [http://ac.els-](http://ac.els-cdn.com/S074937971500553X/1-s2.0-S074937971500553X-main.pdf?_tid=6b3d1866-6fa4-11e6-b326-00000aacb362&acdnt=1472666444_dcabe439b7d0a6836214856b523e016d)

[cdn.com/S074937971500553X/1-s2.0-S074937971500553X-main.pdf?_tid=6b3d1866-6fa4-11e6-b326-](http://ac.els-cdn.com/S074937971500553X/1-s2.0-S074937971500553X-main.pdf?_tid=6b3d1866-6fa4-11e6-b326-00000aacb362&acdnt=1472666444_dcabe439b7d0a6836214856b523e016d)

[00000aacb362&acdnt=1472666444_dcabe439b7d0a6836214856b523e016d](http://ac.els-cdn.com/S074937971500553X/1-s2.0-S074937971500553X-main.pdf?_tid=6b3d1866-6fa4-11e6-b326-00000aacb362&acdnt=1472666444_dcabe439b7d0a6836214856b523e016d)

Coker, A., Cook-Craig, P., Williams, C., Fisher, B., Clear, E., Garcia, L., & Hegge, L. (2011).

Evaluation of Green Dot: An active bystander intervention to reduce sexual violence on

- college campuses. *Violence Against Women*, 17(6), 777-796. doi:
10.1177/1077801211410264
- Cook-Craig, P., Millspaugh, P., Recktenwald, E., Kelly, N., Hegge, L., Coker, A., & Pletcher, T. (2014). From empower to Green Dot: Successful strategies and lessons learned in developing comprehensive sexual violence primary prevention programming. *Violence Against Women*, 20(10), 1162-1178. doi: 10.1177/1077801214551286
- Crosset, T., Benedict, J., & McDonald, M. (1995). Male student-athletes reported for sexual assault: A survey of campus police departments and judicial affairs offices. *Journal of Sports & Social Issues*, 19(2), 126-140. DOI: 10.1177/019372395019002002
- Darley, J., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4), 377 – 383. Retrieved from: [http://www.ivcc.edu/uploadedFiles/_faculty/_pommier/Example%20Article\(2\).pdf](http://www.ivcc.edu/uploadedFiles/_faculty/_pommier/Example%20Article(2).pdf)
- DeGue, S., Holt, M., Massetti, G., Matjasko, J., Tharp, A. & Valle, L. (2012). Looking ahead toward community-level strategies to prevent sexual violence. *Journal of Women's Health*, 21(1), 1-3. doi: 10.1089/jwh.2011.3263
- DeGue, S., Valle, L., Holt, M., Massetti, g., Matjasko, J., & Tharp, A. (2014). A systemic review of primary prevention strategies for sexual violence perpetration. *Aggression and Violent Behavior*, 19(2014), 346 – 362. doi: <http://dx.doi.org/10.1016/j.avb.2014.05.004>
- Dillman, D. (2000). *Mail and Internet surveys: The tailored design method* (2nd Edition). New York: John Wiley and Sons.
- Dillman, D., Smyth, J., & Christian, L. (2014). *Internet, phone, mail, and mixed mode surveys: The tailored design method*. Hoboken, New Jersey: John Wiley & Sons, Inc.

- Dills, J., Fowler, D., & Payne, G. (2016). *Sexual violence on campus: Strategies for prevention*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved from: <https://www.cdc.gov/violenceprevention/pdf/campussvprevention.pdf>
- Exner, D., & Cummings, N. (2011). Implications for sexual assault prevention: College students as prosocial bystanders. *Journal of American College Health, 59*(7), 655-657. doi:10.1080/07448481.2010.515633
- Faravelli, C., Giugni, A., Salvatori, S., & Ricca, V. (2004). Psychopathology after rape. *American Journal of Psychiatry, 161*(8), 1483-1485. Retrieved from: <http://ajp.psychiatryonline.org/doi/pdfplus/10.1176/appi.ajp.161.8.1483>
- Field, A. (2005). *Discovering Statistics Using SPSS: and sex, drugs and rock'n'roll* (1st Edition). Thousand Oaks, CA: SAGE Publications, Inc.
- Finley, C., & Corty, E. (1993). Rape on campus: The prevalence of sexual assault while enrolled in college. *Journal of College Student Development, 34*, 113-117. Retrieved from: https://www.researchgate.net/publication/232569985_Rape_on_campus_The_prevalence_of_sexual_assault_while_enrolled_in_college
- Fisher, B., Cullen, F., & Daigle, L. (2005). The discovery of acquaintance rape: The salience of methodological innovation and rigor. *Journal of Interpersonal Violence, 20*(4), 493 – 500. doi: 10.1177/0886260504267761
- Fisher, B., Cullen, F., & Turner, M. (2000). *The Sexual Victimization of College Women*. Washington, DC: Office of Justice Programs, National Institute for Justice; 2000. Research report 182369. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/182369.pdf>

- Fisher, B., Daigle, L., Cullen, F., & Turner, M. (2003). Reporting sexual victimization to the police and others: Results from a national-level study of college women. *Criminal Justice and Behavior*, 30(1), 6-38. Retrieved from: doi: 10.1177/0093854802239161
- Fisher, P., Krueger, J., Greitemeyer, T., Vogrincic, C., Kasternu'ller, A., Frey, D.,... Kainbacher, M. (2011). The bystander-effect: A meta-analytic review on bystander intervention in dangerous and non-dangerous emergencies. *Psychological Bulletin*, 137(4), 517 – 537. doi: 10.1037/a0023304
- Fitzgerald, L., Magley, V., Drasgow, F., & Waldo, C. (1999). Measuring sexual harassment in the military: The Sexual Experience Questionnaire (SEQ-DoD). *Military Psychology*, 11(3), 243 – 264. doi: 10.1207/s15327876mp1103_3
- Foshee, V., Linder, G., Bauman, K., Langwick, S., Arriaga, X., Heath, J.,...& Bangdiwala, S. (1996). The Safe Dates Project: Theoretical basis, evaluation design, and selected baseline findings. *American Journal of Preventative Medicine*, 12(5), 39 – 47. doi: 10.1016/S0749-3797(18)30235-6
- Foubert, J. (2000). The longitudinal effects of a rape-prevention program on fraternity men's attitudes, behavioral intent, and behavior. *Journal of American College Health*, 48(4), 158-163. DOI: [10.1080/07448480009595691](https://doi.org/10.1080/07448480009595691)
- Foubert, J., Langhinrichsen-Rohling, J., Brasfield, H., & Hill, B. (2010). Effects of a rape awareness program on college women: Increasing bystander efficacy and willingness to intervene. *Journal of Community Psychology*, 38(7), 813-827. doi: 10.1002/jcop.20397
- Fritner, M. & Rubinson, L. (1993). Acquaintance rape: The influence of alcohol, fraternity membership, and sports team membership. *Journal of Sex Education and Therapy*, 19(4), 272 – 284. doi: 10.1080/01614576.1993.11074089

- Gallup Poll (2014). *Fraternalities and sororities: Understanding life outcomes*. Retrieved from:
<https://www.purdue.edu/b-involved/wp-content/uploads/2014/06/GallupPurdue-Fraternalities-and-Sororities-Report-5.27.2014.pdf>
- Gibbons, R. (2013). *The evaluation of campus-based gender violence prevention programming: What we know about program effectiveness and implications for practitioners*. National Resource Center on Domestic Violence. Retrieved from:
https://vawnet.org/sites/default/files/materials/files/2016-09/AR_EvaluationCampusProgramming.pdf
- Gidycz, C., Orchowski, L., & Berkowitz, A. (2011). Preventing sexual aggression among college men: An evaluation of a social norms and bystander intervention program. *Violence Against Women, 17*(6), 720-742. doi: 10.1177/1077801211409727
- Gidycz, C., Orchowski, L., King, C., & Rich, C. (2008). Sexual victimization and health-risk behaviors: a prospective analysis of college women. *Journal of Interpersonal Violence, 23*(6), 744-763. doi: 10.1177/0886260507313944
- Goals of The Men's Program. (n.d.). Retrieved from:
<http://www.oneinfourusa.org/themensprogram.php>
- Goals of The Women's Program. (n.d.) Retrieved from:
<http://www.oneinfourusa.org/thewomensprogram.php>
- Hines, D., & Reed, K. (2015). Predicting improvement after a bystander program for the prevention of sexual and dating violence. *Health Promotion Practice 16*(4), 550-559. doi: 10.1177/1524839914557031
- Humphrey, S. & Kahn, A. (2000). Fraternities, athletic teams, and rape: Importance of identification with a risk group. *Journal of Interpersonal Violence, 15*(12), 1313 – 1322.

Retrieved from:

<http://www.d.umn.edu/cla/faculty/jhamlin/3925/Readings/Fraternities.html>

Jennings, M. & Cribbie, R. (2016). Comparing pre-post change across groups: Guidelines for choosing between difference scores, ANCOVA, and Residual Change Scores. *Journal of Data Science, 14*, 205 – 230. Retrieved from: <http://www.jds-online.com/files/%e7%ac%ac%e4%ba%8c%e7%af%871103.pdf>

Jones, M. (2014). *A case study of promising practices in the prevention of sexual assault in postsecondary institutions*. (Doctoral dissertation). Retrieved from: <http://search.proquest.com/pqdtft/docview/1559197476/fulltextPDF/5BA684E9D4E84BB0PQ/8?accountid=8421>

Jordan, C., Combs, J., & Smith, G. (2014). An exploration of sexual victimization and academic performance among college women. *Trauma, Violence, & Abuse, 15*(3), 191-200. doi: 10.1177/1524838014520637

Kalof, L. (1993). Rape-supportive attitudes and sexual victimization experiences of sorority and non-sorority women. *Sex Roles, 29*(11), 767- 780. doi: 10.1007/BF00289217

Kalof, L. (2000). Vulnerability to sexual coercion among college women: A longitudinal study. *Gender Issue, 18*(4), 47-57. doi: 10.1007/s12147-001-0023-8

Karjane, H., Fisher, B. & Cullen, F. (2005). *Sexual assault on campus: What colleges and universities are doing about it*. Washington, DC: Office of Justice Programs, U.S. Department of Justice. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/205521.pdf>

Katz, J. (1995). Reconstructing masculinity in the locker room: The Mentors in Violence Prevention project. *Harvard Educational Review, 65*(2), 163-174. Retrieved from:

<http://hepgjournals.org.spot.lib.auburn.edu/doi/pdf/10.17763/haer.65.2.55533188520136u1?code=hepg-site>

Katz, J., Heisterkamp, H., & Fleming, W. (2011). The social justice roots of the Mentors in Violence Prevention model and its application in a high school setting. *Violence Against Women, 17*(6), 684 – 702. doi: 10.1177/1077801211409725

Katz, J., & Moore, J. (2013). Bystander education training for campus sexual assault prevention: An initial meta-analysis. *Violence and Victims, 28*(6), 1054-1067. doi: 10.1891/0886-6708.VV-D-12-00113

Kilmartin, C. (2001). *Sexual assault in context: Teaching college men about gender*. Holmes Beach, FL: Learning Publications, Inc.

Kilpatrick, D., Edmunds, C., & Seymour, A. (1992). *Rape in America: A report to the nation*. Charleston, SC: National Victim Center & the Crime Victims Research and Treatment Center, Medical University of South Carolina. Retrieved from:
<http://www.evawintl.org/Library/DocumentLibraryHandler.ashx?id=538>

Kilpatrick, D., Resnick, H., Ruggiero, K., Conoscenti, M., & McCauley, J. (2007). *Drug-facilitated, incapacitated, and forcible rape: A national study*. U.S. Department of Justice Award, 2005-WG-BX-0006. Retrieved from:
<https://www.ncjrs.gov/pdffiles1/nij/grants/219181.pdf>

Kitzrow, M. (2003). The mental health needs of today's college students: Challenges and recommendations. *NASPA Journal, 41*(1), 165-179. Retrieved from:
http://depts.washington.edu/apac/roundtable/1-23-07_mental_health_needs.pdf

- Koss, M., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M.,... White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, 31, 357-370.
doi: <http://171.67.121.89/content/31/4/357.full.pdf+html>
- Koss, M., Gidycz, C., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, 55(2), 162-170. Retrieved from:
http://www.jimhopper.com/pdf/koss1987_scope_of_rape.pdf
- Krebs, C., Lindquist, C., Warner, T., Fisher, B., & Martin, S. (2007). *The Campus Sexual Assault (CSA) Study*. National Institute of Justice. Final Report for NIJ Grant No. 2004-WG-BX-0010. Retrieved from: <https://www.ncjrs.gov/pdffiles1/nij/grants/221153.pdf>
- Krebs, C., Lindquist, C., Warner, T., Fisher, B., & Martin, S. (2009). College women's experiences with physically forced, alcohol- or other drug-enabled, and drug-facilitated sexual assault before and since entering college. *Journal of American College Health*, 57(6), 639-649. doi: 10.3200/JACH.57.6.639-649
- Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: A literature review. *Quality & Quantity*, 47(4), 2025 – 2047. doi 10.1007/s11135-011-9640-9
- Langhinrichsen-Rohling, J., Foubert, J., Brasfield, H., Hill, B., & Shelley-Tremblay, S. (2011). The Men's Program: Does it impact college men's bystander efficacy and willingness to intervene? *Violence Against Women*, 17(6), 743 – 759. doi: 10.1177/1077801211409728
- Larimer, M., Lydum, A., Anderson, B., & Turner, A. (1999). Male and female recipients of unwanted sexual contact in a college student sample: Prevalence rates, alcohol use, and depression symptoms. *Sex Roles* 40(3-4), 295-308. doi: 10.1023/A:1018807223378

- Latané, B., & Darley, B. (1968). Group inhibitions of bystander intervention in emergencies. *Journal of Personality and Social Psychology*, 10(3), 215 – 221. doi: 10.1037/h0026570
- Latané, B., & Darley, B. (1970). *The unresponsive bystander: Why doesn't he help?* New York: Appleton-Century-Crofts.
- Lonsway, K., & Fitzgerald, L. (1994). Rape myths: In Review. *Psychology of Women Quarterly*, 18, 133-164. Retrieved from: <http://journals.sagepub.com/doi/pdf/10.1111/j.1471-6402.1994.tb00448.x>
- Lonsway, K. (1996). Preventing acquaintance rape through education: What do we know? *Psychology of Women Quarterly*, 29(2), 229-265. doi: 10.1111/j.1471-6402.1996.tb00469.x
- Mangan, K. (2015). Bystander intervention by students: It's not just to thwart sexual assault. *The Chronicle of Higher Education*, 62(3), 14. Retrieved from: <https://www.chronicle.com/article/Bystander-Intervention-Not/232935>
- McCray, K. (2015). Intercollegiate athletes and sexual assault: A review of literature and recommendations for future study. *Trauma, Violence, and Abuse*, 16(4), 448 – 453. doi: 10.1177/1524838014537907
- McMahon, S. (2010). Rape myth beliefs and bystander attitudes among incoming college students. *Journal of American College Health*, 59(1), 3-11. doi: 10.1080/07448481.2010.483715
- McMahon, S. & Farmer, G. (2011). An updated measure for assessing subtle rape myth. *Social Work Research*, 35(2), 71 – 81. doi: 10.1093/swr/35.2.71

- McMahon, S. (2015). Call for research on bystander intervention to prevent sexual violence: The role of campus environments. *American Journal of Community Psychology*, 55(3/4), 472-489. doi: 10.1007/s10464-015-9724-0
- McMahon, S, Allen, C., Postmus, J., McMahon, S., Peterson, A., & Hoffman, M. (2014). Measuring bystander attitudes and behavior to prevent sexual violence. *Journal of American College Health* 62(1), 58-66. doi: 10.1080/07448481.2013.849258
- McMahon, S., Peterson, N., Winter, S., Palmer, J., Postmus, J., & Koenick, R. (2015). Predicting bystander behavior to prevent sexual assault on college campuses: The role of self-efficacy and intent. *Society of Community Research and Action*. 56(1-2), 46-56. doi: 10.1007/s10464-015-9740-0
- Midgett, A., Doumas, D., & Trull, R. (2016). Evaluation of a brief, school-based bullying bystander intervention for elementary school students. *Professional School Counseling*, 20(1), 172 – 181. doi: 10.5330/1096-2409-20.1.172
- Miow, J., Einolf, C. (2009). Sorority participation and sexual assault risk. *Violence Against Women*, 15(7), 835 – 851. doi: 10.1177/1077801209334472
- Mohler-Kuo, M., Dowdall, G., Koss, M., & Wechsler, H. (2003). Correlates of rape while intoxicated in a national sample of college women. *Journal of Studies on Alcohol*, 65(1), 37-45. Retrieved from: <http://archive.sph.harvard.edu/cas/Documents/rapeintox/037-Mohler-Kuo.sep1.pdf>
- Moynihan, M., & Banyard, V. (2008). Community responsibility for preventing sexual violence: A pilot study with campus Greeks and intercollegiate athletes. *Journal of Prevention & Intervention*, 36(1-2), 23-38. doi: 10.1080/10852350802022274

- Moynihan, M., Banyard, V., Arnold, J., Eckstein, R., & Stapleton, J. (2011). Sisterhood may be powerful for reducing sexual and intimate partner violence: An evaluation of the Bringing in the Bystander In-Person Program with sorority members. *Violence Against Women, 17*(6), 703-719. Retrieved from:
<http://journals.sagepub.com/doi/pdf/10.1177/1077801211409726>
- Murnen, S. & Kohlman, M. (2007). Athletic participation, fraternity membership, and sexual aggression among college men: A meta-analytic review. *Sex Roles, 57*(1), 145 – 157.
DOI: 10.1007/s11199-007-9225-1
- Mustaine, E. & Tewksbury, R. (2002). Sexual assault of campus women: A feminist interpretation of a routine activities analysis. *Criminal Justice Review, 27*(1), 89 – 123.
doi: 10.1177/073401680202700106
- National Center for Educational Statistics. Institute of Education Sciences. (n.d.). *Fast Facts*. Retrieved from: <http://nces.ed.gov/fastfacts/display.asp?id=372>
- National Center for Educational Statistics. Institute of Education Sciences (2014, September). *Digest of Education Statistics*. Retrieved from:
https://nces.ed.gov/programs/digest/d14/tables/dt14_329.10.asp
- Nulty, D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education, 33*(2), 301 – 314. doi:
10.1080/02602930701293231
- Orchowski, L., Gidycz, C., & Raffle, H. (2008). Evaluation of a sexual assault risk reduction and self-defense program: A prospective analysis of a revised protocol. *Psychology of Women Quarterly, 32*(2), 204-218. Retrieved from:
<http://pwq.sagepub.com/content/32/2/204.full.pdf+html>

- Orsini, A., Pezzuti, L., & Hulbert, S. (2015). Beyond the floor effect of the Wechsler Intelligence Scale for Children – 4th Ed. (WISC-IV): Calculating IQ and indexes of subjects presenting a floored pattern of results. *Journal of Intellectual Disability Research, 59*(5), 468 – 473. doi: 10.1111/jir.12150
- Payne, D., Lonsway, K., & Fitzgerald, L. (1999). Rape myth acceptance: Exploration of its structure and its measurement using the Illinois Rape Myth Acceptance Scale. *Journal of Research in Personality, 33*(1), 27 – 68. doi: <http://dx.doi.org/10.1006/jrpe.1998.2238>
- Perkins, C. (1997). *Age patterns of victims of serious violent crime*. U.S. Department of Justice, Office of Justice Programs. Retrieved from:
<http://www.bjs.gov/content/pub/pdf/apvsvc.pdf>
- Peters, B. (2012). *Analysis of college campus rape and sexual assault reports 2000-2011*. Retrieved from: <http://www.mass.gov/eopss/docs/ogr/lawenforce/analysis-of-college-campus-rape-and-sexual-assault-reports-2000-2011-finalcombined.pdf>
- Planty, M., Langton, L., Krebs, C., Berzofsky, M., & Smiley-McDonald, H. (2013, revised 5/31/2016). *Special report: Female victims of sexual violence, 1994-2010*. Washington, DC: U. S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from: <https://www.bjs.gov/content/pub/pdf/fvsv9410.pdf>
- Potter, S., & Banyard, V. (2011). Guest editor's introduction. *Violence Against Women, 17*(6), 679-683. doi: 10.1177/1077801211409724
- Potter, S., Moynihan, M., Stapleton, J., & Banyard, V. (2009). Empowering bystanders to prevent campus violence against women. *Violence Against Women, 15*(1), 106-121. doi: 10.1177/1077801208327482

- Pugh, B., Ningard, H., Ven, T., & Butler, L. (2016). Victim ambiguity: Bystander intervention and sexual assault in the college drinking scene. *Deviant Behavior, 37*(4), 401 – 418.
doi: 10.1080/01639625.2015.1026777
- Raines, R. (2006). Evaluating sexual assault awareness and attitudes. *University of Tennessee Honors Thesis Projects*. Retrieved from:
http://trace.tennessee.edu/cgi/viewcontent.cgi?article=2001&context=utk_chanhonoproj
- Sanburn, J. (2015, January 29). Dartmouth Bans Hard Alcohol on campus for all. *Time*.
Retrieved from: <http://time.com/3687678/dartmouth-alcohol-ban/>
- Saxon, D., Garratt, D., Gilroy, P., & Cairns, C. (2003). Collecting data in the Information Age. *Research in Education, 69*(1), 51-66. Retrieved from:
<http://journals.sagepub.com/doi/pdf/10.7227/RIE.69.5>
- Ridolfi-Starr, Z. (2016). Transformation requires transparency: Critical policy reforms to advance campus sexual violence response. *The Yale Law Journal, 125*(7), 2156-2181.
Retrieved from: <http://www.yalelawjournal.org/feature/transformation-requires-transparency>
- Salkind, N. (2011). *Statistics for people who (think they) hate statistics* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Salmivalli, C. (2014). Participant roles in bullying: How can peer bystanders be utilized in interventions? *Theory Into Practice, 53*(4), 286 – 292.
<https://doi.org/10.1080/00405841.2014.947222>
- Schwartz, M., DeKeseredy, W., Tait, D., & Alvi, S. (2001). Male peer support and a feminist routing activities theory: Understanding sexual assault on the college campus. *Justice Quarterly, 18*(3), 623-649. doi: <http://dx.doi.org/10.1080/07418820100095041>

- Schwartz, M., & Nogrady, C. (1996). Fraternity membership, rape myths, and sexual aggression on a college campus. *Violence Against Women*, 2(2), 148 – 163. Retrieved from: <http://www.d.umn.edu/cla/faculty/jhamlin/3925/Readings/fraternityMyths.html>
- Sexual Assault Called Silent Violent Epidemic. (1995, November 7). *The Washington Post*. Retrieved from: https://www.washingtonpost.com/archive/politics/1995/11/07/sexual-assault-called-silent-violent-epidemic/d559dce9-8e01-484c-98ab-c90d5de2ead1/?utm_term=.7a22ca87df0a
- Sheehan, K. (2006). E-mail survey response rates: A review. *Journal of Computer Mediated Communication*, 6(2), 54 – 65. doi: 10.1111/j.1083-6101.2001.tb00117.x
- Silber, H., Lischewski, J., & Leibold, J. (2013). Comparing different types of web surveys: Examining drop-outs, non-responses, and social desirability. *Advances in Methodology & Statistics*. 10(2), 121 – 143. Retrieved from: <https://www.stat.d.si/mz/mz10.1/Silber2013.pdf>
- Sinozich, S. & Langton, L. (2014). *Rape and sexual assault victimization among college age females, 1995 – 2013. Special Report*. U.S. Department of Justice. Bureau of Justice Statistics. Retrieved from: <http://www.bjs.gov/content/pub/pdf/rsavcaf9513.pdf>
- Söchting, I., Fairbrother, N., & Koch, W. (2004). Sexual assault of women: Prevention efforts and risk factors. *Violence Against Women*, 10(1), 73-93. doi:10.1177/1077801203255680
- Smith, P., White, J., & Holland, L. (2003). A longitudinal perspective on dating violence among adolescent and college-age women. *American Journal of Public Health*, 93(7), 1104-1109. doi: 10.2105/AJPH.93.7.1104
- Suarez, E., & Gadalla, T. (2010). Stop blaming the victim: A meta-analysis on rape myths. *Journal of Interpersonal Violence*, 25(11), 2010-2035. doi: 10.1177/0886260509354503

- Tjaden, P., & Thoennes, N. (1998a). *Prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey*. United States Department of Justice. Office of Justice Programs. National Institute of Justice Centers for Disease Control and Prevention. Retrieved from:
<https://www.ncjrs.gov/pdffiles/172837.pdf>
- Tjaden, P., & Thoennes, N. (1998b). *Stalking in America: Findings from the National Violence Against Women Survey*. United States Department of Justice (1998). Office of Justice Programs. National Institute of Justice Centers for Disease Control and Prevention. Retrieved from: <http://www.srbi.com/CorporateSite/files/13/13a48b1b-42ad-471a-8470-ad2847e73056.pdf>
- Tjaden, P., & Thoennes, N. (2000). *Extent, nature, and consequences of intimate partner violence*. United States Department of Justice. Office of Justice Programs. National Institute of Justice Centers for Disease Control and Prevention. Retrieved from:
<https://www.ncjrs.gov/pdffiles1/nij/181867.pdf>
- Trochim, W. (2006). *The research methods knowledge base*, (2nd ed.). Cincinnati, OH: Atomic Dog Publishing.
- Tuten, T., Urban, D., & Bosnjak, M. *Online social sciences*. Edited by Batinic, B., Reips, U., Bosnjak, M., & Werner, A. (2002). 1st Edition. Canada: Hogrefe & Huber Publishing.
- Ullman, S., Karabatsos, G., & Koss, M. (1999). Alcohol and sexual assault in a national sample of college women. *Journal of Interpersonal Violence*, 14(6), 603 – 625. Retrieved from:
<http://journals.sagepub.com/doi/pdf/10.1177/088626099014006003>

United Educators. (2017). *Review of student-victim sexual assault claim with losses, Risk Research Bulletin*. (2016, December). Retrieved February 29, 2017 from:

<https://www.ue.org/>

U.S. Department of Education, Office of Civil Rights. (2011). *Know your rights: Title IX prohibits sexual harassment and sexual violence where you go to school*. Retrieved from: <https://www2.ed.gov/about/offices/list/ocr/docs/title-ix-rights-201104.html>

U.S. Department of Education, Office of Postsecondary Education. (2014, October 20). *Federal Register, 79(202). Violence Against Women Act; Final Rule*. (34 CFR Part 668, Rules and Regulations). Retrieved <http://www.gpo.gov/fdsys/pkg/FR-2014-10-20/pdf/2014-24284.pdf>

U.S. Department of Justice, Office of Justice Programs. National Institute of Justice. (1996). *The extent and costs of crime victimization: A new look*. Washington, DC: U.S. Department of Justice. Retrieved from: <https://www.ncjrs.gov/pdffiles/costcrim.pdf>

U.S. Department of Justice, Office of Justice Programs. National Institute of Justice. (2008a). *Laws to make campuses safer*. Washington, DC: U.S. Department of Justice. Retrieved from: <https://www.nij.gov/topics/crime/rape-sexual-violence/campus/pages/laws.aspx>

U.S. Department of Justice, Office of Justice Programs. National Institute of Justice. (2008b). *Sexual assault on campus: Most victims know their attacker*. Washington, DC: U.S. Department of Justice. Retrieved from: <http://www.nij.gov/topics/crime/rape-sexual-violence/campus/Pages/know-attacker.aspx>

U.S. Department of Justice, Office of Justice Programs. National Institute of Justice. (2017, January 17). *Rape and sexual assault*. Washington, DC: U.S. Department of Justice.

Retrieved from: <https://www.nij.gov/topics/crime/rape-sexual-violence/Pages/welcome.aspx>

U.S. Department of Justice, Office of Violence Against Women. National Institute of Justice.

(2018, April 11). *Sexual assault*. Washington, DC: U.S. Department of Justice Retrieved from: <https://www.justice.gov/ovw/sexual-assault>

Van de Mortel, T. (2008). Faking it: Social desirability response bias in self-report research.

Australian Journal of Advanced Nursing. 25(4), 40 – 48. Retrieved from:

https://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1001&context=hahs_pubs

Walker, J., Martin, N., & Hussey, A. (2015). Greek organization membership and collegiate

outcomes at an elite, private university. *Research in Higher Education*, 56(3), 203 – 227.

doi: 10.1007/s11162-014-9345-8

Ward, K. (2001). *2000 – 2001 Evaluation Report*. Boston, MA: Center for the Study of Sport in the Society. Retrieved from:

http://www.courtinnovation.org/sites/default/files/MVP_evaluation.pdf

Wiersma, W. (1985). *Research methods in education: An introduction* (3rd ed.). Newton, MA: Allyn and Bacon, Inc.

The White House Council on Women and Girls and the Office of the Vice President (2014).

Rape and Sexual Assault: A Renewed Call to Action. Retrieved from:

http://www.sapr.mil/public/docs/research/201401_WhiteHouse_CouncilonWomenandGirls_RapeandSexualAssault.pdf

White, C. & Malkowski, J. (2014). Communicative challenges of bystander intervention: Impact of goals and message design logic on strategies college students use to intervene in

drinking situations. *Health Communications*, 29(1), 93 – 104. doi:
10.1080/10410236.2012.721335

Appendix A

Bystander Efficacy Scale

Please indicate how confident you are that you could perform the following behaviors below by clicking on the corresponding circle.

	1 Can't Do	2 Moderately Uncertain	3 Certain	4 Quite Certain	5 Very Certain
1. Express discomfort/concern if someone makes a joke about a woman's body or about gays/lesbians or someone of a different race.					
2. Express my discomfort if someone says that rape victims are to blame for being raped.					
3. Call for help (i.e. call 911) if I hear someone in my dorm or apartment yelling "help."					
4. Talk to a friend who I suspect is in an abusive relationship.					
5. Get help and resources for a friend who tells me they have been raped.					
6. Able to ask a stranger who looks very upset at a party if they are ok or need help.					
7. Ask a friend if they need to be walked home from a party.					
8. Ask a stranger if they need to be walked home from a party.					
9. Speak up in class if a professor is providing misinformation about sexual assault.					
10. Criticize a friend who tells me that they had sex with someone who was passed out or who didn't give consent.					

11. Do something to help a very drunk person who is being brought upstairs to a bedroom by a group of people at a party.					
12. Do something if I see a woman surrounded by a group of men at a party who looks very uncomfortable.					
13. Get help if I hear of an abusive relationship in my dorm or apartment.					
14. Tell an RA or other campus or community authority about information I have that might help in a sexual assault case even if pressured by my peers to stay silent.					
15. Speak up to someone who is making excuses for forcing someone to have sex with them.					
16. Speak up to someone who is making excuses for having sex with someone who is unable to give full consent.					
17. Speak up to someone who is making excuses for using physical force in a relationship.					
18. Speak up to someone who is calling their partner names or swearing at them.					

Appendix B

Illinois Rape Myth Acceptance Scale

Please indicate your level of agreement with each of the statements below by clicking on the corresponding circle.

	1 Strongly Disagree	2 Slightly Disagree	3 Neutral	4 Slightly Agree	5 Strongly Agree
1. If a girl is raped while she is drunk, she is at least somewhat responsible for what happened.					
2. When girls go to parties wearing slutty clothes, they are asking for trouble.					
3. If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped.					
4. If a girl acts like a slut, eventually she is going to get into trouble.					
5. When guys rape, it is usually because of their strong desire for sex.					
6. Guys don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.					
7. Rape happens when a guy's sex drive gets out of control.					
8. If a guy is drunk, he might rape someone unintentionally.					
9. If both people are drunk, it can't be rape.					

10. It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.					
11. If a girl doesn't physically resist sex—even if protesting verbally—it really can't be considered rape.					
12. If a girl doesn't physically fight back, you can't really say it was rape.					
13. If the accused "rapist" doesn't have a weapon, you really can't call it a rape.					
14. If a girl doesn't say "no," she can't claim rape					
15. A lot of times, girls who say they were raped agreed to have sex and then regret it.					
16. Rape accusations are often used as a way of getting back at guys.					
17. Girls who say they were raped often led the guy on and then had regrets.					
18. A lot of times, girls who claim they were raped just have emotional problems.					
19. Girls who are caught cheating on their boyfriends sometimes claim that it was rape.					

Note. Rating of these items were made on a 5-point scale (1 = strongly disagree, 5 = strongly agree).

Appendix C

Demographic Survey

Please answer the following questions about yourself.

1. What is your age? _____

2. What is your gender?

- Male
- Female

3. What is your academic level?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student

4. What is your race?

- Black or African American
- White
- Other

5. Are you a member of a Greek organization?

- Yes
- No

6. Are you a member of an intercollegiate sports team?

- Yes
- No

7. Have you participated in Green Dot Bystander Intervention training provided by Auburn University or other resource?

- Yes
- No

8. Besides Green Dot training at Auburn University, have you participated in Sexual Violence/Assault Prevention education?

- Yes
- No

9. Have you ever been a victim of sexual violence/assault?

- Yes
- No

10. Do you know someone personally that has been a victim of sexual violence/assault?

- Yes
- No

Appendix D

IRB Approval

**AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS
REQUEST FOR EXEMPT CATEGORY RESEARCH**

For Information or help completing this form, contact: **THE OFFICE OF RESEARCH COMPLIANCE**, 115 Ramsay Hall
Phone: 334-844-5966 **e-mail:** IRBAdmin@auburn.edu **Web Address:** http://www.atjj.auburn.edu/research/fjr/01s/index.htm

Revised 2/1/2014 Submit completed form to IRBsubmit@auburn.edu or 115 Ramsay Hall, Auburn University 36849,
 form must be populated using the following information; please print in black ink (do not fill in browser). If, and write in form; will not lie or cheat.

[1rQLFf.yJ,u;tiy_fiiQ:i JIEIVJIOt lw11ii1 11nrfi vm{ llfvo/Qi:aivcd.;;Iwroval l1w1J Fte t,uIWW U11itte1si/y l/?J,;

1. PROJECT PERSONNEL & TRAINING

PRINCIPAL INVESTIGATOR (PI):

Name Cathy Cooper Title Doctoral Graduate Stud Dept./School EFLT
 Address 525 Ogletree Road AU Email coopeca@auburn.edu
 Phone 334 703-5003 Dept. Head heri Downer

FACULTY ADVISOR (FA) (if applicable):

Name Maria Witte Title Professor Dept./School §=LI
 Address 3068 Haley Center
 Phone 334-844-3078 AU Email witte_r11m@auburn.edu

KEY PERSONNEL: List Key Personnel (other than PI and FA). Additional personnel may be listed in an attachment.

Name	Title	Institution	Responsibilities

KEY PERSONNEL TRAINING: Have all Key Personnel completed CITI Human Research Training (including elective modules related to this research) within the last 3 years? YES NO

TRAINING CERTIFICATES: Please attach CITI completion certificates for all Key Personnel.

2. PROJECT INFORMATION

Title: Bystander Intervention: Examining Recognition and Response to Sexual Violence on a College Campus

Source of Funding: Investigator Internal External

List External Agency & Grant Number: NA

List any contractors, sub-contractors, or other entities associated with this project.

NA

List any other IRBs associated with this project (including those involved with reviewing, deferring, or determination)

NA

FOR ORC OFFICE USE ONLY			
DATE RECEIVED IN ORC:	by	APPROVA	The Auburn University Institutional Review Board has approved this Document for use from <u>09/10/2017</u> to <u>09/09/2020</u> Protocol # <u>17-328 EX 1709</u>
DATE OF IRB REVIEW:	by	APPROVA	
DATE OF ORC REVIEW:	by	INTERVAL	
DATE OF APPROVAL:	by	<u>156</u>	
COMMENTS:			

3. **PROJECT SUMMARY**

a. Does the research involve any special populations?

- YES NO Minors (under age 19)
- YES NO Pregnant women, fetuses, or any products of conception
- YES NO Prisoners or Wards
- YES NO Individuals with compromised autonomy and/or decisional capacity

b. Does the research pose more than minimal risk to participants? **DYES** **NO**

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. 42 CFR 46.102(i)

c. Does the study involve any of the following?

- YES NO Procedures subject to FDA Regulation Ex. Drugs, biological products, medical devices, etc.
- YES NO Use of school records of identifiable students or information from instructors about specific students
- YES NO Protected health or medical information when there is a direct or indirect link that could identify the participant
- YES NO Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or use of alcohol
- YES NO Deception of participants

If you checked "YES" to any response in Question #3 STOP. It is likely that your study does not meet the "EXEMPT" requirements. Please complete a PROTOCOL FORM for Expedited or Full Board Review. You may contact /RB Administration for more information. (Phone: 334-844-5966 or Email: IRBAdmin@SJIUMrn.edcl)

4. **PROJECT DESCRIPTION**

a. **Subject Population** (Describe, include age, special population characteristics, etc.)

A sample of graduate and undergraduate students, age 18 or older, enrolled Fall 2017 at Auburn University. Researcher has contacted the Office of Institutional Research and they have agreed to distribute the on-line Qualtrics Survey, including the agreement to participate to a sample of students as described above. The Office of Institutional Research will use students' Auburn University e mail addresses to distribute the survey once approval has been received from the IRB. The survey may be re-distributed 2 weeks and 4 weeks following the initial email if needed to gather a satisfactory number of respondents.

b. **Describe, step by step, all procedures and methods that will be used to consent participants.**

NIA {Existing data will be used}

Students enrolled at Auburn University for fall semester 2017 who are age 18 years or older will be selected as possible participants for this study. Students who elect to participate will be asked to take an anonymous online survey through Qualtrics. Possible participants will be advised that providing data through the online Qualtrics survey will serve as an agreement to participate in the study.

- c. Brief summary of project. (Include the research question(s) and a brief description of the methodology, including recruitment and how data will be collected and protected.)

Research Questions:

1. What effect does bystander intervention training have on students' confidence in performing bystander behaviors in risky situations related to sexual violence compared to students that have not taken bystander intervention training as measured by the Bystander Efficacy Scale(BES) (Banyard, Moynihan, & Plante, 2007a).
2. Does participation in bystander intervention training have an effect on students' beliefs about rape that may indicate social norms supporting sexual violence as measured by the Illinois Rape Myth Acceptance Scale-Short Form (IRMA-SF) (McMahon & Farmer, 2001)?
3. What effect does gender, Greek status, class level, and student-athlete status have on participants' rape myth acceptance and their confidence to intervene in potentially risky situations?

Qualtrics, an online survey software, will be used as a self-report tool to collect data. In addition to the BES & IRMA-SF, a 10 item demographic questionnaire will collect information about demographic characteristics to help examine the possibility of a relationship between specific demographic variables and attitudes and behaviors related to sexual violence.

Students who elect to participate will be asked to take a 5 - 10 minute anonymous online survey through Qualtrics. Participation in this survey is completely anonymous and voluntary. Confidentiality will be maintained for all responses and data collected will remain anonymous. Participants may withdraw from the survey at any time by closing the browser window. Once submitted data cannot be withdrawn since it is unidentifiable. The principal investigator will oversee data collection and protection throughout this study. Data will be analyzed using VPN client software, SPSS. All electronic equipment needed for this project will be password protected and all data will be stored on an encrypted flash drive.

- d. **Waivers.** Check any waivers that apply and describe how the project meets the criteria for the waiver.

- Waiver of Consent (Including existing de-identified data)**
 Waiver of Documentation of Consent (Use of Information Letter)
 Waiver of Parental Permission (for college students)

Participants will be advised that providing data through the online Qualtrics survey will serve as an agreement to participate in the study.

- e. **Attachments.** Please attach Informed Consent materials, or printouts of the data collection instrument(s), and any other materials that are required for the IRB review process.

Signature of Investigator Cathy Cooper	Date	June 20, 2017
Signature of Faculty Advisor Maria M. Witte	Date	July 30, 2017
Signature of Department Head Sherida Downer	Date	August 5, 2017

Appendix E

Request to use the Bystander Efficacy Scale

May 1, 2017

Ms. Cathy W. Cooper
Adult Education Doctoral Student – Auburn University
525 Ogletree Road (home)
Auburn, AL 36830

RE: Bystander Efficacy Scale

Dear Ms. Cooper:

This letter will confirm our conversation of March 31, 2017. I approve your request to utilize the Bystander Efficacy Scale to complete your dissertation project at Auburn University. It is my understanding that you will use the survey to evaluate whether participation in the Green Dot Bystander Intervention training affects students' confidence in performing bystander behaviors in risky situations related to sexual violence.

Sincerely,

A handwritten signature in black ink, appearing to read "Victoria L. Banyard". The signature is written in a cursive style with a large initial "V".

Dr. Victoria Banyard
Professor of Psychology
Research and Evaluation Consultant, Prevention Innovations Research Center
University of New Hampshire

Appendix F

Permission to use the updated Illinois Rape Myth Acceptance Scale – Short Form

RUTGERS

Center on Violence against Women & Children (VAWC)
Http://vawc.rutgers.edu
Sarah McMahon, Ph.D., Associate Professor &
Associate Director
smcmahon@ssw.rutgers.edu
Phone: 848.932.4393
Fax: 732-932-8181

School of Social Work
Rutgers, The State University of New Jersey
536 George Street
New Brunswick, NJ 08901-1167

May 22, 2017

Ms. Cathy W. Cooper
Adult Education Doctoral Student – Auburn University
525 Ogletree Road (home)
Auburn, AL 36830

RE: Illinois Rape Myth Acceptance Scale – Short Form

Dear Ms. Cooper:

I am in receipt and approve your request to utilize the Illinois Rape Myth Acceptance Scale – Short Form to complete your dissertation project at Auburn University. It is my understanding that you will use the survey to evaluate whether participation in the Green Dot Bystander Intervention training effects students' beliefs about rape that may indicate social norms supporting sexual violence.

Sincerely,



Sarah McMahon, Ph.D.

Appendix G

E-mail invitation for on-line survey

E-MAIL INVITATION FOR ON-LINE SURVEY

Dear Auburn University Students,

My name is Cathy Cooper and I am a doctoral student in the Department of Educational Foundations, Leadership, and Teaching at Auburn University. I would like to invite you to participate in my research study to examine the impact Green Dot Bystander Intervention training has on recognition and response to sexual violence at Auburn University. Previous participation in Green Dot training is not required to take part in this survey; however, you will be asked to disclose if you have attended Green Dot or another bystander intervention training.

You are invited because you are a current Auburn University student. You need to be 19 or older to participate in this study. Participants will be asked to take an anonymous survey through Qualtrics. Your total time commitment will be approximately 5 – 10 minutes.

Your participation in this study is completely anonymous and voluntary. There are no foreseeable risks associated with this study. The information collected through your participation may help Auburn University campus leaders who are actively engaged in the safety, well-being, and success of their student population to evaluate the Green Dot Bystander Intervention program as a strategy for combatting sexual violence on their campuses.

If you decide to participate, please click the link below.

If you decide not to participate, your decision will not jeopardize your relationship with Auburn University.

If you have any questions, please contact me at coopeca@auburn.edu

Thank you for your consideration.

Sincerely,

Cathy Cooper

Appendix H

Information Letter



AUBURN UNIVERSITY

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP, AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

INFORMATION LETTER

for a Research Study entitled

“Bystander Intervention: Examining Recognition and Response to Sexual Violence on a College Campus.”

You are invited to participate in a research study to determine how participation in bystander intervention training effects recognition and response to sexual violence on a college campus. The study is being conducted by Cathy W. Cooper, doctoral student, under the direction of Dr. Maria Witte, Professor in the Auburn University Department of Educational Foundations, Leadership, and Technology. You are invited to participate because you are a graduate or undergraduate student currently attending Auburn University. You must be 18 years old or older to participate in this study.

What will be involved if you participate? Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete a brief online survey through Qualtrics. Your total time commitment will be approximately 5 - 10 minutes.

Are there any risks or discomforts? *The risks associated with participating in this study are minimal and very unlikely to occur. To minimize risks, we will maintain confidentiality of all responses. All data obtained from this study will be reported collectively so there is no identifying information connecting you to the data. Any data obtained in connection with this study will remain anonymous.*

Are there any benefits to yourself or others? *It is unlikely that you will benefit directly from participation in this study. However, the research should help us understand if participation in a bystander intervention training programs effects the attitudes and behaviors of college students regarding sexual violence..*

Will you receive compensation for participating? *You will not receive any compensation or payment for participation in this study.*

Are there any costs? *You will incur no costs for your participation with the exception of your 5 – 10 minutes of time. Participation in this study will have no effect on your relationship with Auburn University. .*

If you change your mind about participating, *you can withdraw at any time during the survey by closing your browser window. Your participation is completely voluntary. Once you have submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University or the Department of Educational Foundations, Leadership, and Technology.*

Every effort will be made to protect your privacy *and safeguard personal or confidential information. To minimize risk, all data will be recorded anonymously, stored on an encrypted flash drive belonging to the researcher, and all data obtained from this study will be reported collectively. Any information obtained in connection with this study will remain anonymous. We will not use your name or identifying information in any of the research reports, nor will it be released to anyone outside this study.*

If you have questions about this study, *please ask them now or contact Cathy Cooper at coopeca@auburn.edu / 334-703-5003 or Dr. Maria Witte at wittemm@auburn.edu / 334-844-3078.*

If you have questions about your rights as a research participant, *you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.*

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

Investigator's signature

Date

Printed Name

Co-Investigator's signature

Date

Printed Name

The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol # _____.

[LINK TO SURVEY](#)