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# Student Learning of Violence Prevention Education Concepts: A Longitudinal Analysis

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# STUDENT LEARNING OF VIOLENCE PREVENTION EDUCATION CONCEPTS: A LONGITUDINAL ANALYSIS

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Interpersonal violence is considered to be a major public health concern; education efforts are necessary to involve citizens in reducing violence. This study examined the effectiveness of a violence prevention education program administered at the collegiate level. The program consisted of traditional classroom learning combined with an online learning component using Facebook. The goals of this curriculum were to teach students the warning signs of violence, including those related to general violence, suicide, physical abuse, sexual abuse, emotional abuse, and neglect, and to increase their engagement in learning and advocacy. These goals were analyzed using several methods: knowledge of warning signs was tracked before, directly after, and one year after participation, knowledge of warning signs was compared to a control group, levels of advocacy were measured throughout and after the curriculum, and behaviors within the Facebook group were coded for analysis. Results showed that students learned various warning signs of violence and maintained this knowledge over time. Curriculum participants outperformed the control group of psychology students who did not participate in the curriculum in every category except for neglect. Although students participated in some advocacy steps throughout the curriculum and afterward, expected increases in most categories were not seen. This study has important implications for violence prevention education and prevention.

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The dissertation is a marker of the scholarly pursuit of bridging research and practice, making it a truly meaningful part of the clinical psychology doctoral degree. This journey came with many challenges, including balancing work and family. It was difficult to know what was achievable in the time available. In this process, I learned how to work independently over a long time frame, use new research techniques, and form a critical analysis. I could not have overcome the challenges I faced without the support of several important people.

A dissertation does not only reflect one graduate student's achievements, but her network of support as well. Many important people contributed to the success of this project. First and foremost, I would like to thank my dissertation chair, Dr. Pearl Berman, for her countless hours of support including but not limited to inspiring the topic, providing direction, sharing resources, editing drafts, and providing endless moral support and encouragement. I also owe my gratitude to my dissertation committee members, Dr. Maureen McHugh and Dr. Anson Long for all of time they dedicated to providing continual technical and moral support. My partner and family also deserve special mention. For their inspiration and encouragement, I am incredibly thankful. I am also grateful to my cohort for their ongoing support and collegiality. Lastly, thank you to my research participants for taking the time to participate and for recognizing the value of research. I would like to dedicate this work to those who have been affected by violence; may we work together to achieve peace.

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# CHAPTER 1

# INTRODUCTION

Violence has long been considered a major global problem. In 1996, The World Health Assembly declared violence a public health concern (Krug, Mercy, Dhalberg, & Zwi, 2002). The first world-wide report in violence and health, constructed by the World Health Organization (WHO) in 2002, outlined statistics and the widespread negative consequences resulting from a variety of forms of violence. Current statistics indicate that violence continues to cause suffering, mental health issues, and many other destructive outcomes, including death (Gudiño, Nadeem, Kataoka, & Lau, 2012; Villodas et al., 2012; Black et al., 2011). Although some argue that violence is inevitable (Piker, 2002), others argue with the right effort, there can be major reductions in violence and therefore improved living conditions around the world (Krug et. al., 2002). There is extensive research on the effects of violence and potential solutions for these problems. Although many agree that education is a necessary solution to ending violence (Martin, 2008: Spiel, Wagner, & Strohmeier, 2012), few violence prevention education programs have been properly implemented (Peterson, Larson, & Skiba, 2001). From an education-focused perspective, preventing violence requires that violence be defined, different groups of victims be understood, and effective educational strategies be identified. With these factors in mind, a successful violence prevention program can be effectively designed, implemented, and evaluated.

## Defining Violence

Violence is a difficult concept to define. However, creating a definition is extremely important in our conceptualization and approach to violence. How violence is defined sets the stage for which types of violence are given the most attention, acceptable norms around violence,

methods of research and examination, as well as considerations for justice for the victims of violence. People representing a variety of disciplines have sought to define different forms of violence, such as physical abuse or intimate partner violence, yet there is still little agreement on one general definition of violence (Krause, 2009; Morrison & Millwood, 2007). The research outlines a progression of very narrow definitions of violence, which after facing much criticism, have expanded in more recent years to broader definitions (Krause, 2009; Potter, 1999). For example, Runkle (1976) felt that definitions of violence were too critical, and suggested instead that violence be defined as, "an act in which a person employs physical force directly against a human being for the purpose of harming him" (p. 371). This narrow definition and similar definitions have been criticized as not being entirely inclusive of other violent acts, such as psychological abuse or other assaults (Pletcher, 1977; Potter, 1999).

To ameliorate this issue, frameworks for providing a more general definition of violence have been explored. Potter (1999) proposed a system for defining violence that promoted a broader understanding of violence. He posited that the definition of violence should include type, level, intention, degree, and effects of violence. Krause (2009) contributed three main approaches to defining violence that he deemed necessary for a comprehensive definition. The first is to determine its meaning and purpose, such as whether or not it is politically, economically, socially, or interpersonally motivated. The second involves the level of scope; this determines if the violence is self-directed, interpersonal, or collective. The nature of the violence is the third approach, which categorizes the violence as either physical, psychological, gender-based, deprivation/neglect, or systemic/structural. This provides a framework for determining a more inclusive vision of violence.

The World Health Organization (WHO) provided a comprehensive definition of violence that is now widely accepted in the research community. The WHO defined violence as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation" (Krug, et. al. 2002). The WHO also specified subcategories of violence, including self-inflicted, interpersonal, and global violence. Although a broad and inclusive definition can make classifying acts of violence difficult (Krause, 2009), for educational purposes a wider exposure helps people understand the true scope of violence. This definition will be used in the current study. Despite this unified definition, the magnitude of violence is still very difficult to measure. The research literature on violence has examined the effects of specific types of violence falling under this general definition, revealing a need for greater efforts toward ending violence. Studies on violence have all shown devastating effects for victims of violence from across the lifespan.

## Victims Across the Lifespan

People of all ages, races, genders, and other identity factors can be victims of violence. Violence statistics reveal patterns regarding types of violence and susceptible victims across the lifespan. These groups may encounter different types of violence that relate to developmental characteristics. Children are a specific group of people disproportionately affected by violence. Child maltreatment, including physical, emotional, and sexual abuse as well as neglect, is common in the United States. In 2009, 702,000 children were victims of maltreatment; because this can only be measured by public records, this likely represents an underestimate (Villodas et al., 2012). Children experience violence at home, in their communities, and at school. AAUW Educational Foundation (2001) reported that in response to bullying, teasing, and sexual

harassment in school, children and teens were likely to talk less in class, change their routine, skip school, have difficulty concentrating, and feel ashamed.

Adolescents, faced with many of the same issues as children in regards to violence, are also developmentally exposed to different types of violence. Because many people begin dating in their adolescence, dating violence becomes a new concern for those in their teens. For teen girls, a history of maltreatment has been related to a higher likelihood of being a dating violence victim and for teen boys, related to a higher likelihood of committing dating violence (Wolf, Wekerle, Scott, Straatman, & Grasely, 2004). Dating violence is also associated with many mental health issues later in life (Exner-Cortens, Eckenrode, & Rothman, 2013). This violence affects teenagers' academic performance and exposes them to dangerous situations and negative psychological outcomes.

Violence continues to affect adults across the lifespan as well, resulting in comparably adverse outcomes. College students represent a group of people who are disproportionately affected by certain types of violence. Specifically, sexual assault, sexual harassment, stalking, and dating violence become major concerns for young adults on college campuses (Waits & Lundberg-Love, 2008). One in four college students is sexually assaulted, over half of college students experience sexual harassment, over one fourth of students are stalked, and up to 40% of college women have reported dating violence before graduation (Waits & Lundberg-Love, 2008). Sexual assault carries with it immense psychological and physical effects that can lead to dropping out of school or suicide. Recovery is a lengthy process, with a quarter of victims reporting that they feel they have never truly recovered (Waits & Lundberg-Love, 2008). Sexual harassment has similar effects, creating a major stressor that interferes with a student's education. Stalking, indicated as a form of "psychological terrorism," has also been shown to

cause mental and physical health problems as well as a loss of time from work and social activities. Dating violence, experienced by 8-14% of women in the general population, is disproportionately more common in college women. As a result, these women experience higher emotional and physical suffering as well as PTSD symptoms. Violence on college campuses remains a threat to the safety and well-being of college students.

Adult women as a group, are disproportionately affected by violence. Gender-based violence is a widespread form of violence creating a major health risk for women, severely violating women's civil rights. In their review of violence against women on a global level, Heise, Ellsberg, & Gottmoeller (2002) reveal catastrophic effects of violence against women, including erosion of self-worth, long term physical health problems, and mental health problems. This pervasive violence compromises women's reproductive health and can often be fatal. Partner violence is developmentally relevant for adult women in romantic relationships. Black et al. (2011) summarized the National Intimate Partner and Sexual Violence Survey (NISVS), which examined sexual violence, stalking, and intimate partner violence. A telephone survey of over 16,500 adult men and women revealed statistics as well as consequences of violence for both men and women. Men disproportionately contribute to the perpetration of violence (Flood, 2011) and are also frequent victims of violence (Waits & Lundberg-Love, 2008). One in seventy-one men reported being raped, one in nineteen men reported being stalked, and one in four reported being the victim of violence by an intimate partner. One in five women reported being raped, one in six women reported being stalked, and one in three reported being the victim of violence by an intimate partner. These numbers illustrate the large amount of people experiencing violence and the stark gender differences involved. Reported symptoms related to

these violent events include a wide array of psychological and physical consequences (Black et al, 2011).

The pervasiveness of violence also extends to the older adult population. Elder abuse is defined by the Center of Disease Control and Prevention (CDCP) (2002) as intentional or unintentional abuse committed against an older person that is physical, emotional, verbal, financial, or another form of maltreatment resulting in suffering and decreased quality of life. Reports show that 6% of the elderly are victims of elder abuse, but some studies suggest that this number is low due to the vast amount of unreported cases (Krug, et. al. 2002). Effects of elder abuse include many negative consequences, such as a significantly reduced lifespan (Krug, et. al. 2002). Anetzberger (2012) provides an updated review of the elder abuse literature, citing a study that reports approximately 10% of the elderly endorsing experiences of elder abuse in their lifetime, including verbal, physical, and financial. The National Elder Mistreatment study of nearly 6,000 elderly individuals also reveals that 10% of the sample reported being the victim to at least one form of elder abuse in the past year. Adult children were less likely to be the perpetrators of this abuse than the victim's intimate partner. Anetzberger (2012) adds that in addition to increased mortality, increased institutionalization is another major effect of elder abuse. Although there are efforts to bring attention to elder abuse, this type of abuse continues to persist in our society due to lack of funding, research, and awareness of the seriousness of the problem (Krug, et. al. 2002).

Research on the effects of violence experienced by people ranging from infants to elders has been organized based on the type of abuse that has been experienced as well as the age of the perpetrator and victim. However, newer research has emphasized the importance of frequency, duration, and severity of abuse in predicting outcomes rather than the type of violence

experienced (Hamby & Grych, 2013). A critical reason for this switch is that many people report separate experiences of multiple forms of abuse. This exposure to different types of victimization has been termed "polyvictimization" by David Finkelhor (Finkelhor, Ormrod, & Turner, 2007). Polyvictimization begins in childhood and increases with age, resulting in elevated levels of externalizing and internalizing disorders (Cyr et. al., 2012). The greater the frequency of victimizations a person has experienced, the worse the long term outcomes this person is likely to experience (Finkelhor, Ormrod, & Turner, 2007). Putnam (2006) adds that the greater the duration of abuse that is endured, the greater the effects on the brain. The shift from focusing on types of violence to frequency, duration, and intensity requires a new organizing perspective on violence. An interconnected view of violence would support these findings, where common violence etiology and outcome similarities across types of violence would be highlighted (Hamby & Grych, 2013). When violence "silos" or type-focused violence outlooks are challenged, risk factors and effects can be better understood by researchers.

## Interconnection of Violence: Risk Factors and Outcomes

It is clear that violence is a major public health issue that affects people at varying stages across the lifespan. Additionally, people who possess certain risk factors are shown to be more susceptible to violence than others, including factors related to one's social identity. Even indirect exposure to violence has negative consequences for victims. Those who are exposed to violence, directly or indirectly, may be faced with various common outcomes, including neurological, developmental, psychological, and physical factors. However, some people have shown resilience in the face of violence.

**Risk Factors**

Research has identified various risk factors that result in higher susceptibility to violence exposure and its consequences. First, the type of community where one lives can impact one's exposure to violence; higher amounts of violence occur in poorer and urban neighborhoods (Cooley-Strickland et al., 2009). It has been found that over 80% of children in urban communities had witnessed violence and 70% of these children have been direct victims of violence (Cooley-Strickland et al., 2009). Additionally, violence also increases for those who experience lower levels of social equality (Heise et al., 2002). Thus, non-white ethnic groups are at higher risk for exposure (Cooley-Strickland et al., 2009; Breiding, Black, & Ryan, 2008). Gender is also a major risk factor, women being significantly more susceptible to victimization than men (Breiding et al., 2008; Krug, et. al. 2002; WHO, 2002; Saner & Ellickson, 1996). Herrenkohl and colleagues (2000) examined violent behavior in adolescents, discovering relations between hyperactivity, poor grades, and availability of drugs in the neighborhood with increased violent behavior in adolescents. Often, these effects are additive; higher exposure to risk factors has been found to be related to increases in violent behavior (Herrenkohl et al., 2000; Saner & Ellickson, 1996). Other risk factors include substance use, a personality disorder diagnosis, cognitive and physical impairments, poor academic performance, and lack of parental support (Krug, et. al. 2002); Saner & Ellickson, 1996). Unfortunately, those without early intervention are at increased risk (Webster-Stratton & Taylor, 2001). Balibar (2001) described violence as systemic; she examined the function of violence from a political perspective and how violence perpetuates oppression of certain groups of people. This is evident in disparities in violence exposure across a range of social groups.

The risk factors related to vulnerability to violence and the outcomes people experience across types of violence share many similarities whether violence exposure has been direct or indirect. Thus, even indirect exposure to violence is a risk factor for various negative outcomes. Recent studies reveal an increasing number of people who are witnessing violence in comparison to the past (Howard, Budge, & McKay, 2010). Exposure to media violence, although indirect, is another form of violence that has been shown to have negative effects on some viewers. Despite the popular view that violent media serves as a healthy outlet for aggression, the majority of scientific studies reveal significant connections between viewing violence and increased aggression (Kaplan, 2012; Bushman & Anderson, 2001). Anderson et al. (2010) conducted a meta-analysis that demonstrated the effect of violent videogames on aggressive behavior, aggressive thoughts, aggressive emotions, arousal, empathy, and prosocial behavior in a laboratory setting. This research revealed a significant connection between media violence and aggression, which is associated with violent acts (Anderson et al., 2010). In addition, results from an online survey of nearly 1,600 ten through fifteen year olds showed that exposure to violence on the computer was related to increased violent behavior; those visiting more websites depicting violence reported more seriously violent behavior (Ybarra et al., 2008). Bushman and Anderson (2001) have posited that myths concerning the lack of negative impact of violent media are perpetuated by the entertainment industry and urge that more be done to educate consumers, particularly parents, about the negative effects of violent media on children.

Overall, exposure to violence has been shown to cause problematic outcomes for victims such as higher levels of mental health symptoms and other negative consequences (Gudiño et al., 2012). Although some outcomes affect specific populations, such as defiant behavior and

regression in young children (Howard et al., 2010) or substance abuse in teens and adults (Black et al., 2011; Cooley-Strickland et al., 2009), there is much overlap in victim outcomes.

**Outcomes**

Violence leads to an array of devastating outcomes, one being the impact on the brain. There are many negative consequences for neurological development as a result of maltreatment, made evident in studies examining brain structure and cortisol levels in the brain. The Child Welfare Information Gateway (CWIG) (2009) explained that children are constantly developing and strengthening neural pathways. However, when these pathways are developed during extensive periods of maltreatment, their brains adapt to this negative environment, resulting in difficulties in social functioning in positive environments (CWIG, 2009). Neglect has been associated with smaller brain size (CWIG, 2009; Putnam, 2006) and physical, sexual, and emotional abuse has been shown to result in the smaller size of particular brain regions (Putnam, 2006). Brain tissues and blood vessels may be damaged when physical abuse is involved and may result in traumatic brain injuries (CWIG, 2009). Additionally, maltreatment has been found to cause increases in cortisol levels in the brain which are toxic to certain neurons, creating psychosocial problems related to impulsivity as well as an increased vulnerability to a variety of physical and psychological problems (Putnam, 2006; NSCDC, 2005). This is also true for those who have witnessed abuse (NSCDC, 2005). Areas of the brain involving learning and memory have also been shown to endure damage as a result of witnessing or enduring maltreatment (NSCDC, 2005).

In addition to damage to healthy brain development, research on all types of violence has shown poor psychological outcomes across diverse groups of people. For example, post-traumatic stress disorder is significantly higher in abused populations than non-abused

individuals in the cases of sexual abuse, stalking (Waits & Lundberg-Love, 2008), community violence (Gudiño et al., 2012), physical abuse, financial abuse, and many other types of violence (WHO, 2002). Depression is also experienced by children, teens, adults, and elders exposed to a variety of forms of abuse (Exner-Cortens, Eckenrode, & Rothman, 2013; Gudiño et al., 2012; Waits & Lundberg-Love, 2008; Putnam, 2006; Heise, Ellsberg, & Gottmoeller, 2002; CDCP, 2002). Internalizing and externalizing disorders have been shown to become more severe with poly-victimization (Villodas et. al., 2012). Issues of low self-esteem, poor relationships, helplessness, alienation, guilt, shame, fear, anxiety, and suicidality pose a risk to victims of violence representing all age groups (Exner-Cortens, Eckenrode, & Rothman, 2013; Putnam, 2006; CDCP, 2002). Disturbances in attachment have also been documented as a result of maltreatment (NSCDC, 2005).

Additionally, poor physical health outcomes are unanimously described in studies identifying the effects of violence on victims. Many studies have shown increased levels of illness and lower general health in those exposed to violence (WHO, 2002). Very serious health problems have also been seen in significantly higher levels for victims of abuse, including permanent disability, irritable bowel syndrome, gastrointestinal disorders, and gynecological effects (Leventhal, Martin, & Gaither, 2012; Black et al., 2011; Heise et al., 2002). Violence in severe forms may also lead to death due to the dangerous nature of the violence as well as higher levels of depression and suicidality in response to being a victim (Black et al., 2011; Waits & Lundberg-Love, 2008; Putnam, 2006; Heise et al., 2002; Weinhold, 2000). With health affects ranging from mild to severe, many researchers have sought to understand what features contribute to positive health outcomes for those exposed to violence.

**Resiliency**

Resilience is another type of outcome as a result of violence. Masten (2001) asserted that resilience is quite common and comprised of many seemingly ordinary factors. Factors such as easy temperament (Martinez-Torteya, Bogat, von Eye, & Levendosky, 2009), mentally healthy mothers (Howell, Graham-Bermann, Czyz, & Lilly, 2010; Martinez-Torteya et al., 2009), competent parenting (Howell et al., 2010; Gewirtz & Edleson, 2007; Gorman-Smith, Henry, & Tolan, 2004), intellectual resources (Gewirtz & Edleson, 2007), strong social skills (Howell et al., 2010; Gewirtz & Edleson, 2007), and less severe exposure (Howell, et al., 2010) have all been shown to promote resiliency in children and adolescents exposed to domestic and community violence. Although less research has explored resilience in adults and older adults, some studies suggest that various individual and environmental factors are associated with adult resilience to violence (Liem, James, O-Toole, & Boudewyn, 1997). Bonanno (2005) showed that there is not one "resilient type," but rather multiple features which are subject to change that can affect an adult's resilience to adversity. Secure attachment, an internal locus of control, social support from friends and family, less severity of violence, high self-regard, a strong sense of hope, and spirituality have all been shown to lessen the damaging effects of violence for adults (Lam & Grossman, 1997). These protective factors have been shown to reduce negative effects of violence such as poor mental health. Unfortunately, some research suggests that these "protective factors" are not enough to completely eliminate these negative outcomes (Hardaway, McLoyd, & Wood, 2012; Hobfoll, Mancini, Hall, Canetti, & Bonanno, 2011; Friedli, 2009; Ward, Martin, Theron, & Distiller, 2007) Therefore, exposure to violence creates negative outcomes that may not be significantly reduced with protective factors.

Research indicating the broad spectrum of violent events that share common impact on victims underscores the broad definition of violence outlined by the WHO. The long-term negative impact of violence, even in relatively resilient victims, highlights the severity of the problem and the need to develop successful solutions for ending interpersonal violence. Many programs have been developed for these different types of prevention efforts that vary in length, type, and effectiveness. Skill building across a broad spectrum of skills, including the teaching of advocacy and activism have also been examined to promote a deeper engagement in this material. Some commonalities have emerged in effective programs that will be examined in the next section.

# CHAPTER 2

# LITERATURE REVIEW

## Prevention and Education

Prevention is a major goal of the movement to end violence; rather than reacting to violence through methods of punishment or perhaps even more violence, prevention focuses on the efforts to stop violence before it even occurs. A crucial component of the prevention of violence is education. Educating people on the issues of violence increases awareness, promotes advocacy, and prepares students to intervene as adults in violent situations (Banyard, 2013; Veith, 2012). Education is an effective method for altering the paradigm of violence in school settings (Martin, 2008). In the history of education, violence topics have only been added to our educational system relatively recently, and violence prevention education as been properly administered by very few schools nationwide (Silvia et al., 2010). Researchers have designed and implemented many violence prevention programs that have been shown to be effective in different ways, but have not yet been widely accepted or funded as a general education requirement; schools more often select inexpensive or short-term prevention solutions (Greene, 2005). Successful programs require examination of other successful and unsuccessful programs, considerations of effective pedagogical techniques, and a critical view of the gaps in the research.

### Prevention Programs

Violence prevention programs have been designed for people of varying ages and focus on a variety of topics. The majority of programs outlined in the literature appear to be designed for young adolescents, but many have also been designed for young children and adults. Men have also been the focus of many violence prevention programs, especially those focused on

gender-based violence (Flood, 2011). These programs also vary in length, approach, goals, and other factors. The goals of these programs include raising awareness, teaching interpersonal skills, changing attitudes, or reducing violent and aggressive behavior. A review of these programs reveals various qualities of successful violence prevention efforts.

**Violence prevention programs from youth through adulthood.** Although many of the first violence prevention programs were designed for high school students due to the mature material, many researchers and educators have embraced the appropriateness of violence prevention education for people of all ages, designed with developmental factors in mind. Violence prevention programs have even been created for children as young as three and four years old. Allen (2009) studied the outcomes of the "Creating a New Generation of Peacemakers" program which was designed for pre-kindergarten classrooms. This program focused on fostering kindness, acceptance and respect of people's differences, feelings identification in self and others, ways to find safety, and ways to take responsibility. Based on teacher reports, the group exposed to the program showed statistically significant improvements in these skills compared to the control group, which did not participate in the program. "Supporting Healthy Individuals and Environments for Life Development," or the SHIELD project, created the Second Step violence prevention program for elementary school students (Neace & Muñoz, 2012). The curriculum was implemented by trained teachers who used prepared kits that focused on topics including empathy, problem solving, impulse control, and anger management. This curriculum, which spanned the entire school year, was measured with pretest, posttest, and follow-up evaluation. Two outcome evaluations focused on skills obtained and in-school behaviors, respectively. Prosocial attitudes and knowledge increased significantly in the experimental group and unexcused class absences decreased in comparison to the control

group (Neace & Muñoz, 2012). Both of these studies target behavior, attitudes, and skills in their approaches to reduce violence. In general, these studies reveal that violence prevention education for children has a positive effect on attitudes and behaviors when administered over time and by trained professionals.

A variety of successful programs have been designed specifically for junior high and high schools; some of these examined behavioral changes and revealed positive outcomes. Hausman, Pierce, and Briggs (1996) examined the effects of violence prevention programming on student behavior. In comparison to groups of students who attended a school-wide violence training and no training at all, students who participated in violence prevention programming in their own classes were found to have significantly lower rates of school suspensions. Emphasizing violence prevention education in the classroom directly impacted students' own levels of violence. Almost a decade later, the "Get Real about Violence" curriculum was designed for and implemented with junior high school students in the 7$^{th}$ grade (Meyer, Roberto, Boster, & Roberto, 2004). This curriculum was based on the theory of action, or the idea that behavior is determined by one's intentions, which are derived from one's attitudes regarding subjective norms (Meyer et al., 2004). Success for this program is defined as decreasing verbal and physical aggression and behaviors that promote aggression. This violence prevention education program consisted of 12 multimedia lessons, one class period in length that focused on reducing verbal and physical aggression and reducing behaviors that encourage aggression. Using a control group, and pretest and posttest measures, the success of the program in classes from two schools was evaluated with a questionnaire. Compared to the control group, the students exposed to the curriculum exhibited more positive behaviors, intents, and attitudes related to verbal aggression. They were also less likely to watch a fight, spread rumors about a fight, or show positive

attitudes toward fighting. This program also received high teacher ratings and intent to continue its use.

Other programs have focused on attitudes and biases. Fay and Medway (2006) examined a two day program about acquaintance rape for students entering high school, which focused on improving students' understanding of rape, consent, gender stereotypes and cultural norms, communication, and local sources of support. They found that rape myths were significantly less endorsed following the program, but that attitudes were not altered. A theory-based approach to violence prevention education, targeting the optimistic bias that violence will happen to others but not to oneself, was implemented for one week in a high school setting (Chapin & Coleman, 2006). This program focused on increasing awareness of violence through use of personalization, statistics, media, and peer presenters. It was found to effectively reduce optimistic bias, suggesting that students would be more likely to take more caution and recognize warning signs of violence among their peers and themselves. These studies of violence prevention programmers for teenagers revealed successful program components, including the benefits of a longer-term intervention, the positive impact of multi-media use for violence prevention education, and the success of programs directly connected to classroom learning. Findings show positive changes in behavior and cognition.

Many programs have also targeted men to increase their involvement in violence prevention. Men overwhelmingly contribute to the perpetration of violence, creating a necessity to specifically involve them in efforts to end violence (Flood, 2011; Mcmahon & Dick, 2011). A theme of these programs is a focus on the construct of masculinity in redefining the relationship of men and violence. The guidelines for success include targeting the construct of masculinity, which plays a major role in the perpetuation of violence, and encouraging men to take action on

small-scale and societal levels (Flood, 2011). In their exploratory study on a bystander violence prevention group for men, McMahon and Dick (2011) formed groups of men to learn about and discuss issues of interpersonal violence. The social norms theory, or the idea that people behave in ways they feel similar others are behaving, was incorporated in discussions about men's decision to act when they perceive violence is occurring. They defined program success as helping men address their own values, to become better listeners for women affected by violence, to reduced sexist behavior, and increase personal responsibility in ending violence. After attending four two-hour sessions led by male and female co-facilitators, group members reported increased bystander knowledge. They reported that the most positive aspect of participation was being able to discuss these important issues with like-minded individuals. Simbandumwe et al. (2008) explored groups comprised specifically of immigrant men in Canada, promoting discussions of family violence and reaching out to these community members for suggestions for prevention. The program was based on the participatory action research (PAR) model, which focused on involvement and empowerment of marginalized groups through participation in targeting community issues. They found very high levels of interest and participation in their groups, suggesting that asking for input rather than providing only didactics about violence was received very well by men. Hong (2000) adds that men, for whom participation in violence is a construct of gender, do not only make up the majority of perpetrators of violence, but are frequently victims of violence as well. In a year-long case study of men on a college campus belonging to a group called "Men Against Violence," Hong (2000) describes the impact of a male support network that challenged peer norms of violence. For this program, success is defined as changing men's group norms and conceptions of masculinity through peer engagement. Results of this examination show themes of change in the construct of

masculinity evidenced by meaningful changes in the men's attitudes, beliefs, and behaviors. These studies reveal the general responsiveness of men to being involved in violence prevention. The opportunity to provide personal input within the learning environment as well as consult with peers also contributed favorably to positive educational outcomes.

**Theoretical developments for violence prevention education.** In addition to studies that have explored the implementation of violence prevention education programs, further theoretical research outlines factors that contribute to program success. Flood, Fergus, and Heenan (2009) outline five criteria for effective programs in violence prevention education. These include full institutional involvement, a strong program framework, successful execution, sensitivity to diversity and relevance, and evaluation of impact. First, this "whole school" approach would require school policy changes, specialized training for facilitators, assessment and evaluation, and integration of violence topics with the general curriculum. Second, strong program framework would require theoretical grounding for the program's design and processes of change. Third, focusing on the system context of violence and addressing attitudes as well as behaviors would assure successful program delivery. Sensitivity to diversity necessitates the inclusion of identity factors in the curriculum. Lastly, evaluating the curriculum should reflect the theoretical framework, utilize pre- and post-tests, and assess effectiveness longitudinally. Day, Chung, O'Leary, and Carson (2009) also emphasized that a strong theoretical basis for the program is related to success; without an underlying theory articulated to program participants, integrity of the program and intensity of its effects may be lost. Although Flood et al. (2009) believed a feminist framework is most appropriate for this type of education, consistency and comprehensiveness of the theory is emphasized over the specific approach. Saul et al. (2008) added that implementation and evaluation of programming at the local level is key to the

improvement of prevention. These guidelines have been provided with consideration of the literature to provide a clearer direction for future researchers of violence prevention education.

**Designing Violence Prevention Education for College Students.** It is clear from the literature on violence prevention education that many educators and researchers have different ideas about what success looks like regarding violence prevention programming. Some have focused on theories of learning, while others have focused on addressing attitudes, biases, and behaviors. Because violence is defined so broadly, it is understandable that multiple approaches could emerge and also be successful. Many have successfully designed curricula and workshops to teach young people about violence, as evidenced by positive learning outcomes. Specific factors of these programs have contributed to positive outcomes, highlighting important considerations for future violence prevention education endeavors. Common successful program foci include reducing risk factors, fostering pro-social behaviors, and promoting psychological flexibility (Banyard, 2013). The reviewed literature reveals that these goals are successfully achieved in programs that include men, educate in the long-term, involve interaction with peers, make use of varying media, are connected with classroom learning, and utilize trained facilitators. Additionally, researchers assert the importance of institutional buy-in and a solid framework. This information can inform what effective violence prevention education looks like for college students and ways to administer this programming.

First, human development should be considered in the program design. The State Adolescent Health Resource Center of Minnesota (SAHRC) (2013) identified several important developmental characteristics of late adolescence (ages 18-24) including the development and application of abstract thinking skills, an increase in autonomy, adoption of a personal values system, as well as the adoption of new roles to meet multiple demands. Thus, a learning

experience that is appropriate yet challenging will include features that foster critical thinking, give students control over their learning space, encourages discussion of diverse topics, and challenges them to enter roles of teacher and student. Unlike programs for high school students, a college-based violence prevention program can take more risks due to the higher level of maturity of its audience. Including controversial topics is not only engaging but can promote critical thinking. Finally, students enter college with varying levels of exposure to information about violence. Therefore, the group should also focus on providing knowledge and teaching skills that appeal to both new and experienced learners.

Aspects of violence prevention education that have largely been ignored are three-fold. First, the effectiveness of most violence prevention programs has been analyzed using pretest and posttest measures. However, there is little evidence of the longitudinal effects of participating in violence prevention programming and comparisons to groups of individuals who did not participate in the programs. Second, although multiple forms of media have been used in violence prevention education, online learning environments, which have been empirically supported in a variety of educational settings, have not been explored for this purpose (Meishar-Tal, Kurtz, & Pieterse, 2012; Chou, 2012; DiVall & Kirwin, 2012). Thirdly, many programs have been designed for high school and elementary school students, meeting the need for early intervention and education about violence, but there are few programs designed for students at the college level, who developmentally have the skills to analyze the perpetuation of violence and use critical thinking to identify solutions for personal advocacy locally and globally. Many universities have adopted "liberal learning" requirements that include a more comprehensive rather than focused course load, but very few undergraduate institutions require let alone offer courses that teach about violence prevention. There is a need for a comprehensive and campus-

wide response to violence (Banyard, 2013). In order to effectively prevent violence, education efforts must reach people from across the lifespan, especially those being trained in the health and helping professions. The goal of this education is not to solely teach facts about violence, but to immerse people in awareness of its impact and make them feel part of the solution. This requires engaging programming that is appealing and accessible to the new generation of learners.

**Using Facebook in the Classroom**

There is consensus that violence prevention education for college students is a necessary part of higher education in order to prepare the next generation to identify, prevent, and eradicate violent acts (Corrine, Bertram, & Crowley, 2012; Freedy, Monnier, & Shaw, 2009). Drawing from lessons learned about the positive effects of multi-media methods in meeting violence prevention program goals, it is possible that violence prevention education could benefit from the introduction of online learning environments. In this generation where technology is used daily, education programs and curricula have adopted new styles of teaching that incorporate technologically based methods. In terms of the execution criteria outlined by Flood and colleagues (2009), successful ways to reach the current generation with this important information may lie in teaching methods that exist in more familiar forms of media that people have adopted into regular use.

Facebook, the popular social media website, serves as a major form of connection and communication between its millions of users. College students report spending 10-60 minutes per day on this website, mainly for social purposes (Hew, 2011). In recent years, Facebook has also been examined not just as a social medium, but as an educational tool to promote learning combined with community strengthening (Shih, 2013). Although critics may accuse Facebook of

being a distraction from learning (Hew, 2011), others have shown this is not the case. Research on the use of Facebook for education is limited and fairly recent, but has shown potential for playing a beneficial role in the education of the current generation of students (Meishar-Tal et al., 2012; Chou, 2012; DiVall & Kirwin, 2012).

Facebook has several clear advantages over learning in a traditional classroom setting. First, with rising enrollments and less hiring of professors, class sizes are increasing across many universities (Horning, 2007). In very large classes, some students can spend an entire semester without contributing to classroom discussions. Other students may suffer from social anxiety or general shyness and feel uncomfortable speaking in class (Hamann, Pollock, & Wilson, 2009). In this regard, Facebook increases class participation by giving every student an opportunity to "speak" and by providing a more comfortable setting to express opinions (Hamann et al., 2009). Facebook is also very easy for students to use (Lam, 2012; Chou, 2012; DiVall & Kirwin, 2012). Because the majority of college students use Facebook daily, it is a comfortable and welcoming online domain (Hew, 2011). Hill, Song, and West (2009) suggest that students found online participation to increase the amount of time they had to discuss and reflect on course material outside of classroom time. Meyer (2003) confirms the benefits of this expanded time, revealing that students felt they got more out of the class when being able to participate in threaded discussions. Access to these groups is available around the clock, increasing interactions and promoting immersion in the material. Files, documents, pictures, and articles are easy to upload, allowing students to make more connections and create more dynamic and informed discussions (Meishar-Tal et al., 2012; DiVall & Kirwin, 2012). Online discussion groups also assign more responsibility to students for their learning (Lim, 2010); they have flexibility to shape their online community and learn more about what is important to them, creating a more active rather

than passive learning environment (DiVall & Kirwin, 2012). Overall, many students have reported feeling a stronger connection to their classmates after being involved in a Facebook classroom activity (Chou, 2012). These advantages contribute to the increasing frequency with which Facebook and other online tools are being used in educational settings.

Learning management systems (LMS), or course websites such as Moodle and Blackboard, have been implemented in college courses to improve organization of materials and electronic communication between and among students and professors (Sclater, 2008). Studies using Facebook as an LMS have revealed positive student reactions to this new online learning environment. Meishar-Tal et al. (2012) examined the use of Facebook as an LMS for 50 students in a face-to-face graduate education course at an Israeli university. In comparing Facebook to traditional LMS websites, five advantages were outlined: Facebook is easy to access, free of charge, low-maintenance, no new accounts were needed, files can be easily uploaded to Facebook, there is a strong interaction element including comments and "likes," and the asynchronous nature of the discussion threads helped combine both social and learning objectives. It has been revealed in other studies that students are likely to participate more in Facebook conversations than those on Blackboard, suggesting it can be a more effective medium than other LMS websites (DiVall & Kirwin, 2012).

In other examinations of using Facebook as an LMS, student surveys have revealed a variety of positive reactions, illustrating advantages of this use of technology in conjunction with college classrooms. Students found the use of Facebook for class to be easy, useful, and provide increased ability to communicate with peers (Wang, Woo, Quek, Yang, & Liu, 2012; Ractham, Kaewkitipong, & Firpo, 2012). Pharmacology students participating in a closed Facebook group for class also reported many positive reactions including the opportunity for deep discussions

with classmates, professor contributions, and the appreciation for the alternative use of Facebook for learning (Estus, 2010). Other students reported finding Facebook helpful for learning and expressed desire for it to be used in future classes (DiVall & Kirwin, 2012). Haygood and Bull (2012) also measured student perceptions of Facebook in the classroom, specifically for high school pre-calculus students. In response to a survey of their perceptions of the group, student participants felt that the experience was educational, engaging, motivating, and allowed for more learning outside of the classroom. Overall, these studies consistently find positive student attitudes toward the varied educational uses of Facebook in their academic courses.

Motivation, which is crucial to positive learning outcomes in educational settings (Pintrich & de Groot, 1990), has been analyzed in relation to Facebook use in college classrooms. Lam (2012) designed a four-factor model of motivation for learning related to the benefits of using Facebook in college courses in Hong Kong, including level of interaction, communication, ability to form social relationships, and opportunities and requirements for participation. Students were required to participate in Facebook study groups; results revealed that all four model factors were correlated to student motivation, highlighting the use of Facebook as a positive influence on student motivation to learn and participate in class-related activities. Petrović, Petrović, Jeremić, Milenković, and Ćirović (2012) explored the connection of motivation and use of Facebook for ecological university students in Serbia. Students who used Facebook to create their own eco pages were divided into two groups: intrinsic and extrinsic motivation based on self-reports. Those students who were intrinsically motivated to participate were significantly more likely to report finding the Facebook groups extremely useful. From both groups, 97% of the students reported being significantly more knowledgeable about environmental topics from the use of the Facebook groups. Facebook appears to motivate

students to learn, and while previous motivation style may have an effect on student perceptions of using Facebook, it does not significantly affect the learning outcomes.

In addition to motivation, several factors have been shown to directly contribute to Facebook's success as a learning tool. High self-efficacy is correlated with higher interest in collaborating with peers on Facebook (Lampe, Wohn, Vitk, Ellison, & Wash, 2011). Self-efficacious students are therefore more likely to benefit from this participation. Lampe et. al. (2011) also revealed that college students who use Facebook more intensely are also more likely to become very involved with Facebook as a learning tool. Another study conducted in Malaysia explored the usefulness of online discussions using Facebook for students in different university courses (Lim, 2010). One group of students was assigned to use Facebook for discussions, and the other group was informed that use of Facebook was optional. The students who were directed to use Facebook and given prompts made posts that were significantly higher in quality as far as engagement and depth. Clear directions and expectations for use contribute to the success of a classroom Facebook group. Haygood and Bull (2012), in their exploration of the use of Facebook in high school math courses, found that the use of Facebook was successful in conjunction with a traditional classroom setting, but concluded that the use of Facebook on its own for learning with no other context may not be very effective. Thus, when executed with these factors in mind, using Facebook to teach violence prevention to college students could increase motivation to learn, foster a stronger sense of connectedness, expand learning outside of the classroom, create an immersive and deep learning experience, expose students to a variety of materials, and increase student participation. Facebook meets the needs of this generation in a learning environment as a technologically forward and familiar tool.

**Online Discussions and Lifelong Learning**

Online learning environments not only show a great deal of potential for teaching violence prevention, but for fostering lifelong learning. It is the goal of higher education institutions to not merely provide knowledge, but to produce lifelong learners who will continue to pursue knowledge and utilize critical thinking skills throughout their lifetime. Violence prevention education cannot meet its goal of preventing violence if students gain knowledge about violence but do not hold onto this pertinent information once the course is over. Much research has examined the meaning of lifelong learning, as well as the most effective ways in which educators can foster this competency. It is necessary to define lifelong learning in order to design educational methods to promote this facet as well as assess the effectiveness of this education.

Lifelong learning has been defined in many ways. Simply put, lifelong learning is "deliberate learning [that] can and should occur throughout each person's lifetime" (Knapper & Cropley, 2002, p. 1). Lifelong learning includes informal and formal learning opportunities that contribute to personal advancement and social interaction (World Education Report, 2000). The European Commission defined lifelong learning as, "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social, and or employment-related perspective" (p. 22). In a popular model of lifelong learning, Delors (1996) defined four components of lifelong learning, including learning to know (content), learning to do (career-focused), learning to interact (interpersonal skills), and learning to be (self-fulfillment) (WER, 2000). "Learning to learn" is at the center of these four components, with the goal being continuous learning throughout one's lifetime. Hinchliffe (2006) believed the definition of life-long learning must include a focus on situational awareness and understanding, including the ability to assess immediate situations through multiple

understandings. Although measuring lifelong learning can be an arduous task, these definitive factors provide guidelines for analysis of this construct.

There is consensus over which teaching methods successfully meet the goals of lifelong learning and which do not; many agree that one method is to foster active learners. In recent decades, the responsibility of learning has transitioned from being the responsibility of the student to that of the teacher; in addition, teachers are under pressure to "teach to the test" to improve standardized test scores rather than teaching valuable thinking skills (Galvin, 2008). These factors have contributed to creating passive learners who use shallow rather than deep processing in learning environments (Galvin, 2008). To achieve learning on a deep level, it is recommended that educators refocus on ways of thinking and not solely content areas, reward students for use of critical thinking rather than for "right" answers (Celuch & Slama, 1998), support student independence (Trigwell, 2012; Galvin, 2008), promote conversation and challenges to worldviews (Trigwell, 2012), and put students in charge of their own learning (Galvin, 2008). Educators and researchers have found that the use of online learning environments are conducive to supporting these various factors.

The learning environment plays an important role in the promotion of a genuine interest in learning. Galvin (2008) proposed the conceptualization of a knowledge triangle, wherein the learning environment is a critical entity of learning separate from both the student and teacher. To be successful, this environment requires rules, boundaries, and active rather than passive learning methods (Galvin, 2008). In this environment, teachers act as mentors and provide methods for assessment and feedback of student-directed learning. Deep thinking skills become enhanced when students interact with and learn from their peers (Galvin, 2008). The independence and sustained engagement involved in peer learning supports a focus on a bigger

picture that shifts learning from content to analysis (Trigwell, 2012). Thus, an interactive learning environment has the potential for promoting lifelong learning. Facebook provides a high level of interaction as well as other features that support the ways in which students effectively learn new concepts and use critical thinking skills. Various research cites the importance of these facets, which include improving student motivation, promoting interactions between classmates, deeper involvement in class material, improving emotional intelligence, and fostering a positive attitude toward learning beyond the physical classroom (Petrović et al., 2012). Specifically, studies on effective learning have examined the use of asynchronous online discussions, threaded discussions that involve communication between multiple participants that can be accessed at any time, in enhancing deeper conversations on course material.

Online discussions play an important role in fostering critical thinking skills and promoting an interest in learning. Limited class time is cited as an obstacle in accomplishing full comprehension of class material (Meyer, 2003). Facebook helps extend these conversations outside of scheduled class time. Results comparing in-class discussions to threaded discussions on Blackboard revealed that both methods had positive results, but that the use of online discussions had specific advantages in regards to learning (Meyer, 2003). First, students put forth more time toward class objectives when participating in threaded discussions. All students had a chance to speak, versus the classroom where some students did not participate. Ability to share articles and reflect before speaking increased the quality of the discussions and the knowledge gained. A content analysis of cognitive process categories revealed that students in the threaded discussions engaged in a variety of higher-order cognitive processes (Meyer, 2003). Spiceland (2002) also compared groups of students engaging in traditional classroom discussions and students engaging in discussions online. In a survey on effectiveness of the threaded discussions

distributed, students in the online discussion group reported that they gained new skills and expressed an interest in taking other similar courses, suggesting an urge to continue one's learning.

Other studies examining the use of online discussions in college courses have also demonstrated the positive impact of online class components and lifelong learning outcomes. A study of over 500 marketing students, involved in either threaded course discussions or a control group, revealed that the use of technology in college business courses was related to improved course grades and fostering a strong interest in learning (Krentler & Willis-Flurry, 2005). Hill et al. (2009) examined the effects of web-based learning environments (WBLE) on student learning in a variety of different studies. This research is based on social learning theory, which posits that knowledge is constructed through interactions in social contexts (Hill et al., 2009). This analysis demonstrated that students found they had more opportunities for discussion and reflection and felt a stronger connection to their peers as a result of participating in online groups in conjunction with traditional classroom activities. They had the opportunity to connect ideas, learn from peers, and participate in discussions with various students on a variety of complex and controversial topics. Similar environments create the ability to become involved with important material that directly affects students, promoting life-long interest and engagement with the material.

Besides actively engaging in online discussions, some research suggests that simply reading the opinions of classmates online contributes positively to student learning. Hamann et al. (2009) found that most of the research literature on threaded discussions focused solely on posting behavior and not non-posting behavior. They believed that because student discussions increase learning, that online student discussions should increase learning in a similar capacity.

Their study examined online discussions between students in political science classes and student performance was measured by each student's course grade. Results showed that the number of posts read was more strongly correlated with performance than the quality or quantity of posts. Dennen (2008) referred to this non-posting behavior of reading and reflecting on the posts of others as "pedagogical lurking." Dennen (2008) suggested that studies that only examine posting behavior are ignoring the interaction between the students and the information being shared. A graduate class and undergraduate class who met four times in person and used Blackboard for the remainder of the course were studied. Results from self-report measures of posting and non-posting activities revealed that students felt they greatly benefited from both posting and reading posts. Students reported that they posted more than they read, which contradicted the page counts that showed that students read more than they posted, suggesting they felt more involved as a poster. The researchers conclude that if non-posting behavior is not rewarded, that students will not be likely to engage in dialogic interactions (Dennen, 2008). This research indicates that both the reading and posting components of online environments contribute to learning, but that posting better represents a student's feeling involved and connected to others when learning. A Facebook group, which involves both posting to asynchronous conversational threads and reading the conversations of other students, meets the requirements of a learning environment that promotes life-long learning by creating an independent learning environment where students have control over what they post and read. A Facebook group that focuses on violence specifically instigates conversations about difficult topics and could promote deeper analyses and further involvement of students in learning.

**Advocacy**

Deeper engagement with course material goes hand in hand with student advocacy; students encouraged to participate in activism become more engaged with their subject matter (Cornelius, 1998) and engaged students are motivated to participate in activism (Crossley, 2008). Advocacy can be understood as making the needs, whether political, social, or legal, of those who face discrimination or have little power, known to leaders, legislators, and the general public (Wark, 2008). Student advocacy is not only connected to lifelong learning (Sax, 2004), but also an integral part of the movement of violence prevention, making increased student activism another crucial goal of violence prevention education. However, despite activism's crucial place in learning, a focus on activism is not commonly highlighted in college curricula (Wark, 2008). This may be the result of unprepared teachers, limited class time and resources, or no classes being offered specifically on political advocacy (Wark, 2008).

The college environment has long been considered a vital component in the uniting of like-minded individuals for political causes (Crossley, 2008; Sampson, 1967). College campuses provide a venue for activist recruitment where previously uninvolved students are exposed to peers who are politically active and where students have ample free time to get involved (Crossley, 2008). Levels of social activism have been shown to significantly increase after entering college (Sax, 2004). Research has examined the factors that make a student more likely to participate in activism, the education of activism, and activism's connection to lifelong learning.

Our understanding of the features associated with a student's likelihood to be politically active has changed over time. Many researchers have conceptualized the student activist during the "decade of protest" in the 1960's as a child of wealthy, liberal, non-authoritarian parents, who was highly intellectual, unconventional, impulsive, and belonged to a broad social network

(Sampson, 1967). Hayes (1972) challenged this image of the privileged protester, revealing that protesters represent students from varying socio-economic backgrounds. Although many accuse the current generation of "millennials" as being politically apathetic, Crossley (2008) shows that this is not the case. More than half of his sample of 1,250 students identified with a social movement identity, such as feminist or socialist, and 25% participated in social activist events. Certain factors have been correlated with higher level of interest in participating in activist movements. Swank's (2012) analysis of 125 undergraduate social work students found that identifying as an activist or belonging to an activist network predicted higher levels of political activism, as measured by self-reported participation in protests and other political advocacy. Participation in activism was also positively correlated with being asked by other students to get involved with a particular cause (Swank, 2012). College students are significantly more likely to become politically active than same-aged peers (Crossley, 2008). Therefore, college students of varying backgrounds are likely to show an interest in activism when exposed to environments that encourage and promote this activity.

Many studies that focus on promoting student activism review class-based activities where students are required to participate in a project. This research reveals successful common features that relate to lifelong learning. Stepteau-Watson (2012) connects activism education in the classroom with enhancement of student learning, increased engagement with the community, and learning inside and outside of the classroom. She showed that advocacy projects helped students prepare for professional roles and increase motivation to learn. Similarly, when 46 college students studying human services engaged in a semester-long advocacy project in teams, 90% reported that they would be highly likely to stay involved with advocacy projects in the future (Wark, 2008). Student surveys on reactions to the project reflected themes of the

importance of research and commitment when participating in activism, which represent important insights for future professionals. Wark (2008) asserted that collaborative work combined with faculty oversight is the cornerstone to successfully fostering student interest and engagement in advocacy. Blake and Ooten (2008) use a similar format when teaching about social movements, where students learn in groups from one another, and are exposed to material through active learning, facilitated by the instructor. They posit that students need role models in order to better understand activism and engage in it themselves. Faculty guidance, student independence, and student collaboration are all highlighted as important to advocacy and activism. Naples (2002) taught activism in her introductory women's studies courses, resulting in projects that she noticed made a significant impact on the college campus and in the wider community. Additionally, when students from various colleges participated in service learning projects, they were significantly more likely to participate in civic engagement than their peers who did not participate (Prentice, 2007). Cornelius (1998) showed that students involved in social movements felt a stronger sense of agency, a quality associated with lifelong learning. It is clear that the factors that make advocacy education successful overlap with factors that contribute to lifelong learning and thinking skills, such as immersive experiences, expansion of material outside the classroom, and learning through doing. Advocacy education in the classroom appears to be geared toward immersing students in a single project rather than promoting an interest in general participation in activism. Advocacy is critically important to include in the college curricula, along with education about violence prevention, but requires more focus on fostering an interest in engaging in multiple forms of advocacy.

Overall, violence prevention education programs that have been designed for a variety of topics and age groups have been found to effectively address crucial information on prevention,

skills, and advocacy. An important factor that contributes to the success of programs in meeting their goals and promoting lifelong learning is the use of online learning environments. It is clear that these environments, specifically Facebook, possess a multitude of features that can support educational goals. Although LMS and Facebook have been used in academic settings, they have not yet been applied to a violence prevention program. Whether violence prevention can effectively utilize these online learning communities has not yet been empirically evaluated. Development of evaluation methods for this learning format as applied to violence prevention education are necessary to better understand its usefulness.

## Strategies for Assessing Online Education

More comprehensive assessment of educational online environments is required in order to establish these practices as effective in promoting learning. Once this is established, it will give educators better insight into effective teaching methods that will produce life-long learners and critical thinkers. The majority of studies have used self-report measures to examine the use and effectiveness of threaded discussions on online forums in academic settings. These self-report measures have largely surveyed participants' opinions about the group, focusing on students' identification of difficulties using the group, reflections of their experience, and positive reactions to participating (Meishar-Tal, et al., 2012; Estus, 2010). Online environments present unique challenges, due to their promotion of immersive experiences versus information simply being transferred lecture-style between teacher and learner (de Freitas, Rebolledo-Mendez, Liarokapis, Magoulas, & Poulovassilis, 2010). Although reflections on experiences in these groups provides helpful information for the structure, guidelines, and administration of the group, diverse methodology is required to provide a comprehensive view of the effectiveness of online learning environments.

Some researchers have designed and examined frameworks for understanding and assessing the interactions of students in online environments. De Freitas and colleagues (2010) developed a four dimensional framework for assessing online learning experiences. This model included learner specifics, pedagogy, representation, and context. Learner specifics assess individual characteristics that examine the impact of the learner on the environment. This framework highlights the importance of measuring pedagogy on cognitive and social levels and adhering to specific teaching models, as well as considers a variety of factors that construct an online learning community. In their analysis of online discussions, Wishart and Guy (2009) drew from Kneser's Exchange Structure Analysis (ESA). These researchers believed that students become more engaged in their education when learning from one another, but that online discourse cannot be effective without requirements for participation. The ESA provides a framework based on categories of exchanges, moves, and roles. The exchanges characterize the purpose of the post, such as whether it is an original post or a response to an original post. Moves describe the action of the post, including clarifications, challenges, inquiries, etc. Finally, roles examine the part each individual is playing in the group, such as acting as an explainer, critic, narrator, etc. These categories provide a thorough analysis of content that focuses heavily on student interactions. A guiding framework for evaluation helps to better organize and understand complex post data; effective design can vary depending on the goals of the learning environment.

Other researchers have assessed online group discussions using coding methods, discovering new systems for understanding the evaluative meaning of posted information. Both quantitative and qualitative methods have been explored, each possessing advantages and disadvantages. Palmer, Holt, and Bray (2008) weigh the benefits of qualitative and quantitative coding categories, reviewing evidence that quantitative methods are easier but may not provide a

vivid picture of the data, while qualitative analysis may provide a more complete analysis but is time consuming and open to varied interpretations and therefore less likely to be reliable. They conclude that both approaches are necessary to provide a comprehensive picture of post data. Other researchers have drawn similar conclusions. Beuchot and Bullen (2005) used both quantitative and qualitative codes in an assessment of a Facebook group being used for a graduate school cohort. Posts were coded for interaction and interpersonality in a discourse analysis style, which focused on words, sentences, and structure. This method provided a salient analysis of interactional components, revealing the purpose and nature of student posts. De Bruyn (2004) aimed to understand the role of social presence in an interactive learning environment. The coding analysis included an examination of interactive responses, affective responses, cognitive responses, cohesive responses, system responses, and social presence (De Bruyn, 2004). Results of this analysis provided valuable information on student participation, instructor presence, and group expectations. It is evident from these studies that deeper and more informative analyses result from assessments that include both quantitative and qualitative components that explore interactive, affective, and cognitive information.

Programs implementing violence prevention education have largely provided pre- and post-test measures, but few have provided outcome measures that measure long-term effects. This is important to note because although there is much research outlining immediate effects of these programs, there is little research that substantiates whether or not these effects last. Sax (2004) examined longitudinal data provided by the CIRP freshman survey, which was first administered to 12,376 students from 209 different universities upon entering college, four years after entering college, and nine years after entering college. The survey was not implemented in relation to any specific program, but provided data on student volunteerism and activism in

college and afterward. This design revealed that although students' level of activism significantly increased during college, it significantly decreased at the nine year follow-up (Sax, 2004). This indicates that without any particular intervention, students' interest and involvement in activism was not maintained in the long-term. With little longitudinal data, it is unclear how the effects of violence prevention education have held up over time. The current study addresses this gap in the literature by employing multiple assessment methods, including a one year follow-up in order to assess the effectiveness of a violence prevention education Facebook group.

## Current Study

The aim of this research project was to examine the effectiveness of a violence prevention education program embedded within an undergraduate psychology curriculum to (a) promote lifelong learning of the warning signs of many types of interpersonal violence, (b) encourage advocacy related to promoting human welfare, and (c) raise awareness of the importance of violence prevention education. This curriculum utilized a private Facebook discussion group that served as an auxiliary to several psychology courses at Indiana University of Pennsylvania. The group was designed as an interactive educational experience to promote learning outside of the classroom. The curriculum was administered to students in courses taught by Drs. Berman and McHugh during the fall of 2012. The student participants used the group, We Can Prevent Violence (WCPV), to discuss violence topics in threaded discussions in addition to learning about violence topics in the classroom. The group was managed by five administrators, including course professors and graduate students, who provided guidelines for participation, monitored group activity, and lead by example.

The group included a variety of features that provided unique learning opportunities in conjunction with traditional classroom learning. First, students had the ability to post videos,

photos, articles, and other diverse media, creating many different ways to participate. WCPV provided a safe space to discuss a range of views that students may have felt uncomfortable discussing or may have not had ample time to discuss in their psychology classes, thus extending learning outside of the classroom. Students were not penalized for disagreeing or arguing. Limitations were placed on student behavior only when it was deemed inappropriate by an administrator; this only occurred if misinformation needed to be corrected or if any type of bullying occurred on the site. With the goal of promoting lifelong learning, WCPV allowed students to guide their learning, be engaged outside of the classroom, connect current events to their classroom learning, and learn from one another.

The WCPV Facebook group was designed based on considerations of the research literature on violence prevention education and online learning. This group was a semester-long learning endeavor that was designed to be used with several sections of psychology courses concurrently. Thus, it brought together students who were in varying majors and in both beginner and advanced psychology courses. Due to the importance of program guidelines, participants in WCPV received information regarding the number and quality of posts expected of them before they joined the group (see Appendix A). These guidelines provided some structure for students but also allowed them a great deal of flexibility in terms of the types of posts they themselves put on the site as well as when and how they responded to the posts of others. Discussions were not limited to specific topics, but rather covered a comprehensive understanding of violence. This supports the WHO's broad definition of violence, which encompasses different types of harm, different types of victims, and the varying scope of violence.

This curriculum was also designed and assessed with consideration of past violence prevention education efforts. Prior project administrators have defined program effectiveness in

different ways. In programs designed for young children, behavioral outcomes were often a focus (Neace & Muñoz, 2012; Allen, 2009; Meyer et al., 2004; Hausman et al., 1996). For adults, attitudinal shifts, meaning-making, and collaboration were major program goals (Flood, 2011; McMahon & Dick, 2011; Simbandumwe et al., 2008). The current study defined program effectiveness as a combination of these things, aiming to increase student knowledge, increase positive behaviors, influence students' attitudes, and engage students in serious dialogue. Sheras, Cornell, and Bostain (1996) discuss violence as a learned behavior and thus it can be unlearned and prevented through learning of alternatives. Learning of warning signs will provide knowledge that helps students not only challenge violence they witness, but perhaps even challenge their own violent tendencies. Thus, the current curriculum is developmentally appropriate and challenging for young adults as well as promoting of learning valuable information that can be transformed into collective action.

Rather than solely analyzing the effectiveness of this curriculum by surveying participants' opinions of the experience, the current study relied on a triangulation of methods to assess how successfully the violence prevention curriculum had met its goals. This approach aims to analyze measurable behavioral and cognitive outcomes. These methods include (a) the coding of qualitative post data from the WCPV group, (b) a pre-test, post-test, and follow-up Warning Signs Survey given to students taking select psychology courses, (c) a one year Follow-up Survey of students who participated in the WCPV group, and (d) comparison to a group of psychology students who did not undergo the curriculum.

**Program Goals**

The goals of violence prevention education within the classroom and on the WCPV Facebook group were to: (a) increase students' recognition of the warning signs of violence, (b)

increase student's use of psychology knowledge to promote community welfare, and (c) increase discussions of course material outside of the classroom in order to enhance the likelihood of long-term retention of violence prevention education information. The purpose of the current research study was to measure how effective this curriculum was in meeting these goals. The specific hypotheses of the study include:

H1: Students will show improvement in their ability to recognize the warning signs of a variety of forms of violence, including physical abuse, sexual abuse, emotional abuse, neglect, and suicide as evidenced by improvement in Warning Signs Survey scores from before and after they have participated in the group and psychology course.

H2: Warning signs knowledge will be sustained after one year as evidenced by scores on the Warning Signs Survey.

H3: Students will show sustained awareness of the importance of violence prevention education after one year as evidenced by scores on the Follow-up Survey.

H4: Students who participated in WCPV will show an increased amount of engagement in advocacy steps during participation in the group from the beginning to the end of the group as well as sustained advocacy involvement at the one-year follow-up, as evidenced by a frequency analysis of student posts to the Facebook group and self-reported advocacy steps in the Follow-up Survey.

H5: Students who participated in WCPV in their psychology courses will show significantly higher recollection of warning signs and levels of engagement in advocacy compared to students who took psychology courses but did not participate in the Facebook group as evidenced by student follow-up survey scores.

H6: Students who participate in WCPV will show an increased level of active engagement in the violence related material from the beginning to the end of the group through: showing a shift from punishment focused solutions to prevention focused solutions to major problems; engaging in longer discussion threads; and, demonstrating the flexibility of the Facebook format by using diverse media for their original posts.

# CHAPTER 3

# METHOD

## Design

The current study collected outcome data using an analysis of Facebook posts, the Warning Signs Survey, and the Follow-up Survey. Analyses involving the Facebook posts utilize a quasi-experimental design. Analyses involving the Warning Signs Survey and Follow-up Survey utilize a longitudinal quasi-experimental design that compares two groups of students one year after participation in the curriculum. The subjects for the experimental group were taken from a convenience sample of students enrolled in undergraduate psychology courses during the fall of 2012 that were taught by Dr. Pearl Berman or Dr. Maureen McHugh. The subjects for the comparison group were taken from the student subject pool representing students from psychology courses who did not participate in the WCPV group. The goals of violence prevention education within the classroom and for the WCPV Facebook group outlined above were measured using different variables. Dependent variables included: 12 variables that were coded from a selection of asynchronous threaded discussions on the WCPV Facebook Group, the number of action steps taken by students at end of fall 2012 and number taken at follow-up, interest in violence prevention education, and knowledge scores of the warning signs of six types of violence.

## Participants

Several samples are represented within this study. Participants in all components of this project reflect a convenience sample of students taking General Psychology, Human Sexuality, and Psychology of Women courses. Participants in the WCPV Facebook group include all students from these psychology courses taught by Dr. Pearl Berman and Dr. Maureen McHugh

in fall 2012 who agreed to participate in the group instead of participating in an alternative project. Participants taking the Warning Signs Survey include all student participants in the Facebook group during this semester who agreed to take the survey. This group included 142 students, consisting of 78% women and 22% men. Almost half of the students were enrolled in introductory psychology courses (49%) while the other half were enrolled in Psychology of Women or Human Sexuality (51%). The group mainly ranged in age from 18-22, with 6% of students identifying as 23 or older. One quarter (25%) identified as age 18, 15% identified as age 19, 15% as age 20, 26% as age 21, and 12% as age 22. Approximately half of the students are from a "small town" (51%), 22.5% are from a rural area, 22.5% are from a large suburb or city, and 3% are from a major metropolitan area. Students in this group took approximately three to four psychology courses on average.

Participants taking the Follow-up Survey and the Warning Signs Survey at the one year follow-up included a smaller selection of students who participated in the WCPV Facebook group during fall 2012. All students who participated in the group at that time were contacted via email; those who agreed to participate in the survey were offered a chance to enter a drawing to win one of several gift cards worth $50; three winners were selected. In this group of 13 students, 85% of participants were women and 15% were men. Less than a quarter were enrolled in introductory psychology courses (23%) while the remainder of students were enrolled in psychology of women or other psychology courses. At the time of follow-up, students in this group ranged in age from 18 to 21, with 23% 18 year olds, 8% 19 year olds, 38% 20 year olds, and 21% 21 year olds. The follow-up sample represented 54% of people from a rural community, 23% from a small town, and 23% from a large city. On average, each student reported that they took approximately five to six psychology courses.

The comparison group of students was selected using the psychology subject pool which consisted of students in introductory psychology courses. The students from this group who chose to participate received credit toward their required research participation. This sample of 80 students comprised of 57% male students and 43% female students. All of these students were enrolled in an introductory psychology course. They ranged in age from 18-22, with 44% identifying as 18, 23% identifying as 19, 25% identifying as 20, 5% identifying as 21, 1% identifying as 22, and 1% identifying as 23 or older. This sample also represented people from different types of communities, including rural (24%), small town (47%), large town (19%), or major metropolitan area (10%). On average, this group of students took one to two psychology courses.

## Measures

There were three measures used in this research project. The first is an analysis of Facebook posts from WCPV during the fall semester of 2012 using the coding manual. The second is the Warning Signs Survey which was given to students directly before and directly after their participation in the WCPV group in the fall semester of 2012. This measure was also administered to the selection of students who participated at the one year follow-up and to a selection of students in other psychology courses in fall 2013 who did not participate in the WCPV group. The third measure is the one year Follow-up Survey given to a selection of students who participated in the curriculum in fall 2012 and to the comparison group.

**We Can Prevent Violence (WCPV) Facebook Group**. Students participated in the WCPV Facebook group during the fall semester of 2012 in conjunction with psychology courses. Approximately 3,000 posts were made to the group during this semester. A selection of 626 posts representing the beginning (221), middle (202), and end (203) of the Fall semester of 2012

were coded and analyzed for the current project. A coding analysis of the Facebook posts was conducted for a variety of variables. The We Can Prevent Violence Coding manual (APPENDIX B), influenced by the Marital Interaction Coding System (Weiss & Summers, 1983), was designed specifically for this group to collect and interpret post data. Earlier semesters of Facebook posts were reviewed in order to develop coding categories that best captured the data. All posts from this group were printed and numbered for coding and archival purposes. A total of 29 coding categories were analyzed. The 17 descriptive codes provided information about the posts such as date, time, and poster name and gender. The 9 content codes measured other aspects of this data, including the type of information posted, the topic, type of advocacy described, emotional content, misconceptions, and suggestions made by the poster. Three interactional codes, agreement, praise, and provocation, were also included. These codes provided a comprehensive picture of the post quality and intention. Attention was paid specifically to changes in the group across the semester, including topic, advocacy, suggestions for solutions, thread length, and emotions. Coding the Facebook posts helped to better understand the ways in which students participated in the group as well as track changes in participation throughout the semester. Special attention was given to gender differences across categories.

Several coders were trained to reliably code Facebook posts using this coding analysis. First, the detailed coding manual was distributed to all coders. Trained coders practiced coding posts and attended meetings with other coders in order to become oriented to the system. After coding for approximately four weeks, coders were tested for inter-rater reliability on 50 coded posts. All trained coders achieved inter-rater reliability with the master coder, ranging from .6-1, or good to excellent, for all codes. Inter-rater reliability between the master coder and the fourth

coder, who both coded the posts for the 2012 Fall semester, also fell in this range (Table 1). These analyses show overall acceptable reliability for the Facebook post coding system. Electronic spreadsheets in the SPSS program were used for coding records. Coders did not code more than 50 posts at a time in order to avoid fatigue and coders reviewed codes to make sure they accurately represented each post. Inter-rater reliability was tested whenever new codes were added or when a new coder was trained.

Table 1

*Inter-Rater Reliability for Coding of Facebook Posts*

| | Inter-rater correlation (kappa) |
|---|---|
| Post content | .87 |
| Advocacy | .72 |
| Thread length | 1.0 |
| Post length | .88 |
| Misconception (Other) | 1.00 |
| Suggestion for a Solution | .71 |
| Emotion | .91 |
| *N* of valid cases | 50 |

**Warning Signs Survey** (Appendix C). The Warning Signs Survey was designed by Pearl Berman (2011) as a pre-test and post-test measure for student participants in the WCPV Facebook group. The survey compiles demographic information and measures student ability to identify various warning signs of violence, suicide, neglect, and physical, sexual, and emotional abuse. First, the survey describes a total of 34 behaviors and asks students to indicate whether

each was a warning sign of violence, suicide, both, or neither. In the following section, the survey describes a total of 69 behaviors and asks students to indicate whether each was a warning sign of physical abuse, emotional abuse, sexual abuse, or neglect (uninvolved); the student may also select that they are unsure if it is a warning sign or if it is not a warning sign of any type of violence. Demographic data compiled in the survey includes course number, age, gender, year in school, hometown, number of psychology courses taken, number of courses that have taught about violence, and sources of information about violence. Pre-test and post-test data that was collected from the 2012 Fall semester was used in this study. It was administered in conjunction with the Follow-up survey approximately one year after participation in the curriculum.

**Follow-Up Survey** (Appendix D). This survey was administered to selected students who participated in the WCPV group as a one-year follow-up measure. The survey included eight items pertaining to student knowledge of warning signs of violence, five items pertaining to student experience of the group, eight items measuring level of participation in advocacy, and two items assessing engagement and interest in violence prevention related material. The survey included open-ended and close-ended questions. It was designed specifically for the WCPV group. A similar version of this survey (Appendix E) was be given to students who did not participate in the WCPV group. This survey excludes items that ask specific questions about WCPV group participation. Surveys were administered via email which provided an individual link to the survey.

## Procedure

Archival data that has been collected during the fall semester of 2012 was used for the analysis of Facebook posts and the Warning Signs Survey pre- and post-tests. The WCPV

Facebook group was officially available the first week of the semester, however it took two to three weeks for all registered students to become aware of the opportunity to participate in this group in order to receive 25 points of credit. Thus, students had approximately 13 weeks to participate in the group. At the beginning of the semester, course instructors introduced the project, provided guidelines for participation, and administered the Warning Signs Survey pre-test. Students who did not wish to participate in the Facebook group were given an alternate assignment for which they could earn 25 points. Students who agreed to participate requested invitations to the closed Facebook group. Only an administrator could admit a student to the group; class lists were used by the administrator to ensure that only appropriate individuals were admitted. Throughout the semester, the five group administrators also contributed by posting news articles, YouTube videos, and discussion questions on violence related topics, to help initiate discussions. Students were highly encouraged to start their own threads and to respond to other people's posts. They were able to contribute to the group by posting on the wall, responding to a post, participating in a poll, responding to or posting a document, or "liking" comments on the wall. At the end of the semester, all posts were cleared from the website. Student participants were given the Warning Signs Survey post-test at this time. Participation in the group was graded by course instructors.

A selection of 626 total posts representing the beginning, middle, and end of the semester was selected to be analyzed. Inter-rater reliability has already been established for the WCPV Facebook post coding scheme. Analysis of the participant posts was conducted by two trained coders using coding sheets on SPSS and then analyzed to examine program goals. This analysis included tracking changes in behavior over time, and measuring any gender differences. Pre- and

post-test Warning Signs Survey data were analyzed and compared to follow-up survey data and Facebook post data.

Additional data collected for the current study included student performance on the Warning Signs Survey one year after participation in the group and the one year Follow-up Survey measure for both the experimental and control groups. Students who participated in the group in the fall semester of 2012 were contacted by e-mail and invited to participate in the Follow-up Survey measure. Students who participated in other psychology courses and did not participate in the curriculum were also invited to participate in a different version Follow-up Survey that excludes WCPV-related items. The survey was administered via email and took approximately thirty minutes to complete. Students received an electronic informed consent form before participation; a debriefing form was distributed electronically upon completion. At the conclusion of the new data collection, all students from the WCPV group who participated were entered in a drawing to win one of three $50 gift cards. Students in the control group were awarded credit for their required research participation.

# CHAPTER 4

# RESULTS

## Recognition of Warning Signs of Violence Before and After Curriculum Participation

The first research question addressed to what extent students who participated in the violence prevention curriculum, including the psychology course and WCPV Facebook group, improved in their recognition of the warnings signs of violence from before their curriculum participation to their completion of the curriculum. Two samples were examined: the data set that included all students who participated in the pre-test and post-test measures ($N = 142$) as well as the follow-up sample ($N = 13$) whose scores on the Warning Signs survey were tracked at pre-test, post-test, and follow-up.

Repeated measures analyses of variance (ANOVA) were used to assess evidence of improvement in scores from the Warning Signs Survey for all of the students who participated in the curriculum. This survey asked students to identify whether or not a given warning sign was a warning sign of violence, suicide, physical abuse, emotional abuse, sexual abuse, neglect, or acceptable parenting. Dependent measures of the analyses include performance on questions related to these categories. Table 2 shows the means and standard deviations for warning signs scores on the Warning Signs survey at pre-test and post-test for the full sample ($N = 142$). Table 3 shows this information for the follow-up sample.

Table 2

*Descriptive Statistics for Pre-Test and Post-Test Scores on Warning Signs Survey: Full Sample*

| | Pre-Test | | Post-Test | |
|---|---|---|---|---|
| Variable[a] | *M* | *SD* | *M* | *SD* |
| Violence | 8.96 | 2.17 | 10.20 | 2.17 |
| Suicide | 6.35 | 1.95 | 6.42 | 1.65 |
| Physical Abuse | 8.96 | 2.36 | 9.97 | 2.05 |
| Sexual Abuse | 8.93 | 2.46 | 9.92 | 2.08 |
| Emotional Abuse | 10.42 | 2.78 | 10.83 | 2.40 |
| Neglect | 8.70 | 2.65 | 9.18 | 2.68 |
| Acceptable Parenting | 6.88 | 2.91 | 6.99 | 2.94 |

[a]$N = 142$

The first analysis examined whether there was an increase in knowledge of the warning signs of violence from before participation in the curriculum until directly after participation in the curriculum. The Warning Signs survey contained 12 items pertaining to violence. These items addressed different aspects of general violence, such as street crime, weapons, destruction of property, and anger. Mean scores increased between pre-test ($M = 8.96$, $SD = 2.17$) and post-test ($M = 10.20$, $SD = 2.17$) for recognition of the warning signs of violence. This positive change was statistically significant, $F(1, 141) = 55.14$, $p = .00$, $\eta\rho^2 = .28$, indicating that students were able to recognize approximately nine warning signs of violence before the curriculum and approximately ten warning signs of violence after participating in the curriculum. The eta squared statistic (.28) indicates a large effect size. For the follow-up sample, a significant

increase was also seen. The mean score at pre-test ($M$ = 8.69, $SD$ = 2.10) indicated that participants recognized approximately eight or nine warning signs at this time point. At post-test, the mean increased ($M$ = 10.08, $SD$ = 1.38). For recognition of warnings signs of violence, a statistically significant difference was found between pre-test and post-test, $F$ (2, 11) = 8.75, $p$ = .01, $\eta\rho^2$ = .61. Significant increases and large effect sizes were found for recognition of the warning signs of violence in both the smaller sample and the full sample Scores in both samples were relatively similar.

The second analysis examined changes in students' knowledge of warning signs of suicide between pre-test and post-test. Nine items on the Warning Signs survey related to suicide, including questions that addressed hopelessness, self-harm, and ending relationships. For warning signs of suicide, the means only increased slightly between pre-test ($M$ = 6.35, $SD$ = 1.95) and post-test ($M$ = 6.42, $SD$ = 1.65). This indicates that at both time points, students were able to recognize approximately six out of nine warning signs. Contrary to predictions, no statistically significant increases were found for recognition of warning signs of suicide; students did not improve their performance in this category after participating in the curriculum, $F$ (2, 11) = .19, $p$ = .66, $\eta\rho^2$ = .00. This was similar for the follow-up sample; contrary to expectations, no statistically significant results were found for this category $F$ (2, 11) = .11, $p$ = .90, $\eta\rho^2$ = .02. Knowledge of the warning signs of suicide did not show significant increase after participation in the curriculum. Students knew most warning signs of suicide at the beginning of the semester but even at the end, had not learned to recognize all of these. Students consistently showed difficulty with the item "student talks of always waking up at about 3 am and being unable to go back to sleep despite being tired" at both time points. Scores for warning signs of suicide for the full

sample were slightly lower than the smaller sample; students in the full sample showed difficulty with items related to trouble sleeping and increased moodiness.

Changes in scores for recognition of physical abuse were also analyzed. There were 13 items on this scale on the Warning Signs survey. Items addressed warning signs of physical abuse, including anger, bullying, and suspicious injuries. The mean scores at pre-test ($M$ = 8.96, $SD$ = 2.36) increased at post-test ($M$ = 9.97, $SD$ = 2.05). This change is statistically significant, $F$ (1, 141) = 26.67, $p$ = .00, $\eta\rho^2$ = .16, indicating that students in the full sample were able to recognize approximately nine warning signs of physical abuse before participating in the curriculum and approximately ten warning signs of physical abuse after participating in the curriculum. The eta squared statistic (.16) indicates a large effect size. For the follow-up sample, the mean score at pre-test ($M$ = 9.08, $SD$ = 1.32) increased at post-test ($M$ = 10.08, $SD$ = 1.61); this indicates that students were able to recognize approximately nine warning signs of physical abuse before participating in the curriculum, and approximately 10 warning signs at post-test. This difference was statistically significant, $F$ (2, 11) = 7.39, $p$ = .01, $\eta\rho^2$ = .57. The eta squared statistic (.57) indicates a large effect size. Thus, learning in this category significantly increased by post-test for both samples.

There were fourteen items on the Warning Signs survey that addressed sexual abuse, including warning signs related to flirting, privacy, and gossip. Analyses examined whether or not recognition of these warning signs increased between pre-test and post-test. The mean scores for sexual abuse increased from pre-test ($M$ = 8.93, $SD$ = 2.46) to post-test ($M$ = 9.92, $SD$ = 2.08). This increase is statistically significant, $F$ (1, 141) = 26.67, $p$ = .00, $\eta\rho^2$ = .14, indicating that students improved in their ability to recognize warning signs of sexual abuse after participating in the curriculum. The eta squared statistic (.14) indicates a large effect size. In the

follow-up sample, significant results did not emerge. At pre-test, the mean score for warning signs of sexual abuse ($M = 9.08$, $SD = 1.55$) indicates that students were able to recognize approximately nine of these warning signs. The mean after students completed the curriculum ($M = 9.31$, $SD = 2.14$) changed only slightly. Contrary to predictions, no statistically significant difference was found for this category $F\ (2, 11) = .29$, $p = .75$, $\eta_\rho^2 = .06$. Thus, students struggled with recognizing warning signs of sexual abuse at both the beginning and the end of the semester. Students were able to recognize more obvious warning signs, such as hugging all adults, drawing sex parts in pictures, and making sexual noises at school, but showed difficulty at both pre-test and post-test in recognizing items related to standing too close to others and keeping doors open at all times. Students in the full sample first recognized approximately nine warning signs of sexual abuse at pre-test and approximately ten at post-test, as opposed to students in the pre, post, and follow-up sample who recognized approximately nine of these warning signs at both time points.

The next analysis examined whether there was an increase in knowledge of the warning signs of emotional abuse between pre-test and post-test. Sixteen items on the Warning Signs Survey were related to emotional abuse, including warning signs related to threats, lying, isolation, as well as other warning signs. Changes were seen from pre-test ($M = 10.42$, $SD = 2.78$) to post-test ($M = 10.83$, $SD = 2.40$), indicating that participants showed slight improvement in their ability to recognize warning signs of emotional abuse at post-test. This positive increase in recognition of the warning signs of emotional abuse approached statistical significance, $F\ (1, 141) = 3.46$, $p = .06$, $\eta_\rho^2 = .02$. The eta squared statistic (.02) indicates a small effect size. A similar increase in performance was seen in the smaller sample as well as difficulty with similar items, including injuring a pet and ignoring a child's feelings. For the follow-up

sample, the mean scores for knowledge of emotional abuse at pre-test ($M$ = 10.46, $SD$ = 1.66) and at post-test ($M$ = 11.08, $SD$ = 1.94) shows that at both time points, students were able to recognize approximately 10-11 warning signs of emotional abuse. Contrary to predictions, no statistically significant difference was found between scores at pre-test and post-test for this sample $F$ (2, 11) = .56, $p$ = .59, $\eta_\rho^2$ = .09. Students knew approximately 69% of the emotional abuse items, showing general difficulty with this category at both time points.

Scores for the warning signs of neglect were analyzed for differences between pre-test and post-test. The Warning Signs survey contained 13 items related to neglect. These items included warning signs that addressed being left alone, staying out late, and appetite. Positive changes were seen for mean scores on recognition of neglect between pre-test ($M$ = 8.70, $SD$ = 2.65) and post-test ($M$ = 9.18, $SD$ = 2.68). This indicates that students showed improvement in their ability to recognize these warning signs after participating in the violence curriculum. These changes in scores for recognition of neglect approach statistical significance, $F$ (1, 141) = 3.70, $p$ = .06, $\eta_\rho^2$ = .03. The eta squared statistic (.03) indicates a small to medium effect size. The mean score for recognition of neglect for the follow-up sample at pre-test ($M$ = 10.00, $SD$ = 1.68) indicates that students in this sample were able to recognize approximately 10 warning signs of neglect at pre-test. At post-test, the mean increased ($M$ = 10.54, $SD$ = 1.76). Contrary to predictions, this increase does not indicate a statistically significant difference between pre-test and post-test; students did not show improvement in recognizing signs of neglect after participating in the curriculum $F$ (2, 11) = 1.42, $p$ = .28, $\eta_\rho^2$ = .21. Despite the higher increase in scores from pre-test to post-test in the full sample, the thirteen students who were followed to post-test were able to recognize approximately one to two more warning signs of neglect at each

time point. Both samples had difficulty recognizing the warning sign that addressed a child's lack of appetite.

Knowledge of acceptable parenting was also measured for changes between pre-test and post-test scores. Thirteen items on the Warning Signs survey were related to the acceptable parenting category. These included items about peer pressure, chores, and studying, among other topics. No change in recognition of acceptable parenting was predicted. Pre-test mean scores for this category ($M$ = 6.88, $SD$ = 2.91) indicate that students in the full sample were able to recognize approximately seven of these signs before participating in the curriculum. Post-test scores similarly indicate an ability to recognize approximately seven signs of acceptable parenting ($M$ = 6.99, $SD$ = 2.94). Analyses do not reveal any statistically significant changes in recognition of acceptable parenting, $F$ (2, 11) = .25, $p$ = .61, $\eta\rho^2$ = .00. In the follow-up sample, the mean score of knowledge of acceptable parenting at pre-test ($M$ = 8.31, $SD$ = 2.43) indicates that participants were able to recognize approximately eight signs of acceptable parenting before participating in the curriculum. This showed little change at post-test ($M$ = 8.23, $SD$ = 2.46). This change does not represent a statistically significant result $F$ (2, 11) = .13, $p$ = .88, $\eta\rho^2$ = .02. In alignment with predictions, student scores in the full and follow-up samples remained consistent in identifying acceptable parenting practices. However, scores for this category were somewhat lower at both time points than expected.

In accordance with predictions, repeated measures ANOVAs showed overall statistically significant effects for recognition of the warning signs of violence, physical abuse, and sexual abuse, and approached significance for emotional abuse and neglect. Effect sizes were large for the statistically significant findings of violence, physical abuse, and sexual abuse, and smaller for the analyses that approached significance such as emotional abuse and neglect. Additionally, no

significant changes were found for signs of acceptable parenting. More significant effects emerged when examining the full group versus the pre-, post-, and follow-up student sample, for which positive changes were not seen in performance related to sexual abuse, emotional abuse, and neglect. Effect sizes for significant analyses were large in both samples. Participants in both samples generally struggled with the same items on the survey.

Additional analyses were conducted to determine differences in performance on the Warning signs survey between pre-test and post-test for introductory psychology students ($N$ = 68) and advanced psychology students ($N$ = 74). At pre-test, students at both levels performed similarly in every category except for emotional abuse. Advanced psychology students ($M$ = 10.93, $SD$ = 2.55) performed better than introductory students at pre-test ($M$ = 9.85, $SD$ = 2.94). This represents a significant difference, $F$ (1, 140) = 5.5, $p$ = .02, $\eta\rho^2$ = .04. At post-test, no significant differences were found between groups in any warnings signs category. These findings suggest that there was little difference between the performance of introductory versus advanced students at both time points.

**Recognition of Warning Signs of Violence One Year After Curriculum Participation**

The second research question addressed the extent to which students who participated in the violence prevention curriculum, including the psychology course and WCPV Facebook group, maintained their knowledge of the warnings signs of violence one year after their participation. Repeated measures analyses of variance (ANOVA) were used to assess evidence of maintenance of scores from the Warning Signs Survey after one year for 13 students. Dependent variables for these analyses include scores on the survey related to violence, suicide, physical abuse, emotional abuse, sexual abuse, neglect, or acceptable parenting. Table 3 shows the means and standard deviations for warning signs scores on the Warning Signs survey at post-

test and follow-up. Due to the small sample size used to address this hypothesis, results should be interpreted with caution.

Table 3

*Descriptive Statistics for Pre-Test, Post-Test, and Follow-Up Warning Signs Survey*

| | Pre-Test | | Post-Test | | Follow-up | |
|---|---|---|---|---|---|---|
| Variable[a] | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Violence | 8.69 | 2.10 | 10.08 | 1.38 | 10.62 | 1.50 |
| Suicide | 7.00 | 1.41 | 7.23 | 1.01 | 7.15 | .99 |
| Physical Abuse | 9.08 | 1.32 | 10.08 | 1.61 | 9.31 | 3.07 |
| Sexual Abuse | 9.08 | 1.55 | 9.31 | 2.14 | 8.62 | 3.48 |
| Emotional Abuse | 10.46 | 1.66 | 11.08 | 1.94 | 10.77 | 3.81 |
| Neglect | 10.00 | 1.68 | 10.54 | 1.76 | 9.54 | 3.77 |
| Acceptable Parenting | 8.31 | 2.43 | 8.23 | 2.46 | 8.69 | 3.47 |

[a]$N = 13$

The first analysis addressed whether or not scores on the Warning Signs survey related to the warning signs of violence remained the same one year after participation in the curriculum. In accordance with predictions, scores remained stable from post-test ($M = 10.08$, $SD = 1.38$) to follow-up ($M = 10.62$, $SD = 1.50$). No statistically significant changes in scores were found, $F(2, 11) = 1.22$, $p = .29$, $\eta\rho^2 = .09$. This indicates that scores for these thirteen participants, which increased from pre-test to post-test, were maintained one year later.

The next analysis examined changes in mean scores for knowledge of the warning signs of suicide from post-test ($M$ = 7.23, $SD$ = 1.01) to follow-up ($M$ = 7.15, $SD$ = 0.99). Results indicate that at both time points, students were able to recognize approximately seven warning signs of suicide. In accordance with predictions, no significant decreases were seen in mean scores from post-test to follow-up, $F$ (2, 11) = .04, $p$ = .84, $\eta\rho^2$ = .00. No changes were seen for this category between pre-test and post-test either. Students continued to have difficulty recognizing the suicide item addressing poor sleep.

For warning signs of physical abuse, no statistically significant change in scores was found between post-test ($M$ = 10.08, $SD$ = 1.61) and follow-up ($M$ = 9.31, $SD$ = 3.07), $F$ (2, 11) = .90, $p$ = .36, $\eta\rho^2$ = .07. This indicates that at both time points, students were able to recognize approximately nine to ten signs of abuse, on average. These results show that scores on warning signs of physical abuse for these thirteen participants, which increased from pre-test to post-test, were maintained one year later.

Scores on the Warning Signs survey for emotional abuse remained relatively the same from post-test ($M$ = 11.08, $SD$ = 1.94) to follow-up ($M$ = 10.77, $SD$ = 3.81); students were able to identify approximately eleven warning signs at both time points. This does not reflect a statistically significant difference, $F$ (2, 11) = .11, $p$ = .74, $\eta\rho^2$ = .01. In accordance with predictions, mean scores for the warning signs of emotional abuse did not decrease one year after participation in the violence curriculum. However, scores for emotional abuse did not show any increase from pre-test to post-test in this sample.

The next analysis examined whether or not mean scores for warning signs of sexual abuse differed from the end of the curriculum to one year following the end of the curriculum. Scores on the Warning Signs Survey did not differ for sexual abuse at post-test ($M$ = 9.31, $SD$ =

2.14) and follow-up ($M$ = 8.62, $SD$ = 3.48). This finding is not statistically significant, indicating that students' ability to recognize warning signs of sexual abuse did not decrease one year after participating in the curriculum, $F$ (2, 11) = .53, $p$ = .48, $\eta\rho^2$ = .04. However, scores for sexual abuse did not show any increase from pre-test to post-test in the pre-, post-, follow-up sample.

For warning signs of neglect, no significant differences were found in scores at post-test ($M$ = 10.54, $SD$ = 1.76) and follow-up ($M$ = 9.54, $SD$ = 3.77), $F$ (2, 11) = 1.95, $p$ = .19, $\eta\rho^2$ = .14. At both time points, students were generally able to recognize nine to ten warning signs of neglect. In alignment with predictions, Warning Signs survey scores for recognition of the warning signs of neglect did not decrease one year after participation in the curriculum. However, they were also not found to increase between pre-test and post-test.

Mean scores for acceptable parenting did not change from post-test ($M$ = 8.23, $SD$ = 2.46) to follow-up ($M$ = 8.69, $SD$ = 3.47). These scores were not significantly different from one another; this indicates that students' ability to recognize signs of acceptable parenting did not waver across all three time points, in accordance with predictions, $F$ (2, 11) = .26, $p$ = .62, $\eta\rho^2$ = .02.

Overall, no statistically significant changes in scores were found for any of the dependent variables for the follow-up sample between post-test and follow-up. Scores for violence, suicide, physical abuse, emotional abuse, sexual abuse, neglect, and acceptable parenting did not change over a period of one year. Recognition of the warning signs of violence and physical abuse increased from pre-test to post-test and remained stable at the follow-up, while the other variables remained statistically unchanged between all time points. These results show that scores did not decrease after follow-up whether they increased between the first two time points or not.

### Awareness of the Importance of Violence Prevention Education

The third research question addressed aspects of lifelong learning by gauging interest in violence topics and awareness of the importance of violence prevention education using the Follow-up Survey. Results were collected from both the control group (N = 80) and the follow-up group (N = 12). This research question could not be addressed adequately as only 12 subjects in the follow-up sample completed this survey. However, the survey has provided some data that should be interpreted with caution. Among the 12 participants, nine students (75%) suggested that their level of interest in violence prevention topics increased after their participation in the group. This is significantly higher than the control group, in which only 30% of students reported that their level of interest in violence prevention increased after their participation in a psychology course, but not the curriculum. When asked to rate the importance of learning the warning signs of violence on a scale from one to 100, students in the follow-up sample rated this as very important ($M = 92.5$, $SD = 13.86$); students in the comparison group also rated this as very important ($M = 88.69$, $SD = 16.03$). When asked how likely it is that we can prevent the majority of violence as a society, 100% of students in the follow-up sample responded that it was very likely. The majority of students in the comparison group also endorsed the belief that violence can be prevented (73%). In alignment with predictions, these results reflect an overall interest in the material and an acknowledgement of its importance. Compared to the control group, those who participated in the curriculum were more likely to be interested in violence prevention and to endorse the belief that violence can be prevented.

### Engagement in Advocacy During the Curriculum and at a One-Year Follow-Up

The fourth hypothesis predicted that participation in advocacy would increase across the semester and be sustained at a one-year follow-up. Two data sets were used to address this

hypothesis. One data set used for this analysis included coded posts for the WCPV Facebook group ($N = 626$). This data set contained three time points, including the first two weeks of the semester ($N = 221$), the middle two weeks of the semester ($N$=202), and the last two weeks of the semester ($N = 203$). Chi square analyses were performed to determine a relationship between the time of the semester and advocacy steps mentioned in Facebook posts. Table 4 shows frequency values for the different types of advocacy across the semester in the Facebook group. The second data set included the Follow-up survey scores which asked students to identify how many advocacy steps they took during their participation in the curriculum and how many they took following their participation in the curriculum. Repeated measures analyses of variance (ANOVAS) were used to measure differences in reports of advocacy steps during and one year after participating in the violence prevention curriculum. Descriptive information about advocacy from the Follow-up survey is shown in Table 5. Tables 6 and 7 shows frequency values for advocacy steps during and after participation in the curriculum.

First, Facebook posts were coded for whether or not a student mentioned taking an advocacy step, such as personal advocacy ($N = 39$), political advocacy ($N = 1$), suggesting a solution ($N = 81$), or discussing a barrier ($N = 21$). Changes in advocacy between the three time points were analyzed. The amount of advocacy discussed did not significantly differ by time of semester, $\chi^2(1, N = 626) = 11.36$, $p = .19$. The number of posts mentioning advocacy steps stayed relatively stable across the beginning ($N = 56$), middle ($N = 51$), and end of the semester ($N$=40). Political advocacy was only mentioned once in the entire sample. Suggesting a solution to a social issue was the most common form of advocacy ($N = 85$), followed by personal advocacy ($N = 39$), which was the second most common form of advocacy. Posts related to advocacy were very infrequent in comparison to posts which did not mention advocacy at all ($N$

= 480) (see Table 4). When posts that do not mention advocacy are removed from analyses, suggesting a solution makes up 68% of posts that mention advocacy, personal advocacy posts contribute 31%, and political advocacy makes up 1% of advocacy posts. Overall, students mentioned advocacy steps infrequently during their participation in the Facebook group.

Table 4

*Facebook Posts Endorsing Advocacy Steps at the Beginning, Middle, and End of the Semester*

| | Advocacy | | | | | |
|---|---|---|---|---|---|---|
| Semester | Personal | Political | Suggest a Solution | Discuss a Barrier | No Advocacy | Total |
| Beginning | 14 | 0 | 32 | 9 | 166 | 221 |
| Middle | 14 | 1 | 33 | 3 | 151 | 202 |
| End | 11 | 0 | 20 | 9 | 163 | 203 |
| Total | 39 | 1 | 85 | 21 | 480 | 626 |

Results from the Follow-up survey, which was distributed one year after group participation, reflect the experience of twelve students; these results should be interpreted with caution due to this small sample size. Students were asked to report how often they participated in a variety of advocacy steps during their participation in the curriculum and in the time following their participation in the curriculum. These steps included signing a petition, attending events related to gender, attending events related to racial discrimination, attending events related to violence, identifying the warning signs of violence in a friend or family member, talking to friends and family about the warning signs of violence, and talking to friends and family about violence-related current events. Means and standard deviations for these advocacy categories are listed in Table 5. Frequencies of participation in these steps during the group are

reported in Table 6 and frequencies of participation in these steps one year after the group are reported in Table 7.

Table 5

*Reported Advocacy During the Curriculum and at Follow-Up*

| | During Curriculum | | Follow-up | |
|---|---|---|---|---|
| Variable[a] | *M* | *SD* | *M* | *SD* |
| Sign a petition | 0.67 | 0.99 | 0.75 | 0.75 |
| Attend gender event | 1.17 | 1.27 | 1.42 | 1.44 |
| Attend discrimination event | 0.92 | 1.10 | 1.17 | 1.12 |
| Attend violence event | 1.08 | 1.31 | 1.00 | 0.95 |
| ID warning signs | 0.50 | 0.80 | 1.25 | 2.05 |
| Talk about warning signs | 1.75 | 3.00 | 3.83 | 3.54 |
| Current Events | 3.00 | 3.64 | 4.25 | 4.09 |

[a]$N = 12$

Table 6

*Frequencies of Reported Advocacy During Curriculum Participation on the Follow-Up Survey*

| | Advocacy Steps Taken During Curriculum Participation | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency | Petition | Gender | Discrimination | Violence | ID Warning Signs | Talk about signs | Current Events |
| 0 | 7 | 5 | 6 | 5 | 8 | 5 | 4 |
| 1 | 3 | 3 | 2 | 4 | 2 | 4 | 1 |
| 2 | 1 | 1 | 3 | 1 | 2 | 1 | 3 |
| 3 | 1 | 3 | 1 | 1 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+ | 0 | 0 | 0 | 0 | 0 | 1 | 2 |

Table 7

*Frequencies of Reported Advocacy After Curriculum Participation on the Follow-Up Survey*

| Advocacy Steps Taken During Year Following Curriculum Participation | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency | Petition | Gender | Discrimination | Violence | ID Warning Signs | Talk about signs | Current Events |
| 0 | 5 | 3 | 4 | 5 | 6 | 2 | 3 |
| 1 | 5 | 5 | 4 | 2 | 3 | 2 | 2 |
| 2 | 2 | 2 | 2 | 5 | 1 | 1 | 0 |
| 3 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+ | 0 | 0 | 0 | 0 | 0 | 2 | 3 |

For signing a petition, there was no significant difference between participation during the group ($M$ = 0.67, $SD$ = 0.99) or afterward ($M$ = 0.75, $SD$ = 0.75), $F$ (1, 11) = .07, $p$ = .80, $\eta\rho^2$ = .01. Students were likely to take this advocacy step one time during both time periods. Students reported that, during the curriculum, they were likely to attend an event related to gender approximately one time ($M$ = 1.17, $SD$ = 1.27). This increased slightly in the year following their curriculum participation ($M$ = 1.42, $SD$ = 1.44). Analyses show that this change is not statistically significant, $F$ (1, 11) = .21, $p$ = .66, $\eta\rho^2$ = .02. Endorsement of attending an

event related to racial discrimination increased only slightly from during the curriculum ($M$ = 0.92, $SD$ = 1.10) to afterward ($M$ = 1.17, $SD$ = 1.12). This indicates that during both time periods, students were likely to attend approximately one of these events. This difference is not statistically significant, $F$ (1, 11) = 1.0, $p$ = .34, $\eta\rho^2$ = .08. On average, students indicated that they attended an event related to violence approximately one time during the semester they participated in the curriculum ($M$ = 1.08, $SD$ = 1.31). After the curriculum ended, students reported that they attend one violence-related event, on average ($M$ = 1.00, $SD$ = 0.95). No statistically significant differences were determined for this category, $F$ (1, 11) = .04, $p$ = .85, $\eta\rho^2$ = .00. When asked about identifying warning signs of violence in friends and family, a small increase was seen from participation ($M$ = 0.50, $SD$ = 0.80) in the curriculum to afterward ($M$ = 1.25, $SD$ = 2.05). This change was not found to be statistically significant, $F$ (1, 11) = 1.4, $p$ = .26, $\eta\rho^2$ = .11. On average, students reported that they talked about the warning signs of violence to friends and family approximately one or two times during their participation in the curriculum ($M$ = 1.75, $SD$ = 3.00). This increased to approximately four times in the year following their participation in the group ($M$ = 3.83, $SD$ = 3.54). This change reflects a statistically significant difference, $F$ (1, 11) = 8.08, $p$ = .02, $\eta\rho^2$ = .42, indicating that students were more likely to talk about warning signs in the year following their participation in the curriculum than they were during the curriculum. The eta squared statistic (.42) indicates a large effect size. Students went from discussing current events related to violence, on average, approximately three times during the curriculum ($M$ = 3.00, $SD$ = 3.64) to approximately four times in the year following their participation ($M$ = 4.25, $SD$ = 4.09). This positive increase between time points does not reflect a statistically significant difference, $F$ (1, 11) = 2.71, $p$ = .13, $\eta\rho^2$ = .20.

The coded Facebook posts and the Follow-up survey provide information about engagement in advocacy during and after the violence prevention curriculum. The Facebook posts reveal no significant changes in advocacy across the semester. This measure did not directly ask students to report participation in advocacy, but counted times advocacy was mentioned in the Facebook group. Advocacy steps were mentioned infrequently. The Follow-up survey relied on self-report to determine participation during and after the curriculum. Students participated in a variety of advocacy steps; this activity was sustained one year after participation in the curriculum in most categories. For discussion of the warning signs of violence with family and friends, participants significantly increased this activity after their participation in the violence prevention curriculum. All categories of advocacy were endorsed, albeit infrequently.

**Recognition of Warning Signs as Compared to a Control Group**

The fifth research question addressed whether or not the group of students who participated in the violence prevention curriculum, including a psychology course and the WCPV Facebook group, would perform better in warning signs recognition than a group of students who took a psychology course, but did not participate in the curriculum. First, analyses of variance (ANOVA) were used to compare both groups' scores in recognition of the warning signs of violence, suicide, physical abuse, emotional abuse, sexual abuse, neglect, and acceptable parenting. Table 8 shows the means and standard deviations for warning signs scores on the Warning Signs survey for both the control group and experimental group. Next, Pearson correlations were used to analyze the degree to which knowledge of each warning sign was related to knowledge of other warning signs for both groups.

Table 8

*Descriptive Statistics for Control and Experiment Group Performance on Warning Signs Survey*

| | Control Group[a] | | Experimental Group[b] | |
|---|---|---|---|---|
| Variable | *M* | *SD* | *M* | *SD* |
| Violence | 8.76 | 2.80 | 10.20 | 1.82 |
| Suicide | 5.39 | 2.13 | 6.42 | 1.65 |
| Physical Abuse | 8.86 | 2.83 | 9.97 | 2.05 |
| Sexual Abuse | 7.89 | 3.46 | 9.92 | 2.08 |
| Emotional Abuse | 9.49 | 2.82 | 10.83 | 2.40 |
| Neglect | 8.63 | 2.70 | 9.18 | 2.68 |
| Acceptable Parenting | 6.38 | 2.38 | 6.99 | 2.94 |

[a]$N = 80$

[b]$N = 142$

Each warning sign category was analyzed for differences in mean scores between the experimental group and control group. Twelve items on the survey pertained to warning signs of violence. For warning signs of violence, a statistically significant difference was found between the control group ($M = 8.76$, $SD = 2.80$) and the experimental group ($M = 10.20$, $SD = 1.82$), indicating that students in the control group recognized approximately eight to nine warning signs on average, and students who participated in the curriculum recognized approximately ten warning signs, on average. This difference reveals significantly higher scores for students who participated in the violence prevention curriculum, $F(1, 220) = 21.36$, $p = .00$, $\eta\rho^2 = .07$. The eta

squared statistic (.07) indicates a medium effect size. Both groups of students had difficulty recognizing an item related to leaving hardcore pornography in the view of others, consistent with findings from the pre-, post-, and follow-up group.

A statistically significant difference was also found for suicide, which contained nine survey items, ($F$ (1, 220) = 16.00, $p$ = .00, $\eta\rho^2$ = .09. This finding suggests that students who participated in the violence curriculum ($M$ = 6.42, $SD$ = 1.65) performed significantly better in recognizing warning signs of suicide than did the control group ($M$ = 5.39, $SD$ = 2.13). On average, students in the experimental group recognized one more warning sign of suicide than students in the control group. The eta squared statistic (.09) indicates a medium to large effect size. The majority of students in the control group had difficulty recognizing warning signs related to difficulty sleeping, ending relationships, and fluctuating mood; students who participated in the curriculum only struggled with the item related to sleep.

The next analysis aimed to determine whether or not there were differences in the ability of students from the control group and experimental group in their knowledge of the warning signs of physical abuse. Thirteen items on the Warning Signs survey addressed this category. Mean scores shows that on average, students in the control group ($M$ = 8.86, $SD$ = 2.83) recognized approximately eight to nine warning signs of physical abuse and students in the experimental group ($M$ = 9.97, $SD$ = 2.05) recognized approximately ten warning signs of physical abuse. Students in the experimental group performed significantly better in recognition of the warning signs of physical abuse, $F$ (1, 220) = 11.32, $p$ = .00, $\eta\rho^2$ = .05. The eta squared statistic (.05) indicates a medium effect size. The majority of students in the comparison group struggled with items related to strict rules, lack of trust for others, and frequent anger; the majority of students who participated in the curriculum had difficulty with only one item, related

to lack of trust for others. Students in the experimental group successfully recognized the majority of warning sign items.

Students who participated in the violence prevention curriculum ($M$ = 9.92, $SD$ = 2.08) also performed better in recognizing sexual abuse warning signs than students who did not participate in the curriculum ($M$ = 7.89, $SD$ = 3.46). This reflects a statistically significant difference, $F$ (1, 220) = 30.04, $p$ = .00, $\eta_\rho^2$ = .12. On average, control group participants recognized approximately eight out of fourteen warning signs of sexual abuse and experimental group participants recognized approximately ten out of fourteen warnings of sexual abuse. The eta squared statistic (.12) indicates a large effect size. Students in both groups struggled with recognition of the same test items, including those related to leaving doors open, hugging everyone, and standing too close to others.

Analyses exploring knowledge of the warning signs of emotional abuse also revealed differences in scores on the Warning Signs survey, which contained sixteen emotional abuse items. Mean scores on the survey for this category were higher for the experimental group ($M$ = 10.83, $SD$ = 2.40), than the control group ($M$ = 9.49, $SD$ = 2.82), indicating the experimental group's generally stronger ability to recognize warning signs of emotional abuse. This difference in scores is statistically significant, $F$ (1, 220) = 14.13, $p$ = .00, $\eta_\rho^2$ = .06. The eta squared statistic (.06) indicates a medium effect size. The majority of students in the control group had difficulty identifying a variety of warning signs of emotional abuse, including those related to injuring pets, ignoring feelings, rejecting a child's affect, lying to a teacher, and withholding a child's possessions. Students in the experimental group exhibited difficulty with items related to injuring pets and ignoring feelings.

Analyses also addressed the ability of students who did and did not participate in the violence curriculum to recognize the warning signs of neglect. Thirteen items on the survey pertained to warning signs of neglect. Contrary to predictions, no statistically significant differences in scores for the control group ($M$ = 8.63, $SD$ = 2.70) and experimental group ($M$ = 9.18, $SD$ = 2.68) were found. On average, both groups were likely to possess knowledge of eight to nine warning signs of neglect. The majority of students in both groups had difficulty recognizing warning signs of neglect related to a lack of appetite and social security information.

Performance on acceptable parenting recognition also did not reveal any significant differences between groups, $F$ (1, 220) = 2.60, $p$ = .11, $\eta_{\rho}^2$ = .01. Students in both the control group ($M$ = 6.38, $SD$ = 2.38) and experimental group ($M$ = 6.99, $SD$ = 2.94) recognized approximately six to seven out of thirteen signs of acceptable parenting. Equal performance in the ability to identify acceptable parenting practices was expected.

Overall, ANOVAs showed positive significant differences for knowledge of the warning signs of violence, suicide, physical abuse, sexual abuse, and emotional abuse for students who participated in the curriculum over students who did not. Students who underwent the violence prevention curriculum had significantly higher performance scores in these categories on the Warning Signs Survey, in alignment with predictions. This difference was not found for knowledge of the warning signs of neglect. A multivariate analysis of variance (MANOVA) was also used to protect for type I errors; this analysis confirmed the significance of these results, Hotelling's $T$ (7, 214) = 37.07, $p$ = .00.

**Changes in WCPV Posting Behavior Across the Semester**

The final research hypothesis addressed changes in behavior in the WCPV Facebook group over time. It was predicted that students would offer increasingly prevention-focused

solutions, would engage in longer discussion threads, and would incorporate more varied forms of media in their posts. The data set of Facebook posts used to address the fourth hypothesis was also used in this analysis. Chi Square analyses were used to assess for changes in suggested solutions, post content, and emotions expressed in each thread. Analyses of variance (ANOVA) were used to assess for changes in discussion thread length and Facebook post length expressed in each Facebook thread. Gender effects were also examined using Chi Square analyses.

Each post was coded for a suggested solution to the issue being discussed; posts were coded as offering no suggestion (N = 461), or as offering a prevention-focused (N = 101), punishment-focused (N = 58), or violence-focused suggestion (N = 6). Statistically significant differences were found for this category, however they do not match the predictions $\chi^2(1, N = 626) = 11.29$, $p = .05$. Overall, making suggestions decreased across the semester; all categories of solutions decreased or stayed the same. However, prevention-focused solutions were the most commonly posted suggestions at all time-points (N=43, 37, 21, respectively), with violence-focused solutions being the least frequent at all time-points (N=3, 1, 2 respectively). These results are highly skewed due to the inclusion of posts which offered no solution. Therefore, this category was removed and violence and punishment-based solutions were added together and compared to prevention-based solutions. These results show that of solutions suggested, prevention-based solutions were made 61% of the time. This proportion does not significantly change across the beginning (65%), middle (61%), and end of the semester (55%).

Facebook posts were analyzed for post content, or the type of media being posted, such as a website, video, news article, or discussion question. Post content was not found to be statistically significant, however it approached significance $\chi^2(1, N = 626) = 52.10$, $p = .06$. Contrary to predictions, there appears to be a trend of multi-media content decreasing across the

semester, and opinions increasing across the semester. Chi square analyses were also used to determine if any change in emotion occurred across the semester. This was measured by counting emotion words used per Facebook thread. Emotion words used in threads significantly increased across the semester, $\chi^2(1, N = 626) = 190.74, p = .00$.

Thread length and post length were analyzed at all three time points in order to measure engagement in discussions in the WCPV Facebook group across the semester. An ANOVA revealed significant results for thread length and time of semester, $F(2, 623) = 43.55, p = .00, \eta_\rho^2 = .12$. Thread lengths significantly increased from the beginning ($M = 9.64$) to the middle ($M = 10.94$) to the end of the semester ($M = 17.00$). No statistically significant changes were found for length of individual posts across the semester. For the entire sample, over half of the posts ranged between three and five sentences ($N = 363$); remaining posts were either one to two sentences in length ($N = 126$) or six or more sentences in length ($N = 137$). This shows that while discussions grew in length, responses remained similar in length.

Gender differences were also examined across several coding categories; several statistically significant differences were discovered. First, analyses showed that women participated significantly more than men in taking advocacy steps, $\chi^2(1, N = 626) = 9.66, p = .00$. Facebook posts were coded for misconceptions about violence and misconceptions about other material (such as gender issues). Results show that men were significantly more likely to make a misconception about non-violent issues than were women, $\chi^2(1, N = 626) = 6.32, p = .01$. Posts were also coded for provocative comments, or controversial comments that serve to get a reaction out of other posters. Men were found to make significantly more provocative posts than women, $\chi^2(1, N = 626) = 19.98, p = .00$. However, inter-rater reliability has not been established for provocation due to its infrequency in the reliability sample. No statistically significant gender

differences were found for content posted or suggestions for solutions to violence issues. All gender differences on advocacy, misconceptions, and particularly provocations, need to be considered very preliminary due to the low frequency of all these behaviors.

Overall, significant results were found for some Facebook posting behaviors. Emotion words used in posts as well as thread lengths showed reliable increases across the semester, in alignment with predictions. This indicates that students engaged in longer conversations about violence as the semester progressed, and that students were more emotionally engaged as the semester progressed. Although prevention-focused solutions comprised the majority of posts which offered a solution, these type of posts did not increase across the semester. Suggesting a solution was relatively infrequent and these results should be interpreted with caution. Contrary to predictions, multi-media posts also decreased across the semester. As the semester progressed, participants were more likely to post an opinion, story, fact, or discussion question rather than a website, video, or article. Additionally, contrary to predictions, post lengths were not found to increase across the semester. Analyses of gender revealed that women were significantly more likely to take advocacy steps, less likely to make comments that reflected misconceptions about non-violent material, and less likely to make provocative comments than men in the Facebook group. However, gender differences are preliminary due to the low frequency of behaviors being examined.

## Conclusions

The current study examined six hypotheses relevant to students becoming more knowledgeable about the warning signs of violence, participating in advocacy, and becoming more engaged in their learning after participating in a violence prevention curriculum consisting of classroom and online learning. Some research support was found for all of these hypotheses.

In support of the first hypothesis, which addressed improvement in knowledge of warning signs after curriculum participation, analyses showed that knowledge of the warning signs of violence, physical abuse, (and sexual abuse for the full sample) increased across the semester. Increases in scores from pre-test to post-test for emotional abuse and neglect also approached significance in the full sample. The second hypothesis predicted that scores on the Warning Signs survey would be maintained at a one year follow-up. All scores from the post-test were maintained; this is especially meaningful for the categories of violence and physical abuse which increased between the first two time points for the follow-up sample. The third hypothesis, which addressed engagement in violence material, was also supported; students showed an increased interest in the material, recognition of the importance of learning about warning signs of violence, and endorsed the belief that violence is a preventable phenomenon. Compared to a control group, interest in violence prevention and belief that violence is preventable were significantly higher. The follow-up group sample used to address the second and third hypotheses was small, so these results should be interpreted with caution. Analyses showing engagement in advocacy during and one year after participation in the curriculum also partially supported the fourth hypothesis, which addressed active engagement in advocacy. However, advocacy continued to be a low frequency behavior throughout the timespan of the study. Students showed a significant increase in discussing warning signs of violence with family and friends, which was a central goal of the curriculum. The fifth hypothesis predicted that participants of the curriculum would perform better at recognizing warning signs of violence than students who did not complete the curriculum. Analyses showed support for this hypothesis; students who participated in the curriculum were found to perform significantly better at recognizing warning signs of violence, suicide, physical abuse, emotional abuse, and sexual abuse. The sixth hypothesis, which

addressed behavior in the WCPV group was also partially supported by analyses which showed that students participated in longer discussion threads across the semester and used more emotional language across the semester.

Overall, significant support exists for the six hypotheses with evidence showing that they were not supported in some areas. First, longitudinal results do not provide consistent evidence of the group's effectiveness, with only two warning signs categories increasing and stabilizing from pre-test to follow-up. Exploration of participation in advocacy is also inconclusive due to the lack of comparison to another group of students or a standard of behavior. Advocacy did not increase as expected and was generally infrequent. However, effectiveness of the group is strongly demonstrated by the comparison to a control group who did not undergo the curriculum; in all but one category (neglect), students who participated in the curriculum performed better at recognizing warning signs. Interest in the topics and acknowledgement of their importance, in addition to the active engagement in discussion threads also provide evidence for effectiveness. When examining differences in scores from pre-test to post-test on the Warning Signs survey, more significant results emerged when examining a larger sample. Overall, strong evidence points to the effectiveness of this group in achieving many of its goals. The meaning of these results will be further explored to analyze whether or not this curriculum was an effective learning tool for college students.

# CHAPTER 5

# DISCUSSION

Violence in its many forms has caused significant damage, physically and psychologically, to various groups of people in both direct and indirect ways. In response, a multitude of researchers have documented the negative effects of violence on society and planned for interventions to both prevent violence and help those whom it has affected. Through preventative efforts, it is possible to significantly reduce violence in our society (NPEIV); this arduous task requires grassroots efforts that reach diverse groups of people across the developmental spectrum (WHO, 2002). Education is a crucial component in the endeavor to reduce violence on a societal level for future generations. However, a violence prevention education curriculum is only of value in preventing violence if students remember what they were taught once the course has been over for some time. The current study explored the effectiveness of a violence prevention education curriculum designed for students at the collegiate level.

This curriculum consisted of classroom learning in introductory psychology courses as well as participation in a semester-long Facebook group, "We Can Prevent Violence" (WCPV). Six hypotheses examined the effectiveness of the curriculum by measuring changes in learning of the warning signs of violence, participation in advocacy, level of interest in and attitudes toward the material, as well as behavior and learning exhibited within the online group. They were assessed with three main approaches: measurement of progress at three data points (before, directly after, and one year after participation in the curriculum), the use of a comparison group who did not complete the curriculum, and coding analysis of post content in the WCPV Facebook group. Analyses of data yielded by all three approaches provided valuable information

about whether or not the violence prevention curriculum met its goals, as well as implications for violence prevention education as a whole. Overall, significant results were found in some capacity for each hypothesis. The results related to the learning of warning signs of violence, engagement in the learning experience, advocacy, and participation in the Facebook group were examined to determine the curriculum's overall effectiveness.

## Recognition of the Warning Signs of Violence at Post-Test, Follow-Up, and Compared to a Control Group

The current study found that the curriculum had effectively taught the full sample of students the warning signs of violence, physical abuse, and sexual abuse. The findings also suggest that students improved in their recognition of the warning signs of emotional abuse and neglect, but not enough to reach statistical significance. Results indicated that the curriculum did not teach students more about the warning signs of suicide. Although students did not improve their performance in this category, they had relatively high scores at pre-test and maintained this performance at all three time points. It is possible that because of specific awareness efforts geared toward suicide prevention, such as national suicide prevention month and other school-based programs (Dumesnil & Verger, 2009), that students generally were successful in their recognition of these signs as they began the curriculum, thus leaving little room for improvement.

The research literature on learning can help explain why this curriculum was effective in teaching students many warning signs of violence. One important factor may be that it contained an online discussion group. The current findings align with research findings from the past decade on student learning at the collegiate level; the connection between online engagement and increase in learning has been reproduced in various studies examining college students. Picciano

(2002) found that, for students who participated in a college course with online components, active engagement in online discussion with peers was directly related to student performance. Similarly, for students completing marketing classes using online message boards, increased course performance and learning was directly correlated with use of the technological learning component (Krentler & Willis-Flurry, 2005). Additionally, it was found that students' participation in online discussions had a positive effect on students participating in political science courses, as measured by their grade point average (Hamann et al., 2009). All of these studies highlight the positive effects of online learning components combined with classroom learning on student learning outcomes. These collective findings help explain why students improved their knowledge in various categories of warning signs following their participation in an engaging online discourse.

Another important factor relating to the success of the curriculum is that multiple senses were engaged in the learning process. Research on learning has indicated that people are far more likely to remember information that is presented in both a visual and auditory format (Mastroberardino, Santangelo, Botta, Marucci, & Belardinelli, 2008; Paivio, 1986). Thompson and Paivio (1994) showed that the effects of dual coding was additive when compared to solely auditory or visual learning. With multiple senses engaged, information is more likely to be stored and retrieved. Thus, students' overall success in learning new warning signs in many categories may be attributed to the engaging format of the Facebook group (visual) and the traditional classroom setting (auditory).

An explanation for why some aspects of the curriculum were more effective than others was that the course curriculum may have provided effective instruction on some warning signs of violence and not others. Research on learning and retention indicates that repeated exposure to

material increases the likelihood of recollection (Gordon & Holyoak, 1983; Cacioppo & Petty, 1979). The topic of neglect was rarely discussed in the WCPV Facebook group; students may need more exposure to this topic in order to improve their recognition of these warning signs. Miller (2011) surmised that there are limitations to the amount of information a student can hold in their attention at a time; when above this limit, information is not committed to long-term memory. With so many types of violence being addressed in the curriculum, it is possible that students could not give proper attention to each one, and thus paid most attention to the most commonly discussed topics. Therefore, lack of exposure to topics or an overwhelming amount of information may have interfered with student learning of certain warning signs.

The Warning Signs Survey also identified areas where the curriculum had not been successful. Students struggled most with some items on the sexual abuse and emotional abuse categories. Recognition at post-test, despite improvements, remained low. This reflects the broader experience of researchers, educators, and legislators, who have had difficulty universally defining these types of abuse (WHO, 2002). It is possible that confusion among participants is reflective of the lack of clarity surrounding these types of violence on a societal level. These misunderstandings can have dire consequences. For example, confusion about sexual abuse may influence a jury's decision whether or not to convict an alleged perpetrator (Hill, 2014). Edwards, Bradshaw, and Hinsz, (2014), who studied male college student's perceptions and endorsement of sexual assault, found that men were significantly more likely to endorse an item indicating that they would "use force to obtain intercourse" than they were to endorse that they would "rape." These findings illustrate confusion that young men continue to have about the definition of sexual abuse and consensual sex. Additionally, there is a connection between acceptance of rape myths and reduced reporting of one's own rape (Heath, Lynch, Fritch, &

Wong, 2013), suggesting that even those who have been victimized may possess inadequate knowledge of the definition of sexual abuse. McMahon (2010) found that those who are less likely to understand the definition of sexual violence include members of sports teams and Greek life, those who have never known someone who survived sexual violence, and men. There may be significant overlap between some of these group memberships and the students who participated in the current study.

This same type of definitional misunderstanding may be relevant to the results that were found for emotional abuse. Follingstad (2007) asserted that emotional abuse has been historically poorly conceptualized and validated in research. She argues that, unlike current perspectives which generally examine the experience of the recipient of the abuse, that emotional abuse can only be accurately understood when also integrating perspectives of the observer and the perpetrator, as well as context and outcomes. O'Hagan (1995) believed that emotional and psychological abuse have two separate meanings and should not be used interchangeably. This perspective creates additional confusion when communicating across disciplines. Cretan (2014) posited that the difficulty in defining and prosecuting emotional abuse is related to a need to distinguish normal and abnormal behavior in order to identify what constitutes emotional abuse versus being rude or inconsiderate. The complexity in defining boundaries of each type of abuse may help explain students' confusion in recognizing individual identifiers of violence categories.

**Knowledge One Year After Participation in the Curriculum**

This study also explored whether learning from the curriculum was maintained one year after the end of the experience. Only a small sample of 13 students agreed to participate in this last phase of the research. Within this small sample, effectiveness of the longitudinal learning was supported for all warning signs categories. These findings are more meaningful for violence

and physical abuse, for which improvement was seen between pre-test and post-test for the follow-up sample of participants. Participation in the curriculum may explain these results, though other factors may play a role.

Students' ability to maintain warning signs information one year later can be explained by the literature on retrieval, memory, and long-term retention. Research on retention of information has shown that repeated retrieval is crucial to solidifying information in one's long-term memory (Roediger & Butler, 2011; Karpicke & Roediger, 2007). Karpicke, Butler, and Roediger (2009) examined long-term retention in college students and the effects of repeated testing (repeated retrieval). Their study of 177 college students revealed limited benefits to repeated reading of notes and positive benefits of self-testing involving retrieval. Additionally, periodic questioning (Campbell & Mayer, 2009), as well as the "spacing effect" (Sobel, Cepeda, & Kapler, 2011), have been shown to foster one's learning process. Sobel and colleagues (2011), who examined vocabulary learning in middle school students, revealed that spacing learning over one week was superior to "massed learning" which occurred in the same day. Finally, the combination of student to instructor interaction and student to student interactions in college courses allows for improved information processing, resulting in better retention of material over time (Bernstein, 1994). Therefore, repeated exposure during class time and in the Facebook group may have helped to solidify this knowledge over one year.

Few research studies exploring effectiveness of violence education programming have used follow-up measures, however, those that have indicate that knowledge or skills are maintained over time. Neace and Muñoz (2012) examined the effects of the Second Step program before, after, and nine months after implementation with elementary school students. This program was designed to intervene with students at risk for violence and teach them

prosocial attitudes to help reduce negative behaviors. Overall decreases in negative school behaviors were seen between pre-test and follow-up as predicted. Additionally, Farrell and colleagues (2003) found that effective violence curriculum for 7th graders had lasting effects on their behavior one year later. Students continued to display fewer acts of violence throughout the following school year.

Research on other types of immersive learning also reveals positive long-term outcomes. Waldron and Yungbluth (2007) examined the longitudinal effects of participation of college students in learning communities. These communities involve fostering connections among first year college students and between students and their instructors through the integration of courses, living, and socialization. Their research revealed moderate increases in GPA and retention at one and two year follow-ups. Although various researchers and educators outline successful qualities of a program that promotes long-term learning, (Galvin, 2008; Hinchcliffe, 2006; Kopp, Stanford, Rohlfing, & Kendall, 2004; Celuch & Slama, 1998), few programs have implemented and assessed these. Several studies on education have concluded that the literature would benefit from future focus on education assessment methods that go beyond the pre-test and post-test model and evaluate long-term impact (Martin, Hum, Han, & Whitehead, 2013). The current study has helped to fill a niche in the literature by providing follow-up outcome data for a collegiate population, however the small sample size requires that the results be interpreted with caution.

**Comparison to a Control Group**

Students in the experimental group performed better than students in the control group in recognition of all warning signs categories except for neglect. Overall, these learning results may be best explained by the same factors that contributed to learning of warning signs over time,

including the online learning component, the engagement of multiple senses, and the effective teaching of specific warning signs. Learning of neglect may not have occurred for several reasons. These results are also reflected in other learning initiatives.

Other violence prevention education groups have been found to outperform control groups in both behavioral and cognitive outcomes. The Second Step program (Neace & Muñoz, 2012) used a control group from another school to compare performance of students in the Second Step program; students in the program showed significantly higher positive behavioral changes related to violence initiatives than did students in the control group. Meyer and colleagues (2004), who examined the effectiveness of the Get Real About Violence curriculum, also found that the experimental group outperformed the control group at post-test; results showed that students who participated in the program were less likely to watch a fight, spread rumors about a fight, and less likely to have supportive attitudes toward fighting. Additionally, high school students who attended a school-wide violence education program were found to be involved in fewer personal acts of violence than students who did not attend the program (Hausman et. al., 1996). Several programs designed to challenge rape biases have resulted in increased knowledge and attitude shifts for student participants (Chapin & Coleman, 2006; Fay & Medway, 2006; Klaw, et. al., 2005). The control group plays a crucial role in analyses of effectiveness that rules out maturation and other confounds that exist when only measuring changes over time. Like many other successful violence curricula, the WCPV Facebook group and classroom curricula improved students' knowledge and ability to create a more positive impact on their environment.

Students in both groups missed many warning signs of neglect. As a topic, neglect was discussed very infrequently in the We Can Prevent Violence Facebook group; only 5 out of 626

posts addressed this topic, or .01%. Thus, exposure was diminutive, resulting in less learning of these warning signs. This may explain why the curriculum participants did not perform better than their peers who did not participate in the curriculum for this variable. Additionally, research suggests that neglect is a difficult concept to define (Krause, 2009) and so this may have been difficult even for students who participated in the curriculum.

**Survey Item Analysis**

Warning Signs Survey items were analyzed in order to determine which were more or less difficult for students to recognize both before and after participation in the violence prevention education curriculum as well as in comparison to students who had completed a general psychology course that did not include the violence prevention education component. The patterns that emerged indicated that, in all comparisons, students struggled with the same warning signs survey items. Several explanations for this will be explored including the influence of developmental factors, higher recognition of more obvious warning signs, and difficulty with ambiguous warning signs and categories.

There were a few items that might have been confusing to all participants due to cohort or development effects. Students in both groups at both time points struggled to identify a warning sign of relationship violence that involved "leaving hardcore pornography out in view of others." The increase in the usage and normalization of pornography (Weinberg, Williams, Kleiner, & Irizarry, 2010), and the active exploration of their sexuality that often occurs in college (Dodge, Reece, Cole, & Sandfort, 2004; Paul, McManus, & Hayes, 2000), may lead college students to view this behavior as normal versus viewing it as a warning sign of violence. At pre-test, post-test, and follow-up, students had difficulty recognizing trouble sleeping as a warning sign of suicide. The item, which describes "a student who often wakes up at 3am and cannot go back to

sleep despite being tired," may resemble sleep behavior common in college students, and therefore be confusing to participants (Buboltz, Brown, & Soper, 2010). Additionally, in the full sample, the item related to "changes in mood and impulsivity" was also difficult for the majority of participants at pre-test and post-test. Like the sleep item, this sign may be confusing to college students due to their developmental stage; in adolescence, mood changes and impulsive behavior are more common than in other age groups (Arnett, 1999).

There were some items that students may have had difficulty with because they reflected subtle rather than obvious warning signs of violence. For the physical abuse scale, the items that the majority of students in both samples could not identify at pre-test include items that were more subtle indicators of violence including "a parent becoming easily angered by a young child", "a distrustful parent", "a frequently angry parent", and "a parent who punishes their child at any sign of disobedience". However, all students were able to recognize more obvious signs of physical abuse, such as "slapping a child", "shaking a child", or "a child having visible injuries". Similarly, while students could recognize more obvious warning signs of sexual abuse at both time points, the more subtle signs such as "standing too close to people" or "always keeping the doors open" were difficult for participants to recognize.

Finally, confusion surrounding certain warning signs may reflect their ambiguous nature. For example, students' difficulty with recognizing warning signs of sexual abuse may reflect the overriding cultural confusion about the exact definition of sexual abuse. Criteria for what makes a particular act abusive has been widely debated; thus, a uniform definition and prevalence estimations are difficult to achieve (Wyatt & Peters, 1986). Despite attempts at a singular definition, more recent research has shown continued lack of clarity in defining sexual violence (Basile & Saltzman, 2002). Only one item on the neglect scale was confusing to the majority of

students in both samples at pre-test, post-test, and follow-up. This item was "a young child's lack of appetite". Lack of appetite can also occur when a child is sick or distressed for other reasons than abuse and therefore, students may not have recognized it as a sign of failure to thrive, a warning sign of neglect.

Overall, the majority of students had difficulty with the same items at pre-test and post-test in all categories. Additionally, students in the control group had difficulty with the same survey items as the experimental group. This may suggest that some survey items were unclear to college students as a developmental group, that students had difficulty with more subtle warning signs, or that certain items were generally confusing. It is also possible that students in the experimental group did not learn enough to recognize subtle signs in the violence prevention education curriculum. Students have had less practice or experience with certain warning signs categories while participating in the curriculum. Categories for violent acts have been difficult to define universally, particularly because different acts sometimes fall into multiple categories (Krause, 2009; WHO, 2002).

**Conclusion**

Students who participated in the violence prevention education curriculum learned more about the warning signs of violence than students who participated in a general psychology class that did not include the violence prevention education component. Improvement in recognition of warning signs within the experimental group was seen in several categories and this knowledge was maintained over time. These significant findings align with research showing that long-term and engaging violence prevention programs produce greater knowledge of violence-related material (Chapin & Coleman, 2006). There is a significant relationship between knowledge and activism (Duncan, 1999), suggesting that students equipped with this knowledge

are more likely to take action. On the other hand, students in the curriculum did not improve their knowledge in several categories. Therefore, some important changes need to be made to the curriculum, including more intentional and comprehensive coverage of all of the warning signs categories. Items that may be confusing for developmental reasons should receive special attention. The survey itself may need revision to ensure greater clarity surrounding subtle or confusing items.

### Students' Level of Engagement in Learning and Advocacy

It was a goal of the violence prevention education curriculum to increase students' critical thinking about advocacy and the importance of taking even small steps towards preventative and restorative justice. The Follow-up survey revealed that interest in violence prevention topics increased among the majority of those who had participated in the curriculum and follow-up survey; this level of interest was significantly higher than students who did not participate in the curriculum. The follow-up group also rated learning about warning signs of violence as "very important" and endorsed that our ability to prevent violence as a society is likely to very likely. Information yielded from this sample of 12 students at follow-up must be interpreted with caution. These results show that the curriculum had a positive effect on the attitudes of some student participants toward violence topics.

One explanation is that students developed these attitudes due to modeling by the Facebook facilitators and engaging in dialogues with their peers. Social learning theory suggests that people construct knowledge when engaged with other people in social environments where they can give and receive feedback (Hill, Song, & West, 2009). Miller and Dollard (1941) discussed social motivations and the role of imitativeness; behaviors continue when matching others is rewarded. Many students received thoughtful comments and praise in response to their

participation in the group. However, this small sample may not be fully representative of all of the students who participated in the curriculum. It is possible that only students who had a positive experience elected to participate in the follow-up.

The current findings align with other research on violence/advocacy education and resulting attitudinal shifts. Research on men who participated in the Men Against Violence program revealed significant changes in attitudes toward violence (Hong, 2000). White and Nitkin (2014) examined an immersive learning experience for college students, where students were challenged to address and create resolutions for an ongoing social issue. Nearly 93% of these students agreed or strongly agreed that they saw the world differently after participating in the project; almost 97% of students agreed or strongly agreed that they themselves had changed in positive ways. In the current study, at follow-up, all 12 students agreed or strongly agreed that they felt like an active agent in their learning process and increased their grasp of social issues. Similarly, students who participated in the WCPV Facebook group demonstrated they were interested and engaged in the learning process.

### Participation in Advocacy Steps

An examination of advocacy revealed that participation stayed relatively stable and low across the semester. This level of advocacy was sustained after one year for the follow-up group. Higher participation was reported in the Follow-up survey than seen in the Facebook group. This low level of participation in advocacy may have occurred because although students were encouraged to take action steps, they were never directly prompted to discuss advocacy in the Facebook group. All types of advocacy were endorsed on the Follow-up survey, showing some participation in diverse activities. However, participation indicated on the survey and in the Facebook group was more heavily weighted toward advocacy on a personal rather than political

level. The findings related to the follow-up measures should be interpreted with caution due to the small sample size; it is possible that the small group reflects a different level of interest in advocacy than the full sample.

Despite the low level of participation in advocacy steps, there still were steps taken toward personal, social, and political advocacy. All types of activities were endorsed, and some significant increases were seen in the small follow-up sample a year after participating in the curriculum. These findings align with research demonstrating that college students participate in diverse forms of activism (Crossley, 2008). For example, more than half of college students identify with a social movement and one quarter of students reported that they have participated in a social activist event (Crossley, 2008). Winston's (2015) examination of activist behavior in college students revealed that directly following graduation, students participated in activism mainly by voting and signing petitions, and to a smaller degree, by joining social movement organizations, attending political meetings, and participating in rallies. Using the social change model of leadership development (HERI, 1996), Dugan, Komives, and Segar (2008) found that college students ranked highest on the commitment construct, which represents personal investment and enthusiasm toward a cause or group. This suggests that many college students feel a commitment to social change despite their low level of taking action steps.

Teaching advocacy skills within college courses may be valuable in that it takes advantage of the group norms that build up in social settings. Social norms theory suggests that people behave in the ways they perceive other people are behaving (McMahon & Dick, 2011). It is possible that students who were willing to participate in the follow-up had internalized participation in advocacy as a social norm due to their exposure to peer advocacy and thus continued this practice after the curriculum. Research has suggested that when students become

active in their advocacy education through immersion in the material, they feel more involved in activism, and gain a stronger sense of agency and personal influence in society (Cornelius, 1998). Singh (2010) discussed the importance of connecting social justice material to students' lives in order to promote their agency in future social justice efforts. Singh (2010) achieved this through an interactive project that allowed students to highlight important parts of their identities. Similarly, the current project made space for students to discuss topics important to them and of their choosing during the Facebook group. This takes advantage of their developmental push to have more agency in their lives.

Most of the students who did take advocacy steps, did so on the personal or local level. This may be a result of their status as emerging adults. Developmentally, late adolescents tend to be more egocentric than adults (Elkind, 1967). Thus, it may become more challenging to extend acts of advocacy beyond one's personal sphere. With a more limited scope in being able to understand the needs of others outside of their own needs, most activism revolved around themselves and small social circles. Research on egocentrism revealed that political awareness increased from 6$^{th}$ to 8$^{th}$ grade and then stabilized; also, egocentrism developed into a focus on self-improvement in college (Enright, Lapsley, & Shukla, 1979). Thus, expecting students to engage in larger-scope political action when they are emerging adults may be less likely unless there is more support within the curriculum for developing these skills.

The level of advocacy shown within this violence prevention education project might also have more to do with their experiences as a college student rather than their participation in a violence curriculum. Compared to same-age peers who do not attend college, college students have been found to participate more actively in advocacy (Flanagan & Levine, 2010; Crossley, 2008; Sax, 2004). Pascarella, Salisbury, Martin, and Blaich (2012) examined the effect of diverse

experiences on learning. Thousands of first year students from 19 universities were surveyed before college and then again in their second semester, revealing improved orientations toward activism following participation in diverse classroom experiences. In Swank's (2012) examination of advocacy in social work students, it was found that strong predictors of activism included belonging to an activist network, taking a course that focused on social issues, and having access to a social network that fosters activism. Although these factors were provided by the WCPV Facebook group and curriculum, students may have been exposed to these influences through other sources within the college community.

In conclusion, there were consistent, but low levels of participation in advocacy by the students within this project. This low level of participation could possibly reflect a paradox between the nature of advocacy and the nature of college requirements. Dean (2007) considers advocacy valuable but had concerns that requiring someone to participate in advocacy activities could have the reverse impact. Therefore, the lack of increases in advocacy behavior may potentially reflect resistance to consistent encouragement. Alternatively, the curriculum may not have fostered a deep level of engagement in advocacy. Naples (2002) asserted that, "when we encourage our students to critically analyze their activist projects, we should encourage them to take the long-range view, to try to place their work in the larger context" (p. 67). Although the curriculum targeted learning across the semester, there was no direct connection made to future activism or the "bigger picture." Thus, students may not have been able to conceptualize the true impact of taking action.

### Changes in Behavior in the WCPV Facebook group Across the Semester

Examination of student behavior in the Facebook group has provided important information regarding the effectiveness of the curriculum in meeting its learning goals. First, it is

clear that engagement in the group increased across the semester. The results show a distinct pattern of longer thread lengths as the group progresses. Although one may expect there to be increased activity at the end of the semester due to students' efforts to receive their credit, students did not mindlessly make initial posts, but rather they contributed meaningfully to threads, demonstrating their skill in creating dialogues. Use of emotion words also significantly increased across the semester, suggesting that along with engagement in discussion with peers, students were also feeling more emotionally connected to the material.

These findings align with research on other online learning environments showing high levels of student interaction and engagement in learning. Hara, Bonk, and Angeli (2000) analyzed a supplemental online learning environment to a psychology course, finding higher levels of interaction between students over time. Use of a Facebook group in conjunction with classroom learning is associated with improvement of student motivation and engagement in the material (Petrović et al., 2012). Facebook has also been found to be a medium that has led to more meaningful conversations among distance learners (Lim, 2010). Additionally, meaningful instructor presence positively influences the depth of online conversations (Hill, Song, & West, 2009; Wishart & Guy, 2009). Herrington, Oliver, and Reeves (2003) emphasized that early support is crucial to a smooth transition into an online learning environment. The presence of administrators in the Facebook group as well as support from classroom instructors likely created support for students who were new to this type of learning environment.

However, other expected changes in student participation across the semester did not occur. As student engagement has been shown to increase in online learning environments (Hamann et al., 2009; Krentler & Willis-Flurry, 2005; Picciano, 2002), it was expected that the suggested solutions for taking action on social problems would increase; these changes were not

observed. However, when solutions were suggested, prevention-focused solutions were the most commonly posted suggestion at each time point; there were very few punishment- or violence-focused solutions suggested. This may relate to social norms theory, as prevention-based attitudes were modeled throughout the group. The expectations of the violence prevention group are to express prevention-focused beliefs, thus many students' opinions reflected this position. Gender effects were also examined for the WCPV Facebook group. Several differences were revealed, including differences in taking advocacy steps, posting misconceptions, or making provocative comments. However, due to the smaller proportion of men in the group as well as the very low frequency of provocations and misconceptions, these gender differences should be interpreted with caution. Similar findings are represented in other research studies. Pöhnl and Bogner (2012) examined gender differences in how students learn using computer-based interventions. Using a pre-test, post-test, and follow-up design, they showed that women had significantly higher success with retention of information; they concluded that computer-based learning environments are beneficial to women's cognitive growth. Other research suggests that women are more likely to take an active role or leadership role in an online learning environment (Wishart & Guy, 2009). These findings may help explain the current outcomes; if women are learning more from the Facebook group and taking more of an active role, then they are more likely to participate in advocacy and less likely to show resistance or act out in the group.

These gender patterns are also present in other research findings. Women have been found to be more involved with advocacy steps than men (Swank, 2012; Flanagan & Levine, 2010) and men have been found to be more involved in provocative comments online (Hill et al., 2009). Hill and colleagues (2009) found that male participants in online class discussions were more likely to use "intensifying language" and that women were more likely to value the sense

of community and connectedness in the group. Additionally, women are three times more likely than man to depict smiles or laughter via online conversation (Baron, 2004) suggesting that women may be more likely to connect with positive emotions rather than provocative comments. Although the small sample may not accurately depict gender differences in the group, patterns which did emerge are similar to those in other research.

## Conclusion

This research project evaluated the effectiveness of a violence curriculum using varied methodology, including the tracking of knowledge of warning signs over time, comparing students' performance to that of their peers who did not complete a violence curriculum, gauging interest in the curriculum, assessing participation in advocacy, and analyzing student behavior within an online learning environment. Various aspects of the curriculum were effective, including the teaching of warning signs, engaging students in the material, and influencing positive attitudes toward violence prevention. The current study revealed that this curriculum engaged students in longer conversations on a variety of violence topics over time, influenced their belief that violence can be prevented, encouraged them to participate in a variety of advocacy steps, and improved their ability to recognize the warning signs of violence in others. This suggests that qualities of the program were engaging and immersive in a way that promoted lifelong learning rather than memorization and regurgitating of information. Increases in student engagement in the violence material and improved knowledge is reflective of the curriculum's emphasis on students' ownership of their learning environment.

Results related to advocacy behaviors were mixed; while students participated in some advocacy throughout the curriculum and one year after, significant increases were not seen in most categories. This may suggest that if increasing student advocacy is a major goal of a

curriculum, it may take an increase in modeling from instructors as to how to be an advocate as well as more directives reminding students of when advocacy steps are an appropriate response. The little participation in activism that did occur may reflect the influence of the curriculum environment, which provided open dialogues about violence and allowed students to share opportunities to take advocacy steps. Students were more likely to participate in personal advocacy and suggest solutions to social issues than to participate in political advocacy. This reflects a preference for using knowledge about violence to make change in a local, grassroots, and personal way.

The research findings also revealed that the Warning Signs Survey played a valuable role in evaluating how much students had learned about the warning signs of violence. However, some scales on the survey were more effective than others in this regard and some items on particular scales were clearer than others. Whether exposed to the violence prevention education curriculum or not, students showed a tendency to misclassify some items. These difficulties may be a result of developmental issues, items being subtle indicators of abuse, and or items being written in a confusing manner. Some scales on the Warning Signs Survey could benefit from further revisions and the curriculum itself could benefit from increasing student exposure to neglect and the more subtle indicators of different forms of sexual and emotional abuse. The difficulty with developing effective items for subtle signs related to neglect and sexual abuse may reflect the overall difficulty experienced by researchers, policy makers, and other professionals when attempting to define these types of abuse.

In conclusion, the current project highlights the usefulness of integrating this violence prevention education curriculum into psychology courses to promote engagement and dialogues about violence. With violence prevention focused classroom lessons and a Facebook group,

students participated in a community that helped them better understand violence topics. Education is a crucial step in prevention, as people must first be aware of violence in order to take action (WHO, 2002). This curriculum could be easily and inexpensively implemented in many college courses as long as there are resources for online moderators. Results are promising for the continued use of online learning environments for the teaching of violence topics. With modifications, this curriculum also shows promise for fostering student activism in a significant way.

## Implications

The results from this study support the view that an online learning environment is helpful in extending learning outside of the classroom and solidifying knowledge gained through coursework. Students are spending more and more time communicating online (Hew, 2011; Golder, Wilkinson, & Huberman, 2007); an online learning environment is therefore familiar and appealing. The group was utilized at various hours of the day outside of class times and threaded conversations grew longer as the semester continued. Students were engaged in their learning with peers in a safe environment where they had control over the content of their learning and their degree or participation. Future program developers should consider the power of varied learning components and appealing to this new generation of students through more familiar media. The current study supports earlier findings that use of technology in the classroom is connected to increased performance and greater interest in learning (Hamann et al., 2009; Krentler & Willis-Flurry, 2005; Meyer, 2003).

College populations are becoming increasingly more diverse in terms of race (Broido, 2004), socioeconomic status, and age (Kalvert, 2015). Additionally, students possess a wide range of learning styles (Mupinga, Nora, & Yaw, 2012; Kolb & Kolb, 2005). The results of this

study have important implications for student diversity in that this project addresses issues of justice and also appeals to diverse learning styles. Tijerina (2004) speaks to the importance of allowing students, especially those representing marginalized groups, to make meaning of their experiences and identities through their education. She asserts that this can be achieved through experiential learning. The current project, which provides an experiential learning experience related to violence, allows for this meaning-making. Since students from minority groups are more commonly victims of campus violence, educators and administrators can benefit these students by developing educational initiatives, to prevent and address violence (Martin, 2008). Students come to college with not only varied personal experiences, but individual learning styles. Experiential curricula that allow for a variety of learning components and environments may serve to address the diverse learning styles of college students (Enns, 1993). Dennen (2008) reflected on the flaws of grading students based on posting behavior, being that many students learn well from listening or "pedagogical lurking." While students did receive directives that highlighted conversing in message threads, the current project avoided the flaws discussed by Dennen (2008) by encouraging students to participate by "liking" posts they read and providing the opportunity to post various other media other than opinions. The current curriculum opens up learning to a variety of types of learners by extending education outside the classroom, providing a space to initiate, contribute to, or read a conversation, allowing varied use of media to communicate, including pictures, articles, and videos, and providing space to reflect on one's contributions before sharing.

A concern raised by many educators is that students will become passive recipients of information (Elicker & McConnell, 2011; Hamann et al., 2009; Galvin, 2008; Spiceland, 2002). The mission of a university is to produce graduates who are critical thinkers and lifelong

learners. Long-term, integrative, technology-forward education that addresses various learning styles and student needs, whether focused on prevention or other topics, can serve an important role in this mission. Various researchers address the connection between critical thinking and student-led learning (Trigwell, 2012; Galvin, 2008; Celuch & Slama, 1998). This research project provided an active learning environment, where students could shape their own learning. It may have provided an array of benefits for learning, that go beyond those explored in this study, such as improving student self-confidence, writing, or ability to integrate new perspectives. When students are not asked to "get it right," but to think critically about a variety of topics, their capacity to learn and adapt throughout their lives is directly enhanced (Celuch & Slama, 1998).

This project also has implications for widespread efforts related to violence prevention. The experiential nature of this project has value in that it did not only engage students in violence prevention topics, but it also engaged them in advocacy efforts that could potentially have value in their personal, social and or political communities. The results demonstrate the positive effects of this type of integrated curriculum on the knowledge of warning signs of violence over the semester and one year later. Students equipped with this knowledge are better prepared to intervene or prevent violence in their daily lives (Banyard, 2013; Veith, 2012). This is seen in various other studies that aim to raise awareness as a prevention effort. For example, it has been shown that teaching students (Mann et al., 2005) as well as clinicians (Rihmer, Rutz, & Pihlgren, 1995) how to recognize symptoms of depression is related to decreased suicide rates. As research on program effectiveness improves, it is crucial to target policy in order to promote implementation and integration of effective violence prevention education in all educational

settings. This type of programming is an asset to a student's active role in learning, their personal well-being, and to the entire community.

The World Health Organization (2002) and the Center for Disease Control (2002) have clearly delineated violence as a threat to public health. While interpersonal violence can be stopped, it does require education and advocacy initiatives that can reach widespread groups of people. Thus, this study has implications for increasing both student hope that violence can be eliminated as well as giving students increased skills for taking an active part in ending violence. Quaye (2007) defines critical hope in the college population as the belief that challenging inequality will improve conditions for self and others. Three major learning outcomes related to critical hope include respecting those who are different, finding power in one's own voice, and building connections to a larger community. The violence curriculum has contributed toward these outcomes by involving students in a learning community where they could address societal issues, practice using their voices, take in various perspectives, and put their words into action. This increases student's awareness of their status as stake-holders in ending violence as well as their power to effect change.

## Limitations and Future Directions

As with every research project, there are limitations which can help to inform future research endeavors. There were several important limitations to this study including the sampling technique, the longitudinal design, and the use of new measures. First, sampling may have affected the data outcomes. The current study used convenience sampling rather than randomized sampling for the experimental group. This was necessary as the intent of the study was to examine classes of students exposed to courses with and without exposure to a specific violence prevention education curriculum, however, the results may not generalize to students

across disciplines or in other geographic locations. Future projects would benefit from examination in other institutions, across disciplines, and cross-culturally. This would help expand generalizability and the overall understanding of the curriculum's intersection with diversity.

The longitudinal design also resulted in some limitations. While longitudinal studies have a variety of benefits, including tracking long-term gains and individual change, attrition is a major difficulty with this design (Farrington, 1991). In the current study, 142 students were given the opportunity to participate in a follow-up measure with the prospect of winning a gift card, but only 13 did so. Greater incentives to participate in a follow-up may be necessary to gain representative data (Fiese & Spagnola, 2005). Thus, results related to the one year follow-up may not be entirely accurate or representative of the full sample. The sample size obtained for the one-year follow-up portion was small. Students who chose to participate in the follow-up portion of the study represented older students from more advanced psychology courses, who may have also differed in their level of participation in the group or in other ways beyond those measured. It would be helpful in future research to employ methods to combat attrition in order to provide a substantial longitudinal sample to track the success of programs at future points in time.

A further limitation to the study was the use of new outcome measures, including the Warning Signs Survey, and the Follow-up Survey, which do not have national norms. As reliability and validity have not been established for these measures, it is unclear if observed trends are related to phenomena in the population or related to problems within the surveys. Additionally, the portions of the Follow-up Survey that rely on self-report may not be entirely accurate. Responses could be affected by selective memory of events, telescoping, or exaggeration. Students may have unintentionally cast themselves in a more positive light, such as

endorsing more advocacy steps or inflating their level of interest in the material. Grimm (2010) recommends incorporating a scale for social desirability in the survey battery to detect biases.

The violence prevention education curriculum itself also had its limitations. First, using the Facebook group and analyzing posts is very time intensive and would be overly cumbersome for one professor. The curriculum runs most effectively when there are multiple Facebook group moderators. Although it is beneficial to students to have ownership over their learning space, this also leaves room for acting out through making intentionally provocative posts. Therefore, for smooth running of the curriculum, assistants to the instructor are needed. Although online learning has clearly been shown to be an asset to education, technology is constantly advancing and thus falling in and out of use. Facebook's popularity and widespread use (Golder et al., 2007) is not permanent, therefore requiring educational innovators to stay up to date with new technology that utilizes similar interactive components. For example, researchers are currently examining the use of Twitter and blogs for classroom use (Shih, 2013; Soysa, Dunn, Dottolo, Burns-Glover, & Gurung, 2013). It is important to know whether or not a multi-layered and student-driven curriculum can be expanded or extrapolated to other media.

Additionally, the data from this project indicated that the curriculum needed revisions in several areas. One is that the group would benefit from more education around advocacy steps. Because the group focuses on a comprehensive definition of violence, it is possible that more attention was paid to broad violence topics and less attention was given to advocacy-related goals. While the current curriculum has effectively equipped students with more knowledge in recognizing warning signs of violence, it was not as effective in influencing students' increased participation in activism. Future programming could benefit from a stronger emphasis on building student activism skills. For example, professors can take time to teach about how to take

advocacy steps in classroom lessons and require participation in certain advocacy steps. Taking these steps could be made more engaging by using a "hashtag" an encouraging students to share what steps they have taken. Additionally, a program which emphasizes prosocial behavior and communication may also see positive effects for violence prevention. Taking action is a vital component of violence prevention, being that the movement requires individual buy-in and grassroots efforts. Increased demonstrations of advocacy and stronger emphasis of advocacy within the curriculum could be the difference between effective change and remaining at the status quo of rampant interpersonal violence. When reflecting on the devastation that violence has caused to individuals, families, and communities, it is clear that violence initiatives need to find ways to go from the work of a few to being the movement of many.

Lastly, participating in the Facebook group cannot guarantee even exposure to all topics; some warning signs may be studied more effectively than others. Depending on how often students log in, they may miss out on some essential conversations entirely. Thus, learning from the Facebook group cannot be separated from the motivation of the student to participate in conversations about course material outside of class time. These shortcomings should be addressed when considering future directions for research on violence prevention education. Future use of the curriculum needs to include more explicit teaching of all of the different forms of violence and increased exposure to subtle indicators of violence. Setting a more specific agenda for the group could improve learning outcomes. Although the curriculum's rubric outlines expectations for behavior, it could benefit from more detailed instructions around advocacy steps or expectations for weekly log-ins, for example. For curricula that outline specific steps and emphasize manual fidelity, effectiveness has been shown to be moderate to high (de Freitas et al., 2010; Peterson et al., 2001).

Overall, there is a clear need for more research on violence prevention education that includes effective outcomes assessment, such as longitudinal approaches, comparison groups, and examination of specific components of each program. Most of the current research literature utilizes methodology which focuses on self-reported satisfaction surveys. Outcome assessment that would reflect actual learning in terms of knowledge, attitudes, and behavioral changes as a result of the curriculum are needed to determine the external validity of this violence prevention education programming. In the future, researchers can include measures that help students track their own behavior and attitudes in order to better understand how the curriculum is affecting behavior. For example, throughout the curriculum students can monitor their interactions with others, their awareness of their own aggression, their level of victim-blaming, etc. Beyer and Gilmore (2007) assert that meaningful assessment that captures the complexity of student learning is crucial to helping learners improve. In addition, as the current program is very time intensive, it would be helpful to delineate which specific components of the program are most effective. Additionally, most prevention programs center around one area of violence, such as sexual violence, youth violence, or suicide. The literature would benefit from an exploration of student learning and understanding of polyvictimization. The current program used a variety of techniques to facilitate learning but did not provide a mechanism for evaluating which techniques were responsible for the learning that occurred. Much of the literature in this area has designed frameworks for educational programming, (McNeil, 2011; de Freitas et al., 2010; Young, 2004; Peterson et al., 2001), but has not tested the framework's effectiveness empirically. Future research is needed in the area of violence prevention education in order to produce and implement effective programs with evidence-based learning components.

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# APPENDIX A

## RUBRIC FOR PARTICIPATION IN THE WCPV FACEBOOK GROUP

### FACEBOOK GRADING RUBRIC

TOTAL POINTS POSSIBLE= 25  13 weeks = approx. 39 posts

EXCELLENT 25

VERY FINE 23-24

VERY GOOD 22

GOOD WORK 20-21

VERY SOLID 19

SOLID EFFORT 17-18

PASSING = 15 – 17

FAILING = 14 and below

Students are expected to participate on the Facebook site at least three times per week. You can earn points by going to the site and responding to comments made by others, by posting your own materials/YouTubes/websites to begin discussions with others, and through posting advocacy activities. All of the posts you submit will be evaluated in determining the total points your participation has earned.

1. Students who make comments that show they are trying to apply material covered in their courses, to the issues raised on the site, will earn more points than comments that just reflect one student agreeing with the comment of another.
2. Students who actively read the posts of others and engage in thoughtful discussions on the site will earn more points than students who do not interact with others.
3. Students who take on a leadership role by sharing videos, news clips, or personal examples that help to deepen discussions on the site will earn more points than students who respond to the work of others but usually do not start new discussions by making original posts.
4. Students who engage in advocacy activities that might promote human welfare (a main goal of the field of psychology) will earn more points than students who bring material to the site but do not seek to influence events outside of the site. There are many types of advocacy that would count.

   A. For example you could go to:

      www.opencongress.org In the search engine at the top right, you could type in “dating violence” and discover if there are currently any bills that cover an aspect of dating violence that are currently under consideration. There is a place on the site that allows you to click on a button to show if you are in

"support","against", or are "tracking" the progress of the bill. You can then post the site and the name of the bill on the Facebook site and encourage your class mates to go to open congress and register their own opinion of the bill.

B. You could go to a social advocacy site such as, www.ceasefirepa.org or www.stopitnow.org
You could see if they currently have any petitions to sign about ending gun violence (ceasefire) or advocacy related to sexual abuse (stopitnow). There are many other social advocacy groups. For example, you can go into google and say, "Social advocacy sites for bulimia?" and sites for this eating disorder will pop up.

C. You could develop your own petition or letter about an issue relevant to your class, post it on the site, and tell fellow class mates when you are bringing it to class, in case they want to sign it.

D. You could suggest a personal advocacy day on the site. Personal advocacy refers to some action step that involves people in your immediate social group. An example: you could encourage everyone in class to tell his or her best friend three warning signs intimate reaction to this information.

EXAMPLE LETTER TO A SENATOR:

April 15, 2012

Senator Robert Casey
Russell Senate Office Building, Room 393
Constitution and Delaware Avenues, NE
Washington, DC 20510-3805

Dear Senator Casey,

Please vote in support of the Violence Against Women Act, S. 1925, when it comes to the Senate floor.
Ending violence against women and children is critically important to me. Please support programs that help prevent violence and support victims.
Thank you.

Sincerely,
**Dr. Pearl Berman**
**1020 Oakland Avenue**
**Indiana, PA 15705**

APPENDIX B

WE CAN PREVENT VIOLENCE CODING MANUAL

Created by: Dr. Berman, Rachel Posner, Ashley Kasardo, Camille Interligi

# CODING GUIDELINES

First, general coding rules will be outlined that apply to the overall process of coding. These will be followed by descriptions of the 29 coding categories: 1) Comment ID, 2) Post Type, 3) Originator, 4) Poster Name, 5) Administrator/Participant, 6) Gender, 7) Comment Date, 8) Post Time, 9) AM/PM, 10) Coder, 11) Date Coded, 12) Dominant Content, 13) Other Content,14) Advocacy, 15) Location, 16) Thread Total, 17) # Participant Posts, 18) # Administrator Posts, 19) # Likes, 20) Length, 21) Violence Misconceptions, 22) Other Misconceptions 23) Provocation, 24) Agreement, 25) Praise, 26) Suggestions, 27) Emotion, 28) Dominant Topic, and 29) Other Topics.

## General Coding Rules

Every post in the Facebook group, "We Can Prevent Violence" will be coded. Exceptions to this guideline include extremely short, clarifying posts and double posts that are part of the same thought and posted immediately after one another. Below are some examples of these exceptions:

Example 1: **Ryan Cook** Very graphic*
September 17 at 8:38pm (Posted in response to a video posted by himself)

Example 2: **Jessica Overman** this is probably similar to the case where Thomas Haney Jr. abused his girlfriend's 4 year old to the point where he killed him. Now the mom is charged with
September 21 at 3:11pm · Like
**Jessica Overman** sorry about that i got the name wrong its patrick haney
September 21 at 3:13pm (Second post corrects previous one)

However, a double post that is not part of the same thought will be coded as two separate posts. Below is an example:

Example 1: **Ashley Kasardo** A 14-year old boy committed suicide because of the bullying he faced for coming out as bisexual. He left a blog post saying that no one listens to him about the bullying he faced. What are your reactions to this video?
September 26 at 8:56am · Like
**Ashley Kasardo** Don't forget to check out the Document on the right discussing the It Gets Better Project
September 26 at 8:57am · Like

Coders will enter codes into an Excel coding sheet. All irrelevant posts will be counted, and coded as such. Inter-rater reliability will be determined by comparing two coders. After this is achieved, the data of the master coder will be used.

## Categories 1-11: Descriptive Codes

Categories 1-11 include descriptive codes:

**Category 1, Comment ID:** Each post will receive an ID number, assigned by the coders.
**Category 2, Post Type:** If a post is original, it will be coded as 0, indicating it is new. All subsequent responses will be labeled ordinally, starting with 1.
**Category 3, Originator:** The original poster's name will be coded for every post.
**Category 4, Poster Name:** The name of the poster will be recorded for every post.
**Category 5, Administrator/Participant:** The coder will note whether the post was made by an administrator (1) of the Facebook group or by a participant (2). The names of the administrators are listed on the group page.
**Category 6, Gender:** The gender of the poster will be coded. If the gender of the participant is not apparent, this category should be left blank. Female will be coded as 1 and male will be coded as 2.
**Category 7, Date:** The date the post was made will be recorded.
**Category 8, Time:** The time of each post will be recorded. Coders should refer to the timestamp below the post, and round it down to the hour.
**Category 9, AM/PM:** For each post time, AM (1) or PM (2) will be coded.
**Category 10, Coder:** The Coder will indicate who is coding the post with either 1 (Ashley Kasardo) , 2 (Rachel Posner), 3 (Leanne Duman), or 4 (Camille Interligi).
**Category 11, Date Coded:** The date that the coding sheet for the post is filled out will be recorded.

## Categories 12 and 13: Dominant Content and Other Content

Second, the dominant content of post will be coded. Content of posts include websites (1), videos (2), news articles (3), discussion questions (4), scenarios (5), photographs/advertisements/pictures (6), stories (7), reminders (8), opinions (9), facts (10), and irrelevant posts (11). The main type of content will be coded for each post, and will be coded with its corresponding number. Websites will be distinguished from links to videos or articles. If the content of a website is referred to outside of the video or article content, then it will be coded. Otherwise, links to videos or articles will be coded as such. In choosing the dominant content of the post, categories 1-6 will take precedence. Opinions and facts will be coded as dominant if no clear form of media was presented.

For "other content," all other content that applies to the post as well as the dominant content category will be coded. Each category will receive a "0" if it does not apply or a "1" if it does apply to the post. The example below is a personal story.

Example 1, Personal Story:

**Krista Nicolle Mader** This is an issue I have dealt with personally. When I was in high school, I noticed a boy I went to school with and also worked with was cutting himself, and I knew he had attempted suicide before. Since we were not that close, I did not feel it was my place to say anything to him about it. To this day I still regret never reaching out to him, because about a month after I noticed this, he committed suicide. Sometime I still wonder maybe if I had just reached out to him, showed him someone did care, maybe he would still be here. I think if I was faced with this issue now, I would definitely reach out to the person. You never know, they may take offense and get angry, but you could also save someones life.

September 24 at 9:43pm

## Category 14: Advocacy

The advocacy category includes codes of personal advocacy (1), political advocacy (2), discussing barriers to advocacy (3), suggesting a solution (4), or not taking any advocacy step (5). Each post will

receive one advocacy code. Some advocacy posts inform group members that if they participate in the advocacy posted, they should "like" the post. These likes will be coded according to which type of advocacy was described in the original post.

Personal advocacy includes any individual actions taken to prevent violence, such as identifying warning signs, initiating conversations with friends or classmates about violence, encouraging someone to get therapy, getting therapy for oneself, or reading self- help books. If a post draws attention to the ways in which a person can perform advocacy, such as raising awareness of advocacy organizations, this will be coded as personal advocacy. Personal advocacy affects one's immediate sphere or social circle; it does not involve direct contribution to a larger cause. Political advocacy includes voting, writing letters to politicians, or attending political rallies and events. Political advocacy codes also include types of social advocacy such as promoting campus events, writing a letter to the school newspaper, or volunteering with or donating to organizations. Receiving a code of discussing barriers applies to posts that indicate that taking action would be too hard, give reasons for why it would be too hard, or assert that taking action would not work at all. Posts that describe realistic difficulties should not receive this code, such as the negative influence of the media. If the poster suggests a solution to a problem, but does not discuss or offer any means to take action, the post will be coded for suggesting a solution. Posts that show no advocacy do not discuss advocacy at all.

The following are examples of the codes of personal advocacy, political advocacy, barriers to advocacy, and no advocacy, respectively:

Example 1, Personal Advocacy: Eve Pellitteri

***here is a facebook website devoted to stop bullying in your own community. The pledge asks for you to take responsibility to stop and prevent the bullying you see. On this page there are many celebrities advocating the campaign, and there are videos of them doing so.***

Page: 210,040 people like this

September 23 at 11:25am

Example 2, Political Advocacy: Beth Watson

***http://salsa.democracyinaction.org/o/1265/p/salsa/web/common/public/signup?signup_page_KEY=6268***
***If you believe in the end of the death penalty, sign this pledge, then hit "like" on this post.***

September 22 at 3:20pm

Example 3, Barriers to Advocacy: **J.d. Bachelder** I feel like in all honesty everyone can say they'd talk to him or try to be his friend, but in all likelihood that's a lie. I'd like to think I'd try to befriend the guy, but chances are I'd just assume he has an anxiety issue or is uncomfortable with violence (who IS comfortable with violence?) and I'd leave him alone. That's the "wrong" answer, but its the most realistic.

September 22 at 9:19pm

Example 4, No Advocacy: Jess Stewart

***While not so popular here, Female Genital Mutilation is still happening abroad. An estimated 100 to 140 million girls and women worldwide are currently living with the consequences of FGM.***

Monday at 12:56am

## Category 15: Location

The location will be coded in one of four categories: wall (1), document (2), event (3), and poll (4). In the Facebook group, members can post to the wall area, post a document, create an event, or take a poll. A post can only receive one of these codes.

## Categories 16-20: Post Type, # Responses, # Likes, and Length

**Category 16, Thread Total:** The total posts in a thread will be tallied and coded for each post. Whether the post being coded is an original or response, the thread total includes the original and all responses.
**Category 17, # Participant Posts:** The thread total category will be broken down into two categories, one being participant posts. Any post in the thread left by a group member will be tallied.
**Category 18, # Administrator Posts:** The second category of thread total is administrator posts, being the tallied number of posts in the thread left by administrators. This number combined with the participant response number should be equivalent to the coded number of the thread total. Administrators include: Pearl Berman, Maureen McHugh, Beth Watson, Rachel Elana (Rachel Posner), Adam Douglas (Adam Clarke), Samantha Sciarillo, Leanne Duman (beginning spring 2012), and Camille Interligi.
**Category 19, # Likes:** The number of "Likes" for each post will be recorded. On Facebook posts, a group member may "like" a particular comment, indicating action or approval. This should be noted in the Action category if the post is advocacy-related.
**Category 20, Length:** The length of the post will be coded using three categories: short, medium, and long. The short category (1) will be coded for posts ranging between one to two sentences. Posts ranging between three to five sentences will be coded as medium (2). The long category (3) will be coded for posts that contain six or more sentences.

**Emily Gagliardi** I just read this article this morning and was shocked that someone would feel enjoyable by killing an innocent child. She seems to have no remorse too, which makes it so much worse.

February 8 at 6:33pm

## Category 21: Violence Misconceptions

The violence misconception category aims to capture misunderstandings participants have about the violence-related material being discussed. When a person describes clearly inaccurate information or opinions about a violence topic, the violence misconception category will be coded with a 1. If no such misunderstandings exist, the category will receive a code of 0. Examples of violence misunderstanding themes include:

1. Violence cannot be prevented.
2. Violence is normal and should be expected.
3. Something that is clearly abuse is not identified as such.
4. "He/She deserved it."
5. It's all genetic.
6. Violent behavior cannot be learned from others.
7. "If it were that bad, she would just leave."
8. A parent has a right to discipline their child however they choose.
9. It's not rape if it's your spouse.
10. It is not the job of teachers to stop bullying – students must learn to handle it on their own.

**Zach Burke** i know that this is a violence prevention group but hockey in my eyes is physical and fighting comes out of emotions toward the game. yes maybe fighting should be controlled but it is part of the sport and i have nothing wrong with it. its almost like telling a boxer not to fight.

Tuesday at 8:11pm

## Category 22: Other Misconceptions

Other misconceptions include misconceptions about material that is not violence related, but may be related to other class topics such as mental illness and gender. When a person describes clearly inaccurate information or opinions about a non-violence topic, the other misconception category will be coded with a 1. If no such misunderstandings exist, the category will receive a code of 0. Examples of other misunderstanding themes include:

1. Inability to acknowledge the power differential between men and women, Caucasians and racial minorities, etc.
2. Bisexual and homosexual people cannot be monogamous.
3. Mentally ill people cannot function in mainstream society.
4. Gender roles exist because the biology of men and women makes them better at certain tasks.

The following is an example of an "other misconception," in reaction to an article about anorexia:
**Hugo Villanueva** There's nothing wrong with wanting to be in shape. The problem arises when this desire is based not on one's own inclination, but on the aesthetic preferences of others. If your sole reason for attempting to lose wait is to appear attractive in the view of others, then there is some misguidance there. However, I don't believe that wanting to be in shape and thin as a goal in itself is a bad thing.

February 10 at 2:16pm

## Category 23: Provocation

Occasionally, students in the group write comments to intentionally provoke other people. These comments may be labeled as "trolling," in which posters write controversial posts in order to get a reaction out of other posters. Provocation is not very common, but will be coded with a "1" if present, and a "0" if it is not present. Provocation can be understood as not addressing both sides to an issue and dogmatically defending an inaccurate or offensive position. Below is an example of a provocative statement:

**Steven Weible** I just wish he would have been carrying an extra clip. The laptop could have used a few more holes in it. Maybe a 12gauge would have done a better job. I can't stand disrespectful kids when they have a good family, and very nice parents. It seems the girl was spoiled anyways, and it isn't like she really had that many things to do around the house.

Friday at 1:11pm · Like

## Category 24: Agreement

We will also be coding for agreement. This is when a poster clearly agrees with the statement of another poster. The poster must explicitly state that they agree. Agreement will be coded with a "1" if it is present; if not, this category will be coded with a "0." Below is an example:

**Dallas Malis**

i agree with mrs. watson about the laptop. hell i could use a new lap top for that matter he should have not shot it up with a gun but i agree with everything else he did including putting it on facebook. if you listen he says how she was grounding before for a similar thing. so handling it inside the house himself obviously isn't working. so when it comes down to it you trade and eye for an eye. if she is going to continue to post inappropriate stuff on facebook, you take the computer away and post one right back so she learns her lesson the hard way. more and more kids are being to spoiled these days

February 10 at 5:12pm

## Category 25: Praise

Praise will be coded when a poster compliments the post, ideas, or content of another poster or if they compliment the poster themselves. Thanking a poster for sharing something, supporting their strength to share a difficult story, or saying that someone had a good idea are all examples of praise. Praise will be coded with a 1 if present, and a 0 if not present. An example follows:

**Beth Watson** Wow, very interesrting...this is something I was not aware of/familiar with...thank you for sharing.

## Category 26: Suggestions

Although suggesting a solution is coded for in the advocacy category, this category is meant to capture suggestions posters make about the situation rather than offering a thought out solution. If no suggestion is offered, this category will receive a code of 0. If the solution suggested is a pro-prevention, it will be coded as 1. Pro-prevention solutions include suggestions related to education, warning signs, personal advocacy steps, social acceptance, and social programming. This type of suggestion takes into account a variety of societal factors. A pro-punishment suggestion will be coded as 2. These suggestions involve incarceration and lengthening sentences. The third category of suggestions is pro-violence, which will be coded as 3. Pro-violence suggestions involve killing or hurting someone in some way. This includes the death sentence. If a post includes both pro-prevention and pro-punishment suggestions, the post will be coded as pro-prevention. If a post includes both pro-punishment and pro-violence suggestions, the post will be coded as pro-violence. Below are examples of the three types of solutions:

Pro-prevention:

**Tiffany Zurow** I feel our government needs to find a way to get this kind of stuff under better control. Not only is dealing and stuff running down our economy, but the dangers are only being intensified. People like this dude have no self control but we can control them getting a hold of stuff like bath salts

Pro-punishment:

**Kelsey Corrado** This breaks my heart, and also makes me sick to my stomach. Words do not describe how awful, heartless, sick, twisted, & repulsive this is. I can't even find words for it, myself. I hope that he was punished for what he has done. It is just awful.

Pro-violence:

**Justin Myers** This is so disgusting, how could you even have the thought of having any type of sexual activity with a little baby. The fact that a man would do something like this to his baby daughter is so gross and shocking. This man deserves the death sentence.

## Category 27: Emotion

The level of emotion in each thread will be coded. Every post in the thread will receive this code. Emotion will be determined by the amount of times emotional words are present in the thread that relate to the poster's reaction. This will not include a poster's judgments of whether something is good or bad, but will include emotional reaction content. These words include emotion words and phrases such as happy, disturbed, angry, stressed out, fed up, and pissed off, as well as words with an emotional quality, such as shocking, awful, appalling, overreact, and repulsive. Emotion actions, such as crying, clenching one's fists, etc. will also be coded. This coding category is meant to get at an emotional quality of the thread as a whole. All emotion words in the thread will be counted. A thread with between 1-5 emotion words will be coded as 1, 6-10 as 2, 11-15 as 3, 16-20 as 4, and so on. If the thread contains no emotion words, it will receive a 0. The discussion of emotions of others will not be coded. In the following example, codable emotion words are highlighted.

- **Shawna Everson** This is sickening! Enough said!

**Kristen Kaltreider** This is disturbing! How could you do that to your child? Obviously the guy has a mental problem to go and sexual abuse his baby! I'm speechless.

**Ashley LaLa Nikki** This really saddened my heart because a child is supposed to depend on their parent for love and protection! This is really sick and disturbing.

The following words will be coded: eye-opening, terrible, horrible, awful, scary, powerful, brilliant, amazing, cringe, tear up, extraordinary, crazy, sick, ridiculous
The following words will not be coded: good, bad, great, like/love, dislike/hate, disbelief, imagine, wonder, interested/interesting, right/wrong, harsh

## Categories 27 and 28: Dominant Topic and Other Topics

The topic of each post will be coded. Each post will be coded with the topic that is most central to the post. Topics include but are not limited to: child abuse (this includes physical, sexual, and emotional) (1), child neglect (2), child pornography/prostitution/trafficking (3), bullying (4), adult abuse (this includes physical, sexual, and emotional) (5), adult neglect (6), adult pornography/prostitution/trafficking (7), general violence (8), suicide (9), resiliency (10), gender (11), LGBT issues (12), other general psychology (13), other psychology of women (14), and race (15). Posts will receive a code with the number that corresponds to the most dominant topic. Some of these topics are intertwined; if no reference is made to clear aspects of a topic, the topic dominant in that particular thread should be coded. Topics that do not quite fit into a category can be coded as general violence. They will be coded as either general psychology or psychology of women if a reference to that class is explicitly stated. The dominant topic is the one mentioned most often or most central to the post. If one topic does not clearly emerge as dominant, the dominant topic should be chosen as the topics appear in order (ie child abuse over adult abuse, adult abuse over gender, etc).

All other relevant topics to the post will be coded with either a 0 (not applicable) or a 1 (applicable). As many that relate to the post can be coded.

The below example would be coded with a dominant topic of bullying, with other topics including suicide and child abuse:

*Jessica Irwin*

***This is an article that talks about a sixteen year old boy that was bullied so much that he committed suicide. It is so sad that this boy thought that the only way he could escape the bullying and abuse was to take his own life. I think that more resources and people need to be available to help stop this uprising occurrence of bullying.***

***http://www.timeslive.co.za/local/2012/02/21/bullied-into-suicide***

Like · · Follow Post · Share · February 20 at 9:30pm

# APPENDIX C

## WARNING SIGNS SURVEY

Hello, would you help us prevent violence?

You are being asked to complete a questionnaire that is part of a violence prevention project. You will be reading about the thoughts, feelings, and behaviors of youth and adults. You will be making judgments about whether the youth and adults are engaging in destructive or acceptable behavior. If you click on the "yes" button at the bottom of the page, you will be shown the first page of the questionnaire; if you click on the "no" button, you will exit the questionnaire. You will be asked to complete the questionnaire once at the very beginning of the semester and once at the very end of the semester.

What if I agree to complete the questionnaire?

If you agree to participate you will be helping some psychology professors understand how much you know about recognizing the warning signs that destructive behavior might occur. You will also be helping your professors develop strategies to help their students learn more about these warning signs as well as learn more about how to prevent destructive behavior. At the end of your course, you will receive extra credit if you completed the survey both at the beginning of the semester and the end of the semester.

Your information as an individual will be private. The information that is gained from students completing the questionnaire will be compiled across all students in your course and compared, as a group, to students in other courses. All information that your instructor will use in presentations or publications to other psychologists, using the questionnaire, will be based on group information. You will be asked to provide your banner ID, name, and university email addresses at the beginning of the survey. This information is needed so that 1) you can be reminded to complete the survey a second time at the end of the term, 2) you can receive your course credit at the end of the semester for filling out the questionnaire, and 3) your answers, the first time you completed the questionnaire, at the beginning of the term can be linked to your answers to the questionnaire, the second time you completed it, at the end of the term. After this has been done, all your personal information will be deleted from the data set.

What if I start completing the questionnaire and then need a break?

You will be able to exit the questionnaire at any time and return to it within one week as long as you don't delete the email that was sent to you that contains the link to the survey. You can re-enter your survey by going back to this original email and clicking again on the link provided. We estimate that it will take approximately 20 minutes of your time to complete this survey but this depends on your personal reading speed.

What if I don't want to participate?

It will have no effect on your grade if you decide not to participate.

Thank you very much for taking the time to consider participating in this study.

For more information contact Dr. Berman at 724-357-2105 (email: psberman@iup.edu);

Dr. Maureen McHugh at 724-357-7978 (email: Mcmchugh@iup.edu),

Dr. Juliet Dinkha at 965+802040x435 (email:JDinkha@auk.edu.kw) .

This project has been approved by the Indiana University of Pennsylvania institutional review Board for the protection of human subjects (724-357-7730). Please click on the appropriate button below to continue

- ❍ Yes, I would like to participate (1)
- ❍ No, I do not want to participate (2)

Cross-Cultural Psychology Survey

There are four parts of this survey. The first part asks you demographic questions. Your name and university e-mail address will be asked for. This information will be separated from your answers to the survey. All names and emails will be provided together, in list form, so that you and all your class mates receive credit for completing the survey.

Today's Date

Month (mm) (1)
Date (dd) (2)
Year (yyyy) (3)

Please enter your complete university email address. If you are an IUP student, it is important that you use the email address that you were assigned that has four letters. For example, XBBF@iup.edu. If you are an AUK student, please list your university email address for example, S10000387@auk.edu. Thank you.

Please type in your last name (as it appears on your current class list)

Please type in your first name (as it appears on your current class list)

Please select the psychology course you are currently enrolled in.

- ❍ General Psychology (1)
- ❍ Abnormal Psychology (2)
- ❍ Child Psychology (3)
- ❍ Developmental Psychology (4)
- ❍ Psychology of Adolescence (5)
- ❍ Adult Development and Aging (6)
- ❍ Social Psychology (7)
- ❍ Cultural Psychology (8)
- ❍ Personality Theories (9)
- ❍ Introduction to Clinical Psychology (10)
- ❍ Human Sexuality (11)
- ❍ Industrial Psychology (12)
- ❍ Psychology of Women (13)
- ❍ Gender and Violence (14)
- ❍ Other Psychology Course (15)

Age

- ❍ 18 (1)
- ❍ 19 (2)
- ❍ 20 (3)
- ❍ 21 (4)
- ❍ 22 (5)
- ❍ 23 or older (6)

Sex

- ❍ Male (1)
- ❍ Female (2)

Please click on the appropriate option that indicates your class standing at the university.

- ❍ Freshman (1)
- ❍ Sophomore (2)
- ❍ Junior (3)
- ❍ Senior (4)
- ❍ Graduate Student (5)

Please click on the country where you attend your University

- ❍ China (1)
- ❍ Kuwait (2)
- ❍ United States (3)
- ❍ Other (please specify) (4) _____

Please select the response that most closely represents where you live when you are not attending a university.

- ❍ Rural area with at most 1,000 people (1)
- ❍ Small town with at most 40,000 people (2)
- ❍ Large city or suburban area with at most 500,000 people (3)
- ❍ Large metropolitan area with 1 million or more people (4)

PART 2

Over the next few pages, you will be considering some thoughts, feelings, and behaviors of individuals. You will then be making judgments about whether some of these things might be warning signs of violence against others; might be warning signs of suicidal behavior; might be a warning sign of both violence and suicide; you are unsure if it is a warning sign of violence or suicide; or, you are sure it is not a warning sign of violence or suicide. Some of the items may be offensive or troubling to you, please do your best to answer anyway. You do have the right to skip an item if it is too upsetting to you.

You will have a total of five possible choices listed next to each item. Please click the choice that best identifies the item. The choices will be:

1) Yes, it is a sign that a person might be violent (Violent);

2) Yes, it is a sign that a person might be suicidal (Suicidal);

3) Yes, it is a sign that a person might be violent or suicidal (Violent & Suicidal);

4) Unsure if it is a warning sign of violence or suicide ( Unsure V/S);

| 5) No, it is not a warning sign of violence or suicide (Not V/S). | Violent (1) | Suicidal (2) | Violent & Suicidal (3) | Unsure V/S (4) | Not VS (5) |
|---|---|---|---|---|---|
| Student ends relationships with family and friends. (1) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student is a victim of street or home violence. (2) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student shows an interest in a political career and this began last year. (3) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student suddenly stops participating in sports and club activities and shows no interest in anything else. (4) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student makes new friends easily. (5) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student shows a sudden increase in moodiness and impulsiveness. (6) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student is consistently rejected by peers. (7) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student constantly says things such as, "I have no future". (8) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| Student is been consistently bullied by one or more students. (9) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student develops a detailed plan to commit violence. (10) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student spends most free time studying. (11) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student thinks about, or talks a lot about, weapons and this began a month ago. (12) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student expresses longstanding feeling of hopelessness. (13) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student has always belonged to several school clubs at school. (14) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student makes threats to harm him or herself. (15) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student is uncoordinated and is always getting hurt. (16) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student gives away all of his or her valued possessions . (17) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student repeatedly stole candy bars from stores as a child. (18) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| Student stops spending time with friends and gives no reason. (19) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student treats romantic partner like property. (20) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student is always complaining that parents are old-fashioned. (21) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student monitors where romantic partner is throughout the day. (22) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student shows no compassion for a rape victim. (23) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student talks of always waking up at about 3 am and being unable to go back to sleep despite being tired. (24) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student is always sharing aggressive fantasies with friends . (25) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student questions romantic partner's worth as a person. (26) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student enjoys jogging and joins a running club. (27) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| Student is consistently having trouble controlling his or her anger at home and at school. (28) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student abuses drugs regularly. (29) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student moved to a new high school last week and feels isolated and uncomfortable. (30) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student has always gotten average grades in school. (31) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student always leaves hard-core pornography out where others can see it. (32) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student humiliates romantic partner in front of their friends. (33) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student mistreats animals. (34) | ❍ | ❍ | ❍ | ❍ | ❍ |

PART 3

The following statements describe the behavior or expectations of a parent, a grandparent or a youth (child or adolescent). For statements involving a youth, you will be deciding whether the youth might be a victim of some type of abuse or neglect or whether the youth is not likely to be a victim. For statements involving an adult, you will be deciding whether the adult might be engaging in destructive behavior (abuse or neglect) or whether the adult is behaving in at least an adequate or acceptable way. For statements involving an older adult, who may be dependent on adult children, you will be deciding whether the older adult is engaging in abusive or neglectful behavior against someone else or might be a victim of some type of abuse or neglect or whether this older adult is behaving in at least an adequate or acceptable way. Some of the items may be offensive or troubling

to you, please do your best to answer anyway. You do have the right to skip an item if it is too upsetting to you.

You will have a total of five possible categories listed next to each item. Please click on the category that best describes the behavior described in the item. The categories will be:

1) Physically abusive behavior or a sign of a physically abused person (Physical),

2) Sexually abusive behavior or a sign of a sexually abused person (Sexual),

3) Emotionally or verbally abusive behavior or a sign of an emotionally abused person (Emotional),

4) Under-involved or neglectful behavior or a sign of a neglected person (Under-Involved), or

5) Acceptable or at least adequate behavior or not a sign of an abused or neglected person (Acceptable).

| | Physical Abuse (1) | Sexual Abuse (2) | Emotional Abuse (3) | Under-Involved (4) | Acceptable or at least Adequate behavior (5) |
|---|---|---|---|---|---|
| A six-year-old is often seen running down the street alone in order to catch the school bus, dressed inappropriately for the weather. (1) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent insists all doors inside the house be kept open at all times. (2) | ❍ | ❍ | ❍ | ❍ | ❍ |
| An eight -year - old child hugs all adults. (3) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent doesn't attend to a crying infant while standing in line at the grocery store. (4) | ❍ | ❍ | ❍ | ❍ | ❍ |
| A parent insists a ten-year-old has not tried hard enough whenever the child earns less than an "A" on an exam or assignment. (5) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The grandparent always makes excuses for six-year-old's misbehavior to child's parents. (6) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent flirts with the sixteen-year-old's friends. (7) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The parent has very strict rules and punishes any sign of disobedience. (8) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent is easily angered by the six -year - old's behavior. (9) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The five-year-old engages in fantasy play about being a member of the opposite sex. (10) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The four-year-old never shows an appetite and always appears apathetic (11) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old always has injuries on the knees or elbows. (12) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent is very critical of any mistakes the child makes. (13) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old always stands too close to other children and adults. (14) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent never respects the privacy of other family members when they are getting dressed. (15) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The eight-year old includes sex parts when drawing pictures of animals at school. (16) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent does not trust anyone. (17) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The seventy-five year old grandparent moves into adult child's home. (18) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent drinks heavily while caring for a five-year-old child. (19) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old child plays with toys that are more popular with the opposite sex. (20) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent is often very angry whether at home or at work. (21) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The 10-year-old shows an intense interest in being popular at school. (22) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old does not speak or move when parent is in the room. (23) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old child is very susceptible to peer pressure. (24) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The parent rejects expressions of affection from the six-year-old. (25) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The ten-year-old always insults him or herself . (26) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent allows ten-year-old to stay up late even though the child keeps falling asleep at school. (27) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent pulls hard on the collar of the four- year -old's shirt to make the child move faster. (28) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent does not help the eight-year-old with homework despite teacher requests. (29) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The angry parent intentionally injures the 13-year-old's pet. (30) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent always ignores the twelve-year-old. (31) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year old keeps opening the door to the toilet at school whenever another child is using it. (32) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The six-year-old girl always sits with her knees apart. (33) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent expects 12-year-old to complete family chores that take an hour each day. (34) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent often threatens to leave the family. (35) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old makes sexual noises or actions while playing. (36) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old spreads sexual gossip about other children at school. (37) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent expects the 16-year-old to study at least two hours every day. (38) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent becomes very jealous when the seventeen-year- old starts to date. (39) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The 10- year-old child is alone all weekend while the parents take a vacation. (40) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent shows no knowledge of 16- year -old's social life. (41) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The eighty-year-old grandparent is sent to the bedroom whenever adult-child has company visiting the home. (42) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old enjoys bullying smaller children. (43) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Adult-child has been using eighty-five-year old's social security check for personal purchases instead of medicine for parent. (44) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The eight-year-old often has injuries on the back of the legs . (45) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The three-year-old child is left alone to play in the car while the parent goes grocery shopping. (46) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent considers it a waste of time to take an infant for wellness visits with a doctor. (47) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The seventeen-year-old is always walking around the neighborhood after midnight. (48) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The eighty-year-old, living with the adult-child's family, often smells of urine. (49) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The ten-year-old kicks the dog when angry. (50) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The twelve- year -old expects to be hated. (51) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Seven-year-old becomes very nervous whenever it is time to bathe or shower. (52) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent does not allow a sixteen-year-old to get a job after school. (53) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent does not allow sixteen-year-old to date. (54) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Parent talks about the nine-year-old child like he or she is a possession. (55) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Parent ignores the feelings of a six-year-old child. (56) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The ten-year-old is caught masturbating under the bedcovers. (57) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The sixty-five-year-old grandparent berates the adult-child in front of the grandchildren. (58) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Parent encourages seven-year-old child to lie to teacher. (59) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Ten-year-old is not allowed to socialize with peers. (60) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Family photo albums do not contain pictures of the six-year-old child. (61) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The adult-child shakes eighty-year-old parent when frustrated by the elder's clumsiness. (62) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Ten-year-old goes to sleep wearing many layers of clothing. (63) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The seventy-three-year old always hears family members calling him or her senile. (64) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Eight-year-old is caught masturbating on the playground. (65) | ❍ | ❍ | ❍ | ❍ | ❍ |

| | | | | | |
|---|---|---|---|---|---|
| The sixteen-year-old pushes seventy-five-year-old grandparent out of the way in the hallway. (66) | ❍ | ❍ | ❍ | ❍ | ❍ |
| Student talks of being severely disciplined at home. (67) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The parent encourages fifteen-year-old to flirt with police officer. (68) | ❍ | ❍ | ❍ | ❍ | ❍ |
| The adult-child slaps the eighty-year-old parent for being argumentative about money. (69) | ❍ | ❍ | ❍ | ❍ | ❍ |

PART 4

How many psychology courses have you taken including any you are currently in?

- ❍ 0 (11)
- ❍ 1 (1)
- ❍ 2 (2)
- ❍ 3 (3)
- ❍ 4 (4)
- ❍ 5 (5)
- ❍ 6 (6)
- ❍ 7 (7)
- ❍ 8 (8)
- ❍ 9 (9)
- ❍ 10 or more (10)

Please select the number of courses you have taken or are currently taking that have taught you about suicidal or violent behavior?

- ❍ 0 (1)
- ❍ 1 (2)
- ❍ 2 (3)
- ❍ 3 (4)
- ❍ 4 (5)
- ❍ 5 or more (6)

Please select the number of courses you have taken  that have taught you about child abuse or neglect?

- ❍ 0 (1)
- ❍ 1 (2)
- ❍ 2 (3)
- ❍ 3 (4)
- ❍ 4 (5)
- ❍ 5 or more (6)

Please select the number of courses you have taken or are taking that have taught you about elder abuse?

- ❍ 0 (1)
- ❍ 1 (2)
- ❍ 2 (3)
- ❍ 3 (4)
- ❍ 4 (5)
- ❍ 5 or more (6)

Please select the number of courses you have taken that have taught you about parenting?

- ❍ 0 (1)
- ❍ 1 (2)
- ❍ 2 (3)
- ❍ 3 (4)
- ❍ 4 (5)
- ❍ 5 or more (6)

Please indicate whether you have learned valuable information about the warning signs of violence, suicide, child maltreatment, or destructive parenting from each of the following sources by clicking on a score of:

0, if you only learned wrong information from the source;

1, if you learned nothing or only a little information from the source;

2, if you feel you have learned some valuable information from a source;

3, if you feel you have learned a great deal of valuable information from a source.

| | Wrong (0) (0) | Nothing/little (1) (1) | Something (2) (2) | Great deal (3) (3) |
|---|---|---|---|---|
| Academic Coursework (1) | ❍ | ❍ | ❍ | ❍ |
| Personal Exposure to dangerous neighborhood or dangerous country-wide environments (2) | ❍ | ❍ | ❍ | ❍ |
| News Programs, Newspapers, News Magazines, or Educational Magazines. (3) | ❍ | ❍ | ❍ | ❍ |
| Educational Television or Movie Viewing (4) | ❍ | ❍ | ❍ | ❍ |
| Personal Exposure to dangerous home environments (5) | ❍ | ❍ | ❍ | ❍ |
| Recreational Television or Movie Viewing (6) | ❍ | ❍ | ❍ | ❍ |
| Information from Parents or Family members (7) | ❍ | ❍ | ❍ | ❍ |
| Personal Reading (8) | ❍ | ❍ | ❍ | ❍ |

THANK YOU SO MUCH FOR TAKING TIME TO COMPLETE THIS SURVEY

Why was this research project developed?

Psychologists have a commitment to try and understand people and to use whatever knowledge they learn to promote human welfare. Psychological research has found that violence is a serious problem

affecting youth. There are usually observable signs that individuals are at risk for engaging in destructive behavior. While not all violence can be prevented, research suggests that much of it can be. Unfortunately, many of these troubled people never come into contact with a psychologist or other professional who would know how to help them. Therefore, it is important that many people learn to recognize the warning signs that a person is in serious trouble. You are helping your professors understand if the psychology classes you are taking can help you recognize the warning signs of suicide, violence, child abuse, and child neglect.

The project has several stages. At the beginning of the term, your professors are assessing how much you already know about these issues. At the end of the term, your professors will assess how much you have learned. When you complete this survey again at the end of the term, more information will be made available to you, if you want to learn more about how to prevent violence. If you see a warning sign that someone might be in serious trouble, do not hesitate to talk to your professor, or some other more experienced person to determine if something should be done to help this person. Sometimes you may be wrong and the person is fine. Other times you may have taken a step to help a person in need. While sometimes the problems of the world can seem too large for any one person to help, if each one of us takes one step towards making the world a better place, we can make it happen. Near the end of this semester, you will be asked to complete the survey again.

Thank you again for all of your help with this project.

Sincerely yours, Pearl S. Berman, Ph.D. Project Director

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APPENDIX D

FOLLOW-UP SURVEY FOR WCPV PARTICIPANTS

Thank you very much for your participation in the We Can Prevent Violence group and for agreeing to participate in this follow-up survey. You contributed to an important dialogue about various violence topics. This survey is intended to explore your experience in this group. You will be asked questions about several violence topics as well as your reactions to participating in the group. Please take your time and answer each question fully and honestly.

1. Please list as many signs of physical abuse as you can.

_____
_____
_____
_____
_____
_____
_____
_____

2. Please list as many signs of sexual abuse as you can.

_____
_____
_____
_____
_____
_____
_____
_____

3. Please list as many signs of emotional abuse as you can.

_____
_____
_____
_____
_____
_____
_____
_____

4. Please list as many signs of neglect as you can.

_____
_____

_____
_____
_____
_____
_____
_____

5. Please list as many signs of suicide as you can.

_____
_____
_____
_____
_____
_____
_____
_____

Overall, how confident did you feel in identifying these warning signs?

1 2 3 4 5 6 7 8 9 10

Not at all Very confident

How important is it to learn these warning signs?

1 2 3 4 5 6 7 8 9 10

Not at all Very important

If you recognized any of these signs in someone, how likely would you be to do something?

1 2 3 4 5 6 7 8 9 10

Not likely Very likely

What would you do?

_____
_____
_____
_____

Thank you for sharing your thoughts on these violence topics. Now you will be asked to answer several questions about your experience in the group. Please take your time to answer these thoughtfully.

**Please circle yes or no for the following questions.**

**During the FALL SEMESTER OF 2012 when you participated in the We Can Prevent Violence Facebook group, did you ever**:

Sign a petition? YES NO

If so, how many times? _____

Attend any events related to violence, gender, or discrimination? YES NO

If so, how many times? _____

Talk to your friends or family about warning signs of violence? YES NO

If so, how many times? _____

Talk to you friends or family about violence-related current events? YES NO

If so, how many times? _____

**In the PAST YEAR, AFTER you completed your participation in the group, did you ever**:

Sign a petition? YES NO

If so, how many times? _____

Attend any events related to violence, gender, or discrimination? YES NO

If so, how many times? _____

Talk to your friends or family about warning signs of violence? YES NO

If so, how many times? _____

Talk to you friends or family about violence-related current events? YES NO

If so, how many times? _____

Did the group affect you emotionally? YES NO

If so, please list emotions you felt while participating: _____

_____

_____

_____

Did you learn anything from the group that is helping you now? YES NO

If so, what? _____

_____

_____

_____

_____

_____

Please rate your level of interest in violence topics **before participating in the group**:

1 2 3 4 5 6 7 8 9 10

Very low very high

Please rate your level of interest in violence topics **now**:

1 2 3 4 5 6 7 8 9 10

Very low very high

Please list positive experiences, if any, that you had while participating in the group.

_____
_____
_____
_____
_____

Please list negative experiences, if any, that you had while participating in the group.

_____
_____
_____
_____
_____

Would you recommend this program continue to be used in psychology courses? YES NO

Please describe any changes you would make to the group:

_____
_____
_____
_____
_____
_____
_____

Thank you very much for your participation in this interview. This information will help us better assess the application of the We Can Prevent Violence Group.

APPENDIX E

SURVEY ABOUT VIOLENCE

Thank you very much for agreeing to participate in this survey about violence. This survey is intended to examine your knowledge of the warning signs of violence and your participation in activism. Please take your time and answer each question fully and honestly.

1. Please list as many signs of physical abuse as you can.

2. Please list as many signs of sexual abuse as you can.

3. Please list as many signs of emotional abuse as you can.

4. Please list as many signs of neglect as you can.

_____
_____
_____
_____

5. Please list as many signs of suicide as you can.

_____
_____
_____
_____
_____
_____
_____
_____

Overall, how confident did you feel in identifying these warning signs?

1 2 3 4 5 6 7 8 9 10

Not at all Very confident

How important is it to learn these warning signs?

1 2 3 4 5 6 7 8 9 10

Not at all Very important

If you recognized any of these signs in someone, how likely would you be to do something?

1 2 3 4 5 6 7 8 9 10

Not likely Very likely

What would you do?

_____
_____
_____
_____

Thank you for sharing your thoughts on these violence topics. Now you will be asked to answer several questions about activism. Please take your time to answer these thoughtfully.

**Please circle yes or no for the following questions.**

**During the FALL SEMESTER OF 2012, did you ever**:

Sign a petition? YES NO

If so, how many times? _____

Attend any events related to violence, gender, or discrimination? YES NO

If so, how many times? _____

Talk to your friends or family about warning signs of violence? YES NO

If so, how many times? _____

Talk to you friends or family about violence-related current events? YES NO

If so, how many times? _____

**In the PAST YEAR, AFTER you completed your fall semester, did you ever**:

Sign a petition? YES NO

If so, how many times? _____

Attend any events related to violence, gender, or discrimination? YES NO

If so, how many times? _____

Talk to your friends or family about warning signs of violence? YES NO

If so, how many times? _____

Talk to you friends or family about violence-related current events? YES NO

If so, how many times? _____

Please rate your level of interest in violence topics **before taking your first psychology course**:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Very low | | | | | | | | | very high |

Please rate your level of interest in violence topics **now**:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Very low | | | | | | | | | very high |

Thank you very much for your participation in this interview. This information will help us better assess the application of the We Can Prevent Violence Group.