

**AN EVALUATION OF TWO DATING VIOLENCE  
PREVENTION PROGRAMS ON A COLLEGE CAMPUS**

by

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## ABSTRACT

**Background:** Dating violence is a serious and prevalent public health problem that is associated with numerous negative physical and psychological health outcomes (Black et al., 2011; Campbell, 2002; Glass et al., 2003; Sutherland, 2011; Vagi et al., 2013). There is limited research on prevention and intervention strategies to address the issue of dating violence (Coker et al., 2000; Glass et al., 2003; Shorey et al., 2012). The development and evaluation of evidence-based programs targeted at dating violence prevention is very important.

**Purpose:** The purpose of this study was to compare a modified version of the *Bringing in the Bystander* (Banyard et al., 2007) education program for dating violence prevention with a traditional awareness education program for dating violence prevention, as well as to no education, to determine which is more effective in changing attitudes, beliefs, perceived efficacy, intentions, and self-reported behaviors in college students.

**Methods:** The study used a quasi-experimental pre-test/ post-test design with follow up at 2 months post-intervention. A sample of predominately freshmen college students were randomized to either the bystander or traditional dating violence education intervention. There was also a control group of students who did not receive any education. Participants completed paper and pen survey measures that included: 1) Illinois Rape Myth Acceptance Scale- Revised (IRMA-R), 2) Gender Violence Scale (GVS), 3) Bystander Efficacy Scale (BES), 4) Brief Intention to Help Scale (BIH), 5) Bystander Behavior Scale (BBS), 6) Social Desirability Scale- 17 (SDS-17), 7) Abuse Assessment Screen (AAS), 8) Sexual Experienced Survey (SES), and 9) Demographics. Data were collected at pre-test (T1), immediate post-test (T2), and 2 month follow-up (T3).

**Sample:** The sample was recruited from 28 freshmen seminar classes and 1 non-freshmen class at the University of Colorado in Colorado Springs. 1,279 students were eligible for the study. At T1, pre-test surveys were collected from 1,001 students. At T2, 745 surveys were collected following the educational interventions (no control students at T2 and 7% attrition from T1 in both education groups). At T3, 667 surveys were collected at 2 month follow-up (38% attrition from T1 in the bystander group, 51% attrition from T1 in the traditional group, and 22% attrition from T1 in the control group). Most of the attrition at T3 was due to instructors denying access to students in their classes at 2 month follow-up (N= 228 students), and there were no statistically significant differences between students who were retained at T3 and those who were not.

**Data Analysis:** A repeated measures MANCOVA (using social desirability as a covariate) was the primary analytic technique used to test the overall impacts of the educational programs across time points. The education group (traditional, bystander, and none) served as the independent variables, with each of the survey instruments measuring a dependent variable. In addition, paired sample t-tests were performed to further examine changes in scores across the groups.

**Findings:** When comparing the bystander and traditional education from T1 to T2, there was a significant time by group interaction when social desirability was controlled,  $F(4, 685) = 28.83$ ,  $p < .001$ , Wilks' Lambda = .86, partial  $\eta^2 = .14$ . Both the bystander group and the traditional awareness group showed significant ( $p < .003$ ) positive changes in mean scores on outcome measures (decreased acceptance of rape myths and gender violence and increased efficacy and intention to help) from T1 to T2. At two month follow-up (T3), there was also a significant time by group interaction when social desirability was controlled,  $F(8, 402) = 9.07$ ,  $p < .001$ , Wilks' Lambda = .85, partial  $\eta^2 = .15$ . Although both groups did show evidence of decay from immediate post-test scores (T2), there were still significant ( $p < .003$ ) positive changes in outcome measures

for both groups from T1 to T3. The only exceptions to this were the significant changes in intention to help and self-reported bystander behaviors for the bystander group that were not significant in the traditional awareness education group. For the bystander group, there was a statistically significant increase in intention to help scores from T1 ( $M= 3.7$ ,  $SD= 0.7$ ) to T3 ( $M=4.1$ ,  $SD= 0.6$ ),  $t=-9.1$ ,  $p<.003$  and a statistically significant increase in self-reported bystander behaviors from T1 ( $M= 4.6$ ,  $SD= 4.6$ ) to T3 ( $M=7.0$ ,  $SD= 5.8$ ),  $t=-6.6$ ,  $p<.003$ . Overall, the bystander group demonstrated more improvements than the traditional awareness group on all outcome measures at both T2 and T3.

The educational programs worked equally well for men and women, with both genders showing reductions in mean scores for rape myth and gender violence acceptance and increased efficacy, intention to help, and bystander behaviors. Time by group by gender interaction was not significant,  $F(4, 680)= 0.52$ , Wilks'  $\Lambda=.99$ , partial  $\eta^2=.03$ . However, there were still significant ( $p<.003$ ) differences in both pre-test and post-test outcome measures between men and women. Overall, women showed less acceptance of rape myths and gender violence and more efficacy, intention to help, and bystander behaviors. The educational programs also worked equally well for participants who reported victimization of abuse (both intimate partner abuse and sexual abuse) compared to those who did not report abuse victimization. There were non-significant effects for time by group by partner abuse interaction,  $F(4, 665)= 2.71$ , Wilks'  $\Lambda=.98$ , partial  $\eta^2=.02$  and for time by group by sexual abuse interaction,  $F(4, 683)= 1.34$ , Wilks'  $\Lambda=.99$ , partial  $\eta^2=.01$ .

Finally, when comparing the bystander and traditional education to no education from T1 to T3, there was a significant time by group interaction when social desirability was controlled,  $F(8, 1162)= 17.06$ ,  $p<.001$ , Wilks'  $\Lambda=.80$ , partial  $\eta^2=.11$ . The no-education group did not

show significant changes in mean scores for acceptance of rape myths and gender violence or perceived efficacy from T1 to T3. Intention to help showed a significant negative change, with intention to help decreasing from T1 (M=3.6, SD=0.7) to T3 (M= 3.4, SD= 0.8),  $t=3.2$ ,  $p<.003$  for the no education group. Bystander behaviors also showed a significant negative change, with self-reported behaviors decreasing from T1 (M=4.9, SD=4.3) to T3 (M= 3.7, SD= 4.3),  $t=3.8$ ,  $p<.003$  for the no education group. For all measures, the control group scored worse than the groups that received either type of dating violence prevention education.

**Conclusions:** The bystander education program was more effective at changing attitudes, beliefs, efficacy, intentions, and self-reported behaviors among college students than the traditional awareness education program in this study. However, both the traditional and bystander education were more effective than no education. Overall the educational intervention yielded moderate effect sizes by conservative estimates. This study's findings support the use of an adapted form of the evidence-based bystander education program, *Bringing in the Bystander* (Banyard et al., 2007) for dating violence prevention education for college students. The results of this study have important implications for future dating violence prevention educational programing, especially given the new requirements of the Campus SaVE Act which mandates that higher education institutions must educate students, faculty, and staff on issues related to dating violence/domestic violence and sexual assault. In addition, there are important implications for nurses who can be involved in dating violence prevention efforts. Bystander education is a promising approach to dating violence prevention and is an important area for future study.

**Advisor:** Phyllis Sharps, PhD, FAAN, RN  
Johns Hopkins University, School of Nursing

## **DEDICATIONS**

To my mom and my best friend, Nancy, for your unconditional love, support, and encouragement; you are my hero and my inspiration

and

To my dad, Rich, for always believing in me and teaching me to do my best so I have no regrets

and

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## CHAPTER ONE: INTRODUCTION

### Background

Dating violence is unfortunately a significant and prevalent problem in our society. The term *dating violence* is often used to describe intimate partner violence (IPV) among adolescents and young adults. IPV can include physical violence, sexual violence, threats of physical or sexual violence, and psychological or emotional violence (Saltzman, Fanslow, McMahon, & Shelley, 2002). Dating violence is also a serious public health issue that is associated with numerous harmful physical and psychological health complications (Amar & Gennaro, 2005; Black et al., 2011; Campbell, 2002; Coker et al., 2002; Eshelman & Levendosky, 2012; Exner-Cortens, Eckenrode, & Rothman, 2013; Glass et al., 2003; Kaura & Lohman, 2007; Silverman, Raj, Mucci, & Hathaway, 2001; Stein, Tran, & Fisher, 2009; Sutherland, 2011). The National Intimate Partner and Sexual Violence Survey found that more than 1 in 3 women (35.6%) and more than 1 in 4 men (28.5%) in the United States have experienced physical violence, rape, and/or stalking by an intimate partner in their lifetime (Black et al., 2011). Most of these victims experienced some form of IPV for the first time before 25 years of age (69% of female victims and 53% of male victims) (Black et al., 2011). In addition, the nationwide *Youth Risk Behavior Survey* conducted by the Centers for Disease Control and Prevention (CDC) found that 9.4 percent of high school students report being hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend in the 12 months prior to the survey (CDC, 2011).

Due to the high prevalence of dating violence in adolescents and young adults and the associated negative consequences on health and well-being, it is necessary to develop effective dating violence prevention programs. Unfortunately, many existing interventions for dating violence prevention have been largely ineffective or lacking in empirical evidence (Whitaker,

2006; Shorey et al., 2012). Further development and evaluation of evidence-based dating violence prevention programs are needed (Sutherland, 2011; Shorey et al., 2012). One promising newer approach to the problem of interpersonal violence, especially sexual assault, is bystander education (Amar et al., 2012; Banyard, Moynihan, & Plante, 2007; Banyard, Plante, & Moynihan, 2004; Banyard, 2011; Bennett, Banyard, & Garnhart, 2014; Coker et al., 2011). Bystander education programs are innovative for primary dating violence prevention because they take a wider community approach to violence prevention rather than simply targeting individuals as likely victims or perpetrators (Banyard et al., 2004). However, there is a need for additional research to determine the effectiveness of bystander education programs to prevent dating violence.

## **Purpose**

This research explored how a bystander education program for dating violence prevention compared to a traditional awareness education approach, as well as to no education, in terms of changing attitudes, beliefs, efficacy, intentions, and self-reported behaviors in college students. The bystander education approach for violence prevention has demonstrated many positive outcomes (see literature review in Chapter 2). However, there is a need to test bystander education programs in a variety of different populations and in settings other than the institutions where they were originally developed. In addition, it may be useful to compare bystander education to other types of violence prevention programs with the same population to see which is more effective. The purpose of this dissertation study was to determine the effectiveness of a bystander education intervention to prevent dating violence on a college campus compared to a traditional awareness education approach also aimed at preventing dating violence. In addition, a group of students who received no education was also compared.



## Significance

Current bystander literature related to interpersonal violence consists of few studies that include randomized trials, longitudinal findings, or programs that target dating violence more globally rather than a strong sexual assault focus. This study is the first to address all forms of dating violence, include follow-up, and compare two approaches for dating violence prevention. In this research study, students were randomized to two different education programs (traditional and bystander) and also compared to a group of students that received no dating violence prevention education. For the bystander education, the *Bringing in the Bystander* (Banyard et al., 2007) program was adapted to focus on all forms of dating violence, rather than its traditional focus on sexual assault prevention only.

The traditional awareness education approach aimed to prevent dating violence by reducing attitudes and beliefs supportive of dating violence as well as increasing knowledge and awareness of dating violence, risk factors, and resources available. The awareness program focused on individual responsibility and how students can help themselves. The bystander education also aimed to reduce attitudes and beliefs supportive of dating violence and increase knowledge and awareness of dating violence, risk factors, and resources available. In addition, bystander education is aimed to increase intentions to help others and actual pro-social behaviors to prevent or reduce violence. The bystander program focused on community responsibility and how to help others.

This study is significant because it compares two groups which received different types of dating violence prevention programs to each other, as well as to a group that received no dating violence prevention education. It also evaluates an evidence-based bystander education program, *Bringing in the Bystander* (Banyard et al., 2007), in a different setting from previous

studies and with a different population of students. Finally, this study is significant because there was randomization to educational group and 2 month post-education follow-up.

### **Specific Aims and Hypotheses**

There were four specific aims and associated hypotheses identified for this research study:

**Aim 1:** *To compare the effectiveness of a bystander dating violence prevention program to a traditional awareness dating violence prevention program for changing attitudes, beliefs, perceived efficacy, and intentions to help in college students.*

**H<sub>1</sub>:** Participants in the bystander education group will score better than participants in the traditional awareness education group on all post-intervention outcome measures of attitudes, beliefs, efficacy, and intentions from pretest to posttest. Specifically, the participants in the bystander program, compared to participants in the traditional program, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy and intention to help.

**Aim 2:** *To compare the differences in all 2 month post –education intervention outcome measures between the bystander dating violence prevention program and the traditional dating violence awareness prevention program.*

**H<sub>2</sub>:** Participants in the bystander education group will score better than participants in the traditional awareness education group on all two month post-intervention outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors. Specifically, the participants in the bystander program, compared to participants in the traditional awareness program, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy, intention to help, and self-reported bystander behaviors performed in the past 2 months.

**Aim 3:** *To examine potential moderators in the relationship between the educational programs (bystander and traditional awareness) and outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors.*

**H<sub>3</sub>:** The association between the dating violence prevention educational interventions (bystander and traditional awareness) and outcome measures of acceptance of rape myths and gender violence, perceived bystander efficacy, intention to help, and self-reported bystander behaviors will be moderated by gender and personal victimization history (including partner abuse and sexual abuse).

**Aim 4:** *To compare the differences in outcome measures between a bystander dating violence prevention education group, a traditional awareness dating violence prevention education group, and a no-education group.*

**H<sub>4</sub>:** Participants in both the bystander education group and the traditional awareness education group will score better than participants who received no education on all 2 month post-intervention outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors. Specifically, the participants who received any type of education, compared to participants who received no education, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy, intention to help, and self-reported bystander behaviors performed in the past 2 months.

## **Important Concepts**

The following are brief descriptions of several important concepts related to this research study:

**Dating violence.** As described previously, dating violence is a form of IPV that occurs among adolescents and young adults and can include physical violence, sexual violence, threats of violence, and psychological or emotional violence (Saltzman et al., 2002).

**Bystander dating violence prevention education.** Bystander dating violence prevention education focuses on community responsibility and engagement (Banyard et al., 2004; Coker et al, 2011). It explores how an individual or group may help others prevent or reduce dating violence and how to increase confidence and efficacy in appropriate ways to intervene before, during, and after abuse occurs (Banyard et al., 2007).

**Traditional dating violence prevention education.** Traditional dating violence prevention education focuses on individual responsibility and increasing awareness about dating violence. It examines how potential or actual victims and perpetrators can prevent, reduce, or stop abuse (Shorey et al., 2012).

**Rape myth acceptance.** This concept refers to the acceptance of adverse, inaccurate, or false beliefs about forced/coerced sexual activity and its causes and consequences (Payne, Lonsway, & Fitzgerald, 1999; McMahon & Farmer, 2009).

**Gender violence acceptance.** This concept refers to acceptance of physical, sexual, or emotional abuse towards intimate partners and sexist attitudes (Cissner, 2009).

**Bystander efficacy.** Bystander efficacy is confidence in one's ability to perform various actions to prevent or stop sexism and interpersonal violence that others may be experiencing (Banyard et al., 2007).

**Intention to help.** This concept refers to the *intention* to take pro-social action to prevent or stop interpersonal violence (Banyard, 2008).

**Bystander behaviors.** Bystander behaviors are *actions* that an individual engages in to prevent or stop interpersonal violence (Banyard & Moynihan, 2011).

## **Summary**

This chapter provided an overview of the major public health problem of dating violence and described several important concepts for this study. Education programs are important strategies for primary prevention of dating violence. Two major educational approaches are the traditional awareness programs and the newer bystander programs. There is relatively little empirical evidence evaluating the effectiveness of these programs in college students. This study is significant because it compares both types of dating violence prevention education programs to each other and also to receiving no dating violence prevention education. This study also evaluates an evidence-based bystander education program, *Bringing in the Bystander* (Banyard et al., 2007), in a different setting than previous studies with a different population of students. Furthermore, this study is significant because there was randomization to educational group and a 2 month post-intervention follow-up. Finally, this chapter also described the four specific aims and associated hypotheses for this research study.

In Chapter 2, the two theoretical frameworks used to guide this study will be described. In addition, the relevant literature related to dating violence, prevention strategies, and bystander concepts will be presented. Chapter 3 will describe the methodology of this study and Chapter 4 will present the results. Finally, Chapter 5 will include a discussion of findings, limitations, conclusions, and recommendations for future research.

## **CHAPTER TWO: REVIEW OF THE LITERATURE**

### **Introduction**

Dating violence is a serious public health issue impacting millions of adolescents and young adults across the globe. Violence in dating relationships results in numerous negative physical and mental health outcomes with potential long-lasting implications for victims and perpetrators (Coker et al., 2000; Glass et al., 2003; Sutherland, 2011; Vagi et al., 2013). Dating violence is also an important link between violence in the family as well as subsequent violence in adult intimate relationships and the community (Coker et al., 2000; Glass et al., 2003). Effective dating violence prevention strategies are urgently needed. Overall there is limited research on prevention and intervention strategies to address the issue of dating violence (Coker et al., 2000; Glass et al., 2003; Shorey et al., 2012). The development and evaluation of evidence-based programs targeted at dating violence and healthy relationships is therefore very important.

This chapter will begin by examining the definitions of dating violence and move into a discussion of ecological theory as a theoretical framework for understanding dating violence. A second theoretical framework that can be applied specifically to the behavioral implications related to dating violence and dating violence prevention will also be discussed. Relevant literature related to the prevalence of dating violence, health outcomes, risk factors, and primary prevention strategies will also be reviewed.

### **Definitions of Dating Violence**

As described previously, *dating violence* is a form of IPV that occurs among adolescents and young adults. It is important to note that the concept of “dating” can vary and may not be the terminology used by adolescents or young adults to describe their intimate relationships (Glass et

al., 2003). Nonetheless, dating violence is still the term most frequently used to describe IPV between unmarried partners within an intimate relationship. The four types of IPV include physical violence, sexual violence, threats of physical or sexual violence, and psychological/emotional violence (Saltzman et al., 2002).

*Physical violence* is the intentional use of physical force with the potential for causing injury, harm, disability, or even death. According to Saltzman et al. (2002), “Physical violence includes, but is not limited to, scratching; pushing; shoving; throwing; grabbing; biting; choking; shaking; slapping; punching; burning; use of a weapon; and use of restraints or one's body, size, or strength against another person” (p. 12).

*Sexual violence* involves completed non-consensual sexual acts (e.g. rape), attempted non-consensual sexual acts, abusive sexual contact (e.g. unwanted touching or fondling), and non-contact sexual abuse (e.g., exhibitionism, unwanted exposure to pornography, verbal sexual harassment, etc.) (Basile & Saltzman, 2002). Any attempted or completed sexual act or contact committed when a person cannot decline participation or communicate unwillingness to engage in the sexual act (e.g. due to disability or influence of drugs or alcohol) is sexual abuse. Finally, reproductive coercion/sabotage is also a form of sexual abuse. Reproductive coercion can include withholding of birth control, condom manipulation, constraining the ability to use contraceptives, and forced unprotected sex (Clark et al., 2014; Miller, Jordan, Levenson, & Silverman, 2010; Miller et al., 2010; Miller & McCauley, 2013).

*Threats of physical or sexual violence* include words, gestures, or weapons to communicate the intent to cause harm, injury, disability, or death (Saltzman et al., 2002). This also includes the use of words, gestures, or weapons to communicate the intent to compel a person to engage in sexual acts or abusive sexual contact when the person is either unwilling or

unable to consent. Examples of threats of physical or sexual violence include saying, "I'll kill you" or "I'll beat you up if you don't have sex with me", displaying a weapon, making hand gestures, etc. (Saltzman et al., 2002, p. 12).

*Psychological/emotional violence* involves trauma to the victim caused by acts, threats of acts, or coercive tactics. According to Saltzman et al. (2002), "Psychological/emotional abuse can include, but is not limited to, humiliating the victim, controlling what the victim can and cannot do, withholding information from the victim, deliberately doing something to make the victim feel diminished or embarrassed, isolating the victim from friends and family, and denying the victim access to money or other basic resources" (p. 13). It is important to note that psychological abuse can be considered *violence* only when it occurs in a relationship with other forms of violence (e.g. physical or sexual violence or threat of violence) (Saltzman et al., 2002). Stalking is a separate form of psychological/emotional violence. Stalking generally refers to "harassing or threatening behavior that an individual engages in repeatedly, such as following a person, appearing at a person's home or place of business, making harassing phone calls, leaving written messages or objects, or vandalizing a person's property" (Tjaden & Thoennes, 2000).

### **Framework for Dating Violence: Ecological Theory**

Several theoretical frameworks have been proposed to explain dating violence. Some of the most integrated and comprehensive frameworks applied to violence are ecological theories. Bronfenbrenner (1977) created the first ecological theory and model to explain how a person's behavior and development are influenced by interactions among several systems. Initially, the *Ecological Systems Theory* consisted of four nested and interrelated systems including: 1) Microsystem (innermost layer that consists of the immediate/direct environment in which an individual interacts such as home, school, or work), 2) Mesosystem (interrelationships between



two or more microsystems, such as interactions between home and school), 3) Exosystem (settings or contexts in which an individual is not directly in contact with but can still have an impact, such as the broader community in which one lives), and 4) Macrosystem (outmost layer comprising the cultural values and larger societal context) (Bronfenbrenner, 1977, 1979, 1986, 1989). Later, a fifth system was added called the chronosystem, which describes historical events and transitions that can impact all the other systems (Bronfenbrenner, 1995).

Bronfenbrenner continued to revised and further develop his ecological theory over time. Eventually it evolved into the *Bioecological Systems Theory* with an added focus on the individual characteristics of the biological person and developmental processes, in addition to the environmental contexts described in his original theory (Bronfenbrenner & Ceci, 1994; Bronfenbrenner, 1995, 2005; Bronfenbrenner & Morris, 2006). The bioecological theory is described by the Process-Person-Context-Time (PPCT) model. A brief description of the four components of the PCCT model according to Bronfenbrenner (2005) and Bronfenbrenner and Morris (2006) are described below:

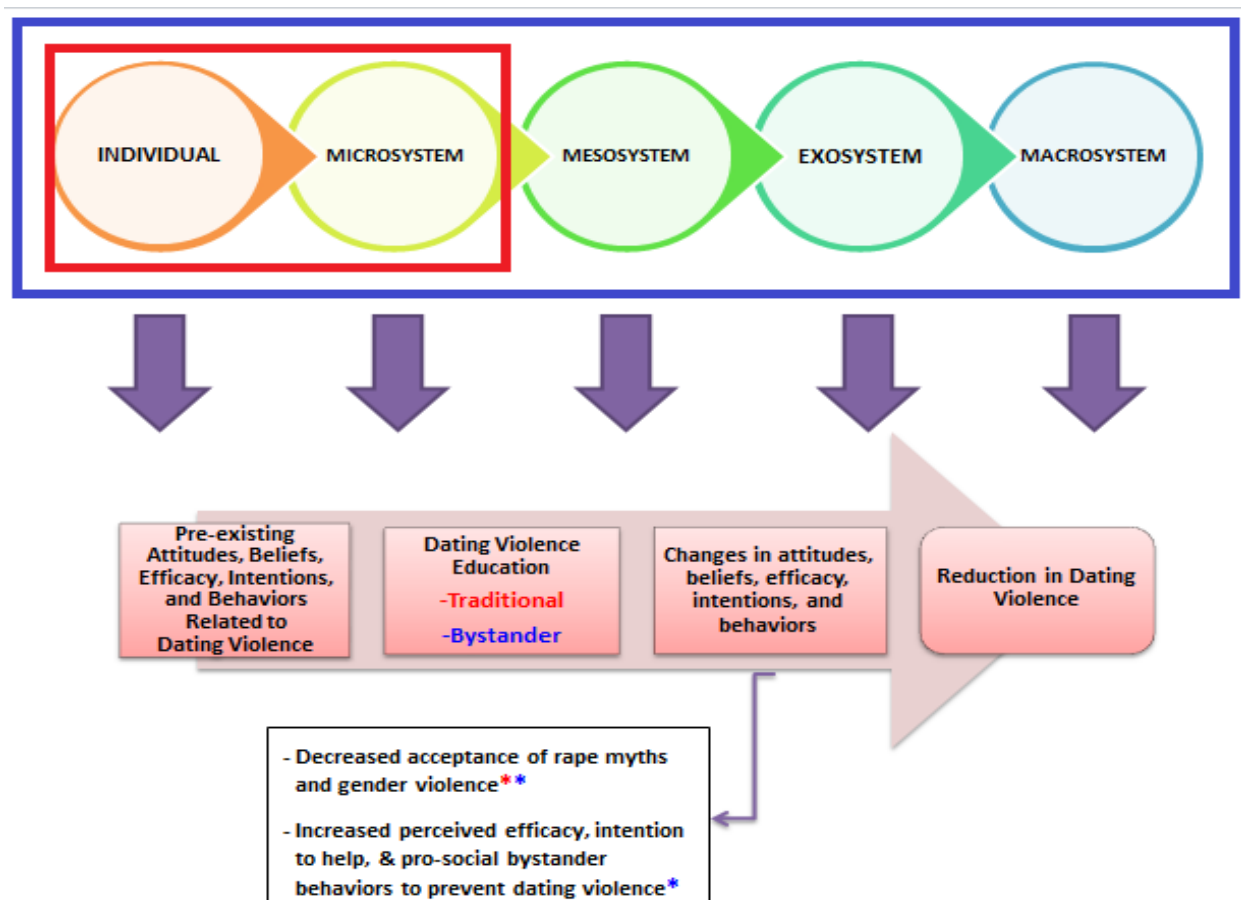
- 1) *Process*: Human development occurs through processes of reciprocal interactions between an individual and the environment. Enduring forms of these interactions are termed *proximal processes* in the PCCT model.
- 2) *Person*: Intrapersonal and ontogenic variables include three types of personal characteristics that may influence social interactions and proximal processes across the lifespan. *Demand characteristics* include basic features such as age, gender, race, or physical appearance. *Resource characteristics* include mental and emotional resources such as intelligence, skills, and past experiences, as well as social and material resources such as access to housing, educational opportunities, and social

- support from family or peers. *Force characteristics* are related to variations in temperament, motivation, drive to succeed, and persistence in hardship or adversity.
- 3) Context: The four interrelated systems of Bronfenbrenner's original model described previously of microsystem, mesosystem, exosystem, and macrosystem together make up the environmental contexts that impact an individual's behavior and development.
  - 4) Time: The individual and environments change over time and impact several levels of the model. There are three sub-components of time. *Micro-time* refers to what is happening during specific activities and interactions of proximal processes. *Meso-time* refers to the extent to which the processes occur in the person's environment. *Macro-time* refers to the *chronosystem* described above which focuses on historical events, transitions, and changing cultural norms.

Ecological models have been widely applied to violence literature and research. Heise (1998) asserts ecological frameworks are appropriate for examining violence as a "multifaceted phenomenon grounded in interplay among individual, situational, and sociocultural factors" (p. 263). Ecological theory has been used to guide violence research related to topics such as adolescent dating violence (Connolly, Friedlander, Pepler, Craig, & Laporte, 2010), intimate partner violence (Alaggia, Regehr, & Jenney, 2012; Almgren, 2005; Heise, 1998; Leal & Brackley, 2004; Little & Kantor, 2002; Sitaker, 2007; Weeks & LeBlanc, 2011), child abuse (Freisthler, Merritt, & LaScala, 2006; MacKenzie, Kotch, & Lee, 2011; Zielinski & Bradshaw, 2006), bullying and youth violence (Hong, Sung, & Espelage, 2012; Telleen, Kim, & Pesce, 2009), elder abuse (von Heydrich, Schiamberg, & Chee, 2012), community violence (Aisenberg, 2005; Rosenthal & Wilson, 2003; Spano, Vazsonyi, & Bolland, 2009), stalking (Cho, Hong, Sung, & Logan, 2012), and sexual assault (Campbell, Dworkin, & Cabral, 2009).

Banyard (2011) also describes the importance of ecological models in understanding bystander behaviors and interventions. Whereas traditional dating violence prevention programs have focused on the individual, bystander programs take a broader community focus to prevention efforts (Banyard et al., 2007). The bioecological theoretical framework can be used to guide the development of appropriate interventions for dating violence at various levels of prevention. Banyard (2011) asserts that ecological models may be especially useful for understanding dating violence and developing effective interventions using a bystander approach that move beyond the traditional focus on individuals and their immediate contexts to explore community and cultural level variables within exosystems and macrosystems. Figure 1 is a diagram showing how the bioecological model is incorporated into this research study.

**Figure 1:** Application of the Bioecological Model to the Study



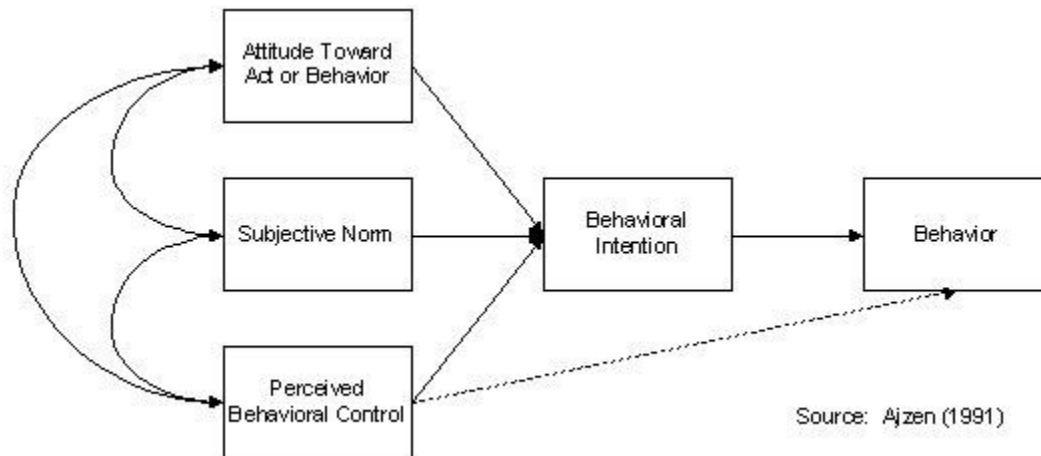
The Bioecological model is applied to this study by representing dating violence and dating violence prevention across a continuum from the individual and expanding out to the community and larger society. The educational interventions in this study focus on different aspects of the bioecological system. The traditional awareness education intervention (depicted by the red box in the model) focuses primarily on the individual and microsystems, whereas the bystander education intervention (depicted by the blue box in the model) addresses these systems as well as components of mesosystems, exosystems, and macrosystems. As a result of these differences, it is hypothesized that both the traditional and bystander programs will be effective at changing individual attitudes and beliefs about dating violence, but the bystander program will be more effective at changing perceived bystander efficacy, intention to help, and prosocial bystander behaviors to help others in the community.

### **Framework for Behavior: Theory of Planned Behavior**

The *Theory of Planned Behavior* (TPB) was developed in 1985 by Icek Ajzen as a model for predicting human behavior. The TPB was an extension of the *Theory of Reasoned Action* (TRA; Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980). Both models propose that the most important determinant of any behavior is a person's *intention* to perform the behavior. According to Ajzen (1991), "Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (p. 181). The TRA suggests that an individual's behavioral intention depends on his or her attitudes about the behavior as well as subjective norms (Ajzen & Fishbein, 1980). The TPB adds the additional component of perceived behavioral control, which is an individual's perception of the relative ease or difficulty with which the behavior can be performed (Ajzen, 1991). Therefore, in the TPB model,

behavioral intentions are predicted by attitudes, subjective norms, and perceived behavioral control. Figure 2 is a structural diagram of the TPB developed by Ajzen (1991).

**Figure 2:** Structural Diagram of the Theory of Planned Behavior



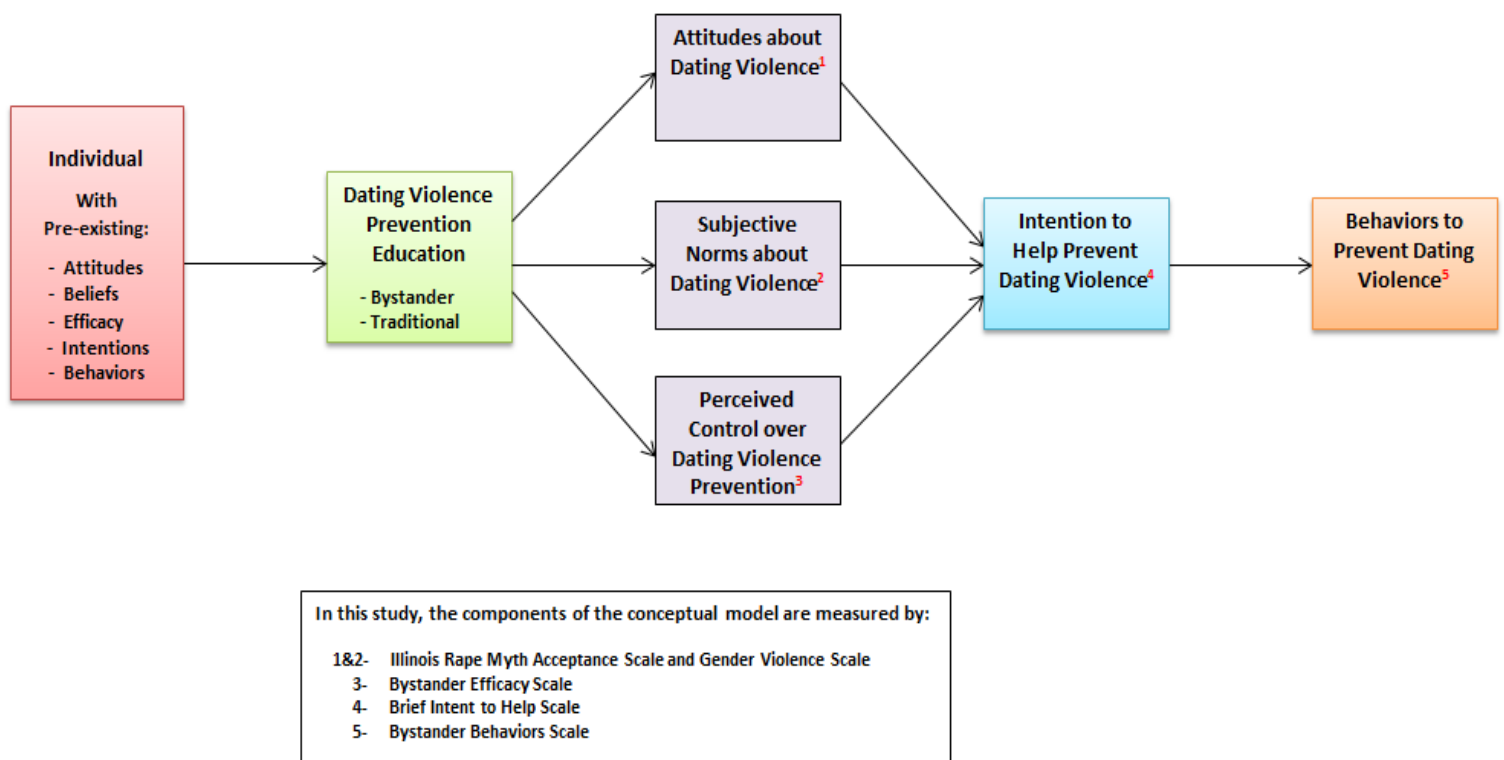
According to Ajzen (2002), human behavior is guided by three underlying types of beliefs. They are: 1) beliefs about the likely consequences, desirability, or other qualities of the behavior (*behavioral beliefs*), 2) beliefs about the expectations of other people important to the individual (*normative beliefs*), and 3) beliefs about what factors may hinder or enhance performance of the behavior (*control beliefs*) (Ajzen, 1999, 2002). Behavioral beliefs ultimately form the individual's *attitude toward the behavior*; normative beliefs result in *subjective norms*; control beliefs develop into *perceived behavioral controls* (Ajzen, 2002). The combination of the attitude towards the behavior, subjective norms, and perception of behavioral control creates the *behavioral intention*. The *intention* is an indication of a person's readiness and willingness to perform a given behavior. Typically, the more favorable the attitude and the subjective norm, and the greater the perceived control, the stronger an individual's intention to perform the actual behavior should be (Fishbein & Ajzen, 2010). With a strong behavioral intention and a sufficient amount of *actual behavioral control* (skills, resources, and other prerequisites needed to perform a given behavior), individuals should carry out their intentions and perform the behavior (Ajzen, 2002)

The TPB has been applied extensively in research on human behavior, and it has been found to be a useful theoretical model for predicting both behavioral intentions and actual behaviors (Armitage & Conner 2001; McEachan, Conner, Taylor, & Lawton, 2011). The TPB has been applied to a wide variety of topics such as diet and exercise (Gardner & Hausenblas, 2005; Rhoades, Al-Oballi Kridli, & Penprase, 2011), eating disorders and body image (Pickett et al., 2012), smoking behavior (Harakeh et al., 2004; Murnaghan et al., 2009), clinicians behaviors (Perkins et al., 2007), safe sex and condom use (Armitage & Talibudeen, 2010; Carmack & Lewis-Moss, 2009), and dating violence and domestic violence perpetration (Tolman, Edleson, & Fendrich, 1996; Kernsmith & Tolman, 2011), just to name a few. A meta-analysis of 185 independent studies found that the TPB accounted for 27% and 39% of the variance in behavior and intention, respectively (Armitage & Conner, 2001). Another meta-analysis exploring intentions and attendance in screening programs found that the TBP was effective in predicting both intentions to attend screening programs for colon, breast, and cervical cancer as well as actual attendance in the programs (Cooke & French, 2008). More recently, a meta-analysis examining the TPB model was conducted on the prospective prediction of health-related behavior in 237 prospective tests (McEachan et al., 2011). Findings suggest that behavior type moderated the model. Physical activity and diet behaviors were more strongly predicted (23.9% and 21.2% variance explained, respectively) while safer sex and abstinence from drugs were less strongly predicted (between 13.8 and 15.3% variance explained) (McEachan et al., 2011).

The TPB also has applications to dating violence and sexual assault prevention efforts. In fact, the TBP was one of theoretical models used to develop the CDC's Rape Prevention and Education (RPE) Program's theory model, Creating Safer Communities: The Rape Prevention and Education Model of Community Change (Cox, Lang, Townsend, & Campbell, 2010). In the

context of dating violence prevention, the TPB model would suggest that intention to engage in behaviors aimed at preventing or positively responding to dating violence would be predicted by attitudes, subjective norms, and perceived behavioral control. In other words, an individual's attitudes towards dating violence, perception of social norms about dating violence, and the degree to which one believes they have the capacity to act to prevent dating violence would all impact intention to perform the behavior. Together, all these components ultimately impact actual behaviors aimed at preventing or responding to dating violence. Figure 3 depicts how the TBP model is applied to this research.

**Figure 3:** Application of the Theory of Planned Behavior to the Study



The *Bioecological Systems Theory* and the *Theory of Planned Behavior* together provide suitable theoretical frameworks to guide research for dating violence prevention using education. The Bioecological model represents dating violence across a continuum from the individual and

expanding out to the community and larger society. The traditional awareness education intervention in this study focuses primarily on the individual and microsystems, whereas the bystander education intervention addresses these systems as well as components of mesosystems, exosystems, and macrosystems. The TPB model focuses on explaining behavior. It provides a framework for understanding how attitudes, norms, and perceived control can all influence intended behavior thus impacting actual behaviors. Dating violence prevention is a difficult task for a complex problem. The bioecological and TPB models together provide a framework for guiding this research that evaluates two different types of dating violence prevention education programs.

### **Prevalence of Dating Violence**

The prevalence of dating violence among high school and college students is alarmingly high. More than two-thirds of women and over half of men who ever experienced rape, physical violence, and/or stalking by an intimate partner, first experienced some form of intimate partner violence as adolescents or young adults before age 25 (Black et al., 2011). Nationwide nearly 10% of high school students report being hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend in the past year (CDC, 2011). Silverman et al. (2001) found that 1 in 5 adolescent girls in high school reported physical or sexual abuse in a dating relationship. A review of studies on teen dating violence found a prevalence rate ranging from 9% to 46% across studies of middle school and high school youth (Glass et al., 2003).

It is estimated that psychological aggression occurs in up to 80% of college student dating relationships, physical aggression in 20-37%, and sexual aggression in 15-25% (Shorey, Cornelius, & Bell, 2008). In one study, 48% of college-age women between 18 and 25 years reported at least one form of dating violence and 39% reported more than one form of violence



(Amar & Gennaro, 2005). In addition, nearly a third of those students who reported violence experienced physical injury (Amar & Gennaro, 2005). The International Dating Violence Study found that nearly one-third of college students from eight countries ( $n = 3,086$  students) reported physically assaulting a dating partner in the previous 12 months (Straus, 2004). It is estimated that 20% to 25% of female college students experience completed or attempted rape during their college career (Fisher, Cullen, & Turner, 2000). The Campus Sexual Assault Study conducted in 2007 surveyed a large random sample of undergraduate women ( $N = 5,446$ ) and found that almost 20% of them had experienced some type of completed sexual assault since entering college (Krebs, Lindquist, Warner, Fisher, & Martin, 2009).

### **Health Outcomes Associated with Dating Violence**

Dating violence is associated with physical injury as well as numerous other adverse physical and mental health outcomes (Black et al., 2011; Campbell, 2002; Exner-Cortens et al., 2013; Glass et al., 2003; Thompson et al., 2006; Sutherland, 2011). Women with a history of dating violence or IPV have reported higher levels of asthma, irritable bowel syndrome, diabetes, frequent headaches, chronic pain, difficulty sleeping, and activity limitations compared to women with no history of violence (Black et al., 2011; Campbell, 2002). In addition, the percentage of women who consider their physical or mental health to be poor is almost three times higher among women with a history of partner violence compared to women who have not experienced violence (Black et al., 2011). IPV and dating violence are also associated with negative mental health outcomes such as depression, anxiety, posttraumatic stress disorder, anger/hostility, somatic complaints, and suicidal ideation or attempts (Amar & Gennaro, 2005; Black et al., 2011; Campbell, 2002; Coker et al., 2002; Exner-Cortens et al., 2013; Glass et al., 2003; Silverman et al., 2001; Sutherland, 2011).

Furthermore, dating violence is associated with risky behaviors that can impact health, such as early sexual debut (before age 15), increased number of sexual partners, increased risk for sexually transmitted infections, unplanned pregnancy, and increased use of alcohol and drugs, as well as smoking (Silverman et al., 2001; Glass et al., 2003; Eaton, Davis, Barrios, Brener, & Noonan, 2007; Exner-Cortens et al., 2013). Dating violence can also have long-term physical and mental health consequences as well as the potential for establishing unhealthy relationship patterns that increase risk for additional abuse exposures later in life (Campbell, 2002; Glass et al., 2003; Silverman et al., 2001). In addition, the higher rates of mental illness and substance abuse in victims of dating violence and sexual assault can interfere with academic success. For example, depression, anxiety, and substance abuse are all linked to higher college dropout rates (Eisenberg, Golberstein, & Hunt, 2009; Arria et al., 2013). Finally, the most serious consequence of dating violence is homicide. Approximately 29% of female homicide victims ages 18-24 were killed by an intimate partner (Federal Bureau of Investigation, 2007).

### **Risk Factors Associated with Dating Violence**

Risk factors for dating violence will be described using a bioecological organizational framework.

#### **Intrapersonal factors.**

**Gender.** IPV and dating violence affects both men and women. As described previously, more than 1 in 3 women (35.6%) and more than 1 in 4 men (28.5%) in the United States have experienced physical violence, rape, and/or stalking by an intimate partner in their lifetime (Black et al., 2011). Bidirectional aggression occurs in about half of those relationships with reported dating violence (Whitaker et al., 2007). The type and severity of dating abuse perpetration may also vary by gender. Males and females have been found to perpetrate similar

levels of psychological and physical aggression, while males are more likely to perpetrate sexual aggression (Hines & Saudino, 2003). Other researchers have found that girls most often inflict minor physical and psychological abuse on a partner, whereas boys are more likely to commit severe physical and sexual abuse (Herrman, 2009; Sears et al., 2006). Straus (2004) found nearly equal rates of physical violence perpetrated by males and females and higher rates of sexual violence perpetrated males. Specifically, 27.7 % of males and 28.7% of females physically assaulted a partner within the previous 12 months. Sexual coercion was 39.9% for perpetration by males and 18.6% for perpetration by females. Physically forced sexual perpetration was 2.6 times greater for men than for women.

***Age.*** IPV affects women and men of all ages. However, research shows that adolescents and young adults are at increased risk for IPV (Black et al., 2011; Thompson et al., 2006; Tjaden & Thoennes, 2000). The majority of both female and male victims report their first experiences with IPV occurring before 25 years of age (69% of female victims and 53% of male victims) (Black et al., 2011). Women between the ages of 16 and 24 are nearly three times more vulnerable to dating violence or IPV than women in other age groups (Rennison, 2001).

***Ethnicity.*** IPV and dating violence also affects men and women of all races and ethnicities. However, the risk of IPV varies across ethnic groups. The lifetime prevalence of rape, physical violence, or stalking by an intimate partner is 44% for Black women, 46% for American Indian/Alaskan Native women, 37% for Hispanic women, 35% for White women, and 20% for Asian/Pacific Islander women in the United States (Black et al., 2011). Intimate partner femicide and near fatal intimate partner femicide are the major causes of premature death and disability for African American women (Campbell et al., 2003). The lifetime prevalence of rape, physical violence, or stalking by an intimate partner is 38% for Black men, 45% for American

Indian/Alaskan Native men, 27% for Hispanic men, 28% for White men in the United States (Black et al., 201).

***Mental health and personality factors.*** Several research studies have shown that dating violence perpetration may be related to adverse mental health conditions, such as anxiety and depression, as well as poor anger management (Baker & Stith, 2008; Banyard, Cross, & Modecki, 2006; Cleveland, Herrera, & Stuewig, 2003; Foshee et al., 2011; Foshee, Reyes, & Ennett, 2010; Hanby, Fales, Nangle, Serwik, & Hedrich, 2012; Herrman, 2009; Rutter, Weatherill, Taft, & Orazem, 2012; Vagi et al., 2013). Foshee et al. (2010) examined longitudinal predictors of dating violence perpetration and explored whether these predictors varied by sex and race. They found that depression was a factor that predicted violence perpetration by girls but not by boys. In addition, anxiety predicted perpetration by White adolescents and anger predicted perpetration by Black adolescents. Another study by Hanby et al. (2012) on anxiety and dating violence found that one aspect of social anxiety, Fear of Negative Evaluation, emerged as a significant predictor of male dating aggression, even after controlling for relationship quality. Several personality traits and emotions have also been associated with dating violence including feelings of jealousy, insecurity, hostility, and anger (Herrman, 2009; Rutter et al., 2012). Rutter et al. (2012) examined gender differences in the relationship between dating violence victimization and anger in college students. They found that physical and psychological victimization were generally more consistently and strongly associated with anger variables for men than for women.

***Risk behaviors.*** Dating violence can be associated with high risk behaviors, although most studies exploring risk behaviors are cross-sectional research. Negative health behaviors include things such as: using or abusing harmful substances, engaging in high-risk sexual

activity, and unhealthy diet-related behaviors or weight control (Ackard, Eisenberg, & Neumark-Sztainer, 2012; Banyard et al., 2006; Glass et al., 2003; Foshee et al., 2011; Herrman 2009; Rapoza, & Baker, 2008; Silverman et al., 2001; Temple, Shorey, Fite, Stuart, & Le, 2013; Vagi et al., 2013). Research conducted by Ackard et al. (2012) found that all males (100%) and most females (75.2%) in their study who reported dating violence also acknowledged high-risk sexual behaviors such as casual sexual partner(s), multiple sexual partners, no contraceptive use, and unprotected intercourse. Silverman et al. (2001) demonstrated that dating abuse is associated with substance use, unhealthy weight control, sexual risk behavior, and unintended pregnancy in female adolescents.

The research described above is all cross-sectional in design and therefore the temporal association between the dating violence and risk behaviors cannot be known. Temple et al. (2013) conducted one of the only longitudinal studies on risk factors that examined whether substance use (alcohol, marijuana, and hard drugs) and exposure to parental violence predicted the perpetration of physical dating violence over time. Results indicated that the use of alcohol and hard drugs at baseline predicted the future perpetration of physical dating violence, even after accounting for the effects of baseline dating violence and exposure to interparental violence.

### **Contextual factors.**

***Microsystem/ mesosystem.*** Several factors in the immediate/direct environments (microsystems) may impact dating violence for adolescents and young adults. In addition, there may be important interactions between two or more microsystems (mesosystems). The home environment and family functioning are especially important. Several factors such as high levels of family conflict, chaotic family functioning, divorce, poor parent-child relationships, and

inadequate parenting such as lack of parental supervision, monitoring, or support have shown to be associated with increased risk for dating violence (Banyard et al., 2006; Foshee et al., 2011; Vagi et al., 2013, Glass et al., 2003; Herrman, 2009; Spano, Vazsonyi, & Bolland, 2009; Tschann et al., 2009). In addition, exposure to violence in the home either as child abuse or witnessing domestic violence has a particularly strong impact on future victimization and/or perpetration of violence (Glass et al., 2003; Rapoza & Baker, 2008; Tschann et al., 2009; Vagi et al., 2013). Tschann et al. (2009) conducted a longitudinal study that examined whether non-violent aspects of interparental conflict, in addition to interparental violence, predicted dating violence perpetration and victimization among adolescents, ages 16 to 20. When parents had more frequent conflict, were more verbally aggressive during conflict, had poor conflict resolution, or were physically violent during conflict at baseline, adolescents were more involved in dating violence perpetration and victimization at 1-year follow-up.

Peer influences can also significantly impact dating violence. Involvement with antisocial peers, low friendship quality, friends perpetrating dating violence, and engagement in peer aggression and violence are associated with increased risk for dating violence (Arriaga & Foshee, 2004; Foshee et al., 2010; Foshee et al., 2011; Vagi et al., 2013). In a longitudinal study of predictors of dating violence perpetration, Foshee et al. (2010) found that the number of friends using dating violence predicted dating violence perpetration by both boys and girls. Aggression against peers was a significant predictor of the initiation of dating violence by girls but not by boys (Foshee et al., 2010). In another longitudinal analysis, having a friend involved in an abusive dating relationship, either as a victim or a perpetrator, predicted later dating violence perpetration by boys and girls (Arriaga & Foshee, 2004). Finally, factors associated with the dating relationship itself, such as high levels of conflict, jealousy, controlling behaviors,

and poor communication have also been associated with increased risk for dating violence (Connolly et al., 2010; Herrman, 2009; Vagi et al., 2013; Williams, Connolly, Pepler, Craig, & Laporte, 2008).

***Exosystem.*** Several community level factors can play a role in dating violence. Evidence suggests that exposure to community violence is associated with both dating violence perpetration and victimization (Foshee et al., 2011; Glass et al., 2003; Malik, Sorenson, & Aneshensel, 1997; Vagi et al., 2013). Malik, Sorenson, and Aneshensel (1997) conducted a study that examined community violence and dating violence among adolescents. Their results indicated that exposure to violence in one's neighborhood is correlated with the perpetration of relationship violence for both genders. In addition, exposure to weapons and violent injury in the community were predictors of both community violence and dating violence perpetration and victimization (Malik et al., 1997). Levels of community organization, collective efficacy, neighborhood informal social control, neighborhood monitoring, and ability of the community to support its youth have also been found to be related to dating violence (Banyard et al., 2006; Champion, Foley, Sigmon-Smith, Sutfin, & DuRant, 2008; Foshee et al., 2011; Jain, Buka, Subramanian, & Molnar, 2010). In addition, community poverty and low socioeconomic levels can also impact dating violence. There is increased risk of dating violence in neighborhoods with high rates of poverty (Glass et al., 2003; Jain et al., 2010).

***Macrosystem.*** Exposure to violent images in the media and negative social norms surrounding gender and violence may also influence dating violence (Glass et al., 2003; Connolly et al., 2010; Herrman, 2009; Manganello, 2008). Manganello (2008) suggests that mass media that portrays high levels of violence and aggression towards others may serve as negative models of behavior for adolescents, thus potentially increasing acceptability and risk for

aggression in their own relationships. Johnson, Adams, Ashburn, and Reed (1995) reported that exposure to violent rap music led to a normalization of the use of violence (including violence against women and acceptance of dating violence) among listeners. Another more recent study also demonstrated evidence of a link between adolescents' preferences for aggressive media content and aggressive interactions with a romantic partner for both genders (Connolly et al., 2010). Finally, other social norms, such as violence-tolerant attitudes in the culture and traditional gender role stereotyping, are also associated with increased risk for dating violence (Connolly et al., 2010; Glass et al., 2003; Heise, 1998; Herrman, 2009).

### **Primary Prevention of Dating Violence with Education**

Many existing interventions for dating violence prevention are lacking in empirical evidence (Whitaker, 2006; Shorey et al., 2012). One exception is the *Safe Dates* program, which is a dating violence prevention program designed to be implemented in middle schools and high schools. *Safe Dates* is a research-based program with positive long-term outcomes (Forshee et al., 1996, 1998, 2000, 2004). *Safe Dates* was originally developed for a research study involving fourteen public schools in North Carolina and a sample size of 957 students in 8<sup>th</sup> and 9<sup>th</sup> grade. Using a rigorous experimental design, the program was found to be effective in both preventing dating abuse and in reducing perpetration and victimization among teens already involved in dating abuse (Forshee et al., 1996). Adolescents who participated in the program reported less acceptance of dating abuse, less tendency to gender stereotype, and greater awareness of community services for dating abuse compared to adolescents who did not participate (Forshee et al., 1996). Even at 4-year follow-up assessments, students who participated in the *Safe Dates* program reported significantly less physical and sexual dating violence victimization and perpetration than teens who didn't participate in *Safe Dates* (Forshee et al., 2004).



Another promising new approach to the problem of interpersonal violence in college students, especially sexual assault, is bystander education (Amar et al., 2012; Banyard, Moynihan, & Plante, 2007; Banyard, Plante, & Moynihan, 2004; Coker et al., 2011). However, there is a need for additional research and evaluation of bystander education programs to prevent dating violence.

### **Bystander Behavior and Intervention**

Bystanders are individuals who may witness violence occurring or situations at high-risk for violence. Dating violence does not happen only when a couple is alone, and it does occur in social situations when bystanders are present (Shorey et al., 2012). For example, research has shown that about a third of all intimate partner violence occurs in the presence of a bystander, and bystanders are present during two-thirds of all violent victimizations (Planty, 2002). The Campus Sexual Assault Study previously described found that 58% of incapacitated rapes and 28% of forced rapes took place at a party (Krebs et al. 2009). When a bystander is present in a violent or potentially violent situation, they can respond positively by intervening to help, they can do nothing, or they can contribute to the negative situation (Banyard et al., 2004; Banyard et al., 2007; Coker et al., 2011; McMahon & Banyard, 2012).

Latane and Darley (1970) describe a series of steps that lead to an individual's decision to intervene or not when someone needs help. Their five step model includes: 1) Notice the potentially violent situation, 2) Interpret the situation as a problem or high risk, 3) Decide to take responsibility to do something about it, 4) Decide how to help and what to do, and 5) Act to intervene to prevent the violence or respond appropriately to victims (Latane & Darley, 1970). These steps of bystander behavior and intervention have been applied to sexual assault and interpersonal violence research (Banyard, 2011; Berkowitz, 2009; Burn, 2009).

## **Bystander Education Programs**

Bystander education programs for primary dating violence prevention take a community approach to violence prevention. Specifically, bystander models aim to help community members become more sensitive to issues of interpersonal violence and teach them skills to intervene to prevent violence from occurring or support survivors (Banyard et al., 2004). The bystander model of violence prevention gives all community members specific roles that they can identify with and adopt to help others (Coker et al., 2011). Bystander education attempts to prevent or reduce violence by changing attitudes and beliefs while building empathy and also by increasing helping behaviors and direct intervention (Shorey et al., 2012). Bystander programs can also help with increasing awareness and responsibility to act, changing social norms, overcoming resistance, and developing competency and skills in pro-social bystander behaviors (Banyard et al., 2004; Bennett et al., 2012; Berkowitz, 2009; Coker et al., 2011; McMahon & Banyard, 2012; Banyard et al., 2014). Unlike many traditional dating violence prevention programs that focus on men as perpetrators and women as victims, bystander programs take a broader community approach to the problem, thus potentially reducing defensiveness or resistance to dating violence prevention messages and enhancing efforts to change community norms around violence (Banyard et al., 2007).

Several different bystander education programs have been developed. One of the earliest programs was the *Mentors in Violence Prevention (MVP)* (Katz, 1994). The MVP program trained young men and women to be leaders in their schools and communities to address violence. The program resulted in increased knowledge about violence and increased self-efficacy to take action to prevent violence among the students who attended the MVP program

(Ward, 2001). A limitation of the MVP program is its focus on individual student athletes and leaders rather than the school or campus community more broadly.

Other bystander programs have focused on the role of men in reducing violence (Barone, Wolgemuth, & Linder, 2007; Foubert, 2000; Foubert & Marriott, 1997; Gidycz, Orchowski, & Berkowitz, 2011; Lawson, Munoz-Rojas, Gutman, & Siman, 2012; McCauley et al., 2013; Miller et al., 2012, 2013). Foubert (2000) examined the longitudinal effects of a rape-prevention program on fraternity men's attitudes, behavioral intent, and behavior. At seven months post-intervention, there were declines in rape myth acceptance and likelihood of committing rape, however there was no evidence of change in sexually coercive behaviors. Miller et al. (2012) conducted a cluster-randomized trial to examine the effectiveness of a dating violence prevention program targeting coaches and high school male athletes. Results indicated that athletes in high schools receiving the intervention reported increased intentions to intervene and higher levels of positive bystander intervention behavior than control subjects. However, changes in gender-equitable attitudes, recognition of abusive behaviors, and actual dating violence perpetration were not significant.

Gidycz et al. (2011) tested a program for college men that incorporated social norms and bystander education and found that the program reduced self-reported sexual aggression and increased perception that peers would intervene when they witnessed inappropriate behavior. Barone et al. (2007) examined how men's attitudes and behaviors were changed by their participation in a sexual violence prevention program called the *Men's Project*. The program recruited male college students on athletic teams, in fraternities, and in male residence halls to participate in the ten week program. The overall findings were positive in challenging sexism and effectively using bystander behaviors and interventions. Finally, Lawson et al. (2012) tested

*The Men's Program* (Foubert, 2000) in Hispanic men aged 18 to 25 and found a significant increase in participants' willingness to intervene and decreased rape myth acceptance after exposure to the intervention.

Another promising new bystander education intervention is the *Green Dot* program which was originally developed by Edwards and colleagues at the University of Kentucky Violence Intervention and Prevention Center (Coker et al., 2011). The *Green Dot* program is an active bystander intervention to reduce violence on college campuses that consists of two components; the first is a motivational speech and the second is an intervention program called Students Educating and Empowering to Develop Safety (SEEDS). A large cross-sectional survey with 2,504 student respondents showed that, compared to a control group, students in the Green Dot program reported decreased rape myth acceptance and increased bystander behaviors (Coker et al, 2011). Limitations of this research include lack of randomization and possible self-selection bias of the students who chose to receive SEEDS training, as well as the cross-sectional design that does not measure changes in attitudes and behaviors over time.

The bystander program with the most empirical evidence to date is the *Bringing in the Bystander* education program (Banyard et al., 2007). This intervention was developed at the University of New Hampshire by Banyard and colleagues and it consists of either a one-session or three-session violence prevention program. The program is based on a "community of responsibility" model that teaches bystanders to intervene safely and effectively in situations of sexual violence before, during, or after incidents occur (Banyard et al., 2007). Several research studies have shown the *Bringing in the Bystander* program to be effective in positively changing knowledge, attitudes, beliefs, and behaviors with both the one session and the three session programs (Amar et al., 2012; Banyard et al., 2007; Moynihan, Banyard, Arnold, Eckstein, &

Stapleton, 2010, 2011; Moynihan et al., 2011). Research conducted by Banyard et al. (2007) demonstrated that participants in both of the bystander programs had decreased rape myth acceptance, increased knowledge and self-efficacy related to bystander behavior, and an increased likelihood of engaging in pro-social bystander behaviors at two months compared to a control group, with most program effects persisting at four and twelve month follow-up. The limitations of the study included an ethnically and racially homogenous sample, potential experimental demand, and much smaller sample sizes at 4 and 12 month follow-up than at earlier data collection time points.

It is important to note that although several of the bystander programs described above have demonstrated positive changes in attitudes and bystander behaviors, there is not yet data available to suggest that these changes translate into an actual reduction in sexual assault or dating violence. Further research is needed to address the efficacy of these programs in terms of reducing the incidence of sexual assault and dating violence. In addition, there are few studies that include randomized trials and longitudinal findings. There is a need to test bystander education programs in a variety of settings with different populations. Furthermore, several bystander programs have focused on men only rather than both genders. Finally, most bystander education on college campuses has traditionally focused on sexual assault prevention rather than dating violence. There is a need to expand these programs to target dating violence more broadly.

## **Summary**

This chapter presented the definitions of dating violence and reviewed relevant literature related to the prevalence of dating violence, health outcomes associated with dating violence, risk factors for dating violence, and primary prevention strategies for dating violence with an

emphasis on primary prevention through education and the bystander approach. The bioecological theory was presented as a theoretical framework for understanding dating violence. The Theory of Planned Behavior was also reviewed as a theoretical framework that can be applied specifically to the behavioral implications related to dating violence and dating violence prevention. Chapter 3 will describe the methodology of this research study.

## **CHAPTER THREE: METHODOLOGY**

### **Introduction**

The purpose of this chapter is to describe the methods and procedures that were used to compare the effectiveness of two dating violence prevention programs on a college campus. Specifically, this chapter will describe the design, setting, sample, procedures, measures, analysis plan, and human subjects protections related to this study.

### **Research Design**

This study used a quasi-experimental pre-test/ post-test design. It compared a traditional awareness dating violence prevention education program to a bystander dating violence prevention education program in order to determine which was more effective in changing attitudes, beliefs, efficacy, intentions, and behaviors in college students. A no-education comparison group of students was also included. In addition, there was a 2 month post-education follow-up.

### **Setting**

The setting for the research study was the University of Colorado at Colorado Springs (UCCS). There were 10,598 students enrolled at UCCS in the Fall of 2013 (UCCS Admissions, personal correspondence). In 2012, the UCCS campus participated in a National College Health Assessment (NCHA). The NCHA was developed by the American College Health Association (ACHA). The NCHA is a nationally recognized research survey that can assist campuses in collecting data about students' health habits, behaviors, and perceptions (ACHA, 2014). Some of the questions asked on the NCHA relate to violence and abuse. The NCHA was offered to all students who were freshmen or juniors at the time of the survey as well as all students who live on campus in student housing. The survey was offered to 3,685 students. There was a 20%

response rate for a total of 737 students in the sample. The NCHA results at UCCS found that when asked about the past 12 months, 2.3% of those students who completed the survey reported being in a physically abusive relationship, 13% reported being in an emotionally abusive relationship, 2.3% reported being in an sexually abusive relationship, and 6.4% reported being a victim of stalking. In addition, 3.8% of the students reported being physically assaulted within the past 12 months and 6% reported being sexually touched without consent. The survey also found a 2.2% attempted sexual penetration without consent and 1.8% were sexually penetrated without consent within the past 12 months among the students who responded to the survey. Other than this NCHA data, very little is known about UCCS students' experiences with dating violence or intimate partner violence.

### **Description of OVW Campus Grant**

In 2010, UCCS received a U.S. Department of Justice, Office on Violence Against Women (OVW) grant: *Developing and Coordinating Campus Resources, Services, and Programs to Reduce Sexual Assault, Domestic Violence, Dating Violence, and Stalking on Campus* (PI: Dr. Katie Kaukinen). The OVW grant provided funding for institutions of higher education to adopt comprehensive, coordinated responses to domestic violence, dating violence, sexual assault, and stalking. Specifically, the grant required:

Campuses, in partnership with community-based nonprofit victim advocacy organizations and local criminal justice or civil legal agencies, must adopt protocols and policies that treat violence against women as a serious offense and develop victim service programs that ensure victim safety, offender accountability, and the prevention of such crimes. (Department of Justice, 2013)



Other specific mandates of the OVW grant included the following: 1) Creation of a coordinated community response team, 2) Mandatory prevention and education program for all incoming students, 3) Training for campus police on intimate partner violence, and 4) Training for members of campus disciplinary boards.

On the UCCS campus, the OVW grant was used to establish a coordinated campus response team, victim support services, advocacy events, and education programs related to interpersonal violence, sexual assault, and stalking. In addition, a program called Respect on Campus (ROC) was established as the office to carry out grant related activities. The mission of ROC was to “raise awareness and increase knowledge about dating and domestic abuse, stalking and sexual assault” and the vision of ROC was “ending a culture of violence” (ROC, 2014). In 2011 and 2012, most incoming freshman students received some form of dating violence prevention education provided by ROC in their Freshman Seminar courses, with presentations varying from 15 minutes to 3 hours. The OVW grant did not provide any funding for research related activities, thus there has been no previous evaluations of the dating violence prevention education provided on the UCCS campus.

### **Description of the Education Programs**

In this study, a traditional awareness education program to prevent dating violence was compared with a bystander education program to prevent dating violence. All educational sessions for both programs were conducted by trained student peer educators using a standardized curriculum. The use of trained student peer educators to deliver bystander prevention education on campus is consistent with the bystander curriculum developed by Banyard et al. (2007) and Coker et al. (2011). The selection and training of the peer educators are described in detail below. Table 1 summarizes the differences between the 90 minute traditional

awareness dating violence prevention education program and the 90 minute bystander dating violence prevention education program. The traditional awareness education program covered the nature and dynamics of dating violence, stalking, sexual assault, and consent. It included the following information: definitions, statistics, forms of abuse, the cycle of abuse, consequences of abuse, red flags, how to get help, resources available, etc. The standardized curriculum for the traditional awareness education program was developed by the principal investigator (PI) and the ROC program coordinator. The sessions were delivered by using a combination of lecture PowerPoint, a video clip, case studies, group discussion, and questions/answers. The awareness dating violence prevention program focused on the traditional victim/ perpetrator approach to dating violence education. There was no bystander content in the traditional program.

The bystander education program was adapted from the 90 minute version of the *Bringing in the Bystander* program developed at the University of New Hampshire (Banyard et al., 2007). The PI and the ROC program coordinator received formal training on the *Bringing in the Bystander* program through the Prevention Innovations Center at the University of New Hampshire. The manual for the program was used as a guide and standardized modifications were made to adapt the curriculum to the UCCS campus as well as include more content related to other forms of dating violence, in addition to sexual assault.

The bystander educational sessions were delivered by using a combination of lecture PowerPoint, video clips, interactive scenarios, group discussion, and questions/answers. Topics included an overview of dating violence, sexual assault, and bystander concepts, a bystander video clip, interactive scenario focused on bystander issues, resources available, and how to safely intervene as a bystander. As described previously, the bystander education program takes a wider community approach to violence prevention. The bystander model of violence

prevention gives all community members specific roles that they can identify with and adopt to help others (Coker et al, 2011). The emphasis on the bystander content was the main difference between the bystander education program and the traditional awareness education program.

Whereas the traditional program focused on victims and perpetrators of violence and the individual level of violence prevention, the bystander program focused on how all students are impacted by violence and how all students can play a role in preventing it both at the individual and at the community level.

**Table 1:** Overview of 90 minute Awareness and Bystander Education Programs

Awareness Education Themes	Bystander Education Themes
<ul style="list-style-type: none"> <li>• Qualities of healthy relationships</li> <li>• Continuum of relationships (healthy, unhealthy, abusive)</li> <li>• Definition and statistics about relationship abuse</li> <li>• Forms of abuse (expanded)</li> <li>• Consent, myths and facts about sexual abuse</li> <li>• Impact of interpersonal violence</li> <li>• Risk factors for relationship violence</li> <li>• Stereotypes about relationship violence</li> <li>• Cycle of violence</li> <li>• Barriers to leaving and help-seeking</li> <li>• Abuse red flags</li> <li>• Campus and community resources</li> </ul>	<ul style="list-style-type: none"> <li>• Qualities of healthy relationships</li> <li>• Continuum of relationships (healthy, unhealthy, abusive)</li> <li>• Definition and statistics about relationship abuse</li> <li>• Forms of Abuse (condensed)</li> <li>• Consent, myths and facts about sexual abuse</li> <li>• Impact of interpersonal violence</li> <li>• Definition and examples of bystanders</li> <li>• Bystander options and impact</li> <li>• Bystander interventions: before, during, and after an incident</li> <li>• The bystander decision-making process</li> <li>• Campus and community resources</li> </ul>
Awareness Education Interactive Tools	Bystander Education Interactive Tools
<ul style="list-style-type: none"> <li>• Media clip: “Love the Way you Lie” Music Video by Eminem and Rihanna (2010) <ul style="list-style-type: none"> <li>◦ Discussion questions about relationship violence and cycle of abuse</li> <li>◦ <a href="http://www.youtube.com/watch?v=uelHwf8o7_U">http://www.youtube.com/watch?v=uelHwf8o7_U</a></li> </ul> </li> <li>• Two case studies from Liz Claibourne’s <i>Love is Not Abuse: College Curriculum</i> <ul style="list-style-type: none"> <li>◦ Discussion about dynamic of abuse, power and control, cycle of violence, and barriers</li> <li>◦ <a href="http://www.loveisnotabuse.com/">http://www.loveisnotabuse.com/</a></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Media clip: Australian “Domestic Violence Commercial” <ul style="list-style-type: none"> <li>◦ Discussion about bystanders and their responsibility</li> <li>◦ <a href="http://www.youtube.com/watch?v=AvBKlBhfgPc">http://www.youtube.com/watch?v=AvBKlBhfgPc</a></li> </ul> </li> <li>• Media clip: “Who Are You?” <ul style="list-style-type: none"> <li>◦ Discussion about various bystander responses to a sexual assault scenario</li> <li>◦ <a href="https://www.youtube.com/watch?v=9zr1oxEbdsw">https://www.youtube.com/watch?v=9zr1oxEbdsw</a></li> </ul> </li> <li>• Two short scenarios (one sexual assault and one relationship abuse) adapted from <i>Bringing in the Bystander</i> curriculum <ul style="list-style-type: none"> <li>◦ Discussion about bystander intervention before, during or after incident</li> </ul> </li> </ul>

## **Selection and Training of Peer Educators/ Research Assistants**

A formal student hiring and training process occurred for all of the peer educators/ research assistants. First, an advertisement for a violence prevention peer educator position was posted on the student employment website. Thirty students applied and sixteen students were chosen to interview for the position. Selections were based on applicants' knowledge and passion about violence prevention, experience with education and presentations, and communication skills. In total, twelve students were ultimately hired (six women and six men). Six peer educators were assigned to the traditional awareness education group and six were assigned to the bystander education program. One male and one female peer educator presented the educational content as a team to each Freshmen Seminar class. The peer educators were also hired as research assistants to help with administering and collecting the surveys and with data entry.

A formal training on the dating violence prevention curriculums was conducted by the PI and the ROC program coordinator. The trainings occurred separately for the awareness and bystander groups, and all interactions between the two peer educator groups were kept to a minimum. As mentioned previously, the PI and the ROC program coordinator received formal training on the *Bringing in the Bystander* program at the Prevention Innovations Center at the University of New Hampshire. A "train the trainer" model was then used to prepare the peer educators for their roles in providing the education for the research study. The peer educators were also formally trained in their position as research assistants. They were required to take the CITI training course and meet the requirements of the UCCS IRB. They were trained by the PI on how to obtain informed consent, administer surveys, and enter data into Excel.

The peer educators/ research assistants in both groups attended a total of 12 hours of orientation and curriculum training. They were given facilitator guides and the PowerPoint slides for the education programs they would deliver. The peer educators were instructed to always follow the standardized curriculum and presentation format. Prior to conducting their first presentation to the Freshmen Seminar classes, all of the peer educators were required to present to a pilot audience which included students, members of the UCCS Communication Center staff, and the PI or ROC program coordinator. The peer educators received constructive feedback on their presentations following this pilot session. In addition, a group of 10 students also pilot tested the research surveys to determine length of time needed to administer the surveys and any potential problems or issues with the surveys. No problems were identified from the pilot testing. In addition to the training described above, all peer educators/ research assistants were required to attend weekly staff meetings with their groups for the duration of the research study to debrief and receive feedback and additional training.

### **Sample Size and Power Analysis**

A power analysis was conducted to determine an adequate sample size for this study. Assumptions were set based upon a review of the relevant research literature and techniques described by Cohen (1988). A medium effect size of 0.25, an alpha of .05, and a power of .80 were used for sample size calculations. A final sample size of N=424 was calculated.

### **Sample**

The sample was drawn from traditional freshman students enrolled at UCCS in the fall semester of 2013. Official student enrollment numbers after the census date indicated that there were 1,582 students classified as freshmen during the Fall of 2013 (UCCS Admissions, personal correspondence). Most new freshman students are required to take a 3-credit elective course

called Freshman Seminar. In addition, all freshmen seminar courses met for two full days before the official start of the semester for a college orientation known as “Preview Daze”. Each freshman seminar course has a different theme, but they all cover certain basic information to help with the transition into college. For this study, all freshman seminar instructors were contacted prior to Preview Daze and asked if they would be willing to allow their classes to participate in a dating violence prevention education program and associated research study evaluating the education.

In all there were 28 freshmen seminar classes, comprised of 1,249 students at census. It is likely that this number was slightly higher before census when the pre-tests were collected. Class sizes ranged from 24 to 67 students at census date. Of the 28 classes, 6 did not participate in the standardized education or research and 5 of the classes participated in only the research component with no education. The remaining 17 classes received some type of education and participated in the research. In addition, data was also collected on one non-Freshmen seminar class (census of 30 students) that requested a ROC education presentation on dating violence prevention. In addition, undergraduate junior teaching assistants present in some of the freshmen seminar classes were also invited to participate in the research study. There are no individual exclusion criteria for the students to participate in the study. Any student in a freshmen seminar course in which the instructor allowed access for education and/or research was eligible to participate in the study. More detailed information on the characteristics of the sample of students who participated in the study are presented in Chapter 4.

### **Data Collection Procedures**

As described previously, the PI and ROC program coordinator contacted all freshmen seminar instructors prior to Preview Daze to request access to their classes for the education and

the research study. Dates were scheduled for the pre-tests, day of education with immediate post-test, and 2 month follow-up post-test. All students in the classes whose instructors chose to participate in the study also had the individual option to attend the education and participate in the research. The students could choose not to participate in the research study but still receive the violence prevention education. Informed consent was obtained by a trained member of the research team. Most of the informed consents and pre-tests were collected during the Freshman Seminar “Preview Daze” prior to the official start of the semester.

Students who chose to participate in the study were asked to create a unique code number in order to keep their responses anonymous. This code was used to match the three surveys across time points: pre-test (Time 1, T1), immediate post-test (Time 2, T2), and follow-up post-test (Time 3, T3). The initial post-test (T2) occurred during the regularly scheduled Freshman Seminar class immediately following the education program and a second post-test (T3) occurred 2 months later. All surveys were administered in paper and pen format. It took approximately 30 minutes for most students to complete the pre-test (T1), 15 minutes for the immediate education post-test (T2), and 20 minutes for the 2 month post-test (T3). A member of the research team was available at all times to answer questions or address concerns during survey administration. The educational programs were delivered by a male and female pair of peer educators. As an incentive for participating in the research study, students were entered into a raffle for prizes for each survey that they completed. The raffle form was kept separate from the survey responses to maintain anonymity. The raffle incentives were \$10 gift cards to businesses near the UCCS campus such as Panera, Chipotle, Tokyo Joes, and Smashburger. There were a total of 100 of the \$10 gift cards given away in the raffle. The raffle prize names were randomly drawn by the PI

from all the completed raffle forms after each data collection time point (T1, T2, and T3). The breakdown of raffle winners was 33 at T1, 33 at T2, and 34 at T3.

### **Randomization.**

Randomization to the bystander or traditional awareness dating violence prevention education program typically occurred within each class. Prior to the start of the educational presentation, students were asked to randomly draw a marble without looking from a bag that was passed around by a member of the research team. Students who drew a red colored marble participated in the traditional awareness education program and students who drew a blue colored marble participated in the bystander education program. One of the educational programs would then take place in a breakout room nearby. For 8 of the classes, randomization within the class was not a possibility due to there being no breakout rooms available or the instructor requested that the class not be split. Four of these classes were assigned bystander education and four were assigned traditional awareness education. Overall, there were a total of 14 traditional awareness presentations and 14 bystander trainings.

### **Fidelity Monitoring**

All of the educational presentations were observed and monitored by the PI or ROC program coordinator. During each presentation, a fidelity monitoring form was completed to track class information as well as potential issues that occurred during the presentation or recommendations. As previously described, the peer educators received training and standardized curriculums to follow. The trainings occurred separately for the awareness and bystander groups, and all interactions between the groups were kept to a minimum. All peer educators were instructed not to discuss the content of their trainings or education presentations with members of the other group. The students were aware of two different types of education



programs that would be evaluated, but they were not told about what the differences were between the two groups. In addition to the formal training, all student peer educators/research assistants were required to attend weekly staff meetings (held separately by education group). During the staff meetings, the PI and ROC program coordinator were able to debrief presentations with the peer educators and provide them with ongoing feedback related to the delivery of the educational sessions.

## Measures

Outcome variables for this study include rape myth acceptance, gender violence acceptance, bystander efficacy, intention to help, and self-reported bystander behaviors. Social desirability, personal abuse victimization, and demographics were also measured. Table 2 summarizes the study measures. A copy of each survey measure which contains the actual questions can be found in Appendix A-K.

**Table 2:** Summary of Study Measures

Variable	Theoretical Definition	Operational Definition	Instrument Description	Level of Measurement	Psychometrics	Collect Times
Rape Myth Acceptance	Acceptance of adverse, inaccurate, or false beliefs about sexual assault or forced/coerced sexual activity.	Illinois Rape Myth Acceptance Scale-Revised (IRMA-R)	19 items scored using a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree.	Scores can range from 19 to 95. Higher scores indicate greater acceptance of rape myths.	Internal consistency reliability= >.86 across several studies; Demonstrated construct and criterion validity	Pre-test Post-test 2 months
Gender Violence Acceptance	Acceptance of gender violence (including physical, emotional, and/or sexual abuse) and sexist attitudes	Gender Violence Scale (GVS)	16 items scored using a 5-point Likert scale from 1= strongly disagree to 5= strongly agree.	Total scores can range from 16 to 80, with higher scores indicating greater acceptance of sexist attitudes and gender violence	Internal consistency reliability in samples of college students ranged from .75- .78.	Pre-test Post-test 2 months
Bystander Efficacy	Confidence in ability to perform various bystander actions to prevent or stop sexism and interpersonal violence.	Bystander Efficacy Scale (BES)	14 items in which participants rate their confidence to perform the behaviors on a scale from 0 ( <i>can't do</i> ) to 100 ( <i>very certain</i> ).	The mean score across all 14 items is subtracted from 100 to create a score of perceived ineffectiveness, with higher scores indicating lesser effectiveness.	Chronbach's alpha has ranged from .87 to .93; Test/re-test reliability= .81. Demonstrated content, criterion, and construct validity	Pre-test Post-test 2 months

Intent to Help	Intention to take prosocial action to prevent or stop interpersonal violence	Brief Intent to Help Scale (BIH)	Two subscales (friends and strangers) with a total of 32 questions. Scored on a 5-point Likert scale to indicate likelihood to perform each bystander behavior (1= not likely, 5= extremely likely).	Scores range from 16 to 80 on both the friends and strangers subscales, with higher scores indicating more likelihood to engage in bystander behaviors.	Cronbach's alpha of .93 for the friends subscale and .94 for the strangers scale. Test/re-test reliability for friends $r = .71$ and for strangers $r = .72$ .	Pre-test Post-test 2 months
Bystander Behaviors	Actions that an individual engages in to help prevent or stop sexual or intimate partner violence	Bystander Behavior Scale (BBS)	26 items addressing four subscales including: <i>dealing with violence specific incidents</i> (12 items), <i>party safety</i> (5 items), <i>helping friends in distress</i> (5 items), and <i>confronting language</i> (4 items). Participants answer "Yes", "No" or "No Opp" to each of the specific behaviors listed	Measured as a dichotomous "yes" or "no". Total scores obtained by summing the number of behaviors reported. Participants also asked how many times within the past 6 weeks they performed the behavior.	Cronbach's alpha of .90 on the overall scale, and each subscale $> .80$	Pre-test 2 months
Social Desirability	Propensity to present oneself in a manner that is socially desirable.	Social Desirability Scale-17 (SDS-17)	Originally a 17 item scale that is scored "1" for true or "0" for false. The question, "I have tried illegal drugs (for example, marijuana, cocaine, etc.)" will be excluded, thus 16 items.	Scores can range from 0 to 16, with higher scores indicating greater socially desirable	Cronbach's alpha of .78 in 18-29 age group. Convergent and discriminant validity demonstrated	Pre-test
Dating Violence	Physical abuse, sexual abuse, or emotional abuse including controlling behavior or fear of intimate partner	Abuse Assessment Screen (AAS)	Adapted from 5 item measure; Includes 4-items: 1) Have you ever been emotionally or physically abused by your partner or someone important to you? 2) In the last year, have you been hit, slapped, kicked, choked, or otherwise physically hurt by your partner or ex-partner? 3) Within the last year has your partner or ex-partner made you do something sexual that you didn't want to do? 4) Are you afraid of your partner or ex-partner?	Measured as a dichotomous "yes" or "no" with positive history of abuse or no history of abuse.	Internal consistency= $> .89$ ; Test re-test= $.83-.97$ ; Established construct and content validity	Pre-test
Sexual Violence	Sexual aggression and abuse	Sexual Experiences Survey (SES)	Adapted from 10 item measure. Will include: 1) During the past year, how many times has someone had sexual contact with you when you didn't want to? 2) During the past year, how many times have you had sexual intercourse with someone when you didn't want to?	Measured as a continuous variable from 0 to X number of times	Cronbach's alpha = $.74-.95$ for women, $.89$ for men, test-retest reliability of $.93$ , and external validity established through face-to-face interview (Pearson $r = .61$ , $p < .001$ )	Pre-test

### **Illinois Rape Myth Acceptance Scale- Revised (IRMA-R)**

The IRMA-R measures acceptance of adverse, inaccurate, or false beliefs about sexual assault or forced/coerced sexual activity (Payne, Lonsway, & Fitzgerald, 1999). McMahon and Farmer (2009) revised the IRMA Scale (Payne et al., 1999) to provide updated language for college students and to focus specifically on accountability for rape and victim blaming. The IRMA-R includes five subscales: *She asked for it*, *It wasn't really rape*, *He didn't mean to*, *She lied*, and *Alcohol*. The scale includes a total of 19 items scored on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Scores can range from 19 to 95. Higher scores indicate greater acceptance of rape myths. The Cronbach's alpha for the full sample at pre-test for the IRMA-R overall was 0.88.

### **Gender Violence Scale (GVS)**

The GVS (Cissner, 2009) measures acceptance of physical, sexual, or emotional abuse towards intimate partners and sexist attitudes. The GVS was adapted from an earlier version of the scale (Ward, 2001) that was developed for evaluation of the *Mentors in Violence Prevention* program (MVP; Katz, 1994). Questions were altered slightly to be appropriate for a college population and merged into a single set of questions for both males and females (rather than two different sets of questions for each gender) (Cissner, 2009). The adapted scale consists of 16 items assessing acceptance of sexist attitudes and gender violence. Items are scored using a 5-point Likert scale from 1= strongly disagree to 5= strongly agree. Several items are reverse scored. Total scores can range from 16 to 80, with higher scores indicating greater acceptance of sexist attitudes and gender violence (after item recoding). The Cronbach's alpha for the full sample at pre-test was 0.75.

### **Bystander Efficacy Scale (BES)**

The BES (Banyard et al., 2007) measures confidence in one's ability to perform various bystander actions to prevent or stop sexism and interpersonal violence. The BES includes 14 items. Participants rate their confidence to perform the bystander behaviors on a scale from 0 (*can't do*) to 100 (*very certain*). The mean score across all 14 items is subtracted from 100 to create a score of perceived ineffectiveness, with higher scores indicating lesser effectiveness. The Cronbach's alpha for the full sample at pre-test was 0.89.

### **Brief Intent to Help Scale (BIH)**

The BIH (Banyard, Moynihan, Cares, & Warner, in press) measures participants' likelihood or willingness to engage in various helping behaviors. The BIH is a revised and expanded version of previous intention to help measures (Banyard, 2008). The BIH consists of two subscales (questions specific to helping friends and questions specific to helping strangers). For this study, 16 questions will be asked for friends and the same 16 questions will be asked for strangers for a total of 32 questions. Participants respond on a 5-point Likert scale to indicate their likelihood to perform each bystander behavior (1= not at all likely, 5= extremely likely). Scores range from 16-80 on both the friends and strangers subscales, with higher scores indicating more likelihood to engage in bystander behaviors. The Cronbach's alpha for the full sample at pre-test was 0.94 overall (.90 for the friends subscale and .95 for the stranger subscale).

### **Bystander Behavior Scale (BBS)**

The BBS (Banyard & Moynihan, 2011) measures various actions that an individual engages in to prevent or stop interpersonal violence and sexism. It contains 26 items addressing four subscales including: *dealing with violence specific incidents* (12 items), *party safety* (5

items), *helping friends in distress* (5 items), and *confronting language* (4 items). Participants answered “Yes” or “No” to each of the specific behaviors listed that they had actually carried out or performed. For this study, answer options will included “yes” and “no” as well as “no opportunity”. In addition, if a “yes” response is selected, participants were asked how many times within the past 8 weeks that they have performed the behavior. The score on the BBS correlates directly to the number of behaviors performed in the past 8 weeks and could range from 0 behaviors to 26 behaviors. The Cronbach’s alpha for the full sample at pre-test for the overall BBS scale was 0.91.

### **Social Desirability Scale-17 (SDS-17)**

The SDS-17 (Stöber, 1999) is a 17 item scale used to assess participants’ propensity to present themselves in a manner that is socially desirable. In this study, 16 of the original 17 items were included. The question, “I have tried illegal drugs (for example, marijuana, cocaine, etc.)” was excluded. The remaining 16 items will be scored “1” for true or “0” for false, with a number of items being reverse scored. Scores can range from 0 to 16, with higher scores indicating greater socially desirable responding. The Cronbach’s alpha for the full sample at pre-test was .71.

### **Abuse Assessment Screen (AAS)**

The AAS (Soeken, McFarlane, Parker, & Lominack, 1998) measures IPV including physical abuse, sexual abuse, and emotional abuse as well as fear of an intimate partner. A modified version of the five question AAS was used to assess for abuse in this study. The question related to pregnancy was not used in this study. The four questions included: 1) Have you ever been emotionally or physically abused by your partner or someone important to you? 2) In the last year, have you been hit, slapped, kicked, choked, or otherwise physically hurt by your

partner or ex-partner? 3) Within the last year has your partner or ex-partner made you do something sexual that you didn't want to do? 4) Are you afraid of your partner or ex-partner? For this study, a “yes” response to any of these four questions categorized a participant as positive for IPV.

### **Sexual Experiences Survey (SES)**

The SES (Koss & Oros, 1982) is a 10 item self-report survey used to assess various types of sexual aggression and victimization. For this study, two questions adapted from the SES were used to assess occurrence and frequency of sexual abuse: 1) During the past year, how many times has someone had sexual contact with you when you didn't want to? 2) During the past year, how many times have you had sexual intercourse with someone when you didn't want to? For this study, any number circled over zero categorized a participant as positive for sexual abuse.

### **Demographics**

A variety of demographic data were collected including age, gender, race/ethnicity, college major, relationship status, and previous dating violence prevention education.

### **Data Analysis**

Data was coded and entered into Excel and then transferred into SPSS version 21 for statistical analysis. Initial data analysis included exploratory and descriptive statistical analyses. Study variables were examined to assess distributions, to identify outliers, and to examine missing values. Overall there were excellent response rates to all survey questions with very little missing data. Descriptive analysis was conducted on all variables. The study instruments were also assessed for their psychometric properties. The internal consistency of the questions in each of the study measures was estimated using Cronbach alpha coefficients (reported previously with

the description of the measures). The sample was also examined for pre-test differences. A MANOVA was used to test for differences between education groups. Overall the main effect for the education type on pre-test scores was not significant  $F(6,688)= 1.01, p=0.41$  and Wilks' Lambda .99. Therefore, the groups did not differ significantly from each other at pre-test. In addition, Pearson correlations were run between the main outcome measures. Table 3 displays the results which showed significant correlations between the variables, thus providing support for the use of MANOVA in the additional analyses. Finally, Pearson correlations were also run between scores of the Social Desirability Scale and outcomes at posttest. Table 4 presents the findings. The results indicated that socially desirable responding was significantly correlated with bystander efficacy and bystander behaviors. Thus social desirability was used in further analyses as a covariate.

**Table 3:** Correlations Among the Main Study Variables

Variable	1	2	3	4	5
1. Rape Myth Acceptance	-				
2. Bystander Efficacy	0.26*	-			
3. Intention to Help	-0.27*	-.64*	-		
4. Gender Violence	0.65*	-.41*	-0.43*	-	
5. Bystander Behaviors	-.016*	-.24*	0.23*	-.17*	-

\*  $p < .01$

**Table 4:** Correlations between Social Desirability and Outcomes at Posttest (T2)

Outcome	Social Desirability (SDS-17)
1. Rape Myth Acceptance	-0.02
2. Bystander Efficacy	0.09*
3. Intention to Help	-0.06
4. Gender Violence	0.04
5. Bystander Behaviors	0.08*

\*  $p < .05$

The specific statistical analyses conducted to address each of the specific aims of the study are described below:

**Aim 1:** *To compare the effectiveness of a bystander dating violence prevention program to a traditional awareness dating violence prevention program for changing attitudes, beliefs, perceived efficacy, and intentions to help in college students.*

To examine the overall impacts of the educational programs, a repeated-measures MANCOVA using social desirability as covariate was performed comparing pre-test (T1) to immediate post-test following the education (T2). The education group (traditional awareness versus bystander) served as the independent variable, with scores on the survey instruments (IRMA, GVS, BES, and BIH) measuring the outcome/dependent variables. Paired sample t-tests were also performed to look at changes within each group from T1 to T2.

**Aim 2:** *To compare the differences in all 2 month post –education intervention outcome measures of attitudes, beliefs, perceived efficacy, intentions to help, and self-reported bystander behaviors between the bystander dating violence prevention program and the traditional dating violence awareness prevention program.*

Procedures similar to those used to address Aim 1 above were also used to address Aim 2. A repeated-measures MANCOVA using social desirability as covariate was performed using all three time points: pretest (T1), immediate post-test (T2), and 2 month follow-up (T3). The education group (traditional versus bystander) served as the independent variable, with scores on the survey instruments (IRMA, GVS, BES, BIH, and BBS) measuring the outcome/dependent variables. In addition, paired sample t-tests were also used to examine changes from T1 to T3.



**Aim 3:** *To examine potential moderators in the relationship between the educational programs (bystander and traditional awareness) and outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors.*

Three hypothesized moderators were tested: gender, partner abuse, and sexual abuse. First, gender and victimization differences at pre-test were explored using a MANCOVA on pre-test outcome measures for men and women using social desirability as a covariate. Next, repeated-measures MANCOVAs were performed examining gender, partner abuse, and sexual abuse by education program (bystander and traditional) from pre-test (T1) to post-test (T2). In addition, independent sample t-tests were also used to examine differences between men and women as well as victim and non-victims (for both partner abuse and sexual abuse) from pre-test to post-tests (T2 and T3).

**Aim 4:** *To compare the differences in outcome measures between a bystander dating violence prevention education group, a traditional awareness dating violence prevention education group, and a no-education group.*

To examine the overall impacts of the educational programs compared to a quasi-control group of students who received no education, a repeated-measures MANCOVA using social desirability as a covariate was performed comparing pre-test (T1) to 2 month post-test (T3) for all three groups. The education group (traditional awareness, bystander, and none) served as the independent variable, with each of the survey instruments (IRMA, GVS, BES, BIH, and BBS) measuring an outcome/dependent variable. Paired sample t-tests were also performed to look at changes within each group from pre-test (T1) to 2 month follow-up (T3).

## **Human Subjects Protections and Approval**

### **IRB Approval**

Institutional Review Board approval for this study was obtained from UCCS and Johns Hopkins University.

### **Description of Subjects and Risks**

The human subjects in this study were all undergraduate college students at the University of Colorado in Colorado Springs. The students completed surveys measuring attitudes, beliefs, efficacy, intentions, and self-reported behaviors related to dating violence in their Freshmen Seminar courses. Inclusion criteria for the study was enrollment in a Freshmen Seminar course during which the surveys were administered or enrollment in the one non-Freshmen Seminar course that also participated in the study. There were no individual exclusion criteria for the students participating in the research study. Eligibility criteria for the violence prevention peer educators who conducted the educational programs were: enrollment as a student at UCCS at sophomore level or above, hired as a student employee by the university, and attendance at all mandatory training sessions.

There were a few risks to students participating in the study. It was possible that psychological discomfort could occur for participants when answering questions about dating violence and sexual assault. There were also a few questions that asked about personal experiences with dating violence and sexual assault that could have potentially caused distress or discomfort. Maintaining confidentiality was also a potential risk. It was possible that another student in the class could observe the answers selected as a student filled out his or her survey.

## **Sources of Material**

The source of data for this study was the survey measures previously described. The surveys were completed in paper and pen format by the students. Survey data was collected anonymously using a code number at pre-test and post-tests (immediate and 2 months). All informed consents and raffle forms that contained names were kept separate from the survey responses. The PI and trained research assistants coded and entered all data into excel which was then transferred into SPSS data files. The data files were kept on a password protected computer in the locked ROC office on the UCCS campus. The original surveys were also kept in locked file cabinets in a locked office for the duration of the study.

## **Adequacy of Protection Against Risks**

Written informed consent for all study participants was obtained by the PI or trained research assistants. Participants had the opportunity to ask questions during the consent process. Participants were assured that completing the surveys was optional, and they could stop participating in the study at any time should they change their minds or become too distressed to continue. In classes where the instructors allowed a presentation, all students were offered the dating violence prevention education regardless of their decision to participate in the research surveys. As with any education in college, the students could choose not to attend the educational session and could leave the room during the presentation. The few students who wanted to attend the education but not fill out the surveys had the option to leave the room while the other students filled out the surveys. Students were assured that their participation in the research was completely voluntary and there were no negative consequences for not participating.

Surveys were collected separately from raffle forms and informed consent forms that contain identifying information. All study materials were kept in locked file cabinets and password protected computers in a locked office. When completing the surveys, students were told that they did not have to answer questions that made them feel uncomfortable, and they could change their minds about participating in the study at any time. A list of campus and community resources was also provided to all students, which included information about the University Counseling Center and local/national dating violence and domestic violence resources that they could contact if they wished to speak with someone further about these issues or feelings of discomfort (see handout in Appendix L).

### **Potential Benefits of the Research**

There were potential benefits for participants completing the research study. Prevention of dating violence and sexual assault on college campuses is very important. Students were informed that participation in the study may contribute to knowledge about effective ways to provide education about dating violence and sexual assault prevention on campus. The results of the study could have important implications for future violence prevention programs on the UCCS campus and other college campuses. Students may have also directly benefited from the education they obtained as well as information about campus and community resources related to dating violence. The PI is aware of several students who were connected with resources on campus and in the community as a result of their participation in this research study.

### **Importance of Knowledge to be Gained**

This research study contributes to an enhanced understanding of effective primary prevention strategies for dating violence. Understanding what type of educational programs are effective for changing attitudes, beliefs, efficacy, intentions, and behaviors in college students

related to dating violence is very important and has implications for future violence prevention programming on the UCCS campus and potentially other college campuses as well.

### **Inclusion of Women and Minorities**

Women and minorities were included in this research study. In 2012, approximately 54% of the UCCS undergraduate students were women and 25% were minorities (UCCS Admissions, personal correspondence). In this study, 50.9% of participants were women and 30.1% were minorities.

### **Inclusion of Children**

It is likely that some of the college freshmen students who participated in this study were minors. Specific age was not asked as a research question so the exact number is unknown. A waiver of parental consent was given from the UCCS IRB for minors completing the research surveys in their classes.

### **Data and Safety Monitoring**

As described previously, survey data were collected anonymously using a code number at pre-test and post-tests (immediate and 2 months). The code number was the first 2 letters of the participant's mother's maiden name + day of the month they were born using two digit format + number of siblings using two digit format. Using this formula allowed students to remember the code for future surveys while maintaining anonymity. The codes were used to match pre-test and post-test surveys. All informed consents and raffle forms that contained names were kept separate from the survey responses. The PI and trained research assistants coded and entered all data into Excel. The data file was kept on a password protected computer in the locked ROC office on the UCCS campus. The original surveys were also kept in a locked file cabinet in a

locked office for the duration of the study, and upon completion of the study results dissemination, they will be destroyed.

### **Detecting Adverse Participant Events**

Students were given contact information for the PI and UCCS Research Compliance Coordinator during the informed consent process so that they could ask questions or report any concerns. Students were also monitored for apparent distress during and after completion of the surveys as well as during and after the educational presentations. A handout with resources was provided to students at all data collection time points (see handout in Appendix L). A disclaimer was also provided at the beginning of all the educational presentations regarding the sensitive nature of the topic and resources were discussed both during the presentation as well as afterwards with a handout. The peer educators/ research assistants were specifically trained on how to handle situations in which a student may become distressed, and the PI or ROC program coordinator were available at all educational presentations for additional support as well. The PI is unaware of any situations in which a student reported high levels of distress. However, several students came forward as victims following the educational programs, and they were provided support and referred to the appropriate resources.

### **Summary**

This chapter discussed the methodology used in this research study to evaluate two dating violence prevention education programs. It described the design, setting, sample, procedures, measures, analysis plan, and human subjects protections related to the research. The next chapter will discuss the results of this research specific to each study aim and hypothesis.

## CHAPTER FOUR: RESULTS

### Introduction

This research study compared a bystander education program for dating violence prevention to a traditional awareness education program for dating violence prevention, as well as to no education, in terms of changing attitudes, beliefs, efficacy, intentions, and self-reported behaviors in college students. This chapter presents the results of the research study. The chapter begins with a description of the characteristics of the sample. The remaining results are organized according to each of the four specific study aims and associated hypotheses.

### Characteristics of the Sample

As described previously, based off census data, there were approximately 1,279 students eligible for the study. The instructors for 6 of the freshmen seminar classes declined participation in the research and education and 5 instructors chose to participate in only the research with no educational presentation. All other classes participated in both the education and the research. Table 5 shows the breakdown of participation type for all eligible students.

**Table 5:** Type of Participation for all Students Eligible for the Study (n=1279)

Type of Participation	<i>N</i>	%
No Class Participation	280	21.9
No Class Education/ Yes Class Research	224	17.5
Yes Class Education/ Yes Class Research	775	60.6

There were 412 students present for all 3 waves of the research (pre-test T1, immediate post-test T2, and 2 month post-test T3). There were 279 students present for the first two waves with no follow-up at 2 months post-education intervention. There were 13 students present for

only the second and third waves with no pre-tests. Students present in only the first, second, or third waves were 123, 31, and 53, respectively. Pre-test surveys were collected from 1,001 students at T1 (369 students in the bystander education group, 376 students in the traditional awareness education group, and 224 students in the no education group). There were 745 surveys collected at T2 immediately following the educational interventions (342 surveys from students in the bystander group and 349 surveys from students in the traditional awareness group). No surveys were collected from the control group at T2 since they did not receive any education. From T1 to T2 there was a 7% attrition rate for both the bystander and traditional education groups. There were 667 surveys collected at T3 at 2 month follow-up. Six instructors would not allow their classes (approximately 228 students) to participate in the follow-up research at T3. As a result, the attrition rates were much higher at T3. Surveys were collected from 229 students in the bystander group (38% attrition from T1), 184 students in the traditional awareness group (51% attrition from T1), and 175 students in the no education group (22% attrition). Table 6 summarizes the research participation and attrition by condition and time point.

**Table 6:** Research Participation and Attrition by Condition and Time Point

<b>Condition</b>	<b>T1</b>	<b>T2 (% lost T1-T2)*</b>	<b>T3 (% lost T1-T3)**</b>
Bystander Education	369	342(7%)	229(38%)
Traditional Education	376	349(7%)	184(51%)
No Education	224	N/A	175(22%)
Unmatched Surveys	32	54	79
<b>Totals</b>	<b>1,001</b>	<b>745</b>	<b>667</b>

\*At T2, approximately 224 students did not receive education (control students)

\*\*At T3, approximately 228 students were denied access to complete the surveys by their instructors



Due to the high attrition of participants at T3, additional analyses were performed to examine differences between students who were retained at T3 and those who were lost to follow-up. Chi square and two sample t-tests were performed comparing retained students and students lost to follow-up on relevant demographic variables, personal victimization history, and scores on the IRMA, GVS, BES, BIH, and BBS. There were no statistically significant differences between students who were retained and students who were lost to follow-up for any of these variables.

Demographic characteristics for the study sample at pre-test included 50.9% women, 95.1% freshmen, and 94.3% heterosexual. About 70% of the sample were White, 14% were Hispanic, 7% were Black, and 5% were Asian. In addition, 51.6% of sample reported that they were not currently dating; 15.4% were occasionally dating, 29.3% were exclusively dating, 2.1% were engaged, and 1.6% were married. Table 7 summarizes the demographic characteristics of the study sample at pre-test. Students were also asked about prior education on sexual assault, dating violence, and sexual harassment. Results indicated that 29.7% reported that they had previously attended an educational program on sexual assault, 31.8% reported that they had previously attended an educational program on dating violence, and 38.7% reported that they had previously attended a program on sexual harassment. In addition, at pre-test 30.5% of the sample reported victimization of partner abuse (by answering “yes” to at least one question on the Abuse Assessment Screen) and 21.2% of the sample reported victimization of sexual abuse (by reporting at least one occasion of unwanted sexual contact or sexual intercourse on the Sexual Experiences Survey).

**Table 7:** Demographic Characteristics of the Study Sample at Pre-test (n=1,001)

Demographic	<i>n</i>	%
Gender		
Male	489	49.1
Female	508	50.9
Class Standing		
Freshmen	952	95.1
Non-Freshmen	49	4.9
Race		
African American/ Black	69	7.1
Asian American/ Asian	44	4.5
Caucasian/ White	682	69.9
Hispanic American/ Latino/a	140	14.3
Native American	5	0.5
Other	36	3.7
Sexual Orientation		
Heterosexual/ Straight	942	94.3
Gay	8	0.8
Lesbian	14	1.4
Bisexual	35	3.5
Relationship Status		
Not currently dating	516	51.6
Occasionally dating	154	15.4
Exclusively dating	293	29.3
Engaged	21	2.1
Married	16	1.6

**Results: Aim 1**

**Aim 1:** *To compare the effectiveness of a bystander dating violence prevention program to a traditional awareness dating violence prevention program for changing attitudes, beliefs, perceived efficacy, and intentions to help in college students.*

**H<sub>1</sub>:** Participants in the bystander education group will score better than participants in the traditional awareness education group on all post-intervention outcome measures of attitudes, beliefs, efficacy, and intentions from pretest to posttest. Specifically, the participants in the bystander program, compared to participants in the traditional program, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy and intention to help.

A repeated-measures MANCOVA was performed with education group (bystander versus traditional) as the independent variable and outcome scores on the IRMA, GVS, BES, and BIH as the dependent variables. The two time-points of pre-test (T1) and immediate education post-test (T2) were assessed. Scores on the SDS were used as a covariate. Only participants that completed both T1 and T2 with a matched participant code were included in the analysis for this aim (N= 691). There were significant effects for social desirability,  $F(4, 685) = 5.62, p < .001$ , Wilks' Lambda = .97 and for treatment group  $F(4, 685) = 2.95, p < .05$ , Wilks' Lambda = .98. There was significant within subjects effect for time (T1 to T2)  $F(4, 685) = 43.94, p < .001$ , Wilks' Lambda = .80 as well as for time by social desirability interaction  $F(4, 685) = 2.92, p < .05$ , Wilks' Lambda = .98. Finally, most importantly, there was a significant time by group interaction when social desirability was controlled,  $F(4, 685) = 28.83, p < .001$ , Wilks' Lambda = .86, partial  $\eta^2 = .14$ .

A series of paired sample t-tests were also performed to explore changes in scores between the bystander and traditional education groups. A Bonferroni adjusted significance value of .003 was utilized. Table 8 shows the means and standard deviations for outcome measures by group at pre-test (T1) and immediate post-test (T2) as well as paired sample t-tests from T1 to T2 for both groups. Both the bystander group and the traditional group showed significant ( $p < .003$ ) positive changes in all outcome measures (e.g. decreased acceptance of rape myths and gender violence and increased efficacy and intention to help) from pre-test to post-test. However, the bystander group showed more improvements overall compared to the traditional group. Therefore, hypothesis 1 was supported.

**Table 8:** Means (SDs) and Paired Sample t-tests for T1 to T2 for Traditional and Bystander Groups

	<u>Traditional Education (N=353)</u>			<u>Bystander Education (N=345)</u>		
	<u>T1</u>	<u>T2</u>	<u>t</u>	<u>T1</u>	<u>T2</u>	<u>t</u>
	M (SD)	M (SD)		M(SD)	M (SD)	
IRMA	2.4(0.6)	2.1(0.6)	12.9*	2.5(0.6)	1.9(0.6)	20.6*
GVS	1.9(0.4)	1.5(0.5)	19.7*	2.0(0.4)	1.3(0.4)	28.5*
BES	19.9(13.2)	15.9(13.7)	6.7*	20.7(13.1)	10.7(9.3)	17.4*
BIH	3.7(0.6)	3.9(0.7)	-3.2*	3.7(0.6)	4.2(0.7)	-13.9*

\*p≤.003 (2-tailed significance)

## Results: Aim 2

**Aim 2:** *To compare the differences in all 2 month post –education intervention outcome measures between the bystander dating violence prevention program and the traditional dating violence awareness prevention program.*

**H<sub>2</sub>:** Participants in the bystander education group will score better than participants in the traditional awareness education group on all two month post-intervention outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors. Specifically, the participants in the bystander program, compared to participants in the traditional awareness program, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy, intention to help, and self-reported bystander behaviors performed in the past 2 months.

To determine if the post-test changes in scores persisted at 2 month follow-up, a repeated measures MANCOVA was performed again with three time-points of pre-test (T1), immediate

education post-test (T2), and 2 month follow-up (T3). Education group (bystander versus traditional) served as the independent variable and outcome scores on the IRMA, GVS, BES, and BIH served as the dependent variables. Scores on the SDS were used as a covariate. Only participants that completed all time points T1, T2, and T3 with a matched participant code were included in the analysis for this aim (N= 412). There were significant effects for social desirability,  $F(4, 406) = 4.11, p < .05$ , Wilks' Lambda = .96 and for treatment group  $F(4, 406) = 3.04, p < .05$ , Wilks' Lambda = .97. There was significant within subjects effect for time (T1 to T2)  $F(8, 402) = 19.79, p < .001$ , Wilks' Lambda = .72 and non-significant time by social desirability interaction  $F(8, 402) = 1.36$ , Wilks' Lambda = .97. Finally, most importantly, there was a significant time by group interaction when social desirability was controlled,  $F(8, 402) = 9.07, p < .001$ , Wilks' Lambda = .85, partial  $\eta^2 = .15$ .

At the 2 month follow up, data was collected about self-reported bystander behavior. A separate repeated measures MANCOVA was performed examining change over time from pre-test (T1) to two month follow-up (T3) on the BBS using social desirability as a covariate. First, the impact on BBS was explored as the dichotomized variable (yes or no to the behavior). There were no significant effects for time or time by social desirability interactions, but there was a significant main effect for time by group interaction,  $F(1, 415) = 17.08, p < .001$ , Wilks' Lambda = .96. Next the impact on BBS opportunities to perform the behavior was performed. A MANCOVA was performed examining change over time from pre-test (T1) to two month follow-up (T3) on the opportunities to perform the behaviors. The results showed that there were no significant effects for time or time by social desirability interactions. In addition, there was no significant time by group interactions,  $F(1, 415) = 1.79$ , Wilks' Lambda = .97. Thus, there were

no significant differences in opportunities to perform the behaviors over time or between the two educational groups.

A series of paired sample t-tests were also performed to explore changes in scores between the bystander and traditional education groups from pre-test to 2 month post-test. A Bonferroni adjusted significance value of .003 was utilized. Table 9 shows the means and standard deviations at all three time points for the traditional and bystander groups in addition to the paired sample t-tests for both education groups from pre-test (T1) to 2 month follow-up (T3). Finally, figures 4-8 show the changes in mean scores for the IRMA-R, GVS, BES, BIH, and BBS over time. Both the bystander group and the traditional group showed significant positive changes in most outcome measures from pre-test to 2 month post-test. The only exceptions to this were the non-significant change in BIH scores and BBS for the traditional awareness education group. It is important to note that both groups did show evidence of decay from immediate post-test scores, however overall they were still significantly improved from the pre-test scores ( $p < .003$ ). The bystander group demonstrated more improvements overall than the traditional awareness group on all outcome measures. Thus hypothesis 2 was supported.

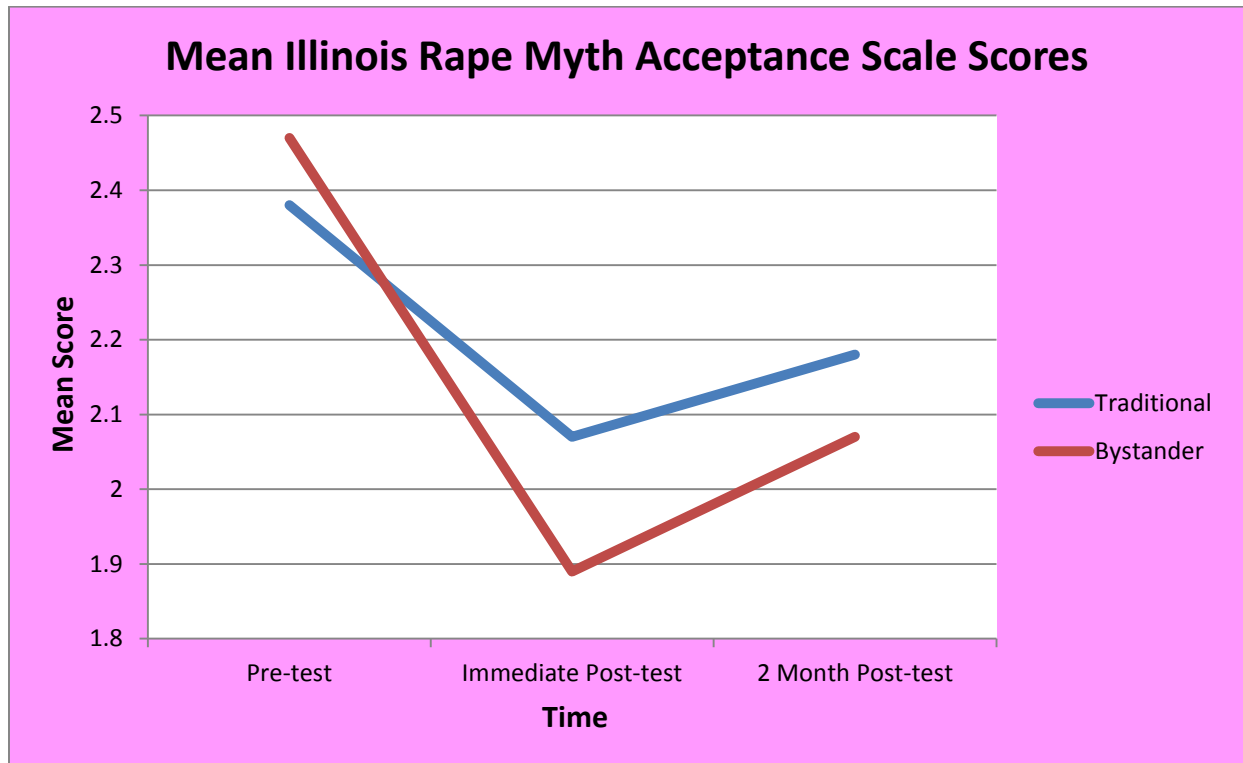
**Table 9:** Means (SDs) for T1, T2, and T3 for Traditional and Bystander Groups and Paired Sample t-tests for T1 to T3

	Traditional (N=185)				Bystander (N=232)			
	T1 M(SD)	T2 M(SD)	T3 M(SD)	t (T1 to T3)	T1 M(SD)	T2 M(SD)	T3 M(SD)	t (T1 to T3)
IRMA	2.4(0.5)	2.1(0.6)	2.2(0.6)	4.9*	2.5(0.6)	1.9(0.5)	2.1(0.6)	10.2*
GVS	1.9(0.4)	1.4(0.4)	1.6(0.5)	8.5*	2.0(0.5)	1.2(0.4)	1.5(0.5)	14.1*
BES	19.5(12.9)	14.9(12.1)	14.9(12.3)	6.2*	20.7(12.9)	9.9(8.5)	11.5(9.4)	11.7*
BIH	3.8(0.6)	3.9(0.7)	3.9(0.7)	-1.3	3.7(0.7)	4.3(0.6)	4.1(0.6)	-9.1*
BBS	4.7(4.5)	-	4.9(4.5)	-0.6	4.6(4.6)	-	7.0(5.8)	-6.6*

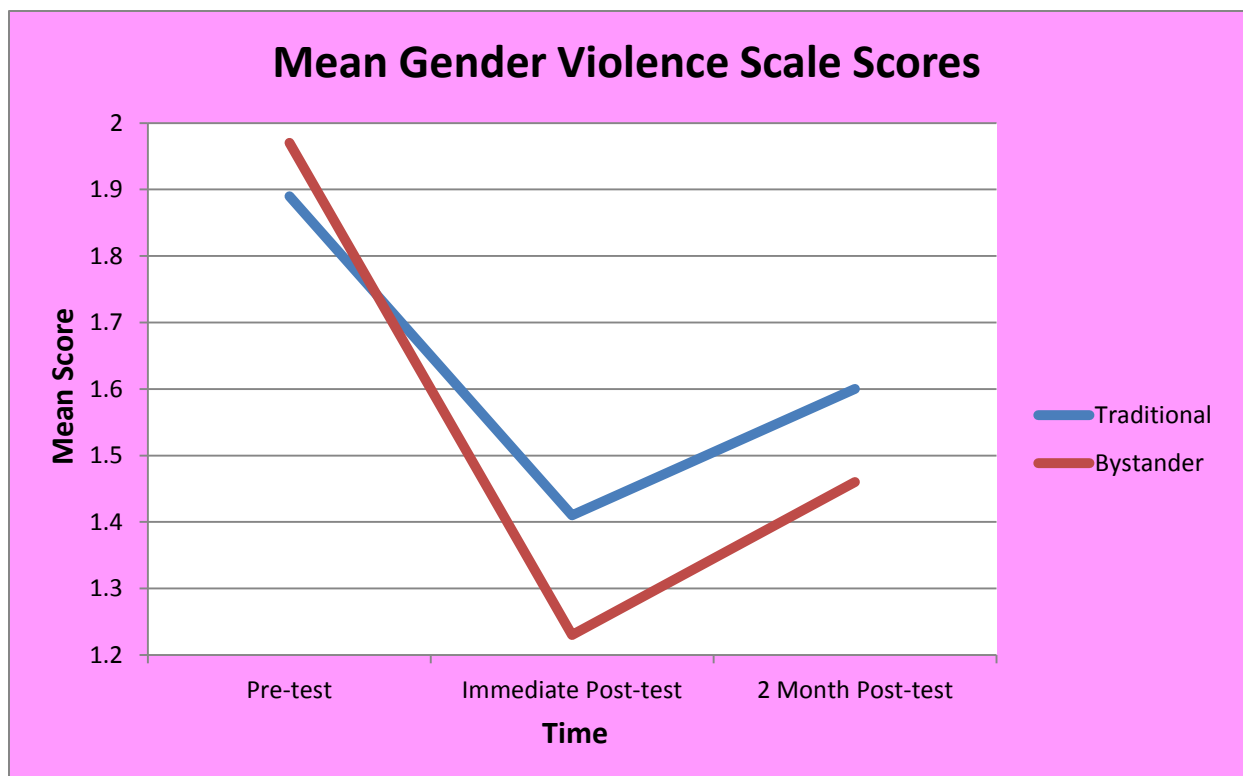
-The BBS is only measured at T1 and T3

\* $p \leq .003$  (2-tailed significance)

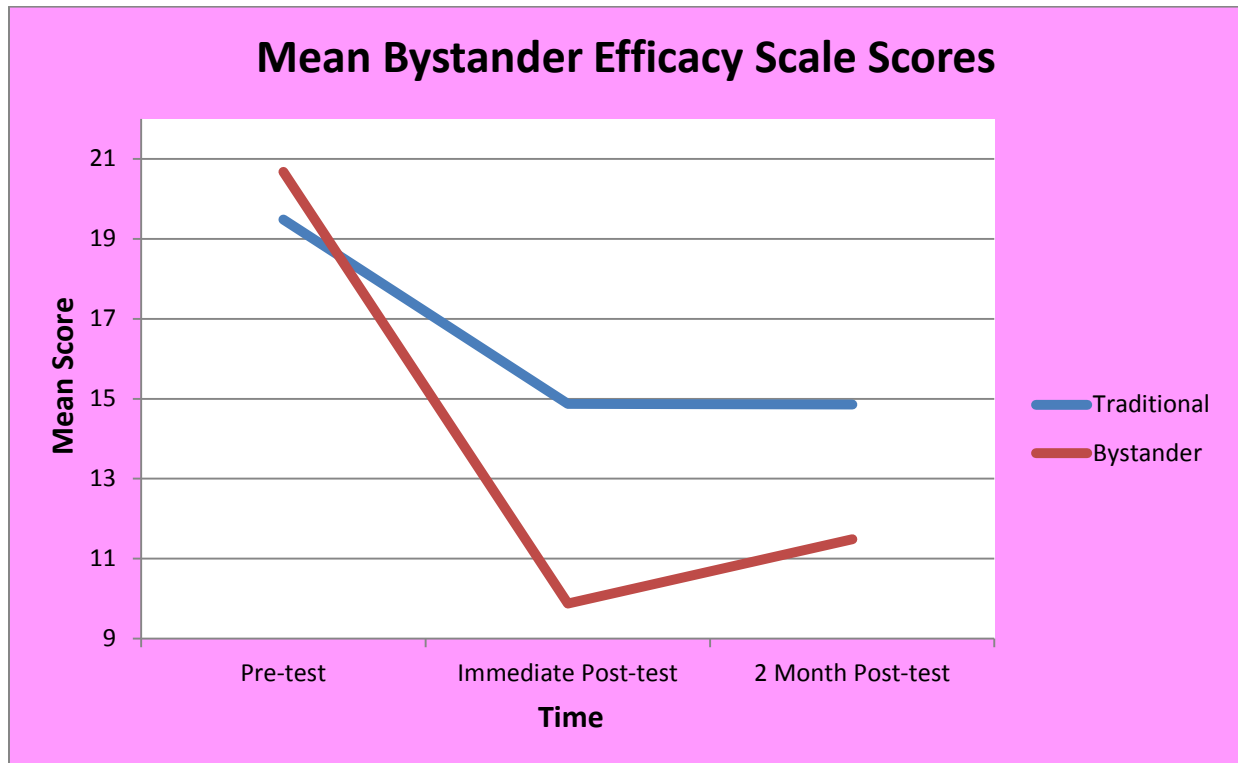
**Figure 4:** Mean IRMA Scores at T1, T2, and T3 for Traditional and Bystander Groups



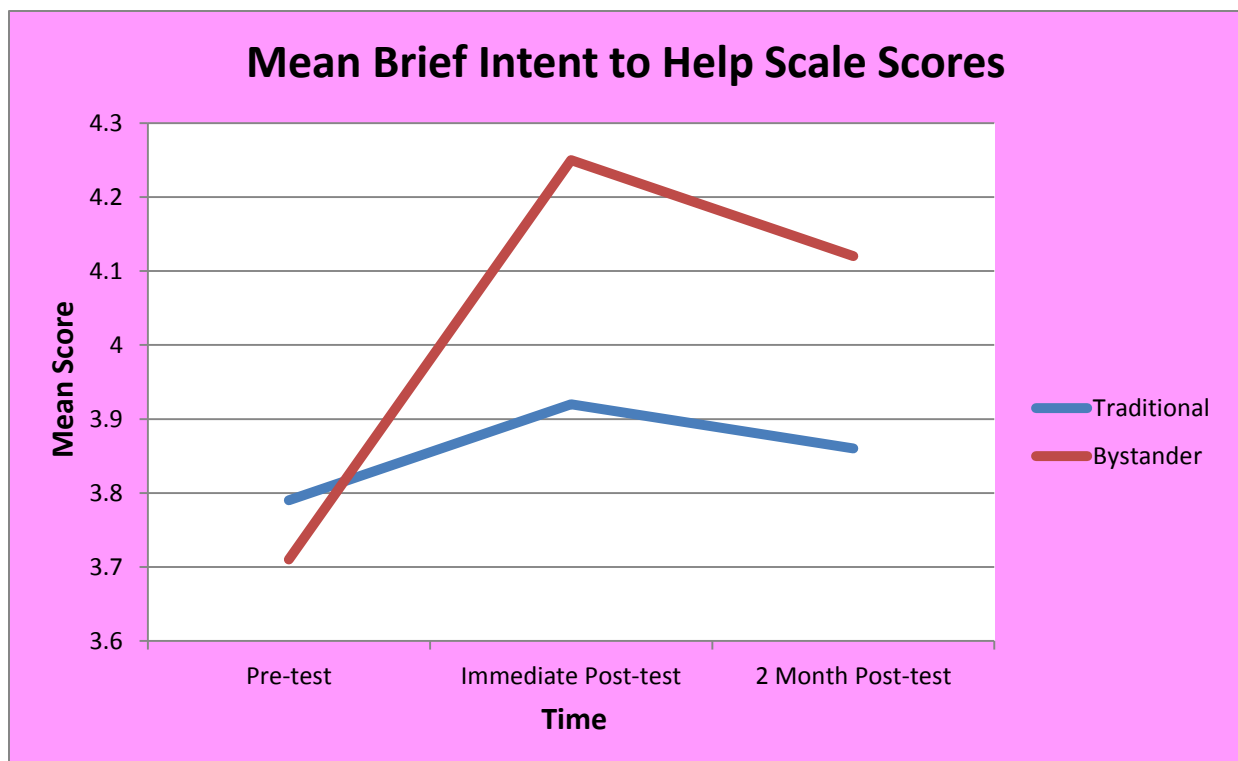
**Figure 5:** Mean GVS Scores at T1, T2, and T3 for Traditional and Bystander Groups



**Figure 6:** Mean BES Scores at T1, T2, and T3 for Traditional and Bystander Groups

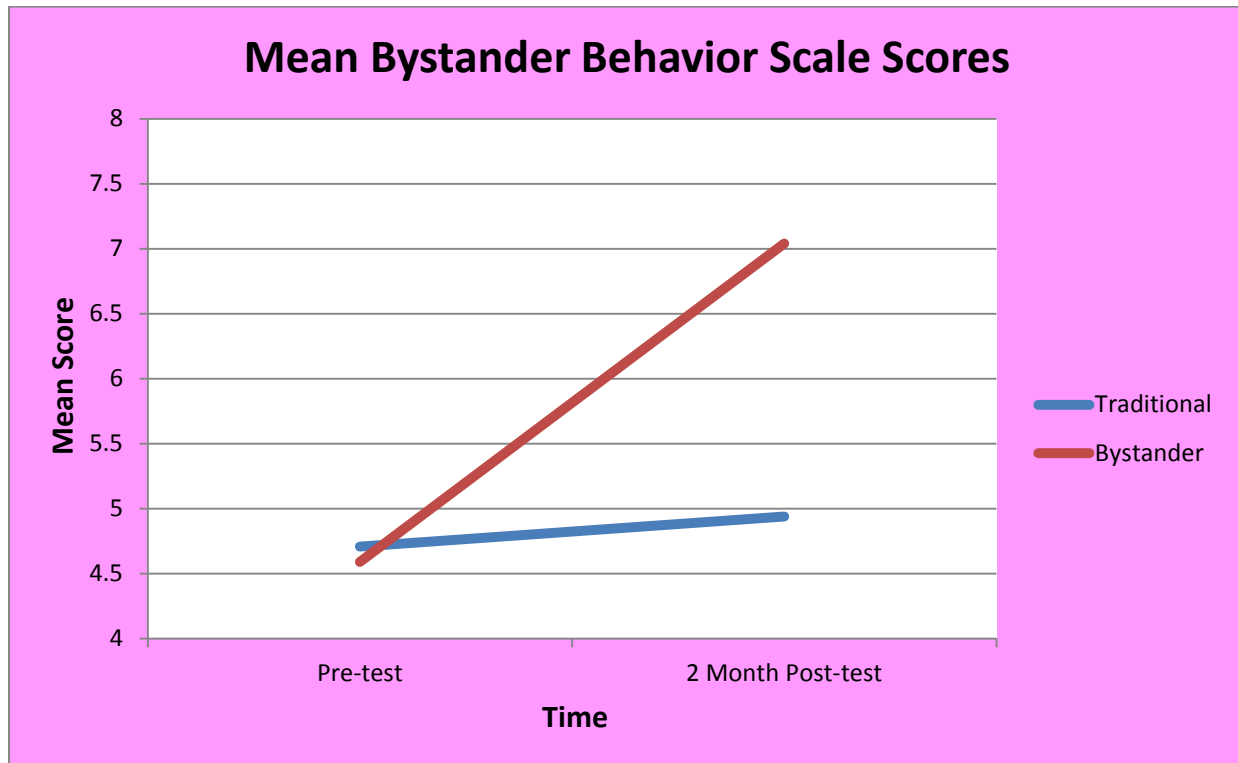


**Figure 7:** Mean BIH Scores at T1, T2, and T3 for Traditional and Bystander Groups





**Figure 8:** Mean BBS Scores at T1 and T3 for Traditional and Bystander Groups



### Results: Aim 3

**Aim 3:** *To examine potential moderators in the relationship between the educational programs (bystander and traditional awareness) and outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors.*

**H<sub>3</sub>:** The association between the dating violence prevention educational interventions (bystander and traditional awareness) and outcome measures of acceptance of rape myths and gender violence, perceived bystander efficacy, intention to help, and self-reported bystander behaviors will be moderated by gender and personal victimization history (including partner abuse and sexual abuse).

## Gender

A MANCOVA was performed on pre-test outcomes for men and women using social desirability as a covariate. There was a significant main effect for social desirability,  $F(4, 986)=11.78$ ,  $p<.001$ , Wilks' Lambda= .95 and for gender  $F(4, 896)= 35.49$ ,  $p<.001$ , Wilks' Lambda= .87. At pre-test, women were generally less accepting of rape myths and gender violence than men. They also reported greater perceived efficacy and greater intention to help than men.

A repeated measures MANCOVA for pre-test (T1) to post-test (T2) outcomes using social desirability as a covariate was performed. There were significant between subject effects for social desirability  $F(4, 680)= 6.41$ ,  $p<.001$ , Wilks' Lambda= .97, education group  $F(4, 680)= 2.77$ ,  $p<.05$ , Wilks' Lambda= .98., and gender  $F(4, 680)= 25.02$ ,  $p<.001$ , Wilks' Lambda= .87. There were not significant differences for group by gender interaction,  $F(4, 680)= 0.51$ , Wilks' Lambda= .99. For within subjects effects, there were significant effects for time,  $F(4, 680)= 43.39$ ,  $p<.001$ , Wilks' Lambda= .80, for time by social desirability,  $F(4, 680)= 3.05$ ,  $p<.05$ , Wilks' Lambda= .98, and for time by group,  $F(4, 680)= 29.06$ ,  $p<.001$ , Wilks' Lambda= .85. Time by gender interaction was not significant,  $F(4, 680)= 0.99$ , Wilks' Lambda= .97. Most importantly, time by group by gender interaction was also not significant,  $F(4, 680)= 0.52$ , Wilks' Lambda= .99, partial  $\eta^2=.03$ . This suggests that the education worked equally well for women and men. Thus gender does not appear to moderate the relationship between the education and outcome measures and hypothesis 3 was not supported.

Two sample t-tests were also performed to examine differences in outcome scores for men and women at immediate post-test (T2) and 2 month follow-up (T3). A Bonferroni adjusted significance value of .003 was utilized. The results indicated significant differences in all post-

test outcome measures between men and women at both post-test time points. These differences remained similar to what was seen at pre-test with women showing less acceptance of rape myths and gender violence and more efficacy and intention to help. At 2 month follow-up, women also reported more bystander behaviors than men. Table 10 shows the means and standard deviations for outcome measures for men and women at T2 and T3 along with the results of the two sample t-tests.

**Table 10:** Means (SDs) and t-tests for Men and Women at T2 and T3

	<u>Immediate Post-test (T2)</u>			<u>2 Month Follow-Up (T3)</u>		
	Women (N=356)	Men (N=342)	t	Women (N=317)	Men (N=275)	t
IRMA	1.9(0.5)	2.2(0.6)	-7.3*	2.1(0.6)	2.4(0.7)	-5.8*
GVS	1.3(0.4)	1.5(0.5)	-7.8*	1.5(0.5)	1.8(0.5)	-6.0*
BES	12.1(10.3)	15.0(13.6)	-3.2*	14.9(13.3)	18.7(15.7)	-3.1*
BIH	4.1(0.7)	3.9(0.7)	3.9*	3.9(0.7)	3.7(0.8)	4.0*
BBS	-	-	-	6.1(5.4)	4.6(4.8)	3.7*

-BBS is not measured at T2

\* $p \leq .003$  (2-tailed significance)

### Intimate Partner Abuse

Students who answered “yes” to any of the questions on the Abuse Assessment Screen were categorized as positive for abuse. At pre-test, 30.5% of the sample (N=296) reported intimate partner abuse (by answering “yes” to at least one question on the Abuse Assessment Screen). A MANCOVA was performed on pre-test outcomes for student who reported abuse and those who did not report abuse, using social desirability as a covariate. There was a significant main effect for social desirability,  $F(4, 961)=11.31$ ,  $p<.001$ , Wilks’ Lambda= .96 and for abuse  $F(4, 961)= 9.71$ ,  $p<.001$ , Wilks’ Lambda= .97. At pre-test, participants who reported intimate

partner abuse were generally less accepting of rape myths and gender violence than participants who did not report abuse. They also reported greater perceived efficacy and greater intention to help than those who did not report abuse.

A repeated measures MANCOVA for pre-test (T1) to post-test (T2) outcomes using social desirability as a covariate was performed. There were significant between subject effects for social desirability  $F(4, 665) = 6.90, p < .001$ , Wilks' Lambda = .96, education group  $F(4, 665) = 2.40, p < .05$ , Wilks' Lambda = .99., and abuse  $F(4, 665) = 6.88, p < .001$ , Wilks' Lambda = .96. There were not significant differences for group by abuse interaction,  $F(4, 665) = 1.87$ , Wilks' Lambda = .99. For within subjects effects, there were significant effects for time,  $F(4, 665) = 39.59, p < .001$ , Wilks' Lambda = .81 and for time by group,  $F(4, 665) = 24.99, p < .001$ , Wilks' Lambda = .87. There were non-significant effects for time by social desirability interaction  $F(4, 665) = 2.25$ , Wilks' Lambda = .99, for time by abuse interaction,  $F(4, 665) = 0.03$ , Wilks' Lambda = 1.0, and for time by group by abuse interaction,  $F(4, 665) = 2.71$ , Wilks' Lambda = .98, partial  $\eta^2 = .02$ . This suggests that the educational programs worked equally well for those who reported abuse and those who did not report abuse. Thus partner abuse does not appear to moderate the relationship between the education and outcome measures, and hypothesis 3 was not supported.

Two sample t-tests were performed to examine differences in outcome scores for those who reported intimate partner abuse and those who did not at post-test (T2). A Bonferroni adjusted significance value of .003 was utilized. The results indicated that there significant differences between participants who reported abuse and participants who did not report abuse at T2 for acceptance of gender violence, perceived efficacy, and intention to help. These differences remained similar to what was seen at pre-test with participants reporting abuse

showing less acceptance of gender violence and more efficacy and intention to help. There were not significant differences in any of the post-test outcome measures at T3 between participants who reported abuse and participants who did not report abuse except for bystander behaviors. At 2 month follow-up, abused participants reported more bystander behaviors than non-abused participants. Table 11 shows the means and standard deviations for outcome measures for abused and non-abused participants at T2 and T3 along with the results of the two sample t-tests.

**Table 11:** Means (SDs) and t-tests for Abused and Not Abused Participants at T2 and T3

	<u>Immediate Post-Test (T2)</u>			<u>2 Month Follow-Up (T3)</u>		
	Not Abused (N=466)	Abused (N=215)	t	Not Abused (N=406)	Abused (N=170)	t
IRMA	2.1(0.6)	2.0(0.6)	2.8	2.3(0.6)	2.1(0.7)	2.1
GVS	1.4(0.5)	1.3(0.4)	3.6*	1.7(0.5)	1.6(0.5)	1.9
BES	14.6(13.1)	11.1(8.9)	3.6*	17.4(14.6)	14.6(13.7)	2.1
BIH	4.0(0.7)	4.1(0.7)	-3.0*	3.9(0.7)	3.7(0.8)	-2.6
BBS	-	-	-	4.7(4.6)	7.2(5.9)	-5.5*

-BBS is not measured at T2

\* $p \leq .003$  (2-tailed significance)

## Sexual Abuse

At pre-test, 21.2% of the sample (N=212) reported sexual abuse (by reporting at least one occasion of unwanted sexual contact or sexual intercourse on the Sexual Experiences Survey). A MANCOVA was performed on pre-test outcomes for student who reported sexual abuse and those who did not report sexual abuse, using social desirability as a covariate. There was a significant main effect for social desirability,  $F(4, 990)=8.85$ ,  $p<.001$ , Wilks' Lambda= .96. There was not a significant effect for sexual abuse  $F(4, 990)= 1.10$ , Wilks' Lambda= .99. A repeated measures MANCOVA for pre-test (T1) to post-test (T2) outcomes using social

desirability as a covariate was performed. There were significant between subject effects for social desirability  $F(4, 683) = 5.23, p < .001$ , Wilks' Lambda = .97. There were not significant differences for education group  $F(4, 683) = 0.66$ , Wilks' Lambda = .99, for sexual abuse  $F(4, 683) = 0.64$ , Wilks' Lambda = .99, or for group by sexual abuse interaction,  $F(4, 683) = 1.66$ , Wilks' Lambda = .99. For within subjects effects, there were significant effects for time,  $F(4, 683) = 41.75, p < .001$ , Wilks' Lambda = .80 and for time by group,  $F(4, 683) = 19.37, p < .001$ , Wilks' Lambda = .89. There were non-significant effects for time by social desirability interaction  $F(4, 683) = 2.96$ , Wilks' Lambda = .98, for time by sexual abuse interaction,  $F(4, 683) = 0.49$ , Wilks' Lambda = .99, and for time by group by sexual abuse interaction,  $F(4, 683) = 1.34$ , Wilks' Lambda = .99, partial  $\eta^2 = .008$ . This suggests that the education programs worked equally well for participants who reported sexual abuse and those who did not. Thus sexual abuse does not appear to moderate the relationship between the education and outcome measures and hypothesis 3 was not supported.

Two sample t-tests were performed to examine differences in outcome scores for those who reported sexual abuse and those who did not at immediate post-test (T2) and two month follow-up (T3). A Bonferroni adjusted significance value of .003 was utilized. The results indicated that there were not significant differences in any of the post-test outcome measures between participants who reported sexual abuse and participants who did not report sexual abuse at either time point except for the significant differences in reported behaviors. At 2 month follow-up, sexually abused participants reported more bystander behaviors than non-sexually abused participants. Table 12 shows the means and standard deviations for outcome measures for sexually abused and non-sexually abused participants at T2 and T3 along with the results of the two sample t-tests.

**Table 12:** Means (SDs) and t-tests for Sexually Abused and Not Sexually Abused Participants at T2 and T3

	<u>Immediate Post-Test (T2)</u>			<u>2 Month Follow-Up (T3)</u>		
	Not Sexually Abused (N=552)	Sexually Abused (N=149)	t	Not Sexually Abused (N=470)	Sexually Abused (N=125)	t
IRMA	2.1(0.6)	2.0(0.6)	0.5	2.3(0.7)	2.2(0.7)	1.3
GVS	1.4(0.5)	1.4(0.4)	0.4	1.6(0.5)	1.6(0.6)	-0.2
BES	13.6(12.6)	13.0(10.2)	0.6	16.5(14.3)	17.5(16.5)	-0.7
BIH	4.0(0.7)	4.1(0.8)	-1.1	3.8(0.7)	3.8(0.8)	-0.1
BBS	-	-	-	5.0(4.8)	7.1(6.2)	-4.1*

-BBS is not measured at T2

\* $p \leq .003$  (2-tailed significance)

## Results: Aim 4

**Aim 4:** *To compare the differences in outcome measures between a bystander dating violence prevention education group, a traditional awareness dating violence prevention education group, and a no-education group.*

**H<sub>4</sub>:** Participants in both the bystander education group and the traditional awareness education group will score better than participants who received no education on all 2 month post-intervention outcome measures of attitudes, beliefs, efficacy, intentions, and self-reported behaviors. Specifically, the participants who received any type of education, compared to participants who received no education, will report:

- *Decreased* acceptance of rape myths and gender violence.
- *Increased* perceived bystander efficacy, intention to help, and self-reported bystander behaviors performed in the past 2 months.

To examine the overall impacts of the educational programs compared to a quasi-control group of students who received no education, a repeated measures MANCOVA was performed comparing pre-test to 2 month post-test for all three groups. The education group (traditional, bystander, and none) served as the independent variable, with each of the survey instruments (IRMA, GVS, BES, BIH) measuring an outcome/dependent variable. Scores on the SDS were used as a covariate. Only participants that completed both T1 and T3 with a matched participant code were included in the analysis for this aim (N= 588). The breakdown included 175 participants in the control group, 184 participants in the traditional group, and 229 participants in the bystander group. There were significant effects for social desirability,  $F(4, 685) = 5.62$ ,  $p < .001$ , Wilks' Lambda = .97 and for treatment group  $F(4, 581) = 4.89$ ,  $p < .001$ , Wilks' Lambda = .97. There was significant within subjects effect for time (T1 to T3)  $F(4, 581) = 5.52$ ,  $p < .001$ , Wilks' Lambda = .96 and non-significant time by social desirability interaction  $F(4, 581) = 1.57$ , Wilks' Lambda = .99. Most importantly, there was a significant time by group interaction when social desirability was controlled,  $F(8, 1162) = 17.06$ ,  $p < .001$ , Wilks' Lambda = .80, partial  $\eta^2 = .11$ .

A separate repeated measures MANCOVA was performed to examine change in self-reported bystander behavior comparing pre-test to 2 month post-test for all three groups. The education group (traditional awareness, bystander, and none) served as the independent variable and the BBS score served as the outcome/dependent variable. Scores on the SDS were used as a covariate. There were no significant effects for time or time by social desirability interactions, but there was a significant main effect for time by group interaction,  $F(2, 591) = 27.44$ ,  $p < .001$ , Wilks' Lambda = .92.



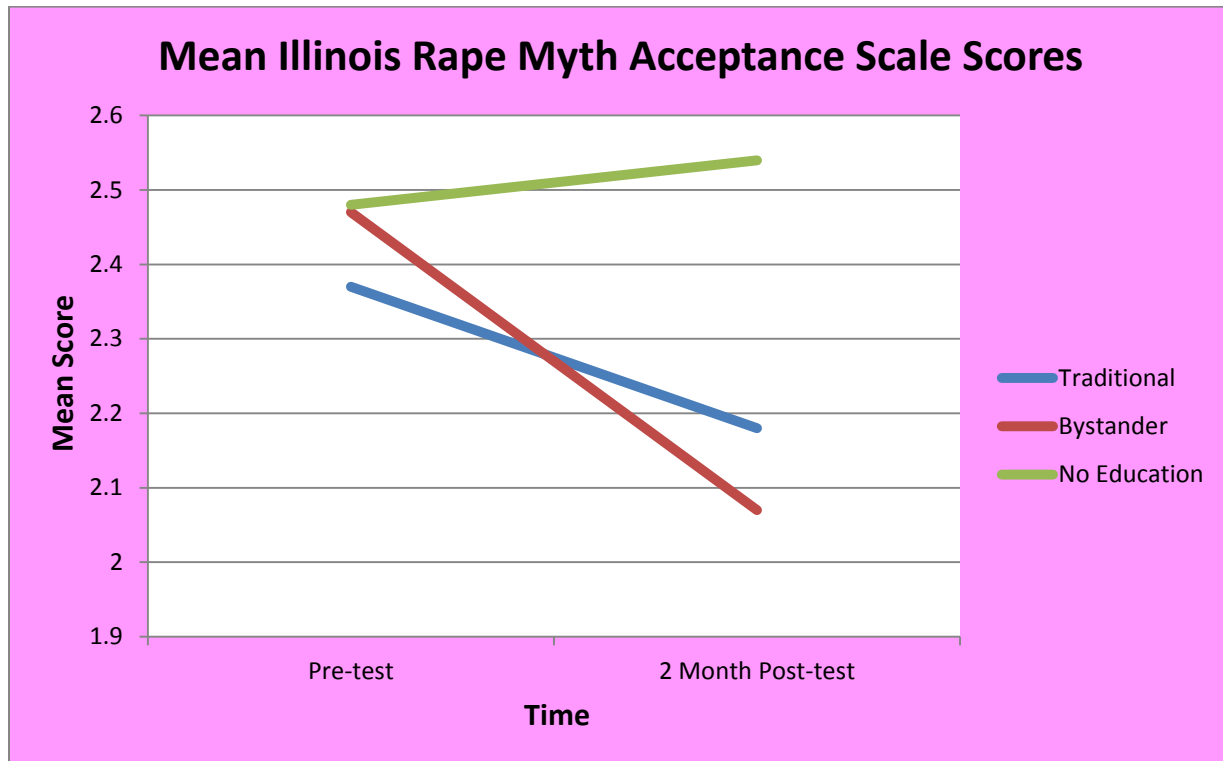
A series of paired sample t-tests were also performed to explore changes in scores within the control group from pre-test (T1) to 2 month post-test (T3). A Bonferroni adjusted significance value of .003 was utilized. Table 13 displays the means (SDs) for pre-test (T1) and 2 month posttest (T3) for the traditional, bystander, and no education groups. Table 13 also shows the paired sample t-tests for the traditional, bystander, and no education group for pre-test (T1) and 2 month follow-up (T3). Figures 9-13 show the changes in mean scores for the IRMA-R, GVS, BES, BIH, and BBS from T1 to T3 for the three groups (no education, traditional education, and bystander education). The control group showed two significant changes from pre-test to 2 month post-test. The BIH measure showed a significant negative change, with intention to help decreasing, and the BBS showed a significant negative change as well, with self-reported bystander behavior decreasing. Although not significant, rape myth acceptance also increased over time and efficacy decreased over time for the control group. For all measures, the control group scored worse than the groups that received dating violence prevention education. Thus hypothesis 4 was supported.

**Table 13:** Means (SDs) and Paired Sample t-tests for T1 and T3 for Traditional, Bystander, and No Education Groups

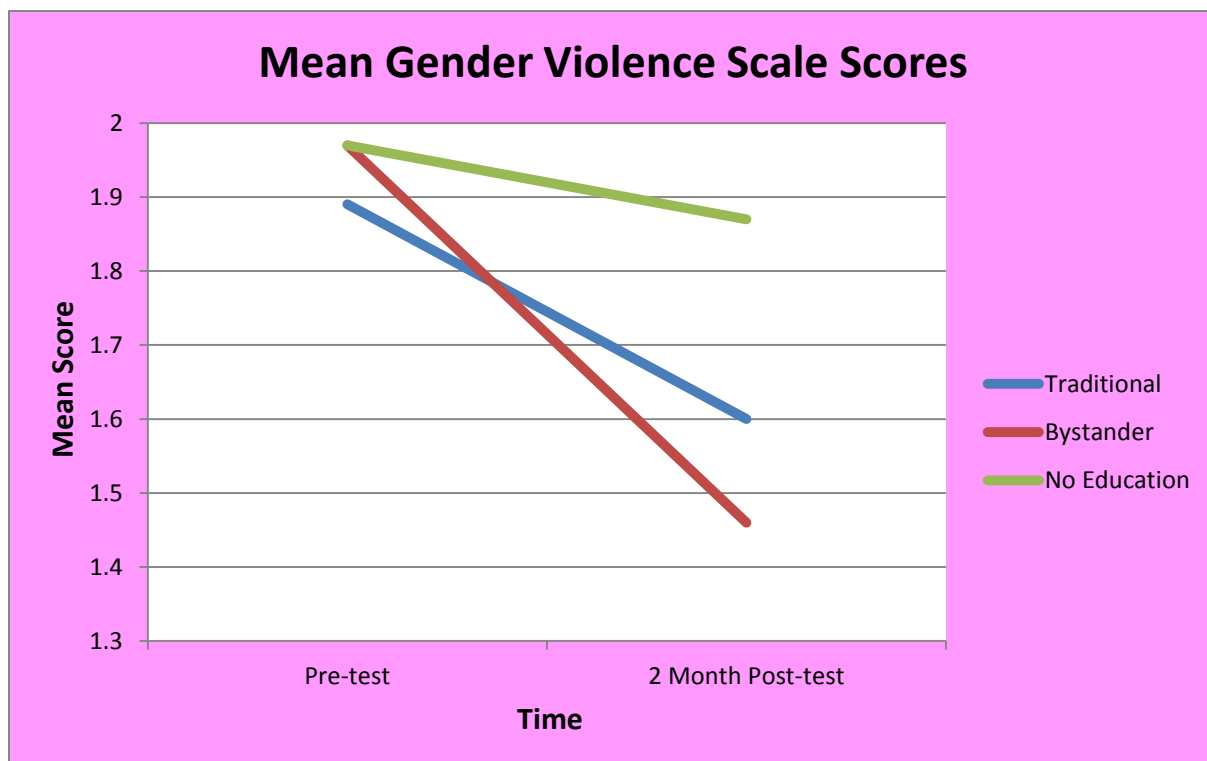
	<u>Traditional Education (N=185)</u>			<u>Bystander Education (N=232)</u>			<u>No Education (N=176)</u>		
	<u>T1</u>	<u>T3</u>	<u>t</u>	<u>T1</u>	<u>T3</u>	<u>t</u>	<u>T1</u>	<u>T3</u>	<u>t</u>
	<u>M(SD)</u>	<u>M(SD)</u>		<u>M(SD)</u>	<u>M(SD)</u>		<u>M(SD)</u>	<u>M(SD)</u>	
IRMA	2.4(0.5)	2.2(0.6)	4.9*	2.5(0.6)	2.1(0.6)	10.2*	2.4(0.5)	2.5(0.5)	-0.8
GVS	1.9(0.4)	1.6(0.5)	8.5*	2.0(0.5)	1.5(0.5)	14.1*	2.0(0.5)	1.9(0.5)	3.0
BES	19.5(12.9)	14.9(12.3)	6.2*	20.7(12.9)	11.5(9.4)	11.7*	21.4(14.8)	24.9(17.9)	-3.0
BIH	3.8(0.6)	3.9(0.7)	-1.3	3.7(0.7)	4.1(0.6)	-9.1*	3.6(0.7)	3.4(0.8)	3.2*
BBS	4.7(4.5)	4.9(4.5)	-0.6	4.6(4.6)	7.0(5.8)	-6.6*	4.9(4.3)	3.7(4.3)	3.8*

\*p≤.003 (2-tailed significance)

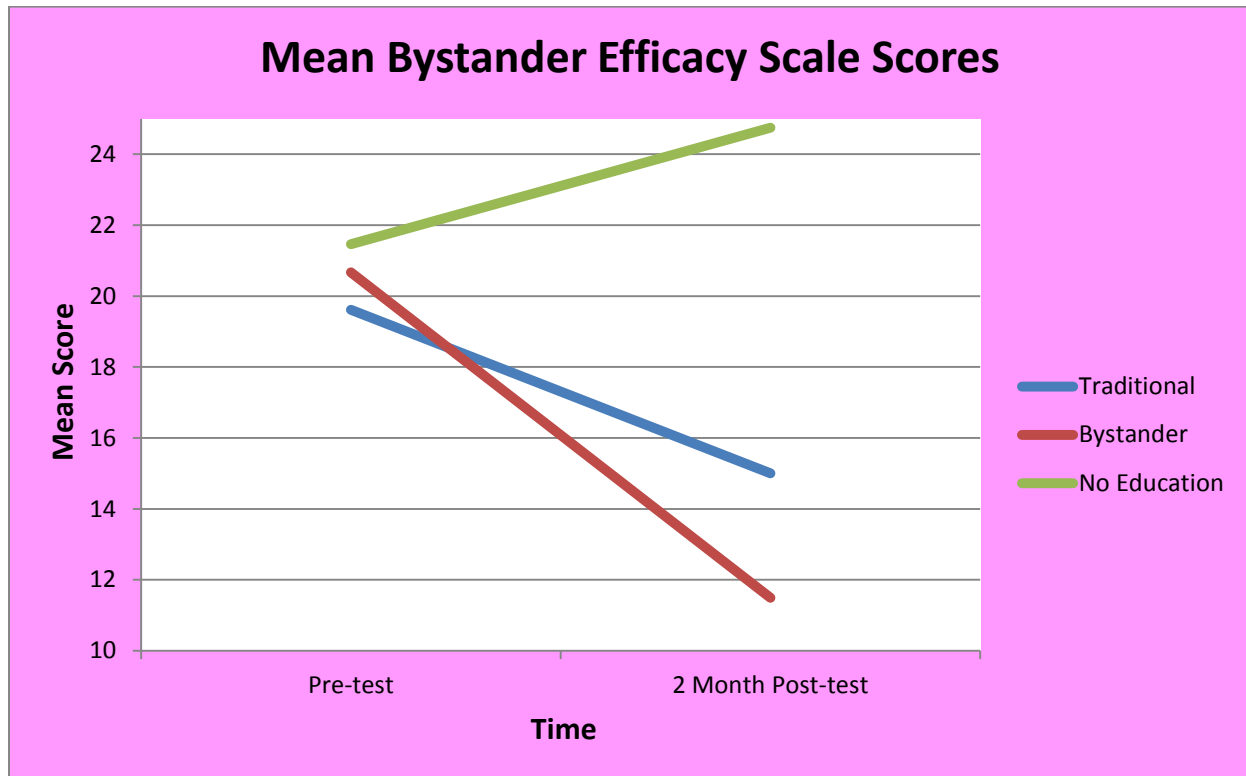
**Figure 9:** Mean IRMA Scores at T1 & T3 for Traditional, Bystander, and No Education Groups



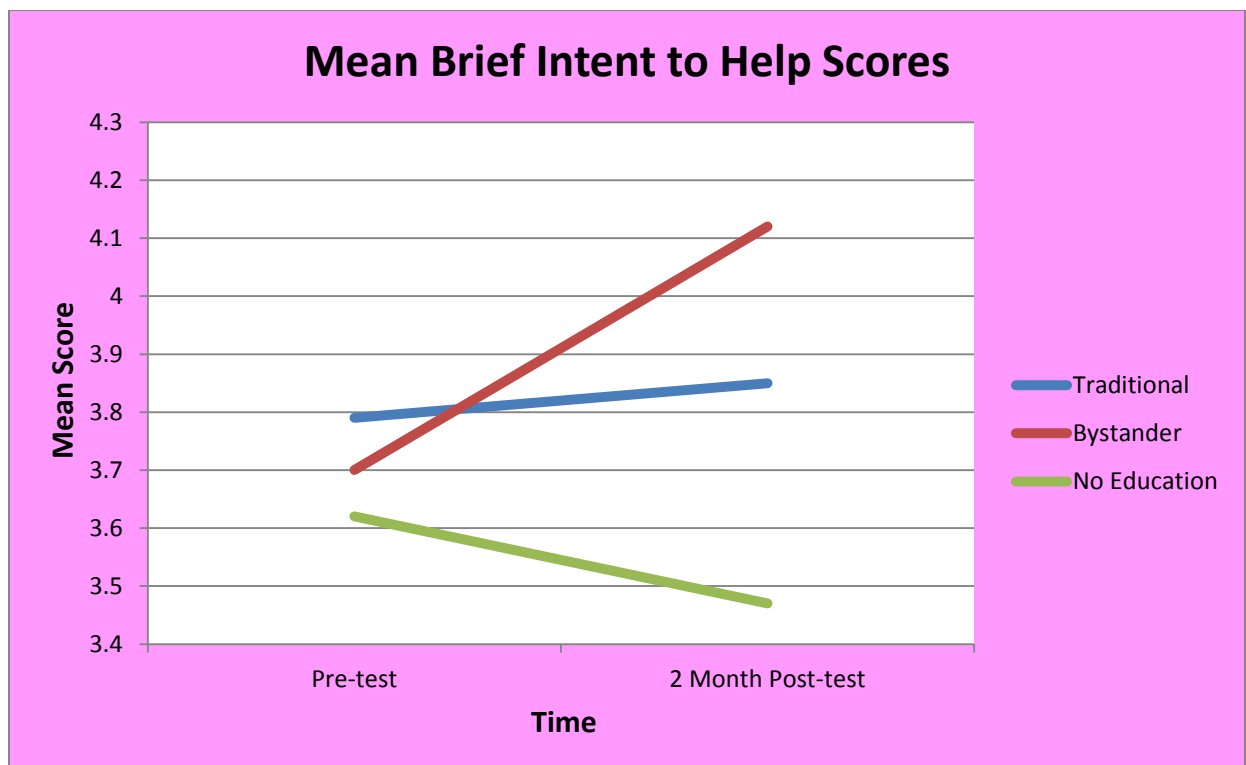
**Figure 10:** Mean GVS Scores at T1 & T3 for Traditional, Bystander, and No Education Groups



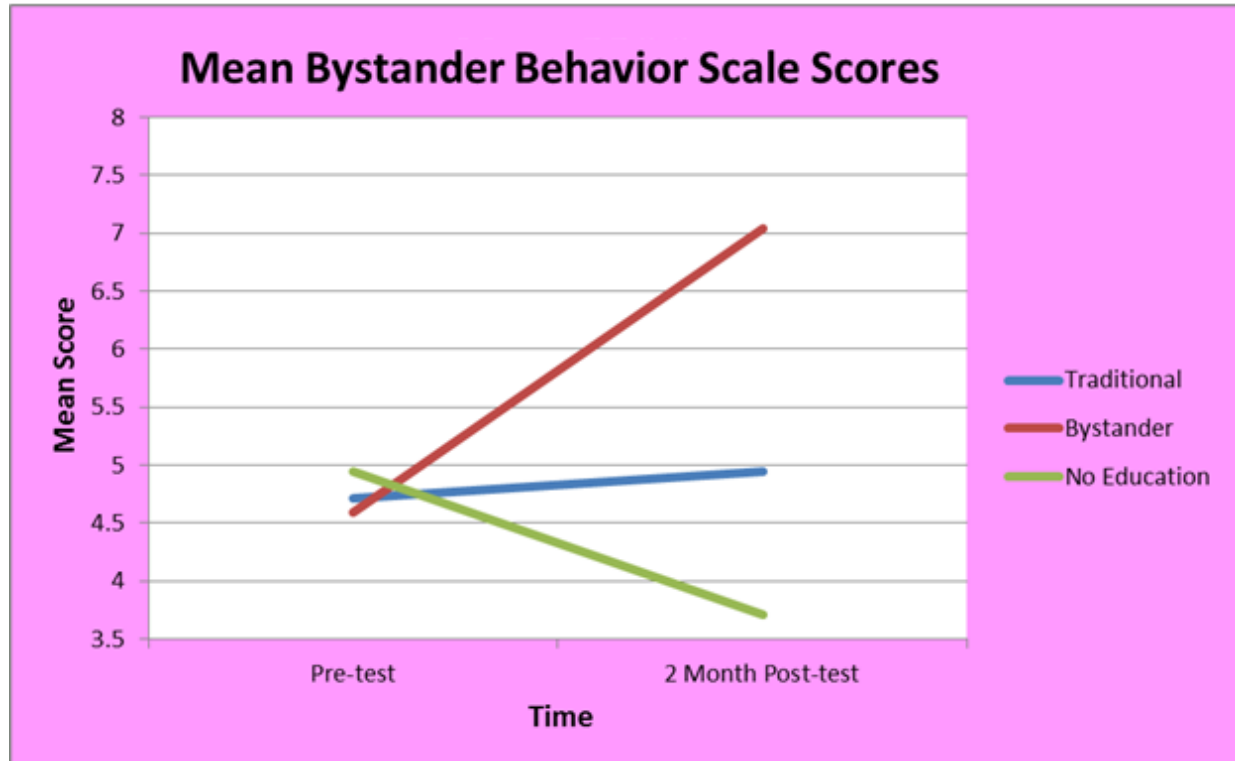
**Figure 11:** Mean BES Scores at T1 and T3 for Traditional, Bystander, and No Education Groups



**Figure 12:** Mean BIH Scores at T1 and T3 for Traditional, Bystander, and No Education Groups



**Figure 13:** Mean BBS Scores at T1 & T3 for Traditional, Bystander, and No Education Groups



### Summary

This chapter presented the results of the study. Hypothesis 1 was supported. Both the bystander group and the traditional awareness group showed positive changes in outcome measures (e.g. decreased acceptance of rape myths and gender violence and increased efficacy and intention to help) from pre-test (T1) to immediate post-test (T2). However, the bystander group showed more improvements overall compared to the traditional group. Hypothesis 2 was also supported. Although both groups did show evidence of decay from immediate post-test (T2) scores, there were still significant positive changes in all five outcome measures for the bystander group and three out of five outcome for the traditional awareness group from pre-test (T1) to 2 month post-test (T3). There was a non-significant change in BIH scores and BBS for the traditional awareness education group. Overall, the bystander group demonstrated more

statistically significant improvements than the traditional awareness group on all outcome measures.

Hypothesis 3 was not supported. The educational programs seemed to work equally well for men and women, with both genders showing reductions in rape myth and gender violence acceptance and increased efficacy, intention to help, and self-reported bystander behaviors. However, there were still significant differences in post-test outcome measures between men and women. These differences remained similar to what was seen at pre-test with women reporting less acceptance of rape myths and gender violence and more efficacy, intention to help, and bystander behaviors. The educational programs also worked equally well for participants who reported intimate partner abuse and those who reported sexual abuse compared to those who did not. However, there were a few significant differences in post-test outcome measures between those who reported abuse and those who did not. Specifically, there were significant differences between participants who reported intimate partner abuse and participants who did not report intimate partner abuse at T2 for acceptance of gender violence, perceived efficacy, and intention to help. These differences remained similar to what was seen at pre-test with participants reporting intimate partner abuse showing less acceptance of gender violence and more efficacy and intention to help. In addition, at 2 month follow-up, abused participants (both partner abuse and sexual abuse) reported more bystander behaviors than non-abused participants.

Finally, hypothesis 4 was supported. The control group did not show significant changes in most outcome measures from pre-test (T1) to 2 month post (T3). The BIH measure showed a significant negative change, with intention to help decreasing for the control group. The BBS showed a significant negative change as well, with actual bystander behavior decreasing. Although not significant, rape myth acceptance also increased over time and efficacy decreased

over time for the control group. For all measures, the control group scored worse than the groups that received dating violence prevention education. Overall the educational intervention yielded moderate effect sizes by conservative estimates (Privitera, 2014).

## **CHAPTER FIVE: CONCLUSION**

### **Introduction**

This chapter provides a discussion of the conclusions that can be drawn from this study that evaluates two dating violence prevention education programs. Limitations of the study are also examined. Next, implications of the findings are presented. Finally, the chapter ends with recommendations for future research.

### **Discussion**

The results of this study suggest that dating violence prevention education can be helpful in changing attitudes, beliefs, efficacy, intentions, and behaviors in college students. Both the traditional awareness and bystander education program groups showed significant improvements in outcome measures from pre-test to post-test. The bystander education appeared to be even more effective than the traditional awareness group for decreasing acceptance of rape myths and gender violence and increasing efficacy, intention to help, and self-reported bystander behaviors. Of particular significance is the positive improvement in intentions to help and actual behaviors that were observed in the bystander group, but not the traditional awareness group, at 2 month follow-up.

Another important finding is that both the education groups showed more improvements in outcome measures compared to a group that received no education. In fact, over time, the control group saw increases in rape myth acceptance and decreases in efficacy, intention to help, and actual bystander behavior. These findings highlight the importance of dating violence prevention education for college students. The results suggest that both types of dating violence prevention education are more beneficial than no education. However, bystander education appears to be even more effective than the traditional awareness education approaches that are

often used for dating violence prevention programming. Overall, the educational intervention yielded moderate effect sizes by conservative estimates.

From an ecological perspective, the bystander education approach may be more beneficial because it targets all of the interacting systems from the individual and microsystem to the mesosystem, exosystem, and macrosystem. In addition, it focuses on community responsibility and how to help others. Unlike most traditional dating violence prevention programs that focus on individual responsibility, often depicting men as perpetrators and women as victims, bystander programs take a broader community approach to the problem. This community approach can potentially reduce defensiveness and resistance to dating violence prevention messages and enhance efforts to change community norms around violence (Banyard et al., 2007).

The conceptual model for this study that incorporated concepts from the Theory of Planned Behavior was also very helpful for understanding changes in behavior related to dating violence prevention. Attitudes, subject norms, and perceived control can all impact intentions and thus actual behavior. Since the bystander program was more successful at changing attitudes, subjective norms, and perceived control (decreased acceptance of rape myth acceptance and gender violence and increased bystander efficacy), it makes sense that there was also increased intention to help and more self-reported prosocial bystander behaviors. The traditional awareness program was less effective at changing attitudes, subjective norms, and perceived control. This may explain why there were not significant changes in intentions to help and actual bystander behaviors. Comparing the behavioral changes between the bystander, traditional awareness, and no education groups is especially interesting. The mean number of self-reported behaviors for the bystander group increased the most from a mean of 4.6 behaviors at pretest to a mean of 7.0



behaviors at 2 month follow-up. This was followed by the small non-significant increase in self-reported behaviors for the traditional group from a mean of 4.7 to 4.9 behaviors. Finally, the no education group actually decreased their number of self-reported bystander behavior from a mean of 4.9 to 3.7. These results suggest that the bystander education approach for dating violence prevention may be the most beneficial for actual behavior change in a positive way.

The findings from Aim 3 are also very important. The results suggest that the educational programs work equally well for both genders. This is especially noteworthy considering that the education in this study was delivered in mixed gender classes. Overall both men and women showed improvements in all outcome measures following the educational programs. This finding is important because it is often not feasible to separate students by gender or have different educational programs for each gender. In addition, the educational programs also appeared to work equally well for survivors of abuse (both partner abuse and sexual abuse) as well as those who have never experienced abuse. With the high prevalence dating violence, it is likely that survivors of abuse will be part of educational programming. It is important to know that these educational programs are helpful for survivors of abuse as well as for those who have not experienced abuse.

In this study, 30.5% of the sample reported intimate partner abuse and 21.2% of the sample reported sexual abuse at pre-test. Though high, these statistics are consistent with many other studies reporting prevalence of dating violence and sexual assault in college students. For example, the International Dating Violence Study (n= 3,086 students from 8 countries) found that nearly one-third of college students report physically assaulting a dating partner in the previous 12 months (Straus, 2004). Likewise, the Campus Sexual Assault Study (n=5,446) found that nearly 20% of undergraduate college women had experienced sexual assault since entering

college. These alarming statistics highlight the importance of dating violence prevention education among college students.

The overall results from this research study are consistent with findings from other researchers that have demonstrated the utility of using a bystander approach for sexual violence prevention (Amar et al., 2012; Banyard et al., 2007; Coker et., 2011; Katz, 1994; Miller et al., 2012, 2013). For example, Banyard et al. (2007) originally developed and tested the *Brining in the Bystander* program and showed that it was effective at positively changing knowledge, attitudes, beliefs, and behaviors in college students. Students in both a one session and three session program demonstrated decreased rape myth acceptance, increased knowledge and self-efficacy related to bystander behavior, and an increased likelihood of engaging in pro-social bystander behaviors at 2 months compared to a control group (Banyard et al., 2007). Amar et al. (2012) found similar results with the *Brining in the Bystander* program. After the program, participants' reported decreased rape myth acceptance and denial of interpersonal violence, and increased intention to act as a bystander and an increased sense of responsibility to intervene (Amar et al., 2012). Other bystander interventions such as *Mentors in Violence Prevention* (MVP), *Green Dot*, and *Coaching Boys into Men* have also shown positive outcomes. For example, the *MVP* program resulted in increased knowledge about violence and increased self-efficacy to take action to prevent violence among high school students who attended the program (Ward, 2001). Likewise, college students who participated in the *Green Dot* program demonstrated decreased rape myth acceptance and increased bystander behaviors compared to a control group (Coker et al, 2011). In addition, male athletes in high schools receiving the *Coaching Boys into Men* intervention reported increased intentions to intervene and higher levels of positive bystander intervention behavior than control subjects at 3 month follow-up (Miller et

al., 2012). At 12 month follow-up, intervention athletes reported lower levels of negative bystander behaviors (such as laughing or going along with peers' abusive behaviors) and perpetration of dating violence in the past 3 months was also less prevalent among intervention athletes relative to control athletes.

This study expanded the focus of the *Bringing in the Bystander* (Banyard et al., 2007) education and showed that it can be helpful in addressing all forms of dating violence and not just sexual assault. In addition, it is also important to note that the adapted form of *Bringing in the Bystander* program was tested in a different geographic region with a more diverse population of college students thus supporting the generalizability of the program benefits. The original evaluation of the *Bringing in the Bystander* program included a sample that was over 90% Caucasian (Banyard et al., 2007), whereas nearly one-third of the sample from this study were ethnic minorities. Furthermore, the original evaluation of the *Bringing in the Bystander* program provided education to single-gender groups of students (Banyard et al., 2007). In this study the education was delivered in mixed-gender classes and still showed positive effects for both men and women. Finally, this study also compared the bystander education to a more traditional awareness education approach and demonstrated that the bystander approach was more effective in changing attitudes, beliefs, efficacy, intentions, and self-reported bystander behaviors in college students. The randomization of participants to education group and the 2 month follow-up strengthened the findings of this study. It is of interest to note that the bystander education program in this study continued to demonstrate positive outcomes at 2 month follow-up, even without the booster session that was included in the research conducted by Banyard et al. (2007). In this study, the group that received the bystander education showed the most

significant decreases in acceptance of rape myths and gender violence and increases in efficacy, intention to help, and self-reported bystander behaviors at 2 month follow-up.

### **Limitations**

This research study had several limitations. The data relied totally on self-report. The use of a self-generated code to keep answers anonymously was intended to help with reporting on sensitive issues. In addition, a social desirability scale was included in the measures to assess for socially desirable response bias among participants. Due to time-constraints, only a one-time educational program was offered rather than multiple sessions of the program, which have shown to be even more effective in previous research (Banyard et al., 2007). Nonetheless, shorter versions of dating violence prevention interventions may be more practical in many settings. The results of this study, as well as others, suggest that even shorter educational programs can still have positive outcomes (Banyard et al., 2007; Coker et. al, 2011). Follow-up data was only collected at 2 months while the students were still enrolled in the Freshmen Seminar courses. Therefore, longer-term benefits of the education are unknown. However, students were asked for permission to re-contact during the consent process for possible longer-term follow up in future studies.

Another limitation of this study is that it primarily measured attitudes, beliefs, efficacy, and intentions. There was only one measure of self-reported behavior. However, as discussed previously with regards to the Theory of Planned Behavior, these other variables can play an important role in influencing behavior. Actual prevalence of sexual assault and dating violence at each time point was not measured, so it is unknown if changes in attitudes, beliefs, efficacy, intentions, and bystander behaviors translated into a reduction in dating violence and/or sexual assault. Finally, another limitation of this study was the significant attrition of study participants

at 2 month follow-up (T3). Six instructors would not allow their classes to participate in the research at T3. Thus, approximately 228 students were automatically lost to follow-up. As a result, the attrition rates were much higher at T3 compared to T2, with 38% attrition among the bystander group, 51% attrition among the traditional awareness group, and 22% attrition among the control group. Analyses comparing the students who were retained at T3 to students who were lost to follow-up on demographic, abuse history, and main dependent outcomes, found that there were no statistically significant differences between students who were retained and students who were lost to follow-up for any of these variables. This is likely due to the fact that it was an instructor decision not to participate in the research and not the students themselves choosing not to participate. Nonetheless, the high attrition at T3 is still a limitation of this study.

### **Implications**

This research study helps contribute to an enhanced understanding of effective primary prevention strategies for dating violence in college students. Dating violence is a major public health concern associated with numerous adverse physical, psychological, academic, and social consequences (Amar & Gennaro, 2005; Black et al., 2011; Campbell, 2002; Coker et al., 2002; Exner-Cortens et al., 2013; Glass et al., 2003; Kaura & Lohman, 2007; Silverman et al., 2001; Stein et al., 2009). Dating violence is prevalent in adolescents and young adults, and thus dating violence prevention strategies should be implemented on college campuses. Bystander education is a promising new approach to dating violence prevention that requires more research. Bystander education attempts to reduce aggression by changing attitudes and beliefs while building empathy, and increasing helping behaviors and intervention by bystanders in potentially risky situations (Shorey et al., 2012).

Few studies have empirically tested bystander intervention approaches and those that have typically focus on rape prevention (Banyard, 2011; Shorey et al., 2012). This study expanded the focus to include all forms of dating violence including physical, psychological, and sexual abuse. Furthermore, this study compared a traditional awareness dating violence prevention education approach to the bystander approach in order to determine which was more effective. Previous research has demonstrated the utility of using a bystander approach for sexual violence prevention (Banyard et al., 2007; Coker et., 2011), however it was unknown if these programs would be more or less effective than traditional approaches. This study directly compared the two approaches and showed that the bystander approach was more effective at changing attitudes, beliefs, efficacy, intentions, and self-reported behaviors in college students. Specifically the bystander program showed greater reductions in acceptance of rape myths and gender violence as well as increased efficacy, intention to help, and self-reported pro-social bystander behaviors. Therefore, the results of this study provide even more evidence that supports the use of bystander programs for dating violence and sexual assault prevention.

This study has important implications for future dating violence prevention education programming. The results of this study and others demonstrating the benefits of bystander education for dating violence and sexual assault prevention may be useful to colleges and universities as they develop or revise their educational programming to meet new requirements of the Campus Sexual Violence Elimination Act (Campus SaVE Act). Passed in March 2013, the Campus SaVE Act is part of the Violence Against Women Reauthorization Act (VAWA) and it revises the present Clery Act. The Campus SaVE Act calls for extensive "primary prevention and awareness programs" and expands the focus from sexual assault to include other forms of intimate partner violence (CampusClarity, 2013). The Campus SaVE Act mandated that most

higher education institutions, including community colleges and vocational schools, must educate students, faculty, and staff on the prevention of rape, acquaintance rape, domestic violence, dating violence, sexual assault, and stalking (CampusClarity, 2013). The Campus SaVE Act went into effect on March 7, 2014 and by October 1, 2014 schools must be in compliance. The results of the current research study may be useful to consider for future dating violence prevention educational programming and informing policies on violence prevention at institutions of higher education.

Dating violence has important implications for nurses. Nurses can help address the problem of dating violence by being knowledgeable about it and by being actively involved in prevention efforts at various levels. Nurses and nurse practitioners that work in school and campus health centers need to be comfortable addressing issues related to dating violence and actively work with students to prevent violence. Nurses should be aware and well-informed about dating violence from an ecological perspective in order to effectively address the problem. In addition, nurses can help implement evidence-based dating violence prevention strategies. For example, school and campus based nurses can directly implement or support the implementation of bystander violence prevention programs. They can also advocate for violence prevention resources for their school or campus and encourage violence prevention education for all students, faculty, and staff. In addition, nurses working with adolescents and young adults should address unhealthy cultural norms related to dating violence and reinforce healthy relationships and bystander concepts.

Nurses can be involved with dating violence prevention at the primary prevention level, such as with bystander education, and also at the secondary level through screening for dating violence, and the tertiary level by supporting victims of dating abuse. By understanding the

prevalence, risk factors, consequences, and evidence-based strategies for prevention and intervention, nurses can play a critical role in promoting health and stopping or reducing dating violence. In addition, by taking a bystander approach, nurses can help reduce resistance and defensiveness to violence prevention messages and focus on community engagement to help prevent or reduce the problem of dating violence in our society.

### **Recommendations for Future Research**

This research study provides evidence for the importance of dating violence prevention education on college campuses, in particular bystander approaches. This study expanded the *Bringing in the Bystander* program (Banyard et al., 2007) to include all forms of dating violence. This expanded program, with its broader focus on dating violence, should be tested in several different ways to build more evidence for its effectiveness. For example, it may be helpful to increase the length and the number of sessions that the program is delivered over to see if this would further increase the effectiveness of the intervention. It would also be important to determine if changes in attitudes, beliefs, efficacy, intentions, and behaviors are maintained for longer periods of time after the intervention with the longer programs. The bystander education program for dating violence prevention should also be tested with a variety of other populations and in a variety of settings, such as high schools, community colleges, and trade schools, as well as other non-academic settings such as youth centers and military settings. In addition, there is a need for longer follow-up time periods after the bystander education intervention. It is unknown what effects this expanded bystander dating violence prevention program may have beyond 2 months follow-up. Future research should also address the impact of bystander educational programs on actual dating violence perpetration/victimization rates.



## Conclusion

Overall, the results of this study suggest that dating violence prevention education is important. Both traditional awareness and bystander education programs are more beneficial than no education. However, bystander education programs are more effective at changing attitudes, beliefs, efficacy, intentions, and behaviors in college students than traditional awareness education programs. This study helps contribute to an enhanced understanding of effective primary prevention strategies for dating violence in college students. It provides support for the use of an adapted form of the evidence-based bystander education program, *Bringing in the Bystander* (Banyard et al., 2007) for dating violence prevention education for college students. This study expanded the focus of the bystander education program to include all forms of dating violence and provided an evaluation of the program in a different setting from where it was developed with a different, more diverse, population of students. In addition, the education was presented to mixed-gender groups of students and the results indicated that overall it benefited male and female participants equally. Other significant aspects of this study are that it compared a bystander program directly to a traditional awareness program, included randomization to educational group, and there was 2 month follow-up. The results of this study have important implications for future dating violence prevention educational programming and also important implications for nurses who can be involved in dating violence prevention efforts. Bystander education is a promising approach to dating violence prevention and is an important area for future study.

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## APPENDIX A: PARTICIPANT CODE CALCULATION

### Participant Code Number Calculation Form

Please write down the **first 2 LETTERS** of your **mother's maiden name**. For example, if your mother's maiden name is Smith, please write "SM":

\_\_\_\_\_

Record the **DAY of the month** you were born using **two digit format**. If the day is only 1 digit, please put a "0" in the first space. For example, if you were born on March 1, you should record "01":

+ \_\_\_\_\_

Record the **number of siblings** you have using **two digit format**. For example, if you have two siblings, record "02". If you have no siblings, record "00":

+ \_\_\_\_\_

Please combine your responses from the previous three questions to create your participant code:

= \_\_\_\_\_

### DIRECTIONS:

**Thank you for your participation. Please read each question carefully and choose your answer from among the choices given. We are interested in your honest response. Your answers will be anonymous. Please ask the researcher if you have any questions**

## APPENDIX B: DEMOGRAPHICS

Q1) What is your gender?

- 1) \_\_\_ Male                      2) \_\_\_ Female                      3) \_\_\_ Transgender

Q2) What is your racial/ethnic background?

- 1) \_\_\_ African American or Black  
2) \_\_\_ Asian or Asian American  
3) \_\_\_ Caucasian or White  
4) \_\_\_ Hispanic American or Latino/Latina  
5) \_\_\_ Native American/American Indian  
6) \_\_\_ Other (please identify): \_\_\_\_\_

Q3) What is your current relationship status?

- 1) \_\_\_ Not currently dating  
2) \_\_\_ Occasionally dating  
3) \_\_\_ Exclusively dating  
4) \_\_\_ Engaged  
5) \_\_\_ Married

Q4) What is your sexual orientation?

- 1) \_\_\_ Heterosexual/ straight  
2) \_\_\_ Gay  
3) \_\_\_ Lesbian  
4) \_\_\_ Bisexual

Q5) What is your class standing?

- 1) \_\_\_ Freshman  
2) \_\_\_ Sophomore  
3) \_\_\_ Junior  
4) \_\_\_ Senior

Q6) Are you a transfer student? 1) \_\_\_ Yes                      2) \_\_\_ No

Q7) What college/school does your major fall under?

- 1) \_\_\_ Letters, Arts, and Sciences  
2) \_\_\_ College of Engineering and Applied Sciences  
3) \_\_\_ Beth-El College of Nursing and Health Sciences  
4) \_\_\_ College of Buisness and Adminsitration  
5) \_\_\_ College of Education  
6) \_\_\_ School of Public Affairs  
7) \_\_\_ Undeclared  
8) \_\_\_ Other (please specify): \_\_\_\_\_

Q8) Not including this program, have you ever attended an educational program about the following:

- A) Sexual assault/rape    1) Yes \_\_\_                      2) No \_\_\_  
B) Sexual harassment    1) Yes \_\_\_                      2) No \_\_\_  
C) Dating abuse/violence    1) Yes \_\_\_                      2) No \_\_\_



## APPENDIX C: GENDER VIOLENCE SCALE

Please respond to each statement by circling the response that best corresponds to your views using the following scale:

1	2	3	4	5
Strongly disagree	Disagree	Unsure	Agree	Strongly agree

1.	Students sexually harass one another at UCCS	1	2	3	4	5
2.	A guy who tells his girlfriend whom she can hang out with is being too controlling.	1	2	3	4	5
3.	Female students who wear short shorts or short skirts should expect to receive sexual comments.	1	2	3	4	5
4.	If I see a couple physically fighting on campus, it is none of my business.	1	2	3	4	5
5.	If I see a couple physically fighting at a party, it is none of my business.	1	2	3	4	5
6.	If a woman gets really drunk and has unwanted sex at a party, it is partly her fault.	1	2	3	4	5
7.	Sometimes women want to have sex even when they say "no".	1	2	3	4	5
8.	Sexual assault is an issue that should concern both men and women equally.	1	2	3	4	5
9.	It is harmless to tell dirty jokes about women.	1	2	3	4	5
10.	Magazines and music videos show disrespectful sexual images of women.	1	2	3	4	5
11.	A person is not really abusive as long as they don't physically harm anyone.	1	2	3	4	5
12.	In serious relationships between males and females, males should be the leaders and decision-makers.	1	2	3	4	5
13.	If a woman is battered, she has done something to cause it or has "asked for it" in some way.	1	2	3	4	5
14.	It is okay for a man to force a woman to have sex with him if she has flirted with him or led him on.	1	2	3	4	5
15.	If a guy forces his girlfriend to have sex with him when she doesn't want to, it is rape.	1	2	3	4	5
16.	Men and women are equal and should be treated the same way.	1	2	3	4	5

## APPENDIX D: ILLINOIS RAPE MYTH ACCEPTANCE SCALE- REVISED

Please circle your level of agreement for each of the following statements using the scale:

1                      2                      3                      4                      5  
 Strongly disagree    Disagree            Neutral              Agree                Strongly agree

1.	If a girl is raped while she is drunk, she is at least somewhat responsible for what happened.	1	2	3	4	5
2.	When girls go to parties wearing slutty clothes, they are asking for trouble.	1	2	3	4	5
3.	If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped.	1	2	3	4	5
4.	If a girl acts like a slut, eventually she is going to get into trouble.	1	2	3	4	5
5.	When guys rape, it is usually because of their strong desire for sex.	1	2	3	4	5
6.	Guys don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	1	2	3	4	5
7.	Rape happens when a guy's sex drive gets out of control.	1	2	3	4	5
8.	If a guy is drunk, he might rape someone unintentionally.	1	2	3	4	5
9.	If both people are drunk, it can't be rape.	1	2	3	4	5
10.	It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.	1	2	3	4	5
11.	If a girl doesn't physically resist sex—even if protesting verbally—it really can't be considered rape.	1	2	3	4	5
12.	If a girl doesn't physically fight back, you can't really say it was rape.	1	2	3	4	5
13.	A lot of times, girls who say they were raped agreed to have sex and then regret it.	1	2	3	4	5
14.	Rape accusations are often used as a way of getting back at guys.	1	2	3	4	5
15.	Girls who say they were raped often led the guy on and then had regrets.	1	2	3	4	5
16.	A lot of times, girls who claim they were raped just have emotional problems.	1	2	3	4	5
17.	If the accused "rapist" doesn't have a weapon, you really can't call it a rape.	1	2	3	4	5
18.	Girls who are caught cheating on their boyfriends sometimes claim that it was rape.	1	2	3	4	5
19.	If a girl doesn't say "no," she can't claim rape.	1	2	3	4	5

## APPENDIX E: BYSTANDER EFFICACY SCALE

Please read each of the following behaviors. Indicate in the column *Confidence* how confident you are that you could do them. Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100
can't do	quite uncertain			moderately uncertain				very certain		

You may interpret the phrase “do something” to mean acting in some way, such as asking for help, creating a distraction, or talking directly

		Confidence
1.	Express my discomfort if someone makes a joke about a woman's body.	%
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 yelling “help.”	%
4.	Talk to a friend who I suspect is in a sexually 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.	Criticize a friend who tells me that they had sex with someone who was passed out or who didn't give consent.	%
10.	Do something to help a very drunk person who is being brought upstairs to a bedroom by a group of people at a party.	%
11.	Do something if I see a woman surrounded by a group of men at a party who looks very uncomfortable.	%
12.	Tell an RA or other campus authority about information I have that might help in a sexual assault case even if pressured by my peers to stay silent	%
13.	Speak up to someone who is making excuses for forcing someone to have sex with them.	%
14.	Speak up to someone who is making excuses for having sex with someone who is unable to give full consent.	%

## APPENDIX F: BRIEF INTENT TO HELP SCALE (FRIENDS)

**Please read the following statements and circle the number indicating how likely you are to engage in these behaviors using the following scale:**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Not at all likely</b>				<b>Extremely likely</b>

\* These questions are for behaviors you may engage in with someone you KNOW

1.	Approach someone I know if I thought they were in an abusive relationship and let them know I'm here to help	1	2	3	4	5
2.	Let someone I know who I suspect has been sexually assaulted know I'm available for help and support	1	2	3	4	5
3.	Ask someone I know who seems upset if they are okay or need help	1	2	3	4	5
4.	If someone I know said they had an unwanted sexual experience but don't call it rape, I express concern or offer to help	1	2	3	4	5
5.	Express concern to someone I know who has unexplained bruises that may be signs of abuse in relationship	1	2	3	4	5
6.	Stop and check in on someone I know who looks intoxicated when they are being taken upstairs at party	1	2	3	4	5
7.	I see a guy talking to a woman I know. He is sitting close to her and by look on her face I can see she is uncomfortable. I ask her if she is okay or try to start a conversation with her	1	2	3	4	5
8.	I see someone I know and their partner. The partner has a fist clenched around the arm of person and person looks upset. I ask if everything is okay	1	2	3	4	5
9.	Ask someone I know who is being shoved or yelled at by their partner if they need help	1	2	3	4	5
10.	Tell someone I know if I think their drink was spiked with a drug	1	2	3	4	5
11.	Talk with people I know about sexual violence and intimate partner violence as issues for our community	1	2	3	4	5
12.	Talk with people I know about going to parties together and staying together and leaving together	1	2	3	4	5
13.	Talk with people I know about watching each other's drinks	1	2	3	4	5
14.	Talk with people I know about what makes a relationship abusive and what warning signs might be	1	2	3	4	5
15.	Express concern to someone I know if I see their partner exhibiting very jealous behavior and trying to control them	1	2	3	4	5
16.	Share information or resources about sexual assault and/or intimate partner abuse with someone I know	1	2	3	4	5

## APPENDIX G: BRIEF INTENT TO HELP SCALE (STRANGERS)

Please read the following statements and circle the number indicating how likely you are to engage in these behaviors using the following scale:

1	2	3	4	5
Not at all likely				Extremely likely

\* These questions are for behaviors you may engage in with someone you **DON'T KNOW**

1.	Approach someone I don't know if I thought they were in an abusive relationship and let them know I'm here to help	1	2	3	4	5
2.	Let someone I don't know who I suspect has been sexually assaulted know I'm available for help and support	1	2	3	4	5
3.	Ask someone I don't know who seems upset if they are okay or need help	1	2	3	4	5
4.	If someone I don't know said they had an unwanted sexual experience but don't call it rape, I express concern or offer to help	1	2	3	4	5
5.	Express concern to someone I don't know who has unexplained bruises that may be signs of abuse in relationship	1	2	3	4	5
6.	Stop and check in on someone I don't know who looks intoxicated when they are being taken upstairs at party	1	2	3	4	5
7.	I see a guy talking to a woman I don't know. He is sitting close to her and by look on her face I can see she is uncomfortable. I ask her if she is okay or try to start a conversation with her	1	2	3	4	5
8.	I see someone I don't know and their partner. The partner has a fist clenched around the arm of person and person looks upset. I ask if everything is okay	1	2	3	4	5
9.	Ask someone I don't know who is being shoved or yelled at by their partner if they need help	1	2	3	4	5
10.	Tell someone I don't know if I think their drink was spiked with a drug	1	2	3	4	5
11.	Talk with people I don't know about sexual violence and intimate partner violence as issues for our community	1	2	3	4	5
12.	Talk with people I don't know about going to parties together and staying together and leaving together	1	2	3	4	5
13.	Talk with people I don't know about watching each other's drinks	1	2	3	4	5
14.	Talk with people I don't know about what makes a relationship abusive and what warning signs might be	1	2	3	4	5
15.	Express concern to someone I don't know if I see their partner exhibiting very jealous behavior and trying to control them	1	2	3	4	5
16.	Share information or resources about sexual assault and/or intimate partner abuse with someone I don't know	1	2	3	4	5

## APPENDIX H: BYSTANDER BEHAVIOR SCALE

Please read the list below and circle “Yes” for all the items indicating behaviors in which you have engaged IN THE PAST 8 WEEKS or circle “No” if you have not engaged in the behavior in the last 8 weeks. Circle “No Opp” (No Opportunity) if you have not had the opportunity to engage in the behavior in the last 8 weeks. If you circle Yes, please write the approximate number of times in the past 8 weeks that you have done this on the line for those questions that ask.

1.	Thought through the pros and cons of different ways I might help if I see an instance of sexual violence.	Yes	No	No Opp
2.	Spoke up if I heard someone say, “She deserved to be raped.” 2a. If yes, # of times in the past 8 weeks: _____	Yes	No	No Opp
3.	Ask for verbal consent when I am intimate with my partner, even if we are in a long-term relationship.	Yes	No	No Opp
4.	Talked with my friends about sexual and intimate partner violence as an issue for our community. 4a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
5.	Expressed concern to a friend if I saw their partner exhibiting very jealous behavior and trying to control my friend. 5a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
6.	Told a friend when I thought their drink may have been spiked with a drug. 6a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
7.	Talked with friends about what makes a relationship abusive and what warning signs might be. 7a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
8.	I saw a man talking to a female friend. He was sitting very close to her and by the look on her face I could see she was uncomfortable. I asked her if she is okay or tried to start a conversation with her. 8a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
9.	Stopped and checked in with my friend who looked very intoxicated when they were being taken upstairs at party. 9a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
10.	Approached a friend if I thought they were in an abusive relationship and let them know that I’m here to help. 10a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
11.	Expressed disagreement with a friend who says having sex with someone who is passed out or very intoxicated is okay. 11a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp

12.	Went with my friend to talk with someone (e.g., police, counselor, crisis center, resident advisor) about an unwanted sexual experience or physical violence in their relationship. 12a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
13.	Made sure I left the party with the same people I came with. 13a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
14.	Talked with my friends about going to parties together and staying together and leaving together. 14a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
15.	Talked with my friends about watching each other's drinks. 15a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
16.	Watched my friends' drinks at parties. 16a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
17.	Made sure friends leave the party with the same people they came with. 17a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
18.	When a friend had too much to drink, I asked them if they needed to be walked home from the party. 18a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
19.	Asked a friend who seems upset if they are okay or need help. 19a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
20.	Walked a friend home from a party who has had too much to drink. 20a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
21.	If heard a friend insulting their partner, I said something to them. 21a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
22.	Talked to my friends or acquaintances to make sure we did not leave an intoxicated friend behind at a party. 22a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
23.	Indicated my displeasure when I heard sexist jokes. 23a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
24.	Indicated my displeasure when I heard racist jokes. 24a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
25.	Indicated my displeasure when I heard homophobic jokes 25a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp
26.	Indicated my displeasure when I heard catcalls. 26a. If yes, # of times in the past 8 weeks _____	Yes	No	No Opp

## APPENDIX I: ABUSE ASSESSMENT SCREEN

Please answer the following 4 questions by circling “yes” or “no”. For questions 2 and 3, if you circle “yes”, please put a check next to the appropriate category below the question.

1. Have you <u>ever</u> been emotionally or physically abused by your partner or someone important to you?	Yes	No
2. In the <u>last year</u> , have you been hit, slapped, kicked, choked, or otherwise physically hurt by your partner or ex-partner?  2a. <u>If yes</u> , by who? Partner _____ Ex-partner _____	Yes	No
3. Within the <u>last year</u> has your partner or ex-partner made you do something sexual that you didn't want to do?  3a. <u>If yes</u> , by who? Partner _____ Ex-partner _____	Yes	No
4. Are you afraid of your partner or ex-partner?	Yes	No



## APPENDIX J: SEXUAL EXPERIENCES SURVEY

Please answer the following 2 questions using the scale provided and the definitions below:

\*SEXUAL CONTACT – attempting or actually kissing, fondling, or touching someone in a sexual intimate way, EXCLUDING SEXUAL INTERCOURSE, which we will ask about in the next question.

\*UNWANTED SEXUAL CONTACT – those situations in which you were certain at the time that you did not want to engage in the sexual experience and you either communicated this in some way (e.g., you said no; you protested; you said you didn't want to; you physically struggled; you cried; etc.), or you were intimidated or forced by someone or you were incapacitated (e.g., drunk, passed out, etc.).

**1) During the past year, how many times has someone had SEXUAL CONTACT with you WHEN YOU DIDN'T WANT to?**

0      1      2      3      4      5      6      7      8      9      10+

\*SEXUAL INTERCOURSE – any form of sexual penetration including vaginal intercourse, oral sex, and anal intercourse.

\*UNWANTED SEXUAL INTERCOURSE – those situations in which you were certain at the time that you did not want to engage in the sexual experience and you either communicated this in some way (e.g., you said no; you protested; you said you didn't want to; you physically struggled; you cried; etc.), or you were intimidated or forced by someone or you were incapacitated (e.g., drunk, passed out, etc.).

**2) During the past year, how many times have you had SEXUAL INTERCOURSE with someone WHEN YOU DIDN'T WANT to?**

0      1      2      3      4      5      6      7      8      9      10+

## APPENDIX K: SOCIAL DESIRABILITY SCALE

Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, circle the "T" for True; if not, circle the "F" for "False".

1.	I sometimes litter	T	F
2.	I always admit my mistakes openly and face the potential negative consequences.	T	F
3.	In traffic I am always polite and considerate of others.	T	F
4.	I always accept others' opinions, even when they don't agree with my own.	T	F
5.	I take out my bad moods on others now and then.	T	F
6.	There has been an occasion when I took advantage of someone else.	T	F
7.	In conversations I always listen attentively and let others finish their sentences.	T	F
8.	I never hesitate to help someone in case of emergency.	T	F
9.	When I have made a promise, I keep it--no ifs, ands or buts.	T	F
10.	I occasionally speak badly of others behind their back.	T	F
11.	I would never live off other people.	T	F
12.	I always stay friendly and courteous with other people, even when I am stressed out.	T	F
13.	During arguments I always stay objective and matter-of-fact.	T	F
14.	There has been at least one occasion when I failed to return an item that I borrowed.	T	F
15.	I always eat a healthy diet.	T	F
16.	Sometimes I only help because I expect something in return.	T	F

# **How to Get Help**

**Remember, you're not alone**

## **Safe Places and Support on Campus:**

- ♦ Respect on Campus (ROC) - [www.uccs.edu/roc](http://www.uccs.edu/roc)
- ♦ MOSAIC Office—[www.uccs.edu/mosaic](http://www.uccs.edu/mosaic)
- ♦ LGBT Resource Center—[www.uccs.edu/lgbtresourcecenter](http://www.uccs.edu/lgbtresourcecenter)
- ♦ UCCS Counseling Center—[www.uccs.edu/counsel](http://www.uccs.edu/counsel) or 255-3265
- ♦ Student Health Center—[www.uccs.edu/shc](http://www.uccs.edu/shc)
- ♦ Dean of Students—[www.uccs.edu/dos](http://www.uccs.edu/dos)
- ♦ Campus Police—[www.uccs.edu/pusafety](http://www.uccs.edu/pusafety) or 255-3111

## **Local Community Resource:**

- ♦ TESSA Advocacy and Counseling— [www.tessacs.org](http://www.tessacs.org) or 719-633-3819

## **National Resources:**

- ♦ The National Domestic Violence Hotline — [www.thehotline.org](http://www.thehotline.org)  
or 1-800-777-SAFE (7233)
- ♦ The National Teen Dating Abuse Hotline— [www.loveisrespect.org](http://www.loveisrespect.org)  
or 1-866-331-9474
- ♦ The National Sexual Assault Hotline (RAINN) [www.rainn.org](http://www.rainn.org)  
or 1-800-656-HOPE (4673)

## APPENDIX M: CURRICULUM VITAE

# Kerry Peterson

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### **Certifications and Licenses**

- Family Psychiatric Mental Health Nurse Practitioner (Family PMHNP), ANCC Board Certified (Certification Number: 2010011144)
- Adult Psychiatric Mental Health Clinical Nurse Specialist (Adult PMHCNS), ANCC Board Certified (Certification Number: 2011014543)
- Colorado Advanced Practice Nurse (APN) (Registry Number: NP 990196)
- Registered Nurse (RN), Colorado/ Nurse Licensure Compact (License Number: 199751)
- Confidential Victim Advocate, Tessa
- Basic Life Support for Health Care Providers (BLS)
- Crisis Prevention Institute (CPI) and Mandt System Certified
- Clinical Nursing Research Certificate, Inova-Loudoun Hospital
- American Red Cross First Aid Certification
- American Red Cross Emergency Preparedness and Disaster Response Certifications
- Certified in Project RADAR Health Care Response to Intimate Partner Violence

### **Education**

#### **Doctor of Philosophy (PhD) in Nursing (Current Student)- Johns Hopkins University**

- Pre-doctoral Traineeship in Interdisciplinary Research on Violence

#### **Nurse Educator Certificate (NEC)- Johns Hopkins University**

- Coursework completed 05/2013

#### **Doctor of Nursing Practice (DNP)- Shenandoah University**

- Graduated 05/2011 (4.0 Cumulative GPA)

#### **Post-Masters Certificate, Psychiatric Mental Health Nurse Practitioner (PMHNP)- Shenandoah University**

- Graduated 08/2010 (4.0 Cumulative GPA)

#### **Master of Science in Nursing (MSN), Health Systems & Nursing Education- Shenandoah University**

- Graduated 05/2007 (4.0 Cumulative GPA)

#### **Bachelor of Science in Nursing (BSN)- Shenandoah University**

- Graduated Suma Cum Laude 12/2005 (4.0 Cumulative GPA)

#### **Bachelor of Arts (BA) in Psychology- University of Colorado**

- Graduated Suma Cum Laude 12/2003 (3.9 Cumulative GPA)

## **Work Experience**

### **08/2011-Present- Assistant Professor, University of Colorado at Colorado Springs**

- Clinical Teaching Track, Graduate Nursing Program
- Workload: 40% teaching, 30% scholarship, 20% clinical practice, and 10% service
- Courses taught: NURS 7020 Clinical Research Application, NURS 6740 Advanced Pathophysiology, NURS 6110 Advanced Nursing Practice and Health Policy, NURS 7840 Primary Care Practicum, and NURS 6980 Synthesis Practicum
- Clinical practice as a PMHNP in the University Counseling Center (individual and group psychotherapy as well as walk-in/screening coverage)
- Committee Leadership: Secretary of the Violence Prevention and Intervention (VIP) Center, Vice Chair of the Student Affairs Counsel (SAC)
- Committee membership: Graduate Faculty Committee, Coordinated Community Response Team (CCRT), Violence Research Working Group, Holiday Service Project

### **08/2008-08/2011- Adjunct Clinical Instructor, Shenandoah University (Winchester, VA)**

- Lecture instructor PMH685 (Geriatric Psychiatric Mental Health), HP576 (Substance and Relationship Abuse), and N210 (Human Health Across the Lifespan: Psychiatric Mental Health)
- Clinical instructor N401 (Human Health Across the Lifespan: Community) and N209 (Human Health Across the Lifespan: Psychiatric Mental Health)
- Simulation lab instructor for N214, N314, and N315 (Human Health Across the Lifespan: Adults I, Adults II, and Adults III) and N307 (Human Health Across the Lifespan: Pediatrics)

### **02/2009-02/2010- Registered Nurse, Grafton (Berryville, VA)**

- Children's Psychiatric Residential Treatment Center

### **06/2008-09/2008- Registered Nurse, The Medical Team (Reston, VA)**

- Psychiatric Home Health Nursing

### **12/2005- 08/2008- Registered Nurse, Inova Loudoun Hospital (Leesburg, VA)**

- Loudoun Adult Medical Psychiatric Services (LAMPS)
- Charge Nurse and Research Committee Representative

## **Awards, Honors, and Scholarships**

- A.T. and Mary Blades Foundation Doctoral Student Nursing Scholarship
- American Nurses Credentialing Center (ANCC) Content Expert, Family Psychiatric Mental Health Nurse Practitioner Standards Setting Panel (2013)
- Pre-doctoral Traineeship in Interdisciplinary Research Training on Violence- National Institute of Child Health and Development, Johns Hopkins University (2012-2013)
- Doctor of Nursing Practice Clinical Research Project Award- Shenandoah University (2011). Award description: *This award is given to the outstanding DNP graduate who has demonstrated excellence in completion of the clinical research project.*
- HRSA DNP Student Traineeship Grant (2011)

- American Psychiatric Nurses Association Janssen Student Scholar (2011)
- Who's Who Among Students in American Universities and Colleges (2010)
- Ladies Board of Loudoun Hospital Center Nursing Scholarship (2004-2010)
- Mary Henkel Graduate Academic Excellence Award- Shenandoah University (2007). Award description: *"This award is given to a graduating master's student who has demonstrated outstanding academic achievement throughout his/her academic career."*
- Loudoun Healthcare Foundation Nursing Scholarship (2004-2006)
- Induction to Sigma Theta Tau International- Honor Society of Nursing (2006)
- HRSA Graduate Student Traineeship Grant (2006)
- Wilkins Nursing Award- Shenandoah University. (2005) Award description: *"This award is given to one graduating senior who has demonstrated the highest level of academic and practice achievement during his/her academic career and is continuing toward a graduate nursing degree."*
- PCT Excellence Award from Inova Loudoun Hospital Center (2004)
- Selected to be a member of the Global Citizen Project- Netherlands (2004)
- Nursing Scholarship from the Inova Institute for Nursing Excellence (2004)

### **Campus and Community Service**

- Respect on Campus (ROC), University of Colorado, Colorado Springs (2011-Present)
- Tessa Domestic Violence/ Sexual Assault Advocacy Center- Colorado Springs, CO (2011-Present)
- Violence Prevention Intervention (VIP) Center, University of Colorado, Colorado Springs (2011-Present)
- UCCS Holiday Service Project, University of Colorado, Colorado Springs (2011-Present)
- Certified Trainer for Project RADAR- Health Care Response to IPV, Virginia Dept. of Health (2007-2011)
- Fairfax County Alcohol and Drug Services VIP (Volunteer and Intern Program) (2009-2010)
- Nursing Graduate Assistant, Shenandoah University (2008-2009)
- Abuse Hotline Counselor and Health Clinic Nurse- House of Ruth Shelter- Baltimore, MD (2006-2009)
- Yearbook Coordinator and Graduation Committee Chair, Shenandoah University (2004-2005)
- Winchester Annual Community Wellness Festival Volunteer (2003-2010)
- Penrose Main Hospital Adult Volunteer- Colorado Springs, CO (2002-2004)
- Resource staff- Women's Resource Center, University of Colorado (2001-2002)
- English tutor for Spanish speaking children- Service learning, University of Colorado (2001-2002)
- University of Colorado Academic Mentor (2001-2003)
- Red Cross Shelter and Soup Kitchen Volunteer, Colorado Springs, CO (1998-2003)

### **Professional Memberships**

Sigma Theta Tau International (STTI)

- Xi Phi and Rho Pi Chapter
- Vice President of the Xi Phi Chapter (2013-Present)

American Psychiatric Nurses Association (APNA)

- Colorado chapter member and national member

International Society of Psychiatric Nurses (ISPN)

- Society of Education and Research in Psychiatric-Mental Health Nursing (SEPN) Division
- Adult and Geropsychiatric Mental Health Nursing (AGPN) Division

## **Publications**

Peterson, K. (2013). Learned resourcefulness, dangerous intimate partner relationships, and mental health symptoms of depression and PTSD in abused women. *Issues in Mental Health Nursing*, 34, 386-394.

Campbell, J., Sharps, P., & Peterson, K. (2009). Strength and resilience in battered women and their children. In C. Mitchell, D. Anglin (Eds.). *Intimate Partner Violence: A Health Based Perspective*. Oxford University Press.

## **Posters**

Peterson, K., Kaukinen, C., Powers, R., Baatz, C. "Evaluation of Two Dating Violence Prevention Programs on a College Campus". Mountain Lion Research Day. University of Colorado, Colorado Springs. April 11, 2014.

Peterson, K. A., Garrett, S. L., Benton, M. J. "Academic Self-Efficacy and Psychological Distress in Undergraduate Nursing Students". Mountain Lion Research Day. University of Colorado, Colorado Springs. April 11, 2014.

Pina-Thomas, D., Peterson, K.A., Garrett, S.L., Benton, M.J., Schlairet, M.C., James, K.L. and Carter, L.E. "Differences in academic self-efficacy and self-esteem in beginning and experienced baccalaureate nursing students". Mountain Lion Research Day. University of Colorado, Colorado Springs. April 11, 2014.

Labko, Y., & Peterson, K. "Feeding Method, Intimate Partner Violence, and Depression among Rural Pregnant Women". Johns Hopkins University Undergraduate Honors Research Day. May 7, 2013.

Peterson, K. "Resilience and Resourcefulness in Survivors of Intimate Partner Violence". Mountain Lion Research Day, University of Colorado, Colorado Springs. April 13, 2012.

## **Presentations**

"Change the World Through Psychiatric Mental Health Nursing Research" Interactive Panel. American Psychiatric Nurses Association. San Antonio, Texas. October 10, 2013.

"Resourcefulness, Danger in Intimate Partner Relationships, and Mental Health Symptoms in Abused Women". International Society of Psychiatric Nurses. San Antonio, Texas. April 19, 2013.

"Violence Prevention Education" (Presentation to student peer educators on violence prevention). University of Colorado, Colorado Springs. November 12, 2012.

"Violence Intervention and Prevention Center". Presentation to faculty, University of Colorado, Colorado Springs, March 30, 2012.

"Project RADAR Training: Health Care Response to Intimate Partner Violence". (2-3 training presentations to health care providers and/or health professions students per year, 2007-2011)

*"Resourcefulness in Abused Women"*. 13th Annual Nursing Research Symposium, Sigma Theta Tau International, Rho Pi Chapter. Winchester, VA. April 21, 2011.

*"The Physical and Mental Health Effects of Dangerous Intimate Partner Relationships"*. 9th Annual Nursing Research Symposium, Sigma Theta Tau International, Rho Pi Chapter. Winchester, Virginia. April 27, 2007.

## **Grants**

2013 American Psychiatric Nursing Foundation

2012 Faculty Assembly Women's Committee Mini-Grant

2010 Sigma Theta Tau International Nursing Research Grant