

ABSTRACT

Title of Dissertation:

APPEALING TO MASCULINITY OR
EMPATHY?: EDUCATING MEN TO
RECOGNIZE WARNING SIGNS OF
DATING VIOLENCE

Monica Sherri Kearney, Doctoral Candidate,
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Dissertation directed by:

Karen M. O'Brien, Ph.D., Department of
Psychology

Dating violence continues to be a social concern for young adults (Barrick, Krebs, & Lindquist, 2013). Dating violence occurs often on college campuses, with between 16% and 50% of college women reporting experiences of dating violence prior to graduation (Knowledge Networks, 2011; Murray & Kardatzke, 2007). However, over half of college students reported that it is difficult to identify warning signs of dating violence (Knowledge Networks, 2011). Moreover, one study determined that undergraduate, heterosexual men have more difficulty recognizing warning signs of dating violence than undergraduate heterosexual women (Kearney & O'Brien, 2016). Thus, the purpose of this study was to assess multiple strategies to increase recognition of warning signs of dating violence and engagement in an online dating violence intervention with a sample of heterosexual college men. Participants were assigned randomly to one of four conditions: (1) the appeal to masculinity condition,

(2) the appeal to empathy condition, (3) the combined appeal to masculinity and empathy condition, or (4) the control condition. Participants were instructed to watch the first component of STOP Dating Violence (O'Brien et al., 2016), a short online video intervention developed to educate college students about dating violence. Participants in the control condition received the standard intervention, while participants in the experimental conditions viewed a brief (one minute) introduction before beginning the intervention. Results indicated that all participants demonstrated an increase in ability to recognize warning signs of dating violence after participating in the intervention. Moreover, there was an interaction of time and condition for three dimensions of dating violence warning signs. However, condition did not have an effect on engagement with the intervention material. The results and future directions for research are discussed.

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by

Monica Sherri Kearney

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Advisory Committee:

Professor Karen M. O'Brien, Ph.D., Chair
Rashanta Bledman, Ph.D.
Mary Ann Hoffman, Ph.D.
Ed Lemay, Ph.D.
Mia Smith-Bynum, Ph.D., Dean's Representative

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Dedication

This dissertation is dedicated to all the women in my life who have supported me, believed in me, and encouraged me throughout my graduate studies. To my grandmother, mother, sister, friends, and fierce female mentors at the University of Maryland, College Park – I would not have made it this far without you.

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Table of Contents

| | |
|------------------------------|-----|
| Dedication..... | ii |
| Acknowledgements..... | iii |
| Table of Contents..... | v |
| List of Tables..... | vi |
| List of Figures..... | vii |
| Chapter 1: Introduction..... | 1 |
| Chapter 2: Method..... | 12 |
| Chapter 3: Results..... | 31 |
| Chapter 4: Discussion..... | 45 |
| Appendices..... | 65 |
| References..... | 138 |

List of Tables

Table 1: Demographics of Sample for Study 1

Table 2: Demographics of Sample for Follow Up Study

Table 3: Correlations for Study 1

Table 4: Univariate Tests of Time and Time*Condition for Relationship Red Flags Domains for Study 1

Table 5: Pairwise Comparisons for Relationship Red Flags Domains for Study 1

Table 6: Univariate Tests of the Simple Effect of Condition within Time for Demeaning Behaviors

Table 7: Pairwise Comparisons for Demeaning Behaviors for All Conditions

Table 8: Univariate Tests for the Simple Effect of Condition within Time for Threatening & Aggressive Behaviors

Table 9: Pairwise Comparisons for Threatening & Aggressive Behaviors for All Conditions

Table 10: Multivariate Test for the Simple Effect of Time within Condition for Threatening & Aggressive Behaviors

Table 11: Pairwise Comparisons for Threatening & Aggressive Behaviors at Pre-test and Post-test for All Conditions

Table 12: Analysis of Variance for Engagement with Intervention

Table 13: Univariate Tests of Time and Time*Condition for Relationship Red Flags Domains at Follow-up

Table 14: Pairwise Comparisons of Time for Relationship Red Flags Scale Domains at Follow-up

List of Figures

Figure 1: Protection Motivation Theory Applied to Dating Violence

Figure 2: Participant Retention for Study 1

Figure 3: Participant Retention for Follow-up Study

Figure 4: Graph of Interaction Between Time and Condition for Demeaning Behaviors

Figure 5: Graph of Interaction Between Time and Condition for Threatening and Aggressive Behaviors

Chapter 1: Introduction

Appealing to Masculinity or Empathy?:

Educating Men to Recognize Warning Signs of Dating Violence

Dating violence, i.e., the threat or use of physical force, verbal denigration, coercion into sexual activities, and social isolation within a dating relationship, continues to be a social concern for young adults (Barrick, Krebs, & Lindquist, 2013). Dating violence occurs often on college campuses, with between 16% and 50% of college women reporting experiences of dating violence prior to graduation (Knowledge Networks, 2011; Murray & Kardatzke, 2007). Moreover, between 20% and 30% of college-age men experience physical aggression while 70% to 90% of college-age men experience psychological aggression by an intimate partner each year (Shorey, Cornelius, & Bell, 2008). Victims of dating violence often report detrimental effects on their mental health, physical health, and academic performance (Haynie et al., 2013; Sabina & Straus, 2008; Wolitzky-Taylor et al., 2008). Risk recognition, or the ability to detect personal danger, is a promising concept that may aid in the reduction of dating violence. When applied to dating violence, the ability to recognize warning signs of abuse may increase a person's ability to leave a potentially dangerous relationship. However, over half of college students reported that it is difficult to identify warning signs of dating violence (Knowledge Networks, 2011). Moreover, one study determined that undergraduate, heterosexual men have more difficulty recognizing warning signs of dating violence than undergraduate heterosexual women (Kearney & O'Brien, 2016). Thus, the purpose of this study was

to assess multiple strategies to increase recognition of warning signs of dating violence and engagement in an online dating violence intervention with a sample of heterosexual college men.

Risk Recognition

To date, risk recognition has been established as an important concept for sexual assault survivors (Marx & Soler-Baillo, 2005) and has been associated with an increase in preventative health behaviors (e.g., obtaining vaccinations and mammograms; Brewer et al., 2007; Orom, Kiviniemi, Shavers, Ross, & Underwood, 2013). In one study, 95 undergraduate women were sampled to explore differences in risk recognition among acknowledged sexual assault victims (i.e., people who identified unwanted sex encounters obtained by force, threat, or when they were unable to consent as assault or rape), unacknowledged sexual assault victims (i.e., people who choose not to name their unwanted sex encounters obtained by force, threat, or when they were unable to consent as assault or rape), and non-victims (Marx & Soler-Baillo, 2005). Sexual assault victims took longer to recognize risk in an audiotaped vignette than non-victims.

Relatedly, the concept of risk recognition has been explored in health psychology as a means to increase healthy behaviors. For example, a meta-analysis found that the ability to recognize personal risk for disease increased vaccination behaviors (Brewer et al., 2007). Additionally, another study found that higher perceived risk for developing breast cancer led to increased use of mammograms (Orom, et al., 2013).

However, this concept has not received the same attention in relation to dating violence despite that fact that dating violence occurs often and recognizing risk may enable young people to remove themselves from potentially violent relationships. Protection motivation theory (Maddux & Rogers, 1983) provides insight into how risk recognition can help young adults identify warning signs of dating violence and potentially leave unhealthy relationships. This theory states that a person's willingness to perform a behavior is related to the seriousness of risk conveyed when confronted with a risky situation. Threat perception mediates the relationship between contact with a risky event and willingness to perform a behavior (Singh, Orwat, & Grossman, 2011). When applied to dating violence, a person's ability to recognize warning signs of dating violence (i.e., threat perception) may mediate the relationship between experiencing a warning sign of dating violence (i.e., risky event) and willingness to leave the potentially abusive relationship (i.e., willingness to perform a behavior; see Figure 1). However, 57% of college students report that it is difficult to identify warning signs of dating violence (Knowledge Networks, 2011). This may be in part because some of the warning signs of dating violence (e.g., isolation) can be misconstrued as affection (e.g., he/she wants to spend a lot of time with me).

While generally college students have difficulty recognizing warning signs of dating violence, one study found that college men have more difficulty recognizing warning signs of dating violence than college women (Kearney & O'Brien, 2016). This may occur because aspects of masculine identity, such as maintaining power and control, also are the underlying mechanisms that drive violence within intimate relationships (Pence & Paymar, 1993). Men are more likely to be socialized to accept

violence and may even view violence as a way of being strong and fulfilling the gender role expectations placed on men. Moreover, it is not surprising that men have more difficulty recognizing warning signs of dating violence, as men, unlike women, are not socialized to believe they are at risk for serious danger within romantic relationships.

Educating men regarding warning signs of dating violence has the potential to be beneficial in a number of ways. First, with increased risk recognition abilities, young men may choose to leave potentially abusive dating relationships sooner. Moreover, having awareness about what behaviors are considered to be indicative of dating violence may reduce perpetration rates among young men. Finally, with increased risk recognition abilities regarding warning signs of dating violence, young men may become active bystanders and assist significant others to recognize warning signs of dating violence and end potentially volatile relationships.

Engagement

To educate men about warning signs of dating violence, their interest and desire to participate in violence prevention must be engaged. Engagement, i.e., the intensity of involvement and focus on an activity (Fredricks, Blumenfeld, & Paris, 2004), often is studied in relation to academic success. Research has supported that engagement is related positively to an increase in academic ability and critical thinking (Pike & Kuh, 2005). While there are few studies that specifically examine academic engagement in college men, the results of one study suggested that conformity to certain masculine norms (i.e., self-reliance, violence, and disdain for homosexuality) was associated with surface level approaches to learning (Marrs,

2016). Moreover, endorsement of masculine norms in general was associated with less intrinsically motivated goals for learning and effort regulation for academic tasks. However, endorsement of the masculine norm primacy of work was associated positively with deep approaches to learning (Marrs, 2016). Taken together, the results suggest that masculinity may be an important factor in understanding engagement in college men. Furthermore, the results indicated that while some aspects of masculinity are detrimental to engagement, there were some positive aspects of masculinity that influenced engagement positively.

It is salient to note that there is a dearth of quantitative research examining engagement among college men regarding gender-based violence prevention work. However, researchers have qualitatively examined which aspects of gender-based violence prevention programs increased the engagement of young men. For one prevention program aimed at reducing incidences of sexual assault, men reported feeling most engagement when they were brought in as allies rather than potential perpetrators and when they personally knew someone who had been sexually assaulted (Piccigallo, Lilley, & Miller, 2012). Moreover, the men appreciated having a space where they could engage with other men regarding gender-based violence (Piccigallo et al., 2012). Similarly, a qualitative study examining male engagement in a domestic abuse program determined that the factors that kept men most engaged included learning new skills and learning from other men (Chovanec, 2012).

Men, Masculinity, and Gender-Based Violence Prevention

Involving men in gender-based violence prevention such as an online intervention to reduce dating violence can be challenging and complex (Casey et al.,

2012). For example, gender-based violence prevention often is grounded in a feminist framework, theorizing that violence against women is driven by societal norms of gender equality and the acceptability of violence (Crooks, Goodall, Baker, & Hughes, 2006). Many men may be leery of the feminist framework, believing that the focus of the feminist framework inherently places the blame for such violence on men rather than engaging men as allies (Casey, 2010). Thus, several in-person intervention programs to reduce violence have developed strategies to increase participation and retention of male participants. For example, to move past the initial defensiveness that may be present among men participating in gender-based violence prevention programs, these ally-driven programs have taken a strengths-based approach (Berkowitz, 2004), encouraging men to connect with the positive and healthy aspects of masculinity (e.g., www.mencanstoprape.org; Casey et al., 2012).

Positive Masculinity

Traditionally, research focused on men and masculinity has examined how strict conformity to traditional Western ideologies of masculinity limits male behavior, psychological development, and results in gender role strain, stress, and conflict (Levant, 1996; McDermott, Naylor, McKelvey & Kantra, 2016; O'Neil, Good, & Holmes, 1995; Pleck, 1995). Moreover, there is an understanding of the ways in which rigid gender roles impact both men and women and contribute to patriarchal sexism and gender-based violence (Englar-Carlson & Kiselica, 2013). However, there has been a recent movement to reduce the focus on negative aspects of masculinity and begin focusing on positive components of masculinity that can

potentially improve the lives of men (Isacco, Talovic, Chromik, & Yallum, 2012; Kiselica, 2011).

Positive masculinity refers to qualities of traditional masculinity that are positive and strength-based, and focuses on the adaptive character strengths, emotions, and virtues of men that promote well-being and resiliency in themselves and others (Isacco et al., 2012). Positive aspects of masculinity may include the drive to take risks as well as the pursuit of status (Hammer & Good, 2010). Endorsing a positive masculinity framework moves away from focusing on the detrimental effects of masculinity and encourages men to use positive aspects of masculinity to improve themselves and society (Englar-Carlson & Kiselica, 2013). It is characterized by the instillation of hope and expectation that men will make positive contributions to their communities (Englar-Carlson & Kiselica, 2013). Little research has been conducted to examine the effects of positive masculinity on well-being. However, one study found that the endorsement of some traditional masculine norms (i.e., risk taking, dominance, primacy of work, and pursuit of status) were associated with personal courage, autonomy, endurance, and resilience (Hammer & Good, 2010).

Incorporating a positive masculinity approach to an online dating violence intervention for undergraduate men may increase their engagement with the intervention material while enabling them to be open to learning about dating violence warning signs. Several in-person interventions have had success using a strengths-based approach to encourage men to remain active in combating gender-based violence (Casey et al., 2012; Crooks et al., 2016; Piccigallo et al., 2012). Moreover, certain aspects of masculine norms, such as risk taking and dominance,

have been associated positively with positive psychological constructs. Therefore, encouraging men to use certain aspects of masculinity (e.g., risk taking, drive to protect and provide) in a positive way may lead to an increase in relevance of the material (i.e., engagement) as well as motivation to learn warning signs of dating violence.

Appealing to Empathy

Another challenge in encouraging men to participate in gender-based violence prevention is making the material feel important and relevant to the target audience. Men may not fully engage with the prevention material, believing that dating violence is a “women’s issue” and has little direct relevance to men (Crooks, Goodall, Hughes, Jaffe, & Baker, 2007), despite the fact that college men and women have similar dating violence victimization rates (Shorey, Febres, Brasfield, & Stuart, 2012). However, research has demonstrated a connection between empathy and prosocial helping behaviors (Eisenberg & Fabes, 1990; Telle & Pfister, 2016) as well as defending victims of bullying (Caravita, Di Blasio, & Salmivalli, 2009; Gini, Albiero, Benelli & Altoé, 2008). Thus, appealing to the empathy of the intervention participants may be another effective avenue to increase the ability to recognize warning signs of dating violence and enhance engagement in the intervention material.

Some research has been conducted to explore the role of empathy in bystander intervention. One study examined which factors encouraged someone to be an active bystander and demonstrated a relationship between empathy and assertive bystander intentions. Specifically, increased empathy toward a specific cultural group was

associated with greater intentions to intervene should a member of that group be attacked or ridiculed (Abbott & Cameron, 2014). Similarly, both affective and cognitive empathy positively influenced the provision of support to victims of offline bullying (Machackova & Pfetsch, 2016).

The role of empathy has been explored to a lesser extent regarding men and gender-based violence prevention. One study explored the impact of a sexual assault intervention that included building empathy for victims through education about the psychological and emotional impact of sexual assault (Stewart, 2014). Results indicated that men who participated in the intervention demonstrated a decrease in hostile and benevolent sexism, and rape myth acceptance. Moreover, the male participants showed an increase from baseline to posttest in willingness to engage in collective action to end sexual assault, an increase in bystander efficacy, and more engagement in feminist activism (Stewart, 2014).

Given the connection between empathy and willingness to intervene on behalf of victims of bullying and sexual assault, empathy also may influence engagement with gender-based violence prevention material. Taking the time to have the intervention participants build empathy for victims of dating violence through their own personal experiences of being put down or disrespected may make the intervention material more relevant for the men and encourage the male participants to fully engage with the material. Moreover, this also may influence the participants' motivation to learn and internalize the intervention material, resulting in an increase in ability to recognize warning signs from baseline to post intervention.

To summarize, there are data to suggest that appealing to positive aspects of masculinity and appealing to empathy may enhance college men's engagement in an online dating violence intervention. Masculinity can be used in a positive manner to increase academic engagement (Marrs, 2016) and possibly engagement with online intervention material. Moreover, qualitative studies suggest that men feel most engaged in gender-based preventions when they are viewed as allies and have empathy for those impacted by gender-based violence. Therefore, appealing to masculinity or empathy may result in increased engagement in learning warning signs of dating violence.

Current Study

Thus, the purpose of this study was to assess multiple methods to increase recognition of warning signs of dating violence and engagement in an online dating violence intervention with a sample of heterosexual college men. Specifically, this study aimed to explore the degree to which three introductions to an online intervention (i.e., appeal to masculinity, appeal to empathy, and appeal to masculinity and empathy) increased the ability to recognize warning signs of dating violence and engagement in the online intervention when compared to a control condition (viewing the intervention without a specialized introduction). For more detailed information regarding the prior research in this area, please refer to the literature review in Appendix A.

It was hypothesized that all participants regardless of randomly assigned condition would demonstrate an increase in ability to recognize warning signs of dating violence within the following domains after participating in the online

intervention: Monitoring Behaviors, Controlling Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors.

However, participants in the appeal to masculinity group, appeal to empathy group, and the combined appeal to masculinity and empathy group were expected to show more ability to recognize warning signs of dating violence in all of the warning sign domains when compared to participants in the control condition after participating in the online intervention. Regarding engagement, it was hypothesized that participants in the appeal to masculinity condition, appeal to empathy condition, and the combined appeal to masculinity and empathy condition would demonstrate more engagement in the online intervention when compared to participants in the control condition. Due to lack of empirical support, no hypotheses were made regarding which condition (i.e., appeal to masculinity or appeal to empathy) would result in the largest increase in ability to recognize warning signs of dating violence or engagement in the online dating violence intervention.

Additionally, it was hypothesized that participants would retain knowledge from the intervention, and thus there would be no change in the scores on the five domains when assessed for ability to recognize warning signs of dating violence two weeks following the intervention, regardless of condition.

Chapter 2: Method

Procedure

An *a priori* statistical power analysis, using the G*POWER v3 software (Faul, Erdfelder, Lang, & Buchner, 2007), was used to calculate the total number of participants needed for a repeated measures MANOVA with 4 levels and .5 correlation among the measures to achieve statistical power of .95, a medium effect size ($f = .25$), with an overall $\alpha = 0.05$. The results suggested a sample size of 212 participants. Thus, the target total sample size was 280 men, with 70 men in each condition for this study.

Several recruitment methods were used. First, participants were recruited from Introductory Psychology courses and were offered course credit or extra credit for completing the online survey. The online survey was posted on an online database for research studies being conducted at the university, where a pool of interested participants could easily access the survey. At the end of the survey, participants were prompted to click on a link that took them to another survey where they were asked to provide their name and identification number to receive course or extra credit. No identifiable information was collected on the main survey. Participants also were recruited using fliers, emails, personal contacts, and invitations presented in undergraduate courses and to student groups on campus. The researcher or research assistants provided a link to the online survey. Finally, two list-servs with 5,000 randomly sampled undergraduate men from a large Mid-Atlantic University were requested from the Office of the Registrar. Participants received a recruitment email,

with three reminders to participate in the research. Participants were asked to complete the study independently.

All individuals ($n=1,200$) who accessed the link to the survey were asked to answer inclusion criteria questions regarding undergraduate status, relationship status, and sexual orientation. Participants who did not meet the inclusion requirements ($n=280$) received a message informing them that they did not meet the criteria to participate. Participants who were heterosexual, unmarried, male, cisgender, and undergraduate students were provided with an informed consent form ($n=920$). Participants must have identified as heterosexual as the measure assessing ability to recognize warning signs of dating violence did not assess warning signs unique to dating violence in lesbian, gay, and bisexual relationships (e.g., threatening to out one's dating partner). Participants also must have been unmarried, as this study focused on dating violence, which may manifest differently than domestic violence (e.g., economic abuse may be less relevant for dating relationships in comparison to married relationships).

A number of participants ($n=347$) were removed from data analyses for accessing the survey, meeting the inclusion criteria, but not answering any items on the survey. The remaining participants ($n=573$) were randomly assigned to one of four conditions: appeal to masculinity ($n=146$), appeal to empathy ($n=142$), combined appeal to masculinity and empathy ($n=146$), and the control condition ($n=138$). Participants were removed from data analyses ($n=25$) for answering items designed to assess for inattention. Additionally, duplicate cases as indicated by ID number were removed from subsequent analyses ($n=9$). There were participants who

were missing more than 15% of the items ($n= 215$), and thus were removed from analyses (Enders, 2003). Therefore, 324 participants remained in subsequent analyses and minor amounts of missing data were replaced using the Expectation-Maximization (EM) imputation method.

After being randomly assigned to a condition, participants were asked to create a unique ID from the last four digits of their student ID number and their year of birth. Participants were asked to complete a series of questions regarding their prior education and training about dating and domestic violence. Participants who scored above a 3 on all five subscales of the Relationship Red Flags scale (Kearney & O'Brien, 2016) were removed from subsequent data analyses ($n= 28$), as the intervention was designed to create an increase in abilities to recognize warning signs of dating violence and participants who scored above a 3 on all five subscales at the pretest had little room to improve after the intervention. The final sample ($N= 296$) consisted of: (1) the appeal to masculinity condition ($n= 70$), (2) the appeal to empathy condition ($n= 67$), (3) the combined appeal to masculinity and appeal to empathy condition ($n= 73$) or (4) the control condition ($n= 86$; see Figure 2). All participants regardless of condition completed the Relationship Red Flags scale (Kearney & O'Brien, 2016) to obtain a pre-intervention score of abilities to recognize warning signs of dating violence.

After completing the Relationship Red Flags scale (Kearney & O'Brien, 2016), participants were instructed to watch the first component of STOP Dating Violence (O'Brien et al., 2016), a short online video intervention developed to reduce dating violence on college campuses (<https://youtu.be/gP5Bfgutm2g>; see Appendix B

for the script). Participants in the control condition received the standard intervention, while participants in the experimental conditions were exposed to a brief (one minute) introduction before beginning the intervention.

Participants in the appeal to masculinity condition heard the following introduction based on Englar-Carlson and Kiselica's (2013) positive masculinity approach, appealing to the drive to take risks, group orientation, and the worker-provider tradition:

“As a man, you may be called on to protect those who are being harmed in a number of situations, including intervening to prevent dating violence. Dating violence affects many college students, and young men like you have the power to make a difference. Young men can take action to create change within our university community. Men are important allies in the fight to end dating violence and are an important part of the solution. College men can step up in dangerous situations to stop dating violence. It may feel like a risk to intervene, but with the right tools, it can be a risk many men are willing to take. Thus, the purpose of this presentation is to educate college men about dating violence so you will have the tools to help those who may be harmed by dating violence. The following video will teach you about the different types of dating violence and the warning signs of dating violence in romantic relationships.”

Participants in the appeal to empathy condition heard the following introduction:

“Put yourself in the shoes of a victim of dating violence. Can you imagine what it must be like for someone to be harmed by a romantic partner? Maybe you have been in a similar situation where you were being bullied, put down, disrespected, or treated unfairly by another person? Can you remember what you were experiencing at that time? Maybe you felt wronged, powerless, confused, or angry? Perhaps you even felt threatened, embarrassed or ashamed? Many victims of dating violence experience similar feelings. They often are called cruel names, made to feel worthless and defenseless, and may even question whether or not to call their experience dating violence. It is important for college students to be educated about dating violence so they can have a better understanding of what victims experience. The following video will teach you about the different types of dating violence and the warning signs of dating violence in romantic relationships.”

Participants in the combined appeal to masculinity and empathy condition heard the following introduction:

“Put yourself in the shoes of a victim of dating violence. Can you imagine what it must be like for someone to be harmed by a romantic partner? Maybe you have been in a similar situation where you were being bullied, put down, disrespected, or treated unfairly by another person? Can you remember what you were experiencing at that time? Maybe you felt wronged, powerless, confused, or angry? Perhaps you even felt threatened, embarrassed or ashamed? Many victims of dating violence experience similar feelings. They often are called cruel names, made to feel worthless and defenseless. As a

man, you may be called on to protect victims of dating violence. Men are important allies in the fight to end dating violence and are an important part of the solution. College men can step up in dangerous situations to stop dating violence. It may feel like a risk to intervene, but with the right tools, it can be a risk many men are willing to take. Thus, the purpose of this presentation is to educate college men about dating violence so you will have the tools to help those who may be harmed by dating violence. The following video will teach you about the different types of dating violence and the warning signs of dating violence in romantic relationships.”

After watching the video intervention, participants were asked to return to the survey and complete a series of post-intervention measures. Participants were presented with the Relationship Red Flags Scale (Kearney & O’Brien, 2016) and a modified version of the task value subscale of the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1993) in a counterbalanced manner to reduce order effects. Additionally, to better understand the composition of the sample, participants were asked to complete the Conformity to Masculine Norms Inventory- 46 (Parent & Moradi, 2009), the Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1980), and the Protective Paternalism subscale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996).

All participants received the demographics questionnaire last. The number of participants who completed the measures in each condition follows: (1) the appeal to masculinity condition ($n = 70$), (2) the appeal to empathy condition ($n = 67$), (3) the combined appeal to masculinity and appeal to empathy condition ($n = 73$), or (4) the

control condition ($n = 86$). Upon completion of the measures, participants were given the researchers' contact information should they have had any questions or concerns. Moreover, participants were asked to click a link that took them to a separate survey to enter their first and last name to receive one course or extra credit point for their participation. Participants who did not complete the survey for course or extra credit points were given the opportunity to enter a raffle for a chance to win one out of 10 \$50 cash prizes.

Participants received an automatically generated email two weeks after they completed the first part of the study asking them to complete a series of follow-up measures. Participants ($n= 131$) accessed the follow-up survey through a link provided in the email and were asked to enter their unique ID number and complete the Relationship Red Flags Scale (Kearney & O'Brien, 2016) and the demographics questionnaire. Participants ($n= 15$) were removed from data analyses if they accessed the survey but did not answer any survey questions. The remaining participants ($n= 116$) were split into the following conditions: appeal to masculinity ($n= 33$), appeal to empathy ($n= 25$), combined appeal to masculinity and empathy ($n= 26$), and the control condition ($n= 32$). Furthermore, participants ($n= 21$) were removed from data analyses due having more than 15% missing data (Enders, 2003), or if they answered the validity check items incorrectly ($n= 2$). Additionally, participants ($n= 14$) were removed from data analyses due to having their data removed from the first study. Finally, several participants ($n= 17$) completed the follow-up measures twice and were eliminated from data analyses. Thus, the final sample for the follow-up study consisted of 62 undergraduate, heterosexual, cisgender men. Participants in the

follow-up study were distributed relatively equally across conditions: appeal to masculinity ($n= 14$), appeal to empathy ($n=15$), appeal to masculinity and empathy ($n=13$), and control ($n= 19$; see Figure 3).

Participants (Study 1)

The average age of the men in the sample ($N= 296$) was 20 years old ($SD= 2.33$). Regarding race/ethnicity, the majority of the sample (58%) identified as White, 20% as Asian/Asian American, 9% as Black/African American, 6% as Biracial/Multiracial, 5% as Hispanic/Latino, .7% as American Indian/ Alaskan Native, and 1.3% as other. Moreover, 47% of the sample identified their United States generational status as 4th generation, 30% as 2nd generation, 12% as 3rd generation, 7% as 1.5 generation, and 4% as 1st generation. The sample consisted of 34% first year students, 20% sophomores, 25% juniors, and 21% seniors. Additionally, the majority of the men (64%) identified as single, 29% were in a committed relationship, 6% were dating but not committed, and 2% were engaged. Twelve percent of the sample were affiliated with a fraternity. Much of the sample (77%) reported having no relationship violence in their childhood homes growing up, while 15% reported having some, 6% having quite a bit, and 2% having an extreme amount. Finally, 10% of the men in the sample reported having been a victim of dating violence, while 4% reported having been a perpetrator of dating violence (see Table 1).

Participants (Follow-Up Study)

The average age of men in the sample ($N = 62$) was 20 years old ($SD=1.31$). Regarding race/ethnicity, the majority of the sample (63%) identified as White, while

19% identified as Asian/Asian American, 8% as Black/African American, 5% as Hispanic/Latino, and 5% as Biracial or Multiracial. Moreover, the majority of the sample (57%) were 4th generation in the United States, while 24% were 2nd generation, 8% 1.5 generation, 8% were 3rd generation, and 3% were 1st generation. Thirty-four percent of the men were first-year students, 19% were sophomores, 31% were juniors, and 16% were seniors. Sixty-six percent of the sample indicated that they were single, 32% were in a committed relationship, and 2% indicated that they were dating but not committed. Eight percent of the men were affiliated with a fraternity. The majority of the sample (84%) reported having no relationship violence in their home growing up, while 13% reported having some and 3% reported having quite a bit of relationship violence in the childhood homes. Finally, 9% of the sample reported being a victim of dating violence, while 7% of the men reported being a perpetrator of dating violence at some point in their lives (see Table 2).

Materials and Measures

Dating violence intervention. The online dating violence intervention, STOP Dating Violence (O'Brien et al., 2016), was created by an interdisciplinary team of two psychology professors and three psychology graduate students at a large Mid-Atlantic university. The intervention is empirically based, drawing from the theory of planned behavior (Ajzen, 1991), sexual assault bystander intervention research, and the dating violence literature. STOP Dating Violence consists of three Prezi presentation video components addressing dating violence and bystander intervention. The first Prezi video educates intervention participants on the definition of dating violence, the various forms of abusive behaviors, and behaviors that are

considered warning signs of dating violence (see Appendix B). The second Prezi video explains thoughts that may prevent someone from intervening in a dating violence situation. The final Prezi video provides four steps that participants can take to help a victim of dating violence. For the purposes of this study, participants were asked to watch the first 10-minute video component. For the three experimental conditions, the video will be modified to include a brief, one-minute introduction appealing to the positive aspects of masculinity (i.e., risk taking, worker-provider tradition, and group orientation) or appealing to the participants' empathy for dating violence victims or a combined masculinity and empathy introduction. Participants in the control condition were asked to view the video in its original format, with no special introduction.

The brief introduction scripts for the appeal to masculinity and appeal to empathy experimental conditions were drafted by the researchers and presented to a research team composed of five doctoral students, three undergraduate students, and one psychologist. The research team provided feedback on the introduction, and members independently developed new sentences, key words, and phrases that corresponded to masculine norms such as risk taking, the worker-provider tradition, and the male group orientation. The primary researcher used the feedback and independently developed phrases from the research team to enhance the one-minute introductions. The new introductions were presented to the research team once more. The research team was asked to read each condition and answer the following items on a scale ranging from 1 (*not at all*) to 4 (*completely*): 1) To what extent does the above paragraph encourage participants to be allies against dating violence?, 2) To

what extent does the above paragraph encourage participants to place themselves in the shoes of victims of dating violence?, 3) To what extent does the above paragraph encourage participants to take risks to stand up against dating?, and 4) To what extent does the above paragraph encourage participants to reflect in being hurt, disrespected, or put down but others? For the appeal to masculinity condition, the average rating for the masculinity items was 3.5 ($SD= .52$), while the average rating for the empathy items was 1 ($SD= 0$). For the appeal to empathy condition, the average rating for the masculinity items was 1.5 ($SD= .67$), while the average rating for the empathy items was 3.9 ($SD= .32$). Two paired sample t-tests were conducted to assess if the difference between the average scores on the masculinity items were different than the average scores on the empathy items for both conditions. Results indicated that for both conditions, the average scores on the masculinity and empathy items differed from one another (appeal to masculinity: $t(10)=11.78, p<.001$; appeal to empathy: $t(10)=7.92, p<.001$). Based on feedback from a research committee, a combined appeal to masculinity and empathy condition was created by merging the appeal to masculinity and appeal the empathy scripts together.

The three introduction scripts were sent via Qualtrics online survey software to three experts in the field of masculinity studies. The experts were asked to read each condition and answer the following items on a scale ranging from 1 (*not at all*) to 4 (*completely*): 1) To what extent does the above paragraph encourage participants to be allies against dating violence?, 2) To what extent does the above paragraph encourage participants to place themselves in the shoes of victims of dating violence?, 3) To what extent does the above paragraph encourage participants to take

risks to stand up against dating?, and 4) To what extent does the above paragraph encourage participants to reflect in being hurt, disrespected, or put down but others? Additionally, the experts were offered the opportunity to provide any feedback on the conditions to the researchers. For the appeal to masculinity condition, the average rating for the masculinity items was 3.1 ($SD= .46$), while the average rating for the empathy items was 1.2 ($SD= .43$). For the appeal to empathy condition the average rating for the masculinity items was 1.6 ($SD= .64$) while the average rating for the empathy items was 3.5 ($SD= .91$). For the combined condition, the average rating for the masculinity items was 2.9 ($SD= .62$) while the average rating for the empathy items was 3.0 ($SD= .55$). Three paired sample t-tests were conducted to assess if the difference between the average scores on the masculinity items were different than the average scores on the empathy items for both conditions. Results indicated that for the appeal to masculinity and the appeal to empathy conditions, the average scores on the masculinity and empathy items differed from one another (appeal to masculinity: $t(12)= 7.93, p<.001$; appeal to empathy: $t(12)= 4.52, p<.001$). However, as anticipated, for the combined condition, scores on the masculinity items did not differ from scores on the empathy items ($t(12)= .32, p=.755$). Based on the experts' ratings and comments, no further revisions were made to the introductions.

The final introduction scripts were sent to undergraduate men ($N= 10$) before data collection began for a manipulation check. The men identified as heterosexual, cisgender, and unmarried. The average age of the men who completed the manipulation check was 22 years old ($SD= .48$). The majority of the men (70%) identified as White, 10% as Asian/Asian American, 10% as Multiracial, and 10% as

other. Additionally, 60% of the men were in their senior year, 30% were in their junior year, and 10% were first year students. Moreover, 40% identified as 4th generation in the United States, while 20% identified their generational status as 3rd generation, 20% as 1.5, and 20% as 1st generation. Most of the men (70%) identified as single, while the remaining 30% were in committed relationships. The majority of the sample (80%) reported no relationship violence in their childhood homes, while 10% reported relationship violence and 10% reported an extreme amount of relationship violence in their childhood homes. Finally, 20% of the sample reported being victims of dating violence in the past, while 30% reported perpetrating dating violence in the past.

The men were randomly assigned to read either the appeal to masculinity script, the appeal to empathy script, or the script for the combined appeal to masculinity and empathy condition. After the men read the script, they were instructed to complete a series of 10 questions and 5 filler items designed to assess if the scripts were appealing to masculinity or appealing to empathy. Participants were asked to respond to each question using a five-point Likert-type scale ranging from 1 (*not at all*) to 5 (*a great amount*). Two sample items are as follows: “How able are you to name five things victims of dating violence might experience?” and “Men have the power to reduce dating violence” (see Appendix J). The mean for the appeal to masculinity script was 4.7 ($SD = .62$). The mean for the appeal to empathy script was 3.7 ($SD = 1.05$). The mean for combined appeal to masculinity and empathy script was 3.9 ($SD = 1.08$). Results indicated that each condition reflected its designated

topic (i.e., masculinity, empathy, or combined) “very much” or “a great amount.”

Based on the responses, no further revisions were made to the scripts.

Recognition of warning signs. The Relationship Red Flags scale (Kearney & O’Brien, 2016) is a 35-item measure developed to measure participants’ ability to recognize warning signs of dating violence (see Appendix C). Participants responded on a 4-point Likert-type scale ranging from 1 (*not at all a warning sign*) to 4 (*very much a warning sign*). The Relationship Red Flags measure consists of 6 domains comprised of 5 items each: Monitoring Behaviors (e.g., “Calls multiple times a day to see what dating partner is doing”), Controlling Behaviors (e.g., “Tells dating partner how to dress”), Demeaning Behaviors (e.g., “Makes negative comments about dating partner’s body”), Threatening and Aggressive Behaviors (e.g., “Can make dating partner afraid with looks”), and Jealous and Possessive Behaviors (e.g., “Accuses dating partner of flirting with other people”). The measure also consists of five Healthy Dating Behaviors (e.g., “Encourages dating partner to spend time with friends”) and 5 five Common Conflict Behaviors (e.g., Lacks interest in doing things together), developed by a research team of two psychologists and three graduate students, used as filler items to prevent participants from responding in the same direction for each item.

The measure is scored by removing the items on the Healthy Dating Behaviors domain and summing and averaging the items on each subscale to obtain a score for each domain. The measure has demonstrated adequate internal consistency reliability for a diverse sample of undergraduate, heterosexual men: Monitoring Behaviors $\alpha = .83$, Controlling Behaviors $\alpha = .79$, Demeaning Behaviors $\alpha = .75$,

Threatening and Aggressive Behaviors $\alpha = .63$, and Jealous and Possessive Behaviors $\alpha = .79$. Support for the construct validity of the measure was obtained from 15 experts in the field of violence against women (including professors, shelter staff members, advocates, and graduate students) who endorsed each of the items as a warning sign of dating violence. Support for divergent validity was obtained, as the Attitudes Towards Male Dating Violence scale, Attitudes Towards Female Dating Violence scale (Price & Byers, 1999) and the Relationship Red Flags scale were not correlated (Kearney & O'Brien, 2016). For this study, the measure demonstrated adequate internal consistency reliability for this sample of cisgender, heterosexual, unmarried, undergraduate men: Monitoring Behaviors $\alpha = .88$, Controlling Behaviors $\alpha = .83$, Demeaning Behaviors $\alpha = .82$, Threatening and Aggressive Behaviors $\alpha = .78$, Jealous and Possessive Behaviors $\alpha = .85$, and Common Conflict Behaviors $\alpha = .74$.

Engagement in intervention. Participants were asked to complete a modified version of the Task Value subscale of the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1993). The Task Value subscale consists of six items designed to assess perceptions of the course material they are learning in terms of interest, importance, and utility (see Appendix D). Participants responded to each item using a 7-point Likert-type scale ranging from 1 (*not at all true of me*) to 7 (*very true of me*). The items on the subscale were modified to reflect the online intervention rather than material from a course. An example item includes “I am very interested in the content area of this intervention.” The Task Value scale is scored by summing the items on the subscale and divided by the total

number of items. High scores of the scale indicate more engagement with the intervention material. In a study exploring student engagement and self-regulated learning strategies in a medical anatomy course, the Task Value subscale demonstrated adequate internal consistency reliability ($\alpha = .91$; Pizzimenti & Axelson, 2015). Additionally, one study provided support for convergent validity, as the Task Value subscale was correlated positively with a measure of self-efficacy. Moreover, students' task value appraisals regarding statistic courses increased after participation in a value reappraisal intervention (Acee & Weinstein, 2010). For this study, the scale demonstrated adequate internal consistency reliability ($\alpha = .92$) with this sample.

Education about dating and domestic violence. Participants answered 7 items regarding their previous experience with education about dating violence and domestic violence (see Appendix E). Participants responded on a 4-point Likert scale, ranging from 1 (*not at all*) to 4 (*very much*). A sample item includes: "To degree were you involved in any of the following" including course(s), course lecture(s), training experience(s), and education through family members who have experienced intimate partner violence. For this study, the scale demonstrated adequate internal consistency reliability ($\alpha = .82$).

Conformity to masculine norms. Additionally, participants completed the Conformity to Masculine Norms Inventory-46, developed by Parent and Moradi (2009) to measure men's conformity to masculine norms that are endorsed widely by American culture (see Appendix F). The CMNI-46 is short form of the original 94-item CMNI (Mahalik et al., 2003). Participants responded on a 4-point Likert scale

ranging from 0 (*strongly disagree*) to 3 (*strongly agree*). The CMNI-46 has nine subscales: Winning (e.g., “In general, I will do anything to win”), Emotional Control (e.g., “I never share my feelings”), Risk Taking (e.g., “I enjoy taking risks”), Violence (e.g., “Sometimes violent action is necessary”), Power Over Women (e.g., “Women should be subservient to men”), Playboy (e.g., “I would feel good if I had many sexual partners”), Self Reliance (e.g., “I hate asking for help”), Primacy of Work (e.g., “My work is the most important part of my life”), and Heterosexual Self Presentation (e.g., “I would be furious if someone thought I was gay”). High scores represent high levels of conformity to masculine norms. Parent and Moradi (2009) reported adequate reliability ($\alpha = .88$) and provided support for convergent validity as the subscale factors were correlated positively with the corresponding scales of the original CMNI. Additionally, one study found that the CMNI-46 was correlated positively with a measure assessing men’s endorsement of traditional masculine ideology (Levant, Rankin, Williams, Hasan, & Smalley, 2010). With this sample, all nine subscales demonstrated adequate reliability consistency, with ranging from $\alpha = .79$ to $\alpha = .90$.

Chronic empathy. Participants completed the 6-item Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1983) to assess baseline levels of empathic disposition (see Appendix G). Participants responded on a 5-point Likert type scale ranging from A (*does not describe me well*) to E (*describes me very well*). A sample item from the subscale is “I often have tender, concerned feelings for people less fortunate than me.” High scores on this measure indicate high levels of empathic disposition. The Empathic Concern subscale has demonstrated adequate

internal consistency reliability ($\alpha = .73$; Davis & Oathout, 1987). Moreover, Tsang and Stanford (2007) reported support for convergent validity and divergent validity, as empathic concern was correlated positively with a measure of benevolence and negative correlated with measure of avoidance and revenge. For this sample, the subscale demonstrated poor internal consistency reliability, with $\alpha = .55$. Upon further analyses, it was determined that one item demonstrated poor fit with the scale and was removed from analyses (“Sometimes I don't feel very sorry for other people when they are having problems”). The scale without the removed item demonstrated adequate internal consistency reliability, with $\alpha = .76$.

Benevolent sexism. Moreover, participants completed the Protective Paternalism subscale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996), designed to measure protective and exalting attitudes towards women (see Appendix H). The measure consists of four items to which participants respond on a 6-point Likert type scale ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). A sample item from the Protective Paternalism subscale is “Women should be cherished and protected by men.” The measure is scored by adding and averaging responses on the scale, with high scores indicating benevolent sexist beliefs. The Protective Paternalism subscale of the Ambivalent Sexism Inventory has demonstrated adequate internal consistency reliability ($\alpha = .73$) and support for convergent validity, as the scale was positively correlated with a measure of overall benevolent sexism as well as measures of intrinsic and extrinsic religiosity (Burn & Busso, 2005). For this sample, the subscale demonstrated slightly low internal consistency reliability, with $\alpha = .68$.

Demographics questionnaire. Participants provided information regarding their age, race, undergraduate year classification, major, current relationship status, Greek organization affiliation, and experiences with family violence (see Appendix I). In addition, several items were placed on the survey that asked participants to endorse a certain response to assess the degree to which the participants were attending to each question on the survey. Those who responded incorrectly were deleted from the analyses.

Chapter 3: Results

Descriptive Statistics

Descriptive statistics were calculated for all variables and subscales.

Generally, the men reported some conformity to masculine norms, with midrange to high scores on the Winning ($M= 9.3$, $SD= 3.5$, range 0-18), Emotional Control ($M= 8.3$, $SD= 3.8$, range 0-18), Risk Taking ($M= 6.8$, $SD= 2.9$, range 0-15), Violence ($M=10$, $SD= 3.8$, range 0-18), Self-Reliance ($M= 6.6$, $SD= 2.5$, range 0-15), Primacy of Work ($M= 5.7$, $SD= 2.3$, range 0-12) and Heterosexual Self Presentation ($M= 6.8$, $SD= 4.2$, range 0-18). The men scored in the low range on the Power Over Women ($M= 2.0$, $SD= 2.1$, range 0-12) and the Playboy ($M= 4.0$, $SD=2.7$, range 0-12) subscales. Moreover, the men in the sample reported holding some benevolent sexist beliefs ($M= 2.7$, $SD= 1.2$, range 0-5), “slightly agreeing” with items on the Protective Paternalism subscale. Additionally, the participants reported midrange scores on empathic concern toward others ($M= 13.3$, $SD= 3.5$, range 0-24).

At baseline, the participants reported low scores regarding education about dating and domestic violence ($M= 11.0$, $SD= 3.9$, range 7-28). Moreover, the sample rated the items on the Relationship Red Flags Scale on the Monitoring ($M= 2.6$, $SD= .6$, range 1-4), Controlling ($M= 2.6$, $SD= .6$, range 1-4), Demeaning ($M= 2.8$, $SD= .6$, range 1-4) and Jealous and Possessive ($M= 2.4$, $SD= .5$, range 1-4) subscales to be between “slightly a warning sign” and “quite a bit a warning sign.” However, the men rated the items on the Threatening and Aggressive ($M= 3.1$, $SD= .5$, range 1-4) subscale as “quite a bit a warning sign.” Additionally, participants were able to differentiate between warning signs and common conflict behaviors, as they rated

items on the Common Conflict Behaviors between “not at all a warning sign” and “slightly a warning sign” ($M= 1.9$, $SD= .7$, range 1-4).

Post intervention, the men rated the items on the Monitoring ($M= 3.1$, $SD= .7$, range 1-4), Controlling ($M=3.0$, $SD= .7$, range 1-4), Demeaning ($M= 3.3$, $SD= .6$, range 1-4), and Jealous and Possessive ($M= 3.0$, $SD= .7$, range 1-4) as “quite a bit a warning sign.” Once again, the men rated the items on the Threatening and Aggressive ($M= 3.6$, $SD= .5$, range 1-4) subscale as representing a warning sign of dating violence, on average rating these items between “quite a bit a warning sign” and “very much a warning sign” of dating violence, indicating that threatening and aggressive behaviors may continue to be the clearest indicators of potential dating violence. Additionally, the men continued to rate items on the Common Conflict behaviors domain between “not at all warning sign” and “slightly a warning sign” ($M= 1.6$, $SD= .5$, range 1-4). Moreover, after completing the intervention, the men reported mid-range scores regarding engagement with the intervention material ($M= 3.4$, $SD= .9$, range 1-7).

Comparisons of Interest

One MANOVA was calculated to assess if participants who reported a history of dating violence (i.e., victim, perpetrator or both) differed from participants who did not report a history of dating violence on abilities to recognize warning signs of dating violence at baseline. Interestingly, there were no differences in abilities to recognize warning signs of dating violence between past victim, past perpetrator, or men who have been both victims and perpetrators of dating violence.

An additional MANOVA was calculated to assess if participants with a history of relationship violence in their homes differed from participants with no relationship violence in their homes on abilities to recognize warning signs of dating violence at baseline. Results indicated that there were no differences in abilities to recognize warning signs of dating violence between participants with a history of relationship violence in their homes.

Correlations

Correlations were computed among scores on all measures (see Table 3). In general, the five domains of the Relationship Red Flags Scale (Kearney & O'Brien, 2016) were positively correlated with each other. These correlations ranged from moderate to large relationships. Overall, there were small, positive correlations among the subscales of the Conformity to Masculine Norms Inventory-46 (Parent & Moradi, 2009). In addition, small negative relationships were found among the Power Over Women and Violence subscales of the Conformity to Masculine Norms and the Relationship Red Flags subscales. Moreover, there was a small negative association between empathic concern and Conformity to Masculine Norms. Finally, a small positive correlation was found between education regarding dating violence and engagement with the intervention material.

Repeated Measures Multivariate Analysis of Variance (MANOVA)

First, assumptions for conducting a repeated measures MANOVA were assessed. Results indicated that most of the assumptions for a repeated measures MANOVA (i.e., time intervals evenly spaced, no missing data, no outliers, sphericity) were met. However, as anticipated, the data for post-intervention scores on ability to

recognize warning signs of dating violence did not meet the assumptions of a normal distribution. If participation in the STOP Dating Violence intervention was effective in teaching participants how to recognize warning signs of dating violence, it was expected that scores would be skewed to one side of the distribution, indicating that participants gained knowledge in how warning signs of dating violence may manifest in relationships. Based on this reasoning, no transformations were made to the data.

Additionally, results indicated that the assumption of homogeneity of covariances was violated, which is common with data that are not normally distributed. However, MANOVA tends to be robust against the violation of this assumption, given that the group sizes for each condition are equal (defined as a ratio of less than 1.5 between the largest and smallest group; Glass & Stanley, 1970). The ratio of the largest group (86 observations) and the smallest group (67 observations) was 1.28. Therefore, no correction was made for the homogeneity of covariances and the MANOVA was calculated. To account for deviations from assumptions, Pillai's Trace was used as the multivariate test statistics, as it is the most robust to assumption violations (Tabachnick & Fidell, 2007).

To test the first hypothesis (i.e., all participants, regardless of randomly assigned condition, would demonstrate improvements in ability to recognize warning signs of dating violence in all five domains of the Relationship Red Flags Scales after completing the online intervention) and the second hypothesis (i.e., participants in the appeal to masculinity, appeal to empathy, and combined appeal to masculinity and empathy conditions would demonstrate more ability to recognize warning signs of dating violence in all of the five domains when compared to participants in the

control condition after participating in the online intervention), one repeated measures MANOVA was calculated. For the analysis, time was entered into the equation as a within subjects factor. Condition was entered into the equation as the between subjects factor (using dummy coded variables that represented the presence or absence of masculinity and/or empathy within the manipulation). Finally, the scores for the five domains (i.e., Controlling Behaviors, Monitoring Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors) were entered into the equation as the dependent variables. All results were interpreted using a significance level of $p < .0$.

Regarding the first hypothesis, the main effect of time was significant ($F(5, 288) = 91.14, p < .001$, Pillai's $V = .61$, partial $\eta^2 = .61$). Univariate tests revealed changes on time for all five subscales (see Table 4). Examination of the pairwise comparisons indicated that participants scored higher on all five subscales following participation in the intervention (see Table 5). Thus, support was found for the first hypothesis.

An additional repeated measures ANOVA was calculated to determine if participants were able to differentiate common conflict behaviors from warning signs of dating violence after participation in the intervention. For the analysis, time was entered into the equation as a within subjects factor with two levels (i.e., pre-test and post-test), condition was entered into the equation as the between subject factor, and scores for the Common Conflict Behaviors domain were the dependent variables.

Results of the repeated measures ANOVA indicated that there was a main effect of time ($F(1, 292) = 73.72, p < .001$, Pillai's $V = .20$, partial $\eta^2 = .20$), a main

effect of condition ($F(3, 292) = 5.38, p=.001$, Pillai's $V = .10$, partial $\eta^2 = .10$), as well as time x condition interaction ($F(3, 292) = 10.83, p<.001$, Pillai's $V = .10$, partial $\eta^2 = .10$; see Table 6). Post-hoc tests using a Bonferroni adjustment were conducted to investigate the interaction. Results indicated that participants in the appeal to empathy, combined, and control conditions were less likely to rate items on the Common Conflict Behaviors domain as a warning sign of dating violence at post-test than at pre-tests (see Table 7), suggesting that the intervention was effective at helping participants differentiate between warning signs of dating violence and common conflicts in relationships. However, participants in the appeal to masculinity condition were better able to differentiate common conflicts from warning signs of dating violence at pre-test, and thus did not see the same reduction overtime as the remaining three conditions (see Figure 4).

Regarding the second hypothesis, the main effect of condition was not significant for the effect of masculinity ($F(5, 288) = 2.21, p=.054$, Pillai's $V = .02$, partial $\eta^2 = .02$), the effect of empathy ($F(5, 288) = 1.11, p=.355$, Pillai's $V = .02$, partial $\eta^2 = .02$), or the combined effect of masculinity and empathy ($F(5, 288) = .90, p=.484$, Pillai's $V = .02$, partial $\eta^2 = .02$), indicating that there were no differences in scores between the four conditions. Therefore, no additional tests were conducted regarding this effect.

However, an interaction between time and condition was found for both time x masculinity ($F(5, 288) = 5.21, p<.001$, Pillai's $V = .08$, partial $\eta^2 = .08$) and time x empathy ($F(5, 288) = 5.86, p<.001$, Pillai's $V = .09$, partial $\eta^2 = .09$). Moreover, a three way interaction was detected for time x masculinity x empathy ($F(5, 288) =$

4.37, $p < .001$, Pillai's $V = .07$, partial $\eta^2 = .07$). Univariate tests revealed that the interaction between time x masculinity x empathy was significant for Demeaning Behaviors ($F(1, 292) = 12.71$, $p < .001$, partial $\eta^2 = .04$), Threatening and Aggressive Behaviors ($F(1, 292) = 9.80$, $p < .001$, partial $\eta^2 = .03$), and Jealous and Possessive Behaviors ($F(1, 292) = 7.78$, $p < .001$, partial $\eta^2 = .03$).

Plots of the estimated marginal means for scores on the Demeaning Behaviors (see Figure 5), Threatening and Aggressive Behaviors (see Figure 6), and Jealous and Possessive Behaviors (Figure 7) domains were examined to understand the interaction between time x masculinity x empathy. Examination of the plots revealed that participants in the condition where masculinity was present and empathy was absent (i.e., the appeal to masculinity condition) had slightly higher scores at pre-test and slightly lower scores at post-test regarding ability to recognize warning signs of dating violence on all three domains than participants in the condition in which both masculinity and empathy were both present (i.e., the combined condition), both absent (i.e., the control condition), and the condition in which empathy was present, but masculinity was absent (i.e., the appeal to empathy condition). The effect of the three-way interaction was small for all three domains.

Additionally, univariate tests using a Bonferroni adjustment were conducted to determine the simple effects of masculinity and empathy within time for the Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors domains. Regarding the Demeaning Behaviors domain, multivariate tests revealed that when masculinity was present, there was a within-subjects time x empathy interaction ($F(1, 141) = 14.12$, $p < .001$, partial $\eta^2 = .09$),

however this interaction was not detected when masculinity was absent ($F(1, 151) = 1.38, p=.242, \text{partial } \eta^2 = .01$; see Table 8), suggesting that the effect of empathy within time is dependent on the level of masculinity. However, univariate tests revealed that there were no simple effects of empathy when masculinity was present at pre-test ($F(1, 141) = 4.43, p=.037, \text{partial } \eta^2 = .03$) or at post-test ($F(1, 141) = .834, p=.363, \text{partial } \eta^2 = .01$; see Table 9).

Moreover, multivariate tests revealed that when empathy was absent, there was a within-subjects time x masculinity interaction ($F(1, 154) = 14.21, p<.001, \text{partial } \eta^2 = .08$). This interaction was not detected when empathy was present ($F(1, 138) = 1.83, p=.179, \text{partial } \eta^2 = .01$) suggesting that the effect of masculinity within time is dependent on the level of empathy (see Table 10). Univariate tests revealed that there were no simple effects of masculinity when empathy was absent at pre-test ($F(1, 154) = 1.08, p= .300, \text{partial } \eta^2 = .01$) or at post-test ($F(1, 154) = 3.28, p= .072, \text{partial } \eta^2 = .02$; see Table 11). The results suggest that there was no overall effect of masculinity or empathy, however, appealing to masculinity has a different effect when empathy was absent versus when empathy was present.

Concerning the Threatening and Aggressive Behaviors domain, multivariate test revealed that when masculinity was present, there was a within-subjects time x empathy interaction ($F(1, 141) = 33.81, p<.001, \text{partial } \eta^2 = .19$). However, there was no time x empathy interaction when masculinity was absent ($F(1, 151) = 1.38, p=.705, \text{partial } \eta^2 = .01$; see Table 12). Moreover, univariate tests revealed that there was a simple effect of empathy when masculinity was present at the pre-test ($F(1,$

141) = 18.30, $p < .001$, partial $\eta^2 = .12$), but not at post-test ($F(1, 141) = 1.82, p = .180$, partial $\eta^2 = .01$, see Table 13).

Examination of the pairwise comparisons determined that at pre-test, participants in the appeal to masculinity condition scored higher than participants combined condition ($p < .001$). However, there were no differences in scores between the conditions at the post-test (see Table 14). Moreover, multivariate tests revealed that when empathy was absent, there was a within-subjects time x masculinity interaction ($F(1, 154) = 36.73, p < .001$, partial $\eta^2 = .19$). This interaction was not detected when empathy was present ($F(1, 138) = .80, p = .371$, partial $\eta^2 = .01$; see Table 15). Univariate test revealed that there was a simple effect of masculinity when empathy was absent at pretest ($F(1, 154) = 17.78, p < .001$, partial $\eta^2 = .10$), but not at post-test ($F(1, 154) = 2.00, p = .159$, partial $\eta^2 = .01$; see Table 16). Examination of the pairwise comparisons determined that at the pre-test, participants in the appeal to masculinity condition scored higher than participants control condition ($p < .001$). However, there were no differences in scores between the conditions at the post-test (see Table 17). Thus, these results suggested that there was no overall effect of masculinity or empathy and observed differences at pre-test can be contributed to failure of random assignment.

For the Jealous and Possessive Behaviors Domain, multivariate tests revealed there was no within-subjects time x empathy interaction when masculinity was absent ($F(1, 151) = 3.53, p = .062$, partial $\eta^2 = .02$) or when masculinity was present ($F(1, 141) = 4.20, p = .042$, partial $\eta^2 = .03$; see Table 18). Additionally, multivariate tests revealed that when empathy was absent, there was a time x masculinity interaction

($F(1, 154) = 6.63, p=.011, \text{partial } \eta^2 = .04$; see Table 19), but not when empathy was present ($F(1, 138) = 1.96, p=.164, \text{partial } \eta^2 = .01$). However, univariate tests revealed there were no simple effects of masculinity when empathy was absent at pre-test ($F(1, 154) = .44, p=.507, \text{partial } \eta^2 = .00$) and at post-test ($F(1, 154) = 2.07, p=.152, \text{partial } \eta^2 = .01$; see Table 20). Again, the results suggested that there was no overall effect of masculinity or empathy, however, the effect of masculinity was different when empathy was absent in comparison to when empathy was present.

Analysis of Variance (ANOVA)

To test the third hypothesis that participants in the appeal to masculinity condition, appeal to empathy condition, and the combined appeal to masculinity and empathy condition would demonstrate more engagement in the online intervention when compared to participants in the control condition, one ANOVA was conducted. First, the assumptions for conducting an ANOVA were assessed. Findings indicated that the assumptions of independent observations and homogeneity of variances were met. However, the data did not meet the assumptions of being normally distributed. Given that there was not a conceptual reason to expect that the data would violate the assumption of normality, data were transformed to be normally distributed using a log transformation before the ANOVA was calculated.

The ANOVA was calculated with random group assignment serving as the independent variable and engagement with the intervention serving as the dependent variable. Results of the ANOVA indicated that there was no significant difference in engagement with the intervention between the four conditions ($F(3, 292) = .19, p =$

.903, partial $\eta^2 = .00$). Thus, no support was found for hypothesis three (see Table 21).

Due to the lack of relationship between assigned condition and engagement, the proposed bootstrap mediation analyses were not conducted to test the hypothesized mediation that engagement would partially mediate the relationship between randomly assigned condition and post-test ability to recognize warning signs of dating violence.

Follow-up Analyses

Two weeks after participating in the STOP Dating Violence intervention, participants received an email invitation to participate in a follow-up study to assess whether the knowledge about warning signs remained stable over the two weeks since participants viewed the intervention. The specific hypothesis being tested was that there would be no changes in ability to recognize warning signs of dating violence over two weeks. Preliminary analyses were conducted with the sample of $n= 62$.

Repeated Measures MANOVA

Assumptions for conducting a MANOVA were assessed using pre-intervention, post-intervention, and follow-up scores of ability to recognize warning signs of dating violence. Most assumptions of MANOVA (i.e., time intervals evenly spaced, no missing data, no outliers, sphericity, and no multicollinearity of dependent variables) were met. However, the data did not meet the assumption of homogeneity of covariances. Given that the ratio between the largest group ($n=19$) and the smallest group ($n=13$) was 1.46 (less than 1.50), a MANOVA could be calculated (Glass & Stanley, 1970). Additionally, as anticipated, the data for scores on ability to recognize

warning signs of dating violence did not meet the assumption of normal distribution. Due to the fact that data were expected to be non-normal if knowledge from the intervention was maintained over time, no corrections were made to the data and a MANOVA was calculated. Again, Pillai's Trace was used as the multivariate test statistics due to the violations of assumptions (Tabachnick & Fidell, 2007).

One repeated measures MANOVA was conducted to determine if scores assessing ability to recognize warning signs of dating remained stable over time after participation in the online dating violence intervention two weeks prior to the collection of follow-up data. For the MANOVA, time was entered into the equation as a within subjects factor with three levels (i.e., pre-test, post-test, and follow-up), condition was entered into the equation as the between subjects factors (using dummy coded variables that represented the presence or absence of masculinity and/or empathy within the manipulation), and scores on the five Relationship Red Flags domains were entered into the equation as dependent variables.

Using a significance level of $p < .01$, the results indicated that the main effect of time was significant ($F(10, 48) = 12.19, p < .001$, Pillai's $V = .72$, partial $\eta^2 = .72$). Univariate tests revealed the effect of time was significant for all five subscales (see Table 22). Examination of the pairwise comparisons determined that participants scored higher on all five subscales from pre-test to post-test, and from pre-test to follow-up. However, scores did not differ on any of the five subscales from post-test to follow-up (see Table 23). Moreover, there was a between subjects interaction of masculinity x empathy ($F(5, 53) = 3.72, p < .001$, Pillai's $V = .26$, partial $\eta^2 = .26$) and a within subjects interaction of time x masculinity ($F(10, 48) = 2.85, p = .007$,

Pillai's $V = .37$, partial $\eta^2 = .37$). Multivariate tests shown that when empathy was absent, there was a simple effect of masculinity ($F(5, 53) = 4.59, p = .001$, Pillai's $V = .08$, partial $\eta^2 = .08$), but not when empathy was present ($F(5, 53) = .93, p = .470$, Pillai's $V = .30$, partial $\eta^2 = .30$; see Table 24). Univariate tests revealed that the between subjects masculinity x empathy interaction was detected for the Threatening and Aggressive Behaviors Domain when empathy was absent ($F(1, 57) = 6.55, p = .013$, partial $\eta^2 = .10$; see Table 25). Examination of the pairwise comparisons suggest that participants in the appeal to masculinity condition were able to recognize more warning signs of dating violence on the Threatening and Aggressive Behaviors domain than participants in the control condition ($p = .013$, see Table 26).

Additionally, univariate tests revealed that the interaction between time x masculinity was significant for the Threatening and Aggressive Behaviors Domain as well ($F(2, 114) = 8.22, p < .001$, Pillai's $V = 1.28$, partial $\eta^2 = .13$; see Table 18). Examination of the pairwise comparisons revealed that the time x masculinity interaction was detected from pre-test to post-test ($p < .001$) and from pretest to follow-up ($p < .001$), but not from post-test to follow-up ($p = 1.00$) when masculinity was absent. However, when masculinity was present, the time x masculinity interaction was detected from pre-test to post-test ($p = .004$), but not from pre-test to follow-up ($p = .059$) or from post-test to follow-up ($p = .858$; see Table 27).

Exploring Conformity to Masculine Norms as a Moderator of Condition and Ability to Recognize Warning Signs of Dating Violence

Finally, two domains of conformity to masculine norms were explored as moderators of the relationship between condition and ability to recognize warning

signs of dating violence. Multilevel modeling was used to explore power over women and violence as moderators, as the two domains had the strongest relationships with ability to recognize warning signs of dating violence when compared to the remainder of the conformity to masculine norms domains. Time was recoded using dummy coding, and a series of ten models were tested (i.e., one model with power over women as a predictor and one model with violence as a predictor for each of the five domains of the Relationship Red Flags scale). Using a significance level of $p < .01$, results indicated that power over women and violence were not moderators of the relationship between condition and ability to recognize warning signs of dating violence for any of the five domains of warning signs of dating violence.

Chapter 4: Discussion

Previous research has explored which factors are likely to increase men's engagement and participation with in-person gender-based violence prevention and intervention efforts. This study advanced knowledge by investigating three approaches for increasing college men's abilities to recognize warning signs of dating violence and engagement in an online dating violence intervention. In this study, all participants in all conditions demonstrated an increased recognition of warning signs of dating violence after participation in the STOP Dating Violence intervention. No main differences emerged across condition. However, a time x condition interaction with an extremely small effect was found in that heterosexual, cisgender, college men who listened to an introduction appealing to positive masculinity demonstrated less of an increase in ability to recognize demeaning, threatening and aggressive, and jealous and possessive warning signs of dating violence from pre-test to post intervention than participants who heard a specialized introduction appealing to empathy, masculinity and empathy, or who received no specialized introduction. However, the participants in the appeal to masculinity condition demonstrated more slightly more ability to recognize warning signs of dating violence before participating in the intervention than participants in the remaining three conditions, and the observed effect was extremely small. Additionally, there were no differences in level of engagement with the intervention material among the conditions. Moreover, after a two-week period of time, participants retained knowledge and demonstrated similar levels of ability to recognize warning signs of dating violence than they did immediately following the intervention regardless of assigned condition.

It is important to note that before participating in the intervention, on average the men reported having some, though not much, education or training regarding dating and domestic violence. However, the men tended to rate the items on the Relationship Red Flags scale as “slightly a warning sign” and only clearly rated the items in the Threatening and Aggressive Behaviors domain as “quite a bit a warning sign.” This suggests that while having some knowledge about dating and domestic violence, the men in the sample still struggled to identify warning signs of dating violence that were less overtly aggressive as indicative of potential future violence. This was not surprising, as 54% of college men reported that they found it difficult to identify dating violence (Knowledge Network, 2011). Moreover, this finding lends support to the importance of increasing risk recognition in relation to dating violence, such that using a risk recognition approach to intervention may be useful in decreasing victimization and perpetration rates among undergraduate men.

However, the men exhibited scores in the low range on the Power Over Women subscale. Thus, these men believe that violence should not be used to keep men in power over women. However, before participating in the study, the participants had access to the researcher’s name, which can be described as traditionally feminine. Thus, it also is possible that participants were responding to the items in the Power Over Women domain in a socially desirable way.

In addition, the men “slightly agreed” with items on the Protective Paternalism scale, suggesting that the sample held some benevolent sexist beliefs. It is possible that there may be a connection between benevolent sexist attitudes and participants responses to the items in the Power Over Women domain. Correlations

between the scales suggest that participants who score high on benevolent sexism also conform more to the belief that men should be in power over women. This connection was expected, as it suggests that men who believe women should be protected also hold beliefs that men are more suited to be in positions of power. Moreover, this was consistent with research that has found similar connections between conformity to masculine norms and benevolent sexism (Wong, Burkley, Bell, Wang, & Klann, 2017).

Finally, the sample endorsed mid-range scores on chronic empathy. Interestingly, scores of chronic empathy were correlated negatively with scores on the Violence and Power Over Women subscales. It would be expected that a person who feels concerned for others would be less likely to endorse the use of violence or the ideology that women are inferior to men. Moreover, scores of chronic empathy were correlated positively with scores of engagement with the intervention material. Given the connection between empathy and prosocial helping behaviors (Eisenberg & Fabes, 1990; Telle & Pfister, 2016) this finding was expected, as it was logical that a person who readily experiences concern for other people would be more engaged in an intervention that seeks to decrease the use of violence within romantic relationships.

Increasing Ability to Recognize Warning Signs of Dating Violence

To test the effectiveness of the STOP dating violence online intervention, we examined the differences in participants' pretest and posttest scores of ability to recognize warning signs of dating violence. Regardless of randomly assigned condition, participants demonstrated an increase in ability to recognize warning signs

of dating violence after participation in the online dating violence intervention. Furthermore, this increase in ability was seen across all five domains of the Relationship Red Flags scale (i.e., Controlling Behaviors, Monitoring Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors). It was expected that all participants would demonstrate an increase in ability to recognize warning signs of dating violence post intervention. Component one of the STOP Dating Violence online intervention was designed to teach participants about the different types of dating violence, as well as behaviors that may be indicators of potential future violence (O'Brien et al., 2016). Thus, it was not surprising that after watching the online intervention, participants were better able to identify warning signs of dating violence. Moreover, the effect of time was large, suggesting that this is a true finding. Furthermore, overall participants were better able to differentiate common conflicts in relationships from warning signs of dating violence after participation in the intervention. Taken together this lends support that the intervention is indeed leading to an increase in risk recognition abilities.

Being able to better identify warning signs of dating violence is important for college men. With better risk recognition in relation to dating violence, undergraduate men may be more aware of their victimization and perpetration rates. Additionally, while many factors are involved in the decision to end a dating relationship, protection motivation theory (Maddux & Rogers, 1983) suggests that with better risk appraisal, these men would be better able to identify warning signs of dating violence within their own romantic relationships (i.e., threat perception) and would more likely to leave those potentially dangerous relationships (i.e., safety seeking behavior; Singh

et al., 2011) Moreover, after participating in the STOP Dating Violence online intervention, college men may be more equipped to recognize warning signs of dating violence in their peers' romantic relationships, which may enable them to become active bystanders and assist their friends and significant others in leaving potentially violent relationships.

Appealing to Masculinity, Empathy, or Both?: Recognizing Warning Signs of Dating Violence

To test the hypothesis that participants who received a specialized introduction appealing to their masculinity, their sense of empathy for victims of dating violence, or both would demonstrate more ability to recognize warning signs of dating violence than participants in the control group after participation in the online intervention, we examined the effect of condition on change in scores of ability to recognize warning signs of dating violence from pretest to posttest. Results indicated that there were no differences between the four conditions. This was not anticipated, as it was expected that a specialized introduction would create more buy-in from participants, leading them to be more motivated to learn from the intervention, and thus gain more knowledge than the participants in the control group. However, it is possible that STOP Dating Violence online intervention does a sufficient job at conveying the importance of understanding how to recognize warning signs of dating violence for young adults without the additional specialized introductions. Moreover, it is possible that college-aged men may already find the material relevant and important, as about 61% of college student reported dating at some point during their undergraduate studies (Kuperberg & Padgett, 2016).

Therefore, it was possible that participants in all four conditions had intrinsic motivation to learn how to recognize warning signs of dating violence for use in their current or potential dating relationships and did not need a specialized introduction to elicit motivation.

While there were no differences between the groups who received specialized introductions and the control group, there was an interaction between time and condition that warranted further exploration. The interaction revealed that participants who received the introduction appealing to masculinity demonstrated less of increase in ability to recognize demeaning, threatening and aggressive, and jealous and possessive warning signs of dating violence after participation in the intervention than participants who received the introductions appealing to empathy, masculinity and empathy, and no specialized introduction.

It is important to note although this interaction was significant, the effect of the interaction was extremely small. Further examination of the interaction revealed that there were no simple effects of empathy or masculinity at post-test, suggesting that that there was no overall effect of masculinity or empathy on abilities to recognize warning signs of dating violence after participation in the intervention. Moreover, for all three domains of warning signs of dating violence, men in the appeal to masculinity condition were better able to recognize the items as warning signs of dating violence at the pretest than participants who were randomly assigned to the remaining three conditions. Thus, participants in the appeal to masculinity condition had less room for improvement in their abilities to recognize warning signs of dating violence than participants in the other three conditions. For the Threatening

and Aggressive Behavior domain specifically, this was likely what led to the significant interaction between time x masculinity x empathy, as investigation of the pairwise comparisons determined that difference between the conditions occurred at pre-test (i.e., before exposure to the masculinity manipulation) but not at post-test. In addition, participants in the appeal to masculinity condition were better able to differentiate common conflict behaviors from warning signs of dating violence at pre-test than the participants in the other conditions. Therefore, it is not possible to say with confidence that the interaction between time and condition is a true finding created by the specialized introduction appealing to masculinity. Instead, it is quite possible the interaction was a function of ineffective random assignment to the four conditions, and that participants in the appeal to masculinity condition were more knowledgeable before the intervention than participants in the other conditions.

For the Demeaning Behaviors and Jealous and Possessive Behaviors domains, multivariate tests revealed a time x masculinity x empathy interaction. Further examination of the interaction suggested that the effect of masculinity was dependent on the presence or absence of empathy. However, continued investigation of the interaction determined that there were no simple effects of masculinity or empathy at pre-test or post-test. This finding suggested that masculinity has a different impact on the ability to recognize warning signs of dating violence for these two domains depending on if it presented alone or combined with empathy. More specifically, participants who listened to the appeal to masculinity condition demonstrated slightly less ability to recognize warning signs of dating violence than participants in the other three conditions after the intervention, though differences at post-test were not

significant. Considering the extremely small effect of the finding, it would be problematic to make any conclusions regarding the appeal to masculinity condition.

However, it is important to note that participants in the appeal to masculinity condition did not demonstrate a ceiling effect, or complete ability to recognize warning signs of dating violence, for the Demeaning Behaviors domain, the Threatening and Aggressive Behaviors domain, or the Jealous and Possessive Behaviors domain after participating in the online intervention. Therefore, although these participants had less room for growth than the participants in the remaining three conditions, there was potential for them to demonstrate more ability to recognize warning signs of dating violence post-intervention than what was actually observed. Thus, it is possible that the observed interaction may be a true finding and not just a function of ineffective random assignment. Should this finding be replicated, it is possible that an introduction designed to appeal to positive aspects of masculinity inadvertently activated concepts of less positive masculinity in participants. The potential activation of these less positive concepts may explain why when masculinity was presented alone (i.e., without empathy), participants did not perform as well post-intervention as participants who heard an appeal to both masculinity and empathy. Appealing to empathy may act as a buffer against the activation of problematic aspects of masculinity. Although masculinity can be framed from a positive perspective, the traditional concept of masculinity still represents many problematic values (Levant, 1996; McDermott et al., 2016; O'Neil et al., 1995; Pleck, 1995). Thus, it may not be enough to approach traditional masculinity with a positive lens. Instead, the concept of masculinity may need to be dismantled and

rebuilt to reduce the negative aspects that lead to detrimental outcomes and increase the positive aspects that would have a favorable impact on men and their wellbeing.

Appealing to Masculinity, Empathy, or Both?: Engagement with the Intervention

Furthermore, we hypothesized that participants who received specialized introductions would report more engagement with the STOP Dating Violence online intervention than participants in the control condition. However, there were no differences among the four conditions on level of engagement with the intervention material. It was surprising that the conditions that received a specialized introduction did not have higher levels of engagement than the control condition, and that participants in one of the experimental conditions did not demonstrate more engagement than participants in the other experimental conditions. As stated previously, it may be that the intervention itself conveyed the relevance and importance of the ability to recognize warning signs of dating violence, thus creating intrinsic motivation to learn from and engagement with the intervention. However, this finding is surprising, as it is inconsistent with the literature that states men are often leery of gender-based violence interventions (Casey, 2010).

There may be a number of other explanations for this finding. For instance, it is possible that there were no differences between the conditions due to the timing at which participants responded to the measure of engagement. The measure of engagement was administered after participation in the intervention to assess engagement with the intervention material. However, participating in the intervention itself may have led to participants to be engaged with the material. Perhaps there

would have been observable differences in engagement between the conditions if the participants received the measure of engagement after listening to the specialized introduction for those in the experimental conditions and before participating in the intervention for those in the control condition.

In addition, it is possible that due the similar rates in which college men and college women experience dating violence (Knowledge Networks, 2011; Murray & Kardatzke, 2007; Shorey, Cornelius, & Bell, 2008), college men may be less suspicious of intervention aimed to reduce or end dating violence, as dating violence may be viewed as less gender-based than domestic violence or intimate partner violence. Nonetheless, on average the men reported mid-range scores of engagement after the intervention, indicating that there was room for growth regarding engagement with the intervention material. Therefore, there may be more effective ways to increase engagement in an online intervention than was achieved using the three specialized introductions. For example, perhaps requiring more interactive participation, such as having participants provide responses while listening to the appeal to masculinity, empathy, or combined introductions would have elicited more engagement from the men. Moreover, perhaps providing guaranteed incentives, such as monetary compensation for their time, may have led to increased engagement. Finally, it is possible that masculinity and empathy were not the strongest factors to focus on for enhancing engagement. Participants may have reported more engagement if the introductions appealed to their sense of social or community responsibility, or emphasized the benefits of helping others.

However, it is also possible that the men in study were answering the items used to measure engagement in a socially desirable way. Perhaps we would have seen more variability in responses if we assessed engagement with the intervention using a method other than self-report. For example, it might have been effective to ask participants to respond to an item such as the following: “If availability were not a factor, would you be willing to participate in a one-hour focus group regarding how college men can help to end dating violence?” Although a more indirect measure of engagement, this would allow us to determine which participants were connecting with the intervention material and were dedicated and motivated to continue their involvement in reducing dating violence after their participation in the intervention.

Retention of Ability to Recognize Warning Signs of Dating Violence

Furthermore, preliminary data were collected and analyzed to test the hypothesis that all participants, regardless of assigned condition, would retain knowledge from the online intervention two weeks after their participation in STOP Dating Violence. At the follow-up, all participants demonstrated similar abilities to recognize warning signs of dating violence as they did immediately post intervention. Although the sample size for the follow-up analysis was small, the effect of time from pre-test to post-intervention was still detectable, lending support that the follow-up analyses were not insufficiently powered. Moreover, there was a between subjects interaction of masculinity x empathy, and a within subjects time x masculinity interaction for the Threatening and Aggressive Behaviors domain.

Although this result was anticipated, it is promising that the intervention has a lasting impact. It is essential that the men retain the information to use their

knowledge of dating violence warning signs in a practical manner. Given that the college men were able to recall the different types of warning signs of dating violence after a delay in their participation in the intervention, it is possible that they would be more likely to apply the information they have learned to their own and their peers' dating relationships.

Upon examination of the masculinity x empathy interaction and time x masculinity interaction, participants in the appeal to masculinity condition demonstrated the most knowledge of threatening and aggressive warning signs of dating violence, and participants in the conditions where masculinity was absent (i.e., control condition and appeal to empathy) demonstrated the largest increase in knowledge from pre-test to follow up. These findings were not surprising, given that participants in the appeal to masculinity condition demonstrated greater knowledge of threatening and aggressive warning signs of dating violence at pre-test than participants in the other conditions. Again, these interactions were likely a function of ineffective random assignment to conditions.

Conformity to Masculine Norms as a Moderator of Condition and Abilities to Recognize Warning Signs of Dating Violence

Surprisingly, neither Power Over Women nor Violence acted as a moderating variable for the relationship between condition and ability to recognize warning signs of dating violence. Given the negative correlations between the two domains of conformity to masculine norms and the five domains of the relationship red flags scale, it was anticipated that the relationship between condition and post-test scores of ability to recognize warning signs of dating violence may be dependent on conformity

to notions that men should be in power over women and that violence is a viable tool to obtain one's goals. However, given that the correlations between the domains on each scale were small, it was not completely unexpected that conformity to masculine norms did not have a major impact on the relationship between condition and post-intervention scores. It is likely the intervention in and of itself was impactful enough to outweigh the small relationships between Power Over Women and Violence on ability to recognize warning signs of dating violence.

Strengths

Previous research has examined factors that lead to increased engagement for men in in-person gender-based violence preventions and intervention efforts. This study advanced knowledge by empirically testing three methods for increasing heterosexual, cisgender, unmarried college men's ability to recognize warning signs of dating violence and engagement in an online dating violence intervention. This study lends support for using an online dating violence intervention to educate men regarding warning signs of dating violence. This is important, as college men are both perpetrators and victims of dating violence (Luthra & Gidycz, 2006; Shorey et al., 2008). Education regarding dating violence warning signs may encourage men to reduce perpetration of dating violence warning signs as well as leave potentially violent relationships. Moreover, participation in the intervention may encourage college men to be active bystanders in helping their peers and significant others leave violent relationships as well. Additionally, the use of an online format may be effective in reaching a larger number of college men than would be possible with in-person dating violence intervention efforts.

Moreover, this study examined and determined that the online dating violence intervention was effective and has a lasting impact on ability to recognize warning signs of dating violence after a short interim in participation. Furthermore, this study provides some support for specialized introductions not being necessary to create relevance, motivation, and engagement with the material for undergraduate, heterosexual, unmarried college men.

The sample used for this study was diverse in race/ethnicity, generation status, and undergraduate year classification. Moreover, the sample consisted of men with various experiences with relationships, relationship violence in their households growing up, dating violence perpetration, and dating violence victimization. Finally, the majority of the sample was derived through a listserv retained from a random sample of 10,000 undergraduate men attending the mid-atlantic university. Thus, the sample was obtained from a diverse pool of students – a significant strength in this line of research.

Finally, this study used an experimental design, random assignment to conditions, and was conducted with empirically validated measures. Moreover, the studied variables were grounded in protection motivation theory and literature that established connections between positive masculinity, empathy, and engagement.

Limitations

However, the results of the study must be understood within the context of several limitations. Although diverse, the sample still consisted of majority white, straight, cisgender college men. It is possible that college men are more educated on dating violence than the general population, given that dating violence and related

topics often are discussed on college campuses. Thus, results may not be generalizable to more diverse populations with less access to education.

Furthermore, the effect size of the time and condition interaction was extremely small and the participants in the masculinity condition began the study with a greater understanding of warning signs of dating violence than those in the other conditions. Thus, we are not able to suggest that the introduction appealing to masculinity was detrimental to intervention participants. Moreover, the fact that there was lack of variability in engagement was a concern. Perhaps the method used for measuring engagement was conflated with social desirability, or the timing of the administration of the engagement measure was problematic. Moreover, it is possible that the measure of engagement was not actually capturing engagement, but instead assessing perceived importance of the intervention, which may be distinct or separate from engagement. Thus, the results of the study must be interpreted with caution.

Also, there were concerns with the internal consistency reliability estimates for the Protective Paternalism and the Empathic Concern scales. The measure of benevolent sexism demonstrated somewhat low internal consistency reliability for this sample, suggesting that one or more items may be measuring a slightly different construct for this group of men. The measure was included in the study as way to assess a type of sexism that potentially could be less influenced by social desirability than more overt measures of hostile sexism. The poor internal consistency of measure may be attributed to the education level of gender-related issues of the men who participated in the intervention. Therefore, interpretation must be made with caution. Moreover, while the internal consistency reliability was improved by removing one

item with poor fit from the measure of chronic empathy, this may impact the content validity of the measure. Specifically, it could be that with the removal of those items, we are missing an important aspect of the concept being measured.

Additionally, the sample size for the follow-up study was small, with less than 20 participants in each condition. Although the effect of time was able to be detected from pre-test to post-intervention with this sample size, it is possible that smaller effects of condition or a time and condition interaction may have gone undetected due to insufficient power during the follow-up analyses.

It is salient to note that data collection for this study occurred at a time when movements such as the Women's March on Washington, #MeToo, and #TimesUp were gaining traction, popularity, and bringing attention to issues such as sexual assault and violence against women. It is possible that due to these movements occurring in society, the men in the study were more aware of warning signs of dating violence than they may have been had the study occurred at a different time.

Given the movements around violence against women occurring in society, it is possible that the results of the study were influenced by the type of men who chose to participate in an intervention to learn about how to recognize warning signs of dating violence. Participants recruited through the research portal had access to the study name, which included the words "dating violence." In addition, a large number of participants were recruited through an email that encouraged participation in a study to better understand the experience of undergraduate men. Regardless of recruitment method, all participants received the informed consent which indicated that the study would be asking questions regarding dating violence. This may have

caused certain men, such as men currently engaging in abusive behaviors or committed to maintaining the patriarchy and power and control over women, to withdraw from participating. Thus, the sample does not include representation from all men, which likely skewed the results and reduces generalizability.

Future Directions

Future research is needed to further explore methods of engaging men in interventions to reduce dating violence. While the intervention was shown to be effective in increasing participants' ability to recognize warning signs of dating violence, the change in scores over time can be confounded with several factors (e.g., completing the measures more than once). Follow-up research is needed to replicate this study with a control condition that does not receive the STOP Dating Violence Intervention to further assess the impact of the intervention.

In addition, researchers should consider methods to create a larger impact with the specialized introductions. This may include providing images related to positive masculinity, empathy, or both while participants are listening to the introduction, or making the introduction more interactive for participants. Moreover, perhaps a specialized introduction in which an active bystander tells his story of the ways he intervened to stop dating violence would be a powerful method for engaging men in dating violence prevention efforts.

Further research also is needed to determine if engagement is being accurately captured through self-report. This can be achieved by finding ways to measure engagement that leave less room for influence from social desirability. For example, future research may look into methods that measure engagement with the intervention

using an implicit association test. Another viable option to measure engagement more indirectly would be having participants choose whether or not they would sign up for an hour-long in person focus group to discuss college men's roles in ending dating violence or donate money to a charity that provides support to victims of dating violence.

In addition, the long-standing effects of the intervention and impact of the specialized introductions warrants further exploration. It would be useful to know if participants retain information and are able to recall or recognize warning signs of dating violence for periods of time longer than two weeks. Follow-up studies could test the impact of participating in the intervention at 3 months, 6 months, 9 months, and 1-year intervals.

Relatedly, it would be useful to explore if the intervention has practical implications. For example, more exploration is needed to determine if participants see a reduction in their perpetrations of behaviors that could be considered warning signs of dating violence after participating in the online intervention. Moreover, research can assess if, after participation in the intervention, participants increase their active bystander behaviors by assisting their significant others or peers with leaving potentially dangerous relationships. Finally, subsequent studies can look at the impact of the intervention on participants leaving potentially volatile dating relationships.

Counseling Implications

This study sheds light on the importance of educating college-aged men about how to recognize warning signs of dating violence. Given that the intervention was effective and had lasting impacts over a two-week interim, the intervention could be

used as a mandatory training for undergraduate students. For example, students could be required to take the online intervention as a part of their new student orientation, much in the same way as many colleges and universities are mandating students to undergo alcohol related trainings. Allowing participation in dating violence prevention efforts to be voluntary allows violence against women to continue and the men who need the intervention the most to go without receiving necessary education on this topic. Given that 61% of college students report dating during their undergraduate education (Kuperberg & Padgett, 2016), and 57% of college students report that they find it difficult to recognize dating violence (Knowledge Networks, 2011), providing education on violence in dating relationships is imperative.

Moreover, findings indicated that specialized introductions appealing to empathy or masculinity and empathy did not have an impact on participants learning how to recognize warning signs of dating violence or engagement with the intervention. Thus, counselors looking to intervene with heterosexual, cisgender, unmarried undergraduate men may choose to not use any specialized introductions to increase knowledge or engagement with the material. However, counselors should be cautious not to inadvertently activate concepts of problematic masculinity when delivering online interventions to this population.

Finally, this intervention could be used as a brief and effective educational tool when working with college men seeking mental health treatment for victimization or repeated perpetration of dating violence warning signs. Counselors can use the intervention to educate young men about the different types of dating violence, and how the desire for power and control may manifest as behaviors within

a romantic dating relationship. This intervention can be used a starting point to discuss concerning or problematic dating behaviors with college-aged clients.

Conclusion

In conclusion, this study advanced knowledge by examining the impact of three specialized introductions appealing to masculinity, empathy, or both on college men's ability to recognize warning signs of dating violence and engagement with an online dating violence intervention through an experimental design. It is evident from the study that no special introductions were necessary to bolster motivation or engagement with the intervention material for heterosexual, cisgender, unmarried college men. Moreover, this study documented that college men, a sample in great need for education regarding dating violence, could learn and retain information regarding warning signs of dating violence from a brief 10-minute online intervention. Accordingly, an online dating violence intervention could be a useful and effective tool in reaching a large population of college men to engage them in dating violence prevention and educate them regarding warning signs of dating violence. Further research is needed to better understand the practical implications of participating in the intervention, such as leaving potentially dangerous relationships or engaging in active bystander behaviors to reduce dating violence. We hope that these findings will help guide intervention and prevention efforts to end dating violence with college men.

Appendices

Appendix A

Review of Literature

The literature review is divided into three subsections. The first section addresses dating violence as a serious public health concern. The second section addresses the outcome variables of interest: risk recognition of dating violence warning signs and engagement in an online intervention to educate participants regarding dating violence. The final section provides an overview of men, masculinity, and gendered work, addressing the independent variables of interest: positive masculinity and appealing to empathy.

Dating Violence

Dating violence, i.e., the use or threat of physical force, coercion into sexual activities, verbal denigration, and social isolation within a relationship, is a public health issue, particularly for young adults (Barrick et al., 2013). It is estimated that 45-78% of young adults in the United States have been physically victimized by their intimate partner (Linder & Collins, 2005; Smith, White, & Holland, 2003). This is particularly troubling, as dating violence can yield harmful mental and physical effects for victims, including anxiety, depression, drug abuse, and eating disorders (Campbell, 2002; Coker et al., 2002; Wekerle & Tanaka, 2010; Wolitzky-Taylor et al., 2008).

Dating violence occurs at high rates on college campuses. For example, high incidences of dating violence were reported in one study across 31 universities in 16

countries (Straus, 2004). Five of the universities resided in Asia or the Middle East, two in New Zealand, six in Europe, two in Latin America, and 16 in the United States. The number of participants from each site ranged from 132 to 742 ($M = 279$), with a total of 8,666 participants. Approximately two-thirds of the sample identified as female, with a mean age of 21.9 (no standard deviation was reported). Students in the sample had been in a relationship for an average of 14 months. The results showed that rates of dating violence ranged from 17% to 45% with rates of severe assault ranging from 4% to over 20%. Finally, rates of physically injury to a dating partner in the previous 12 months ranged from 1.5% to 20%.

Another study reported similar findings. The goal of the study was to determine the prevalence of physical assault, sexual coercion, and suicidal ideation among university students. The sample consisted of 15,927 students from 22 universities across 21 countries (Chan, Straus, Brownridge, Tiwari, & Leung, 2008). The sample was comprised of 70% females and 30% males. The average age of participants was between 20 and 25 years old for all countries except Sweden ($M = 28$), Israel ($M = 30$), and Switzerland ($M = 34$; no standard deviations were reported). The average length of the dating relationship ranged from 8.6 to 19.3 months. Results indicated that rates of physically assaulting a dating partner within the prior 12 months ranged from 14 to 44% and 26% of students reported being a victim of physical violence. Additionally, the rates of sexual coercion within the prior 12 months ranged from 8% to 34% (median = 20%). Rates of victimization of sexual coercion ranged from 9% to 46% (median = 24%), with United States and Canada reporting higher rates than the median.

Outcome Variables

Risk Recognition

Risk recognition, or the ability to detect personal danger (Witte & Kendra, 2009), has been shown as an important factor in behavioral change within the field of health psychology (Brewer et. al, 2007). A meta-analysis of 34 studies assessing the bivariate association between risk perception and vaccination behaviors examined three dimensions of risk perception: perceived illness likelihood, perceived illness susceptibility, and perceived illness severity (Brewer et. al, 2007). A stronger association between risk perception and health behaviors was found than had been seen in previous meta-analyses: perceived risk likelihood ($r = .26$), severity ($r = .24$), and susceptibility ($r = .16$).

Another study related to risk perception within health psychology assessed cultural differences in perceived risk of being diagnosed with breast cancer, the association between perceived risk and utilizing mammograms services, and risk perception leading two or more mammograms within a four-year period (Orrom et al., 2013). Data were obtained using the 2003 HINTs, a probability based survey conducted by the National Cancer Institute. The study consisted of 3,361 participants in the overall sample. Blacks and Hispanics were oversampled and the total sample was weighted to be more nationally representative. Results found that while Black race/ethnicity ($n = 453$) was associated with lower perceived absolute risk of developing breast cancer ($B = -0.17$, 95 % CI $-0.33, -0.01$), for the overall sample ($N = 3,361$) perceived absolute risk was associated positively with the receiving a mammogram (OR = 1.27, 95 % CI 1.09, 1.48).

Moreover, the concept of risk recognition has been explored and deemed as important in relation to sexual assault. Wilson, Calhoun, and Bernat (1999) were the first to extend the concept of risk recognition to sexual assault. The purpose of their study was to investigate the relationship between different levels of sexual assault victimization (i.e., single incident victims, multiple incidents victims, and non-victims) on women's perception of risk of sexual assault within a dating interaction. Participants were asked to listen to an audiotape of a dating encounter. The vignette simulated a sexual assault starting with verbal coercion and ending in rape. Participants were instructed to press a button when they felt the man in the audiotape had "gone too far." Participants were instructed to continue listening to the audiotape after they pressed the button. Upon completion of the audiotape, participants completed a survey comprised of various self-report measures to assess previous sexual abuse history and symptoms of posttraumatic stress disorder. Women with a history of multiple sexual assault victimizations took longer to indicate the interaction in the vignette had gone too far (i.e., poorer perception of risk) than single assault victims ($t(117) = -2.70, p < .01, d = .55$) and non-victims ($t(230) = -3.20, p < .002, d = .43$).

A follow up study was conducted with acknowledged victims of sexual assault (i.e., people who named unwanted sex encounters obtained by force, threat, or when they were unable to consent as assault or rape), unacknowledged victims of sexual assault (i.e., people who choose not to label identify unwanted sex encounters obtained by force, threat, or when they were unable to consent as assault or rape), and non-victims of sexual assault to explore the differences in risk recognition ability

between the three groups (Marx & Soler-Baillo, 2005). The sample was comprised of 95 undergraduate women, with a mean age of 19.55 (SD = 2.76), and the following racial breakdown: White (52.6%), Black (24.7%), Hispanic (11.3%), Asian (3.1%), and those with mixed ethnicities (8.2%). Analyses revealed that unacknowledged victims of sexual assault (M = 167.74, SD = 59.19) took longer to determine that the interaction had “gone too far” (i.e., poorer risk recognition) than both acknowledged victims of sexual assault (M = 140.62, SD = 73.04) and non-victims (M = 127.21, SD = 43.55).

Additionally, another study examined participants’ ability to identify inappropriate dating behavior, self-identification with sexually aggressive behavior, and ability to recognize non-consent in videotaped interactions of coercive and non-coercive dating scenarios (Loh et al., 2007). The researchers hypothesized that men with a history of sexual aggression would self-identify more with the perpetrator in the sexual assault video, label fewer of the perpetrator’s behaviors inappropriate, and recognize fewer cues indicating non-consent from the victim in the scenario than men without a history of sexual assault. The sample (N = 277) consisted of heterosexual, mostly White (92.2%) single men who had never been married (97.8%). Sixty-seven percent of the sample had engaged in sexual intercourse before their participation in the study. About 14% of the men had some history of sexual aggression, including rapes or attempted rapes. Men with a history of sexual aggression did not differ in their abilities to identify inappropriate dating behaviors, identification with the perpetrator, and their recognition of signals of non-consent than men without a history of sexual aggression. Additionally, men with a history of sexual aggression

were more likely to identify with the men in both the date rape and nonaggressive dating scenarios than men without a history of sexual aggression.

Despite its prevalence, risk recognition has not been given the same attention in relation to intimate partner violence. However, initial steps have been taken in applying the concept of risk recognition to intimate partner violence in a study of whether female victims of intimate partner violence would display deficits in risk recognition when observing a physically violence dating encounter when compared to women who had no history of intimate partner violence (Witte & Kendra, 2009). Participants were instructed to watch the video vignette, throughout which had four designated breaks. During the breaks, participants were instructed to pause the video and answer questions pertaining to the segment they had just seen. After each segment, participants were instructed to rate the following sentence: “I think this interaction has gone too far.”

A total of 182 undergraduate women from a small southeastern liberal arts college participated in this study. The sample was mostly White (87%) and within their first year of college (54%). The mean age of the sample was 19.26 (SD = 1.16), with approximately half of the sample reporting that they were currently in a dating relationship. Participants with a history of intimate partner violence were less likely to think the interaction had gone too far throughout the entire vignette when compared to non-victims of intimate partner violence ($F(1,165) = 8.47, p < .01, \eta^2 = .05$). Victims of intimate partner violence demonstrated low risk recognition for both subtle and overt forms of abuse.

Although initial attempts have been made to extend the concept of risk recognition to dating violence, there is a deficit of information regarding the relevance of the concept for college men. Much of the research examining the connection between risk recognition and sexual and dating violence focuses on women as victims and men as perpetrators (Loh et al., 2007; Marx & Soler-Baillo, 2005; Wilson et al., 1999; Witte & Kendra, 2009), despite the fact that college-age women and men are victimized by dating partners at comparable rates (Shorey et al., 2012). However, risk recognition could be beneficial to all young adults, by encouraging them to leave potentially abusive relationships sooner.

Protection motivation theory (Maddux & Rogers, 1983) frames the ways in which risk recognition can encourage young adults to potentially leave unhealthy relationships when they identify warning signs of dating violence. The theory states that willingness to perform a behavior is related to the seriousness of risk conveyed when confronted with a risky situation. Threat perception mediates the relationship between the occurrence of a risky event and willingness to perform a behavior (Singh et al, 2011). When applied to dating violence, a person's ability to recognize warning signs of dating violence (i.e., threat perception) may mediate the relationship between experiencing a warning sign of dating violence (i.e., risky event) and willingness to leave the potentially abusive relationship (i.e., willingness to perform a behavior). Yet, in one study 57% of college students indicated that they found it challenging to identify potentially abusive behaviors (Knowledge Networks, 2011). Warning signs of dating violence (e.g., isolation from family and friends) may be difficult for young

adults to identify because they can often be misinterpreted as affection (e.g., he/she wants to spend a lot of time with me).

As previously stated, college students have difficulty recognizing warning signs of dating violence. However, one study found that college men have more difficulty recognizing warning signs of dating violence than college women (Kearney & O'Brien, 2016). Participants were asked to complete a series of counterbalanced measures assessing expressivity, instrumentality, conformity to feminine or masculine norms, and ability to recognize warning signs of dating violence. A total of 433 undergraduate, heterosexual, unmarried women and 108 undergraduate, heterosexual, unmarried men between the ages of 18 and 22 completed the measures with less than 15% missing data. The sample was mostly White (women=61%, men=63%). Moreover, there was a range of undergraduate year classifications represented, with 25% of the women and 38% of the men being in the first year student, 25% of the women and 25% of the men were sophomores, 25% of the women and 30% of the men were juniors, and 25% of the women and 17% of the men were senior students. The mean age was about 20 years old (women: $M= 19.6$ $SD= 1.23$, men: $M=19.6$ $SD= 1.27$) and the majority of the female participants (54%) and male participants (64%) reported that they were single, or in a relationship (women= 46%, men= 35%), with fewer than 1% being engaged. Moreover, the majority of participants reported no relationship violence in their home growing up (women= 77%, men= 81%), with 19% of women and 14% of men reporting some relationship violence in their home, 3% of women and 3% of men reporting quite a bit, and 1% of women and 2% of men reporting an extreme amount of relationship violence in their home.

Results indicated that endorsement of the masculine norm violence was associated with less ability to recognize warning signs of dating violence for undergraduate men. Moreover, a post hoc MANOVA demonstrated that there were differences between the sample of women and the sample of men on ability to recognize warning signs of dating violence: $F(1, 539) = 47.86, p = .00, \eta^2 = .08$. Men reported and less ability to recognize warning signs of dating violence ($M = 118.40, SD = 16.14$) than women ($M = 130.61, SD = 16.48$).

The gender differences in ability to recognize warning signs of dating violence may be attributed to aspects of masculine identity, such as maintaining power and control as they are the underlying mechanisms that drive violence within intimate relationships (Pence & Paymar, 1993). Men are more likely to be socialized to accept violence and may even view violence as a way of being strong and fulfilling the gender role expectations placed on men. Moreover, it is not surprising that men have more difficulty recognizing warning signs of dating violence, as men, unlike women, are not socialized to believe they are at risk for serious danger within romantic relationships. Thus, educating men regarding recognizing warning signs of dating violence is a fruitful next step and may be beneficial in a number of ways. By increasing college men's abilities to recognize warning signs of dating violence young men may choose to leave potentially abusive dating relationships sooner, may refrain from perpetrating abusive behaviors, and can learn to be active bystanders to help others recognize warning signs of dating violence.

Engagement

Encouraging men to participate in gender based violence prevention is essential to educate them regarding warning signs of dating violence. Thus, it is important that gender-based violence prevention programs appeal to men and peak their interests. Engagement, i.e., the intensity of involvement and focus on an activity (Fredricks et al., 2004), often is studied in relation to academic success. Nevertheless, one study explored the relationship between conformity to masculine norms and behaviors indicative of academic engagement (Marrs, 2016). Undergraduate men in the United States were asked to complete a series of online measures assessing conformity to masculine norms as well as learning and study strategies reflective of academic engagement. The sample consisted of 139 men, with 70% of the students identifying as White. Additionally, 45% of the sample was students in their first year of college, 18% were sophomores, 25% were juniors, and 13% were seniors. The average age of the sample was 20.81 ($SD= 5.31$) and the average grade point average was 3.16 ($SD= .54$). Endorsement of masculine norms was positively correlated with surface approaches to learning ($r= .30, p < .001$) and negatively correlated to intrinsic goal motivation ($r= -.26, p < .001$) and effort regulation ($r= -.19, p < .05$). Moreover, endorsement of the masculine norms primacy of work, playboy, and violence predicted a significant proportion of variance in intrinsic goal motivation $F(3, 132) = 7.24, p < .001, R^2 = .14$, while endorsement of violence, self-reliance, and disdain for homosexuality predicted a significant proportion of the variance in surface approach to learning $F(11, 131) = 4.52, p < .001, R^2 = .29$. However, endorsement of primacy of work was positively predictive of deep approaches to learning ($p < .01, \beta = .260$). The results provided support that masculinity is an important factor in understanding

engagement in college men. Furthermore, the results suggest that some aspects of masculinity are detrimental to engagement, while other aspects of masculinity are beneficial and have a positive relationship with engagement.

Quantitative research examining engagement in college men regarding gender-based prevention work is lacking. However, the relationships between which aspects of gender-based prevention programs increased the engagement of young men have been studied qualitatively. For example, one qualitative study conducted in-depth, semi-structured interviews with male college students involved in an all-male anti-rape prevention program aimed at reducing incidences of sexual assault (Piccigallo et al. 2012). The sample consisted of 25 college men from 11 campuses across the East Coast in the United States. The majority of the men (21) identified as White, with two men reporting they were first year students, three men were sophomores, nine men were juniors, nine men were seniors, one participant was a recent graduate and one student was a current graduate student. The average age of the participants was 20 years old. About half of the participants attended private colleges or universities while the other half attended public institutions. Using a grounded theory approach, several themes emerged that illuminated the motivations for the men to participate in the gender-based violence prevention. The men expressed that they felt engaged in the work when they knew someone who has been personally affected by sexual assault, were approached as allies to prevent sexual assault rather than potential perpetrators and were approached by other men to encourage participation. Moreover, many of the participants indicated the appeal of having a single-sex space to discuss sexual assault prevention.

Another study examined male engagement in a domestic abuse program (Chovanec, 2012). The study analyzed interviews completed by eight male participants and four group facilitators of an 18-week domestic abuse program. The majority of the participants (4) identified as African American, with two men identifying as White, and two as Multiracial. All of the facilitators identified as White women. Using open coding to identify themes, the researchers determined that the factors that kept men most engaged included learning new skills, seeing a need for change, and learning from other men, similar to the findings from Piccigallo et al., 2012. Moreover, the researchers analyzed engagement scores at three-time points for all 95 male participants in the domestic abuse program. The average age of the participants was 34, with about 97% of the men being court ordered to participate. About 50% of the men identified as African American, with 33% identifying as White. At the first-time point, the engagement of the group was described as mid-range based on the engagement scores. Overtime, the engagement scores increased, with a large effect size observed from Time 1 to Time 2 (.81) and from Time 1 to Time 3 (1.38).

Men, Masculinity, and Gender-Based Violence Prevention

Researchers have discussed the complexity and challenges that come with involving men in gender-based violence prevention (Casey et al., 2012). One challenge comes from gender-based violence prevention efforts often using a feminist framework, theorizing that violence against women is produced by societal norms of gender equality and the acceptability of violence (Crooks, Goodall, Baker, & Hughes, 2006). Men have expressed suspicion of the feminist framework, believing that the

focus of the feminist framework inherently places the blame for such violence on them rather than encouraging men to be allies (Casey, 2010). Consequently, in-person intervention programs to reduce violence have made efforts to increase participation and retention of male participants taking a strengths-based approach (Berkowitz, 2004), encouraging men to connect with the positive and healthy aspects of masculinity (e.g., www.mencanstoprape.org; Casey et al., 2012).

Independent Variables

Positive Masculinity

Traditionally, research focused on men and masculinity has viewed masculinity as toxic and has mostly looked at the ways in which conforming strictly to traditional Western ideologies of masculinity limits male behavior, psychological development, and results in gender role strain, stress, and conflict (Levant, 1996; O'Neil et al., 1995; Pleck, 1995). Given this research, an understanding of the ways in which rigid gender roles impact both men and women and contribute to patriarchal sexism and gender-based violence has developed (Englar-Carlson & Kiselica, 2013). However, some researchers are moving away from the pathologizing of masculinity and are now beginning to focus on how masculinity can be viewed as beneficial and have a positive impact on the lives of men and their communities (Isacco, Talovic, Chromik, & Yallum, 2012; Kiselica, 2011).

Positive masculinity approaches reframe qualities of traditional masculinity by focusing on the adaptive character strengths, emotions, and virtues of men that promote well-being and resiliency in themselves and others (Isacco et al., 2012). These qualities of masculinity may include the drive to take risks, be dominant, as

well as pursuing high status (Hammer & Good, 2010). Focusing on positive aspects of masculinity moves away from only taking the detrimental effects of masculinity into consideration and encourages men to use their masculinity in a positive manner to improve themselves and society (Englar-Carlson & Kiselica, 2013). Positive masculinity approaches instill hope in men and functions on the expectation that men will make positive contributions to their communities (Englar-Carlson & Kiselica, 2013).

Despite the movement to take a positive approach with regards to masculinity, little research has been conducted to examine the effects of positive masculinity on well-being. However, Hammer and Good (2010) explored the relationships among conformity to masculine norms and the following positive psychological constructs: courage, grit, personal control, autonomy, physical endurance and fitness, resilience, self-esteem, and life satisfaction. Participants were asked to complete a series of online measures assessing conformity to masculine norms and the mentioned positive psychological constructs.

The sample consisted of 250 men between the ages of 18 and 79, with the mean age being 35.68 ($SD= 13.46$). The majority of the sample identified as White (75%) and heterosexual (72%). Results indicated that endorsement of the masculine norm emotional control negative correlated with courage ($r= -.16, p< .05$), endorsement of self-reliance negatively predicted autonomy ($r= -.25, p< .001$), and emotional control ($r= -.26, p< .001$) and self-reliance ($r= -.26, p< .001$) negatively predicted resilience. However, results also indicated that endorsement of some masculine norms was positively related to positive psychological constructs.

Specifically, conformity to the masculine norms risk taking ($r = .32, p < .001$), dominance ($r = .15, p < .05$), violence ($r = .14, p < .05$), and pursuit of status ($r = .17, p < .01$) positively predicted courage. Additionally, endorsement of risk taking ($r = .22, p < .001$) and winning ($r = .17, p < .01$) positively predicted endurance. Moreover, risk taking ($r = .19, p < .01$) and pursuit of status ($r = .18, p < .01$) were positively correlated with resilience, while pursuit of status ($r = .15, p < .05$) was positively correlated with self-esteem.

Appealing to Empathy

Making gender-based violence prevention feel relevant to men also can be a challenge. Men may believe that dating violence is a “women’s issue” and has little direct relevance to them (Crooks et al., 2007), despite the fact that college men and women have similar dating violence victimization rates (Shorey et al., 2012). However, as reviewed previously, Piccigallo et al. (2012) found that men reported being more engaged in an in-person sexual assault prevention program when they had empathy for sexual assault victims, mostly from knowing someone that had been sexually assaulted in the past.

Other research also has demonstrated a connection between empathy and prosocial helping behaviors (Eisenberg & Fabes, 1990) and defending victims of bullying (Caravita et al., 2009; Gini et al., 2008). While much of this research has been done with children and adolescents, it can be used as a framework to work with college-age students. Caravita et al. (2009) examined the relationship between cognitive empathy, social preference, perceived popularity, and involvement in bullying situations by bullying other or defending victims of bullying. Participants

were 266 primary school and 195 secondary school students in Northern Italy. The primary school children ranged in age from 8 to 10 years, with the mean age being 9 years and 4 months ($SD= 6$ months), while the secondary school children ranged from ages 11 to 14 years with the mean age being 12 years and 5 months ($SD= 7$ months).

Participants were asked to complete paper questionnaires assessing the desired constructs. Using structural equation modeling, the researchers determined that the model fit was good $\chi^2(158) = 222.80, p = .001; CFI = .98; TLI = .97; RMSEA = .03; SRMR = .04$). In this model, bullying was negatively linked to affective empathy ($\beta = -.19, p < .05$) and social preference ($\beta = -.44, p < .01$), and positively to perceived popularity ($\beta = .50, p < .001$), whereas defending was positively associated with both affective empathy ($\beta = .28, p < .01$) and social preference ($\beta = .47, p < .001$).

Gini et al. (2008) tested a conceptual model in which empathy and perceived social self-efficacy were considered determinants of participant behavior in bullying situations. Participants included 294 early adolescent Italian students. The mean age of the sample was 13.3 ($SD= .53$). Participants were asked to complete a series of paper measures assessing bystander behavior in bullying situations, empathy, and perceived social self-efficacy. Results indicated that the tested model strongly fit the data $\chi^2(4, n=294)=4.83, p=0.31; GFI=0.99, AGFI=0.97, CFI=1.00, RMSEA=0.027$ (90% confidence interval: 0.00–0.09). Moreover, the model accounted for 33% of the variance in active bystander behavior and 22% of the variance in passive bystander behavior. Empathy was positive associated with both active and passive bystander behavior in bullying situations ($\beta = .21$ and $.29$, respectively), while perceived social self-efficacy was positively associated with active bystander behaviors ($\beta = .13$).

Additionally, low levels of perceived social self-efficacy were associated with passive bystander behaviors in bullying situations ($\beta = -.35$).

Another study explored which factors encourage someone to be an active bystander in bullying contexts (Abbott & Cameron, 2014). Participants included 855 secondary school children (327 males, 520 females and 8 who did not disclose their gender) from eight schools in South East England. About 95% of participants identified as native to the United Kingdom, whereas about 5% identified as immigrants. Participants ranged from 11 to 13 years old with the mean age being 12.4 ($SD = .51$). The majority of the sample identified as White-British (88.5%). Participants were asked to complete a questionnaire with measures assessing intergroup contact, empathy, cultural openness, in-group bias, intergroup anxiety, and assertive bystander intentions. Results indicated high inter-group contact was related to high levels of cultural openness, which in turn was associated with high assertive bystander intentions. Additionally, high intergroup contact was associated with high levels of empathy, which in turn was related to high assertive bystander intentions.

Similarly, Machackova and Pfetsch (2016) explored the roles of affective and cognitive empathy on providing support to victims of bullying or reinforcing the bully's behavior. Participants were asked to complete paper questionnaires with measures assessing empathy, normative beliefs about aggression, and responses to online and offline cyber bullying. Participants were 321 German students ranging in age from 12 to 18 years old ($M = 14.99$, $SD = 1.64$). The majority of the sample (90%) indicated that they were born in Germany. Moreover, 86% of participants indicated they had a computer in their bedroom and 96% of the sample reported having access

to the Internet. The proposed model demonstrated good fit: $RMSEA = 0.042$, $CFI = 0.998$, $TLI = 0.946$, $\chi^2 = 1.553$, $p = 0.212$. In the model, normative beliefs about aggression were associated with reinforcing the bully's behavior. Additionally, affective and cognitive empathy predicted supportive responses to the victim of offline bullying, but only affective empathy predicted supportive response to the victim of cyberbullying.

However, the connection between empathy, men, and gender-based violence prevention participation has been explored to a lesser degree. One study explored the impact of a sexual assault intervention that included building empathy for victims through education about the psychological and emotional impact of sexual assault (Stewart, 2014). Participants included 36 college students. The majority of the participants (35) identified as men while one participant identified as female-to-male transgender. The sample was comprised 14% first year students, 17% sophomores, 33% juniors, and 36% senior students. The majority of participants identified as heterosexual (86%), with 8% identifying as gay, and 6% as bisexual. About 28% of participants were fraternity members. The participants ranged in age from 18 to 22 years old, with the mean age being 20.33 ($SD = 1.26$). Participants completed a series of online measures one week before the intervention (i.e., baseline measures) and two weeks after participating in the intervention (i.e., posttest measures) Results indicated that men who participated in the intervention demonstrated a decrease in hostile ($t(35) = 2.49$, $p < .05$, $d = .45$), and benevolent sexism ($t(35) = 2.27$, $p < .05$, $d = .34$), as well as rape myth acceptance ($t(35) = 2.67$, $p < .05$, $d = .87$). Moreover, the male participants showed an increase from baseline to posttest in willingness to engage in

collective action to end sexual assault ($t(35) = 2.82, p < .01, d = -.62$), bystander efficacy ($t(35) = 4.31, p < .001, d = -.95$), and feminist activism ($t(35) = 5.79, p < .001, d = -1.11$).

To summarize, research has established that there is a connection between masculinity, ability to detect warning signs of dating violence, and engagement in gender-based violence prevention. However, most research examining these connections have used samples participating in in-person prevention groups and has been qualitative in nature. Moreover, there is an establish connection between empathy and engagement in prosocial behaviors. However, these connections have been established using children and adolescent samples and have focused on bullying interventions.

The current study extends knowledge by examining these connections using a quantitative, experimental design with college men participating in an online intervention aimed to educate participants regarding types of dating violence and behaviors indicative of power and control. The purpose of this study was to assess multiple methods for increasing risk recognition of warning signs of dating violence and engagement in an online dating violence intervention to educate participants regarding types of dating violence and behaviors indicative of power and control with a sample of heterosexual, undergraduate men. Specifically, this study aimed to explore the degree to which several online intervention methods (i.e., appeal to masculinity, appeal to empathy, appeal to masculinity and empathy, and control condition) increase the ability to recognize warning signs of dating violence and engagement in an online intervention to educate participants regarding types of dating

violence and behaviors indicative of power and control with a sample of heterosexual, undergraduate men.

Research Hypotheses

The hypotheses were as follows:

1. All participants regardless of randomly assigned condition would demonstrate an increase in ability to recognize warning signs of dating violence from pretest to posttest in all five domains (i.e., Monitoring Behaviors, Controlling Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors) after participating in the online dating violence intervention.
2. Participants in the appeal to masculinity group, the appeal to empathy group, and the combined appeal to masculinity and empathy group would show more in ability to recognize warning signs of dating violence when compared to participants in the control condition in all five domains (i.e., Monitoring Behaviors, Controlling Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors) after participating in the online dating violence intervention.
3. Participants in the appeal to masculinity group, appeal to empathy group, and the combined appeal to masculinity and empathy group would demonstrate more engagement in online intervention when compared to participants in the control condition.
4. Exploration question: To what degree might participants in one experimental condition (e.g., appeal to masculinity and empathy) have demonstrated larger

increases in abilities to recognize warning signs of dating violence and engagement than participants in another experimental condition (i.e., appeal to empathy or appeal to masculinity)?

5. Participants would retain knowledge on ability to recognize warning signs of dating violence in all five domains (i.e., Monitoring Behaviors, Controlling Behaviors, Demeaning Behaviors, Threatening and Aggressive Behaviors, and Jealous and Possessive Behaviors); scores on these measures will remain stable regardless of condition two weeks after participating in the online dating violence intervention.

Appendix B

STOP Dating Violence Component 1 Script (O'Brien, Lemay, Kearney, Sauber, & Venaglia, 2016)

| | Script |
|---|---|
| 1 | <p>Welcome to STOP Dating Violence. We are a team of researchers from the University of Maryland who created an intervention to end dating violence on our campus.</p> <p>We will teach you about unhealthy romantic relationships.</p> <p>Let's begin.*</p> |
| 2 | <p>Dating violence refers to a pattern of abusive behaviors within a romantic relationship * Partner violence can happen in both same and cross sex couples and includes physical*, psychological* and sexual abuse.*</p> |
| 3 | <p>Physical abuse is what many people think when they hear the words "dating violence" - some examples are shoving* , hitting* , kicking* , or holding someone down.*</p> |
| 4 | <p>Psychological abuse often involves verbal or emotional abuse – yelling * , threatening* and name-calling.*</p> |
| 5 | <p>Other forms of psychological abuse include behaviors that tend to be mean * , degrading, or coercive, such as stalking* , monitoring* , or trying to control your partner.* These behaviors can happen online or in-person. Examples include demanding to have the password to your phone * or telling you who you can or cannot hang out with. *</p> |
| 6 | <p>Next is sexual abuse* – which some people think can't happen in dating relationships. * But anything that pressures someone into unwanted sexual activity, even in a relationship, is abuse. This might include forcing you to have sex after you have said no* or insisting that you have unprotected sex.*</p> |
| 7 | <p>Now that we have described dating violence, we want you to imagine your best friend has been dating someone for three months.* What are some "red flags" or warning signs of dating violence that you might notice? **</p> <p>Maybe this exercise was easy for you and you came up with a bunch of behaviors you would consider red flags, or maybe you're not sure what behaviors you could be looking for. *</p> |
| 8 | <p>To help you recognize warning signs of dating violence, we will describe some common red flags.*</p> |

| | |
|----|--|
| 9 | <p>A couple is at a restaurant having dinner, when one partner goes to the restroom and leaves his cell phone on the table. His boyfriend begins to look through his text messages without his partner's permission. This is a monitoring behavior. *</p> |
| 10 | <p>Which of the following also is a monitoring behavior? *</p> <p>A) Viewing your partner's social media page to see pictures of a party * B) Calling your partner multiple times a day to check in on them* or C) Texting your partner to ask if they are okay, after they are 15 minutes late to a date***</p> <p>That's right, B: calling your partner multiple times a day to check in on them is another example of a monitoring behavior. *</p> |
| 11 | <p>Here is another example of a red flag. Whenever a girl tries to make plans with her friends, her girlfriend tells her that she shouldn't go and that they should only hang out with each other. This is called a controlling behavior.*</p> |
| 12 | <p>Which of the following are also controlling behaviors? *</p> <p>A) Telling your partner how to dress* B) Asking your partner to come to a school event* C) Telling your partner that you need some alone time over the weekend* D) Preventing your partner from seeing their family***</p> <p>Did you select A: telling your partner how to dress and D: preventing your partner from seeing their family? These are also controlling behaviors because one person is limiting their partner's freedom.*</p> |
| 13 | <p>For the next example, imagine a girl is getting ready to attend a concert with her boyfriend. When he picks her up, he tells her that her outfit makes her thighs look huge. This is considered a demeaning behavior.</p> <p>Demeaning behaviors include hurting a person's self-esteem, such as calling them names.*</p> |
| 14 | <p>Which of the following is also a demeaning behavior? *</p> <p>A) Telling your dating partner she/he can't do anything right* B) Getting upset when a dating partner cancels a date * or C) Telling your dating partner you don't want to spend time with her/his family***</p> |

| | |
|----|---|
| | The answer is A: Telling your dating partner she/he can't do anything right.* |
| 15 | Now picture a couple at a party. When the girl tries to ask her boyfriend a question during the game, he shoots her an angry look that frightens her and says, "it's time for us to leave" through gritted teeth. This is a threatening and aggressive behavior.* |
| 16 | Which of these behaviors is NOT threatening and aggressive? * A) Saying you are going to destroy your partner's belongings* B) Yelling at your partner over a small mistake* or C) Arguing with your partner about what to do over the weekend*** |
| 17 | That's right, the answer is C: Arguing with your partner about what to do over the weekend Other threatening and aggressive behaviors include threatening to destroy a dating partner's belongings* or yelling at a dating partner.* |
| 18 | Ok – just one more example about warning signs. A guy notices his girlfriend talking to another guy. He walks up to her, pulls her away, and demands to know how long she has been cheating on him. This is considered a jealous and possessive behavior.* |
| 19 | Now please identify the two examples of inappropriate jealousy or possessiveness out of the following:.* A) Preventing your partner from talking to other people at a party* B) Accusing your partner of not being loving enough despite repeated assurances otherwise* C) Asking your partner about their previous romantic relationships* D) Arguing with your partner when they disclose that they cheated*** Did you pick A: Preventing your partner from talking to other people at a party and B Accusing your partner of not being loving enough despite repeated assurances otherwise? Those are also jealous and possessive behaviors.* |
| 20 | Great job! Now you have learned how to recognize red flags of unhealthy relationships.* Thank you. *** |
| 21 | Let's put your new knowledge to the test! Please answer the questions on the following page. |

Appendix C

Relationship Red Flags (Kearney & O'Brien, 2016)

Instructions: Please rate if each of the following items is a warning sign for dating violence from “not at all a warning sign” to “very much a warning sign” using the following scale:

- 1= Not at all a warning sign
- 2= Slightly a warning sign
- 3= Quite a bit a warning sign
- 4= Very much a warning sign

| | | | | |
|--|---|---|---|---|
| 1. Calls dating partner names | 1 | 2 | 3 | 4 |
| 2. Encourages dating partner to follow her/his dreams | 1 | 2 | 3 | 4 |
| 3. Lacks interest in doing things together | 1 | 2 | 3 | 4 |
| 4. Makes decisions for dating partner | 1 | 2 | 3 | 4 |
| 5. Threatens to harm dating partner's property | 1 | 2 | 3 | 4 |
| 6. Makes negative comments about dating partner's body | 1 | 2 | 3 | 4 |
| 7. Tells dating partner not to hang out with friends | 1 | 2 | 3 | 4 |
| 8. Checks dating partner's email without permission | 1 | 2 | 3 | 4 |
| 9. Constantly insults dating partner | 1 | 2 | 3 | 4 |
| 10. Can make dating partner afraid with looks | 1 | 2 | 3 | 4 |
| 11. Rarely agrees to attend dating partner's family events | 1 | 2 | 3 | 4 |
| 12. Trusts dating partner | 1 | 2 | 3 | 4 |
| 13. Yells at dating partner | 1 | 2 | 3 | 4 |
| 14. Accuses dating partner of cheating | 1 | 2 | 3 | 4 |
| 15. Checks dating partner's cell phone without permission | 1 | 2 | 3 | 4 |
| 16. Tells dating partner how to dress | 1 | 2 | 3 | 4 |
| 17. Does not share similar interests with dating partner | 1 | 2 | 3 | 4 |
| 18. Accuses dating partner of not loving her/him | 1 | 2 | 3 | 4 |
| 19. Has an explosive temper | 1 | 2 | 3 | 4 |
| 20. Calls multiple times a day to see what dating partner is doing | 1 | 2 | 3 | 4 |
| 21. Threatens to share embarrassing photo of dating partner | 1 | 2 | 3 | 4 |
| 22. Encourages dating partner to spend time with friends | 1 | 2 | 3 | 4 |
| 23. Tells dating partner not to spend time with family | 1 | 2 | 3 | 4 |
| 24. Extremely jealous | 1 | 2 | 3 | 4 |
| 25. Pressures dating partner into sexual activities | 1 | 2 | 3 | 4 |
| 26. Accuses dating partner of flirting with other people | 1 | 2 | 3 | 4 |
| 27. Is boring | 1 | 2 | 3 | 4 |
| 28. Is honest with dating partner | 1 | 2 | 3 | 4 |
| 29. Possessive | 1 | 2 | 3 | 4 |
| 30. Interferes with dating partner's ability to study | 1 | 2 | 3 | 4 |
| 31. Tells dating partner she/he cannot do anything right | 1 | 2 | 3 | 4 |
| 32. Communicates thoughts well | 1 | 2 | 3 | 4 |

| | | | | |
|--|---|---|---|---|
| 33. Often uses the internet to check where dating partner is | 1 | 2 | 3 | 4 |
| 34. Checks dating partner's social media contacts | 1 | 2 | 3 | 4 |
| 35. Wants to spend a lot of time with friends without dating partner | 1 | 2 | 3 | 4 |

*****Subscales*****

Monitoring Behaviors: 8,15, 20, 33, 34

Controlling Behaviors: 4, 7, 16, 23, 30

Demeaning Behaviors: 1, 6, 9, 21, 31

Threatening and Aggressive Behaviors: 5, 10, 13, 19, 25

Jealous and Possessive Behaviors: 14, 18, 25, 26, 29

Appendix D

Modified Task Value Subscale of the Motivated Strategies for Learning

Questionnaire (Pintrich, 1991)

Instructions: Please rate the following items based on your thoughts during this intervention. Your rating should be on a 7-point scale where 1= not at all true of me to 7=very true of me.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. I think I will be able to use what I learned from this intervention in the real world. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. It is important for me to learn the material in this intervention. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. I am very interested in the content area of this intervention. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I think the material in this intervention is useful for me to learn. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I like the subject matter of this intervention. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Understanding the subject matter of this intervention is important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix E

Education about Dating Violence

Instructions: The following is a series of statements related education about dating violence and domestic violence. Please indicate the extent to which you were or are involved in each of the following using the following scale:

- 1= Not at all
- 2= Some
- 3=Quite a Bit
- 4= Very much

| | |
|--|---------|
| 1. To what degree did you learn about dating violence in a course(s) focused on violence? | 1 2 3 4 |
| 2. To what degree did you learn about domestic violence in a course(s) focused on violence? | 1 2 3 4 |
| 3. To what extent did you learn about dating violence in a course lecture(s) about violence? | 1 2 3 4 |
| 4. To what extent did you learn about domestic violence in a course lecture(s) about violence? | 1 2 3 4 |
| 5. To what degree have you participated in a training experience related to dating violence? | 1 2 3 4 |
| 6. To what degree have you participated in a training experience related to domestic violence? | 1 2 3 4 |
| 7. To what degree have you been exposed to relationship violence through a family member(s) who has experienced abuse in their relationship? | 1 2 3 4 |

Appendix F

Conformity to Masculine Norms Inventory-46 (Parent & Moradi, 2009)

Instructions: The following pages contain a series of statements about how men might think, feel or behave. The statements are designed to measure attitudes, beliefs, and behaviors associated with both traditional and non-traditional masculine gender roles. Thinking about your own actions, feelings and beliefs, please indicate how much you personally agree or disagree with each statement by circling 0 for "Strongly Disagree", 1 for "Disagree", 2 for "Agree," or 3 for "Strongly agree" to the left of the statement. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

0 = Strongly Disagree
 1 = Disagree
 2 = Agree
 3 = Strongly Agree

| | |
|--|---------|
| 1. In general, I will do anything to win | 0 1 2 3 |
| 2. If I could, I would frequently change sexual partners | 0 1 2 3 |
| 3. I hate asking for help | 0 1 2 3 |
| 4. I believe that violence is never justified | 0 1 2 3 |
| 5. Being thought of as gay is not a bad thing | 0 1 2 3 |
| 6. In general, I do not like risky situations | 0 1 2 3 |
| 7. Winning is not my first priority | 0 1 2 3 |
| 8. I enjoy taking risks | 0 1 2 3 |
| 9. I am disgusted by any type of violence | 0 1 2 3 |
| 10. I ask for help when I need it | 0 1 2 3 |
| 11. My work is the most important part of my life | 0 1 2 3 |
| 12. I would only have sex if I was in a committed relationship | 0 1 2 3 |
| 13. I bring up my feelings when talking to others | 0 1 2 3 |

| | |
|--|---------|
| 14. I would be furious if someone thought I was gay | 0 1 2 3 |
| 15. I don't mind losing | 0 1 2 3 |
| 16. I take risks | 0 1 2 3 |
| 17. It would not bother me at all if someone thought I was gay | 0 1 2 3 |
| 18. I never share my feelings | 0 1 2 3 |
| 19. Sometimes violent action is necessary | 0 1 2 3 |
| 20. In general, I control the women in my life | 0 1 2 3 |
| 21. I would feel good if I had many sexual partners | 0 1 2 3 |
| 22. It is important for me to win | 0 1 2 3 |
| 23. I don't like giving all my attention to my work | 0 1 2 3 |
| 24. It would be awful if people thought I was gay | 0 1 2 3 |
| 25. I like to talk about my feelings | 0 1 2 3 |
| 26. I never ask for help | 0 1 2 3 |
| 27. More often than not, losing does not bother me | 0 1 2 3 |
| 28. I frequently put myself in risky situations | 0 1 2 3 |
| 29. Women should be subservient to men | 0 1 2 3 |
| 30. I am willing to get into a physical fight if necessary | 0 1 2 3 |
| 31. I feel good when my work is my first priority | 0 1 2 3 |
| 32. I tend to keep my feelings to myself | 0 1 2 3 |
| 33. Winning is not important to me | 0 1 2 3 |
| 34. Violence is almost never justified | 0 1 2 3 |
| 35. I am happiest when I'm risking danger | 0 1 2 3 |

| | |
|--|---------|
| 36. It would be enjoyable to date more than one person at a time | 0 1 2 3 |
| 37. I would feel uncomfortable if someone thought I was gay | 0 1 2 3 |
| 38. I am not ashamed to ask for help | 0 1 2 3 |
| 39. Work comes first | 0 1 2 3 |
| 40. I tend to share my feelings | 0 1 2 3 |
| 41. No matter what the situation I would never act violently | 0 1 2 3 |
| 42. Things tend to be better when men are in charge | 0 1 2 3 |
| 43. It bothers me when I have to ask for help | 0 1 2 3 |
| 44. I love it when men are in charge of women | 0 1 2 3 |
| 45. I hate it when people ask me to talk about my feelings | 0 1 2 3 |
| 46. I try to avoid being perceived as gay | 0 1 2 3 |

*****Subscales*****

Winning- 1, 7, 715, 22, 27, 33

Emotional Control- 13, 18, 25, 32, 40, 45

Risk-Taking- 6, 8, 16, 28, 35

Violence- 4, 9, 19, 30, 34, 41

Power Over Women- 20, 29, 42, 44

Playboy- 2, 12, 21, 36

Self-Reliance- 3, 10, 26, 38, 43

Primacy of Work- 11, 23, 31, 39

Heterosexual Self-Presentation- 5, 14, 17, 24, 37, 46

Appendix G

Empathic Concern Subscale of Interpersonal Reactivity Index (Davis, 1980)

Instructions: The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. **READ EACH ITEM CAREFULLY BEFORE RESPONDING.** Answer as honestly as you can. Thank you.

| | | | | |
|---------------------------------|---|---|---|---------------------------|
| A | B | C | D | E |
| Does not describe me well | | | | Describes me very well |

| | | | | | |
|---|---|---|---|---|---|
| 1. I often have tender, concerned feelings for people less fortunate than me. | A | B | C | D | E |
| 2. Sometimes I don't feel very sorry for other people when they are having problems. | A | B | C | D | E |
| 3. When I see someone being taken advantage of, I feel kind of protective towards them. | A | B | C | D | E |
| 4. Other people's misfortunes do not usually disturb me a great deal. | A | B | C | D | E |
| 5. I am often quite touched by things that I see happen. | A | B | C | D | E |
| 6. I would describe myself as a pretty soft-hearted person. | A | B | C | D | E |

Appendix H

Protective Paternalism Subscale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996)

Instructions: Below is a series of statements concerning men and women and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement using the following scale:

- 0- Disagree Strongly
- 1- Disagree Somewhat
- 2- Disagree Slightly
- 3- Agree Slightly
- 4- Agree Somewhat
- 5- Agree Strongly

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. In a disaster, women ought not necessarily to be rescued before men. | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Women should be cherished and protected by men. | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. A good woman should be set on a pedestal by her man. | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Men should be willing to sacrifice their own well being to financially provide for the women in their lives. | 0 | 1 | 2 | 3 | 4 | 5 |

Appendix I

Demographics Questionnaire

1. Age: _____
2. Race/Ethnicity:
 - a. Asian or Asian American
 - b. Black or African American
 - c. Hispanic/Latino
 - d. American Indian or Alaska Native
 - e. White or European American
 - f. Biracial/ Multicultural
 - g. Other
3. What is your ethnicity (e.g., Korean, Pakistani, Irish)? _____
4. What is your generational status?
 - a. First generation (I was born in another country and moved to the U.S. as an adult)
 - b. 1.5 generation (I was born in another country and moved to the U.S. as a young child)
 - c. 2nd generation (I was born in the U.S., but my parent was born in another country)
 - d. 3rd generation (I was born in the U.S. and my parent was born in the U.S., but my grandparent was born in another country)
 - e. 4th generation (I was born in the U.S. and my parents and grandparents were also born in the U.S.)

5. Undergraduate Year Classification

- a. First year
- b. Sophomore
- c. Junior
- d. Senior

6. Undergraduate Major(s):

7. Are you an undergraduate student at the University of Maryland?

- a. Yes
- b. No

8. Relationship Status:

- a. Single
- b. Dating but not Committed
- c. In a Relationship
- d. Engaged
- e. Married

9. If in a relationship, how long have you been romantically involved with your current partner? _____ Months

10. To what degree was there relationship violence in your home while you were growing up?

- a. Not at all
- b. Some
- c. Quite a bit

d. An extreme amount

11. Are you affiliated with a Greek organization (i.e., fraternity)?

a. Yes

b. No

12. Have you ever been a victim of dating violence?

a. Yes

b. No

13. Have you ever been a perpetrator of dating violence?

a. Yes

b. No

14. How did you learn about this research?

a. SONA system

b. Email

c. Listserv posting

d. In person invitation to participate

Appendix J

Manipulation Check Items

Instructions: After reading the above paragraph, please respond to the following items using the scale below:

- 1= Not at all
 2= Slightly
 3=Moderately
 4= Very much
 5= A great amount

| Appeal to Masculinity Items | Scale | | | | |
|--|--------------|---|---|---|---|
| 1. Men have the power to reduce dating violence. | 1 | 2 | 3 | 4 | 5 |
| 2. It is important to take risks to help victims of dating violence. | 1 | 2 | 3 | 4 | 5 |
| 3. It is important for men to take a stand against dating violence | 1 | 2 | 3 | 4 | 5 |
| 4. How important is it for men to protect victims of dating violence? | 1 | 2 | 3 | 4 | 5 |
| 5. How important is it to educate young men about dating violence? | 1 | 2 | 3 | 4 | 5 |
| Appeal to Empathy Items | | | | | |
| 1. I feel empathy toward people harmed by dating violence | 1 | 2 | 3 | 4 | 5 |
| 2. How able are you to name five things a victim of dating violence might experience? | 1 | 2 | 3 | 4 | 5 |
| 3. To what degree can you imagine what it might feel like to be physically or psychologically hurt by your romantic partner? | 1 | 2 | 3 | 4 | 5 |
| 4. It is important to understand the feelings of victims of dating violence | 1 | 2 | 3 | 4 | 5 |
| 5. I can understand how victims of dating violence might feel. | 1 | 2 | 3 | 4 | 5 |
| Filler Items | | | | | |
| 1. I know how to help a victim of dating violence. | 1 | 2 | 3 | 4 | 5 |
| 2. Dating violence is difficult to detect. | 1 | 2 | 3 | 4 | 5 |
| 3. I want to learn how to help victims of dating violence | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| 4. I know the resources to give victims of dating violence. | 1 | 2 | 3 | 4 | 5 |
| 5. I can see myself stepping up to help a victims of dating violence. | 1 | 2 | 3 | 4 | 5 |

Table 1: *Demographics of Sample for Study 1*

| Variable | Total % | (N) |
|---|------------|-------|
| Race/Ethnicity | | |
| American Indian/ Alaska Native | .7 | (2) |
| Asian/ Asian American | 20.3 | (59) |
| Biracial/Multiracial | 5.5 | (16) |
| Black/African American | 9.0 | (26) |
| Lantinx | 4.8 | (14) |
| White/ European American | 58.3 | (169) |
| Other | 1.4 | (4) |
| Generational Status | | |
| First Generation | 3.8 | (11) |
| 1.5 Generation | 7.6 | (22) |
| Second Generation | 29.3 | (85) |
| Third Generation | 12.8 | (37) |
| Fourth Generation | 46.6 | (135) |
| Undergraduate Year Classification | | |
| First Year | 33.4 | (97) |
| Sophomore | 20.0 | (58) |
| Junior | 24.8 | (72) |
| Senior | 21.7 | (63) |
| Relationship Status | | |
| Single | 63.8 | (185) |
| Dating, but not committed | 5.9 | (17) |
| In a relationship | 28.6 | (83) |
| Engaged | 1.7 | (5) |
| Member of Fraternity | | |
| Yes | 12.8 | (37) |
| No | 87.2 | (253) |
| Victim of Dating Violence | | |
| Yes | 9.7 | (28) |
| No | 90.3 | (262) |
| Perpetrator of Dating Violence | | |
| Yes | 4.5 | (13) |
| No | 95.5 | (277) |
| To what degree was there relationship violence in your home while you were growing up? | | |
| Not at all | 76.6 | (222) |
| Some | 15.2 | (44) |
| Quite a bit | 6.2 | (18) |
| An extreme amount | 2.1 | (6) |

Table 2: *Demographics of Sample for Follow Up Study*

| Variable | Total % | (N) |
|---|------------|------|
| Race/Ethnicity | | |
| American Indian/ Alaska Native | | |
| Asian/ Asian American | 19.4 | (12) |
| Biracial/Multiracial | 4.8 | (3) |
| Black/African American | 8.1 | (5) |
| Lantinx | 4.8 | (3) |
| White/ European American | 62.9 | (39) |
| Generational Status | | |
| First Generation | 3.2 | (2) |
| 1.5 Generation | 8.1 | (5) |
| Second Generation | 24.2 | (15) |
| Third Generation | 8.1 | (5) |
| Fourth Generation | 56.5 | (35) |
| Undergraduate Year Classification | | |
| First Year | 33.9 | (21) |
| Sophomore | 19.4 | (12) |
| Junior | 30.6 | (19) |
| Senior | 16.1 | (10) |
| Relationship Status | | |
| Single | 66.1 | (41) |
| Dating, but not committed | 1.6 | (1) |
| In a relationship | 32.3 | (20) |
| Member of Fraternity | | |
| Yes | 8.1 | (5) |
| No | 91.9 | (57) |
| Victim of Dating Violence | | |
| Yes | 9.7 | (6) |
| No | 90.3 | (56) |
| Perpetrator of Dating Violence | | |
| Yes | 6.5 | (4) |
| No | 93.5 | (58) |
| To what degree was there relationship violence in your home while you were growing up? | | |
| Not at all | 83.9 | (52) |
| Some | 12.9 | (8) |
| Quite a bit | 3.2 | (2) |

Table 3: *Sample Correlations for Study 1*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|----------------|-------|-------|-------|-------|-------|------|---------|------|-------|-------|------|-------|-------|-------|------|------|-------|--------|-------|
| 1. Monitor | 1 | | | | | | | | | | | | | | | | | | |
| 2. Control | .82* | 1 | | | | | | | | | | | | | | | | | |
| 3. Demean | .73* | .78* | 1 | | | | | | | | | | | | | | | | |
| 4. Threaten | .60* | .64* | .73* | 1 | | | | | | | | | | | | | | | |
| 5. Jealous | .74* | .73* | .75* | .67* | 1 | | | | | | | | | | | | | | |
| 6. Common | .28* | .35* | .30 | .19 | .31 | 1 | | | | | | | | | | | | | |
| 7. Engage | .36* | .38* | .42* | .43* | .45* | .14 | 1 | | | | | | | | | | | | |
| 8. DV Edu | -.02 | -.03 | -.06 | .01 | -.04 | .12 | .15* | 1 | | | | | | | | | | | |
| 9. Winning | -.06 | -.01 | -.08 | -.05 | -.06 | .18 | -.07 | -.01 | 1 | | | | | | | | | | |
| 9. Emotion | -.06 | -.08 | -.10 | -.14 | -.12 | -.02 | -.14 | -.01 | .16* | 1 | | | | | | | | | |
| 10. Risk | .02 | -.04 | -.05 | -.00 | -.07 | .06 | -.02 | .08 | .25* | .07 | 1 | | | | | | | | |
| 11. Violence | -.16* | -.13 | -.15 | -.08 | -.16* | -.02 | -.21* | -.02 | .34* | .06 | .37* | 1 | | | | | | | |
| 12. POW | -.18* | -.25* | -.18* | -.22* | -.18* | .22* | -.20* | .01 | .26* | .12 | .20* | .18* | 1 | | | | | | |
| 13. Playboy | -.06 | -.13 | -.16* | -.10 | -.08 | .13 | -.08 | .08 | .21* | -.03 | .18* | .30* | .16* | 1 | | | | | |
| 14. Self R | -.06 | -.00 | -.04 | -.05 | -.02 | .08 | -.08 | .05 | .21* | .42* | .10 | .17* | .14 | .02 | 1 | | | | |
| 15. Work | -.02 | .07 | .04 | -.01 | .05 | .13 | .00 | .08 | .28* | .20* | .11 | .06 | .03 | -.01 | .26* | 1 | | | |
| 16. HSP | -.01 | -.06 | -.04 | -.08 | -.01 | .10 | -.08 | .03 | .25* | .24* | .10 | .13 | .47* | .01 | .07 | .00 | 1 | | |
| 17. Empathy | .03 | .10 | .13 | .18* | .07 | .05 | .20* | -.01 | -.19* | -.30* | -.05 | -.24* | -.19* | -.15* | -.14 | -.07 | -.24* | 1 | |
| 18. Sexism | .03 | -.03 | -.00 | .07 | .05 | .21* | .13 | .09 | .08 | .04 | .09 | .06 | .36* | -.09 | -.03 | -.06 | .34* | .07 | 1 |
| Mean | 3.1 | 3.0 | 3.3 | 3.6 | 3.0 | 1.6 | 3.4 | 11.0 | 9.3 | 8.3 | 6.8 | 10.0 | 2.0 | 4.0 | 6.6 | 5.7 | 6.8 | 13.3 | 2.7 |
| SD | .7 | .7 | .6 | .5 | .7 | .5 | .9 | 3.9 | 3.5 | 3.8 | 2.9 | 3.8 | 2.1 | 2.7 | 2.5 | 2.3 | 4.2 | 3.5 | 1.2 |
| Range | 1.8-4 | 1.8-4 | 2.2-4 | 2.6-4 | 1.8-4 | 1-4 | 1.3-4.7 | 7-19 | 4-16 | 2-15 | 2-12 | 3-17 | 0-6 | 0-8 | 3-11 | 2-10 | 0-14 | 6.7-18 | 1-4.6 |
| Possible Range | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-7 | 7-25 | 0-18 | 0-18 | 0-15 | 0-18 | 0-12 | 0-12 | 0-15 | 0-12 | 0-18 | 0-24 | 0-5 |
| Alpha | .88 | .83 | .82 | .78 | .85 | .74 | .92 | .82 | .87 | .90 | .87 | .86 | .86 | .80 | .86 | .79 | .89 | .76 | .68 |

Note: * $p < .001$, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors, Common= Common Conflict Behaviors, Engage= Engagement, DV Edu= Dating & Domestic Violence Education, Emotion= Emotional Control, Risk= Risk Taking, POW = Power Over Women, Self R= Self Reliance, Work= primacy of Work, HSP= Heterosexual Self Presentation, Empathy= Chronic Empathy, Sexism= Benevolent Sexism, SD= Standard Deviation, PR

Table 4: *Univariate Tests of the Effects of Time, Time*Masculinity, Time*Empathy, and Time*Masculinity*Empathy for Relationship Red Flags Domains for Study 1*

| Source | Variable | SS | df | MS | F | p | Partial η^2 |
|------------------------------|----------|-------|-----|-------|----------|------|------------------|
| Time | | | | | | | |
| | Monitor | 27.88 | 1 | 27.88 | 168.06** | .000 | .37 |
| | Control | 23.88 | 1 | 23.88 | 182.63** | .000 | .39 |
| | Demean | 40.06 | 1 | 40.06 | 368.06** | .000 | .56 |
| | Threaten | 26.89 | 1 | 26.89 | 216.66** | .000 | .43 |
| | Jealous | 42.00 | 1 | 42.00 | 289.96** | .000 | .50 |
| Time*Masculinity | | | | | | | |
| | Monitor | .06 | 1 | .06 | .37 | .543 | .00 |
| | Control | .64 | 1 | .64 | 4.87 | .028 | .02 |
| | Demean | .27 | 1 | .27 | 2.52 | .113 | .01 |
| | Threaten | 2.56 | 1 | 2.56 | 20.60** | .000 | .07 |
| | Jealous | .08 | 1 | .08 | .58 | .449 | .00 |
| Time* Empathy | | | | | | | |
| | Monitor | .36 | 1 | .36 | 2.16 | .143 | .01 |
| | Control | .04 | 1 | .04 | .27 | .607 | .00 |
| | Demean | .42 | 1 | .42 | 3.88 | .050 | .01 |
| | Threaten | 2.40 | 1 | 2.40 | 19.34** | .000 | .06 |
| | Jealous | .01 | 1 | .01 | .09 | .767 | .00 |
| Time*Masculinity *Empathy | | | | | | | |
| | Monitor | .10 | 1 | .10 | .59 | .433 | .00 |
| | Control | .09 | 1 | .09 | .71 | .402 | .00 |
| | Demean | 1.38 | 1 | 1.38 | 12.71** | .000 | .04 |
| | Threaten | 1.22 | 1 | 1.22 | 9.80* | .002 | .03 |
| | Jealous | 1.13 | 1 | 1.13 | 7.78* | .006 | .03 |
| Error | | | | | | | |
| | Monitor | 48.44 | 292 | .17 | | | |
| | Control | 38.18 | 292 | .13 | | | |
| | Demean | 31.78 | 292 | .11 | | | |
| | Threaten | 36.24 | 292 | .12 | | | |
| | Jealous | 42.29 | 292 | .15 | | | |

Note: * $p < .01$, ** $p < .001$, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors

Table 5: *Pairwise Comparisons for Relationship Red Flags Domains for Study 1*

| Outcome Variable | Time 2: Post-test M (SE) | Time 1: Pre-test M (SE) | Mean Difference | Standard Error | <i>p</i> | 95% Confidence Interval | |
|------------------|--------------------------|-------------------------|-----------------|----------------|----------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Monitor | 3.07 (.04) | 2.63 (.04) | .44* | .03 | .000 | .37 | .50 |
| Control | 2.96 (.04) | 2.55 (.04) | .40* | .03 | .000 | .35 | .46 |
| Demean | 3.29 (.04) | 2.77 (.03) | .52* | .03 | .000 | .47 | .58 |
| Threaten | 3.57 (.03) | 3.14 (.03) | .43* | .03 | .000 | .37 | .49 |
| Jealous | 2.96 (.04) | 2.43 (.03) | .54* | .03 | .000 | .47 | .60 |

Note: * $p < .001$, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors

Table 6: *Tests of the Within-Subjects Effects of Time and Time*Condition for Common Conflict Behaviors Domain of Relationship Red Flags Scale for Study 1*

| Source | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|----------------|-----------|-----------|-----------|----------|----------|------------------|
| Time | 15.40 | 1 | 15.40 | 73.72* | .000 | .20 |
| Time*Condition | 6.78 | 3 | 2.26 | 10.83* | .000 | .10 |
| Error | 60.95 | 292 | .21 | | | |

*Note: *p<.001*

Table 7: *Pairwise Comparisons for Common Conflict Behaviors for All Conditions for Study 1*

| Condition | Time 2: Post-test M (SE) | Time 1: Pre-test M (SE) | Mean Difference | Standard Error | <i>p</i> | 95% Confidence Interval | |
|-------------|--------------------------------|-------------------------------|--------------------|-------------------|----------|----------------------------|----------------|
| | | | | | | Lower Bound | Upper Bound |
| Masculinity | 1.55 (.06) | 1.55 (.08) | .01 | .08 | .912 | -.14 | .16 |
| Empathy | 1.65 (.06) | 2.0 (.08) | -.32* | .08 | .000 | -.47 | -.16 |
| Combined | 1.60 (.06) | 2.0 (.08) | -.42* | .08 | .000 | -.57 | -.27 |
| Control | 1.57 (.06) | 2.14 (.07) | -.57* | .07 | .000 | -.71 | -.43 |

Note: * $p < .001$, Masculinity= Appeal to Masculinity, Empathy= Appeal to Empathy, Combined= Appeal to Masculinity & Empathy

Table 8: *Multivariate Tests of the Within-Subjects Effects of Time and Time*Empathy within each level of Masculinity for Demeaning Behaviors for Study 1*

| Level of Masculinity | Source | SS | df | MS | F | p | Partial η^2 |
|----------------------|--------------|-------|-----|-------|---------|------|------------------|
| No Masculinity | Time | 24.12 | 1 | 24.12 | 234.11* | .000 | .61 |
| | Time*Empathy | .14 | 1 | .14 | 1.38 | .242 | .01 |
| | Error | 15.55 | 151 | .10 | | | |
| Masculinity | Time | 16.42 | 1 | 16.42 | 142.68* | .000 | .50 |
| | Time*Empathy | 1.63 | 1 | 1.63 | 14.12* | .000 | .09 |
| | Error | 16.23 | 141 | .12 | | | |

*Note: *p<.001*

Table 9: *Univariate Tests of the Simple Effects of Empathy within each level of Masculinity within Time for Demeaning Behaviors for Study 1*

| Level of Masculinity | Time | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|----------------------|-----------|----------|-----------|-----------|-----------|----------|----------|------------------|
| No Masculinity | Pre-test | Contrast | .00 | 1 | .00 | .00 | .988 | .00 |
| | | Error | 41.96 | 151 | .28 | | | |
| | Post-test | Contrast | .29 | 1 | .29 | .85 | .357 | .01 |
| | | Error | 51.81 | 151 | .34 | | | |
| Masculinity | Pre-test | Contrast | 1.55 | 1 | 1.55 | 4.43 | .037 | .03 |
| | | Error | 49.33 | 141 | .35 | | | |
| | Post-test | Contrast | .31 | 1 | .31 | .83 | .363 | .01 |
| | | Error | 52.52 | 141 | .37 | | | |

Table 10: *Multivariate Tests of the Within-Subjects Effects of Time and Time*Masculinity within each level of Masculinity for Demeaning Behaviors for Study 1*

| Level of Empathy | Source | SS | df | MS | F | p | Partial η^2 |
|------------------|------------------|-------|-----|-------|---------|------|------------------|
| No Empathy | Time | 16.97 | 1 | 16.97 | 158.62* | .000 | .51 |
| | Time*Masculinity | 1.52 | 1 | 1.52 | 14.21* | .000 | .08 |
| | Error | 16.48 | 154 | .107 | | | |
| Empathy | Time | 23.20 | 1 | 23.20 | 209.21* | .000 | .60 |
| | Time*Masculinity | .20 | 1 | .20 | 1.83 | .179 | .01 |
| | Error | 15.31 | 138 | .11 | | | |

Note: * $p < .001$

Table 11: *Univariate Tests of the Simple Effects of Masculinity within each level of Empathy within Time for Demeaning Behaviors for Study 1*

| Level of Empathy | Time | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|------------------|-----------|----------|-----------|-----------|-----------|----------|----------|------------------|
| No Empathy | Pre-test | Contrast | .34 | 1 | .34 | 1.08 | .300 | .01 |
| | | Error | 49.62 | 154 | .32 | | | |
| | Post-test | Contrast | 1.34 | 1 | 1.34 | 3.28 | .072 | .02 |
| | | Error | 63.18 | 154 | .41 | | | |
| Empathy | Pre-test | Contrast | .45 | 1 | .45 | 1.44 | .232 | .01 |
| | | Error | 43.69 | 138 | .31 | | | |
| | Post-test | Contrast | .00 | 1 | .00 | .00 | .956 | .00 |
| | | Error | 41.15 | 138 | .30 | | | |

Table 12: *Multivariate Tests of the Within-Subjects Effects of Time and Time*Empathy within each level of Masculinity for Threatening and Aggressive Behaviors for Study 1*

| Level of Masculinity | Source | SS | df | MS | F | p | Partial η^2 |
|----------------------|--------------|-------|-----|-------|---------|------|------------------|
| No Masculinity | Time | 23.63 | 1 | 23.63 | 162.60* | .000 | .52 |
| | Time*Empathy | .10 | 1 | .10 | .71 | .402 | .01 |
| | Error | 21.95 | 151 | .15 | | | |
| Masculinity | Time | 6.27 | 1 | 6.27 | 61.84* | .000 | .31 |
| | Time*Empathy | 3.43 | 1 | 3.43 | 33.81* | .000 | .19 |
| | Error | 14.29 | 141 | .10 | | | |

Note: * $p < .001$

Table 13: *Univariate Tests of the Simple Effects of Empathy within each level of Masculinity within Time for Threatening and Aggressive Behaviors for Study1*

| Level of Masculinity | Time | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|----------------------|-----------|----------|-----------|-----------|-----------|----------|----------|------------------|
| No Masculinity | Pre-test | Contrast | .19 | 1 | .19 | .60 | .439 | .00 |
| | | Error | 47.21 | 151 | .31 | | | |
| | Post-test | Contrast | .00 | 1 | .00 | .00 | .969 | .00 |
| | | Error | 33.32 | 151 | .22 | | | |
| Masculinity | Pre-test | Contrast | 3.80 | 1 | 3.80 | 18.30* | .000 | .12 |
| | | Error | 29.29 | 141 | .21 | | | |
| | Post-test | Contrast | .45 | 1 | .45 | 1.82 | .180 | .01 |
| | | Error | 34.63 | 141 | .25 | | | |

*Note: *p<.001*

Table 14: *Pairwise Comparisons of the Simple Effects of Empathy within each level of Masculinity within Time for Threatening and Aggressive Behaviors for Study1*

| Level of Masculinity | Time | Level of Empathy (I) | Level of Empathy (J) | Mean Difference (I-J) | Standard Error | <i>p</i> | 95% Confidence Interval | |
|----------------------|------|----------------------|----------------------|-----------------------|----------------|----------|-------------------------|-------------|
| | | | | | | | Lower Bound | Upper Bound |
| No Masculinity | | | | | | | | |
| | 1 | No Empathy | Empathy | .07 | .09 | .439 | -.11 | .25 |
| | 2 | No Empathy | Empathy | -.00 | .08 | .969 | -.15 | .15 |
| Masculinity | | | | | | | | |
| | 1 | No Empathy | Empathy | .33* | .08 | .000 | .18 | .48 |
| | 2 | No Empathy | Empathy | -.11 | .08 | .180 | -.28 | .05 |

*Note: *p*<.001, 1= Time 1 (Pre-test), 2= Time 2 (Post-test)

Table 15: *Multivariate Tests of the Within-Subjects Effects of Time and Time*Masculinity within each level of Masculinity for Threatening and Aggressive Behaviors for Study 1*

| Level of Empathy | Source | SS | df | MS | F | p | Partial η^2 |
|------------------|------------------|-------|-----|-------|---------|------|------------------|
| No Empathy | Time | 6.96 | 1 | 6.96 | 66.54* | .000 | .30 |
| | Time*Masculinity | 3.84 | 1 | 3.84 | 36.73* | .000 | .19 |
| | Error | 16.10 | 154 | .11 | | | |
| Empathy | Time | 21.60 | 1 | 21.60 | 148.05* | .000 | .52 |
| | Time*Masculinity | .12 | 1 | .12 | .80* | .371 | .01 |
| | Error | 20.14 | 138 | .15 | | | |

Note: * $p < .001$

Table 16: *Univariate Tests of the Simple Effects of Masculinity within each level of Empathy within Time for Demeaning Behaviors for Study 1*

| Level of Empathy | Time | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|------------------|-----------|----------|-----------|-----------|-----------|----------|----------|------------------|
| No Empathy | Pre-test | Contrast | 4.10 | 1 | 4.10 | 17.77* | .000 | .10 |
| | | Error | 35.57 | 154 | .23 | | | |
| | Post-test | Contrast | .56 | 1 | .56 | 2.00 | .159 | .01 |
| | | Error | 42.75 | 154 | .28 | | | |
| Empathy | Pre-test | Contrast | .18 | 1 | .18 | .59 | .444 | .01 |
| | | Error | 40.93 | 138 | .30 | | | |
| | Post-test | Contrast | .00 | 1 | .00 | .02 | .877 | .00 |
| | | Error | 25.19 | 138 | .18 | | | |

*Note: *p<.001*

Table 17: *Pairwise Comparisons of the Simple Effects of Masculinity within each level of Empathy within Time for Threatening and Aggressive Behaviors for Study1*

| Level of Empathy | Time | Level of Masculinity (I) | Level of Masculinity (J) | Mean Difference (I-J) | Standard Error | <i>p</i> | 95% Confidence Interval | |
|------------------|------|--------------------------|--------------------------|-----------------------|----------------|----------|-------------------------|-------------|
| | | | | | | | Lower Bound | Upper Bound |
| No Empathy | | | | | | | | |
| | 1 | No Masculinity | Masculinity | -.33* | .08 | .000 | -.48 | -.17 |
| | 2 | No Masculinity | Masculinity | .12 | .09 | .159 | -.05 | .29 |
| Empathy | | | | | | | | |
| | 1 | No Masculinity | Masculinity | -.07 | .09 | .444 | -.25 | .11 |
| | 2 | No Masculinity | Masculinity | .01 | .07 | .877 | -.13 | .15 |

Table 18: *Multivariate Tests of the Within-Subjects Effects of Time and Time*Empathy within each level of Masculinity for Jealous and Possessive Behaviors for Study 1*

| Level of Masculinity | Source | SS | df | MS | F | p | Partial η^2 |
|----------------------|--------------|-------|-----|-------|---------|------|------------------|
| No Masculinity | Time | 23.53 | 1 | 23.53 | 179.95* | .000 | .54 |
| | Time*Empathy | .46 | 1 | .46 | 3.53 | .062 | .02 |
| | Error | 19.74 | 151 | .13 | | | |
| Masculinity | Time | 18.68 | 1 | 18.68 | 116.80* | .000 | .45 |
| | Time*Empathy | .67 | 1 | .67 | 4.20 | .042 | .03 |
| | Error | 22.55 | 141 | .16 | | | |

Note: * $p < .001$

Table 19: *Multivariate Tests of the Within Subjects Effects of Time and Time*Masculinity within each level of Masculinity for Jealous and Behaviors for Study 1*

| Level of Empathy | Source | SS | df | MS | F | p | Partial η^2 |
|------------------|------------------|-------|-----|-------|---------|------|------------------|
| No Empathy | Time | 21.33 | 1 | 21.33 | 147.50* | .000 | .49 |
| | Time*Masculinity | .96 | 1 | .96 | 6.63* | .011 | .04 |
| | Error | 22.27 | 154 | .15 | | | |
| Empathy | Time | 20.71 | 1 | 20.71 | 142.75* | .000 | .51 |
| | Time*Masculinity | .29 | 1 | .29 | 1.96 | .164 | .01 |
| | Error | 20.02 | 138 | .15 | | | |

Note: * $p < .001$

Table 20: *Univariate Tests of the Simple Effects of Masculinity within each level of Empathy within Time for Jealous and Possessive for Study 1*

| Level of Empathy | Time | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|------------------|-----------|----------|-----------|-----------|-----------|----------|----------|------------------|
| No Empathy | Pre-test | Contrast | .13 | 1 | .13 | .44 | .507 | .00 |
| | | Error | 46.33 | 154 | .30 | | | |
| | Post-test | Contrast | 1.04 | 1 | 1.04 | 2.07 | .152 | .01 |
| | | Error | 77.34 | 154 | .50 | | | |
| Empathy | Pre-test | Contrast | .54 | 1 | .54 | 2.06 | .154 | .02 |
| | | Error | 36.27 | 138 | .26 | | | |
| | Post-test | Contrast | .00 | 1 | .00 | .00 | .977 | .00 |
| | | Error | 57.17 | 138 | .41 | | | |

Table 21: *Analysis of Variance for Engagement with Intervention*

| Source | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|-----------|-----------|-----------|-----------|----------|----------|---------------------|
| Condition | 3 | .02 | .01 | .19 | .903 | .00 |
| Error | 292 | 8.36 | .03 | | | |
| Total | 296 | 83.81 | | | | |

Table 22: *Univariate Tests of the Within-Subjects Effects of Time and Time*Condition for Relationship Red Flags Domains at Follow-up*

| Source | Variable | SS | df | MS | F | p | Partial η^2 |
|------------------------------|----------|-------|-----|------|--------|------|------------------|
| Time | | | | | | | |
| | Monitor | 7.70 | 2 | 3.85 | 21.54* | .000 | .27 |
| | Control | 5.67 | 2 | 2.84 | 23.57* | .000 | .29 |
| | Demean | 9.56 | 2 | 4.78 | 60.09* | .000 | .51 |
| | Threaten | 7.11 | 2 | 3.56 | 45.66* | .000 | .45 |
| | Jealous | 13.02 | 2 | 6.51 | 51.46* | .000 | .47 |
| Time*Masculinity | | | | | | | |
| | Monitor | .44 | 2 | .22 | 1.23 | .296 | .02 |
| | Control | .35 | 2 | .18 | 1.45 | .238 | .03 |
| | Demean | .08 | 2 | .04 | .52 | .598 | .01 |
| | Threaten | 1.28 | 2 | .64 | 8.22* | .000 | .13 |
| | Jealous | .05 | 2 | .02 | .18 | .834 | .00 |
| Time* Empathy | | | | | | | |
| | Monitor | .45 | 2 | .23 | 1.27 | .281 | .02 |
| | Control | .49 | 2 | .24 | 2.02 | .137 | .03 |
| | Demean | .05 | 2 | .02 | .30 | .742 | .01 |
| | Threaten | .01 | 2 | .00 | .03 | .971 | .00 |
| | Jealous | .09 | 2 | .04 | .35 | .708 | .01 |
| Time*Masculinity *Empathy | | | | | | | |
| | Monitor | .47 | 2 | .24 | 1.31 | .273 | .02 |
| | Control | .44 | 2 | .22 | 1.82 | .167 | .03 |
| | Demean | .52 | 2 | .26 | 3.24 | .043 | .05 |
| | Threaten | .57 | 2 | .29 | 3.68 | .028 | .06 |
| | Jealous | .70 | 2 | .35 | 2.78 | .066 | .05 |
| Error | | | | | | | |
| | Monitor | 20.39 | 114 | .18 | | | |
| | Control | 13.71 | 114 | .12 | | | |
| | Demean | 9.07 | 114 | .08 | | | |
| | Threaten | 8.88 | 114 | .08 | | | |
| | Jealous | 14.42 | 114 | .13 | | | |

Note: * $p < .001$, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors

Table 23: *Pairwise Comparisons of Time for Relationship Red Flags Scale Domains at Follow-up*

| Domain | Time (I) | Time (J) | Mean Difference (I-J) | Standard Error | <i>p</i> | 95% Confidence Interval for Difference | |
|-----------|-----------|-----------|-----------------------|----------------|----------|--|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Monitor | Pre-test | Post-test | -.47* | .08 | .000 | -.67 | -.27 |
| | | Follow up | -.41* | .09 | .000 | -.63 | -.18 |
| | Post-test | Pre-test | .47* | .08 | .000 | .27 | .67 |
| | | Follow up | .06 | .06 | .847 | -.08 | .20 |
| Control | Pre-test | Post-test | -.40* | .07 | .000 | -.56 | -.23 |
| | | Follow up | -.40* | .07 | .000 | -.54 | -.17 |
| | Post-test | Pre-test | .40* | .07 | .000 | .23 | .56 |
| | | Follow up | .04 | .05 | 1.000 | -.08 | .16 |
| Demean | Pre-test | Post-test | -.51* | .05 | .000 | -.64 | -.38 |
| | | Follow up | -.46* | .06 | .000 | -.61 | -.32 |
| | Post-test | Pre-test | .51* | .05 | .000 | .38 | .64 |
| | | Follow up | .05 | .04 | .615 | -.05 | .16 |
| Threaten | Pre-test | Post-test | -.44* | .05 | .000 | -.58 | -.31 |
| | | Follow up | -.40* | .06 | .000 | -.54 | -.25 |
| | Post-test | Pre-test | .44* | .05 | .000 | .31 | .58 |
| | | Follow up | .05 | .04 | .682 | -.05 | .14 |
| Jealous | Pre-test | Post-test | -.60* | .06 | .000 | -.75 | -.45 |
| | | Follow up | -.54* | .08 | .000 | -.72 | -.35 |
| | Post-test | Pre-test | .60* | .06 | .000 | .45 | .75 |
| | | Follow up | .07 | .06 | .759 | -.08 | .21 |
| Follow up | Pre-test | .54* | .08 | .000 | .35 | .72 | |
| | Post-test | -.07 | .06 | .759 | -.21 | .08 | |

*Note: *p*<.001, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors

Table 24: *Multivariate Tests for the Between Subject Effects of Masculinity*Empathy for Relationship Red Flags Scale Domains at Follow-up*

| Level of Empathy | <i>Pillai's Trace</i> | <i>df</i> | <i>Error df</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|------------------|-----------------------|-----------|-----------------|----------|----------|------------------|
| No Empathy | .30 | 5 | 53 | 4.59* | .001 | .30 |
| Empathy | .08 | 5 | 53 | .93 | .470 | .08 |

*Note: *p= .001*

Table 25: *Univariate Tests for the Between-Subjects Simple Effects of Masculinity within each level of Empathy for Relationship Red Flags Scale Domains at Follow-up*

| Measure | Level of Empathy | | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | Partial η^2 |
|-------------|------------------|----------|-----------|-----------|-----------|----------|----------|------------------|
| Monitor | No Empathy | Contrast | .00 | 1 | .00 | .00 | .982 | .00 |
| | | Error | 17.04 | 57 | .30 | | | |
| | Empathy | Contrast | .26 | 1 | .26 | .87 | .355 | .02 |
| | | Error | 17.04 | 57 | .30 | | | |
| Control | No Empathy | Contrast | .00 | 1 | .00 | .00 | .977 | .00 |
| | | Error | 16.12 | 57 | .28 | | | |
| | Empathy | Contrast | .01 | 1 | .01 | .02 | .895 | .00 |
| | | Error | 16.12 | 57 | .28 | | | |
| Demeaning | No Empathy | Contrast | .12 | 1 | .11 | .54 | .464 | .01 |
| | | Error | 11.35 | 57 | .20 | | | |
| | Empathy | Contrast | .03 | 1 | .03 | .14 | .708 | .00 |
| | | Error | 11.35 | 57 | .20 | | | |
| Threatening | No Empathy | Contrast | .69 | 1 | .69 | 6.55* | .013 | .10 |
| | | Error | 6.03 | 57 | .11 | | | |
| | Empathy | Contrast | .00 | 1 | .00 | .01 | .930 | .00 |
| | | Error | 6.03 | 57 | .11 | | | |
| Jealous | No Empathy | Contrast | .05 | 1 | .05 | .18 | .671 | .00 |
| | | Error | 16.68 | 57 | .29 | | | |
| | Empathy | Contrast | .01 | 1 | .01 | .02 | .896 | .00 |
| | | Error | 16.68 | 57 | .29 | | | |

Note: * $p = .013$, Monitor= Monitoring Behaviors, Control= Controlling Behaviors, Demean= Demeaning Behaviors, Threaten= Threatening & Aggressive Behaviors, Jealous= Jealous & Possessive Behaviors

Table 26: *Pairwise Comparisons of Masculinity*Empathy for Threatening and Aggressive Behaviors at Follow-up*

| Level of Empathy | Level of Masculinity (I) | Level of Masculinity(J) | Mean Difference (I-J) | Standard Error | <i>p</i> | 95% Confidence Interval | |
|------------------|--------------------------|-------------------------|-----------------------|----------------|----------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| No Empathy | No Masculinity | Masculinity | -.29* | .12 | .013 | -.52 | -.06 |
| Empathy | No Masculinity | Masculinity | .01 | .12 | .930 | -.24 | .26 |

*Note: *p= .013*

Table 27: *Pairwise Comparisons of Time*Masculinity for Threatening and Aggressive Behaviors at Follow-up*

| Level of Masculinity | Time (I) | Time (J) | Mean Difference (I-J) | Standard Error | <i>p</i> | 95% Confidence Interval for Difference | |
|----------------------|-----------|-----------|-----------------------|----------------|----------|--|-------------|
| | | | | | | Lower Bound | Upper Bound |
| No Masculinity | Pre-test | Post-test | -.62** | .07 | .000 | -.79 | -.44 |
| | | Follow up | -.58** | .08 | .000 | -.78 | -.39 |
| | Post-test | Pre-test | .62** | .07 | .000 | .44 | .79 |
| | | Follow up | .03 | .05 | 1.000 | -.09 | .16 |
| | Follow up | Pre-test | .58* | .08 | .004 | .39 | .78 |
| | | Post-test | -.03 | .05 | .059 | -.16 | .09 |
| Masculinity | Pre-test | Post-test | -.27* | .08 | .004 | -.47 | -.08 |
| | | Follow up | -.21 | .08 | .059 | -.43 | -.01 |
| | Post-test | Pre-test | .27* | .06 | .004 | .08 | .47 |
| | | Follow up | .06 | .08 | .858 | -.08 | .20 |
| | Follow up | Pre-test | .21 | .09 | .059 | -.01 | .43 |
| | | Post-test | -.06 | .06 | .858 | -.20 | .08 |

Note: * $p < .01$, ** $p < .001$

Figure 1: Protection Motivation Theory Applied to Dating Violence

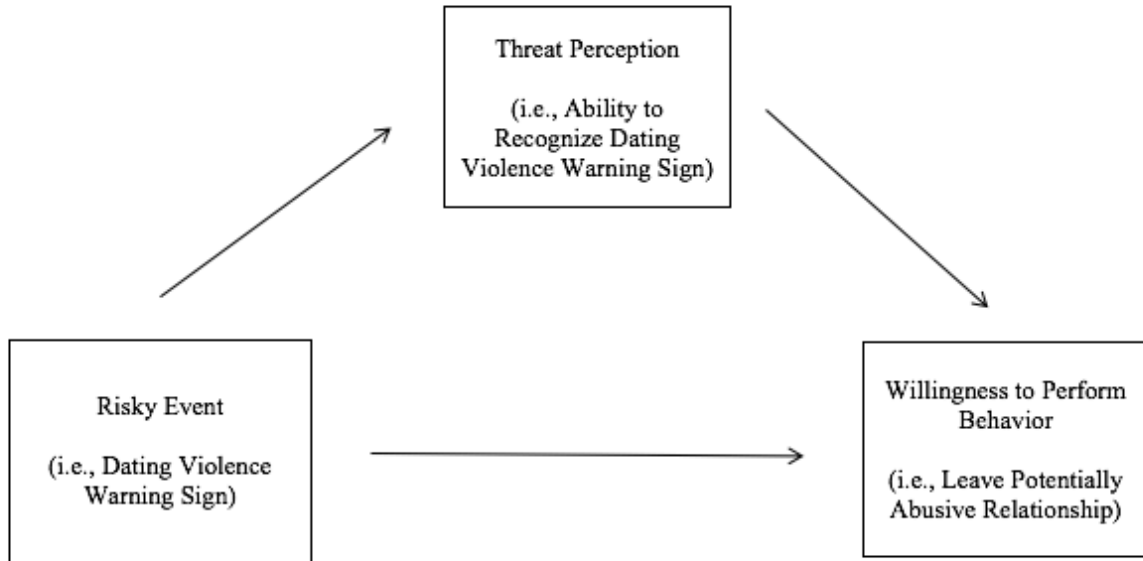


Figure 2: Participant Retention for Study 1

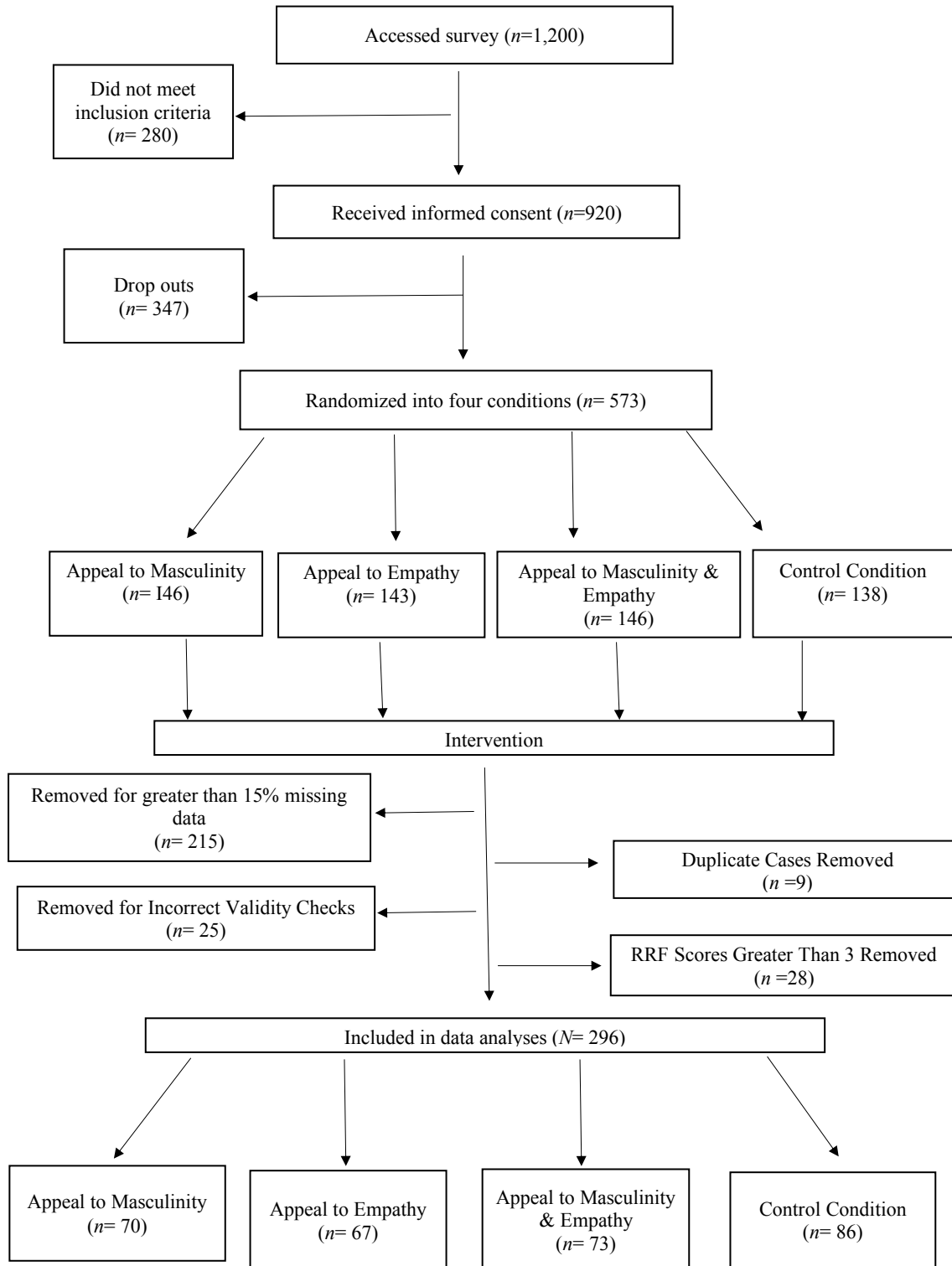


Figure 3: Participant Retention for Follow-up Study

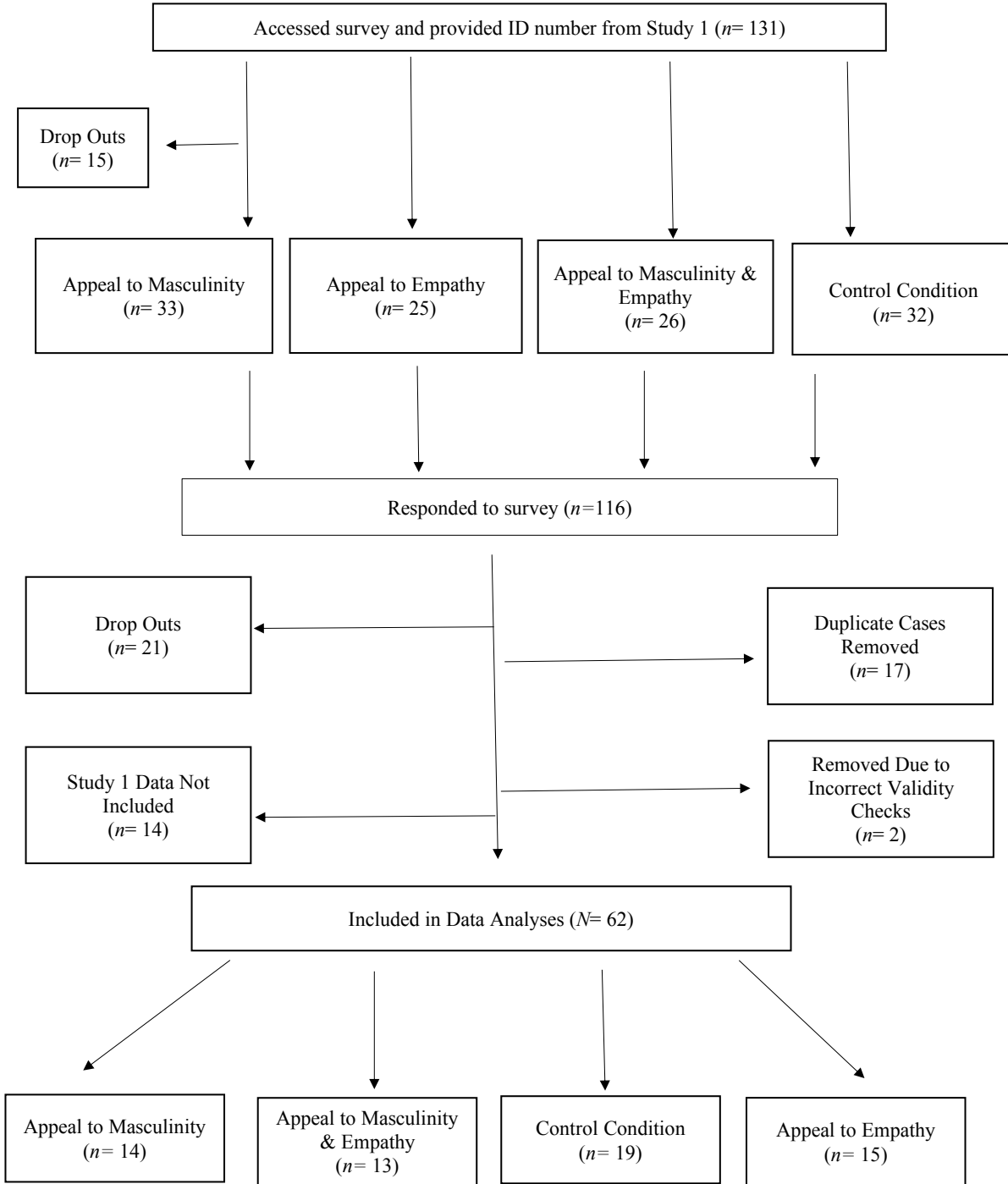


Figure 4: Graph of Interaction Between Time and Condition for Common Conflict Behaviors

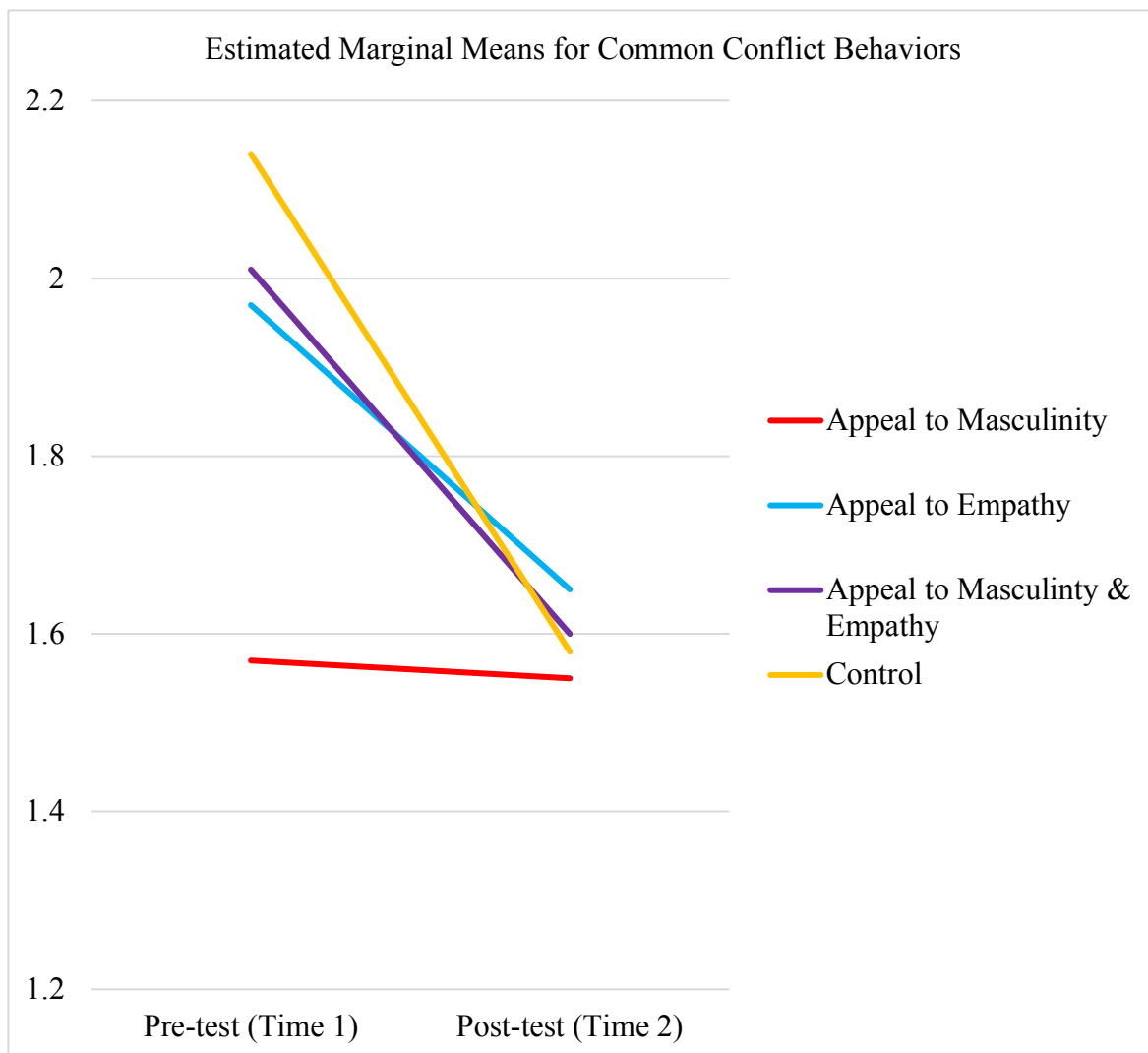


Figure 5: Graph of Interaction Between Time and Condition for Demeaning Behaviors

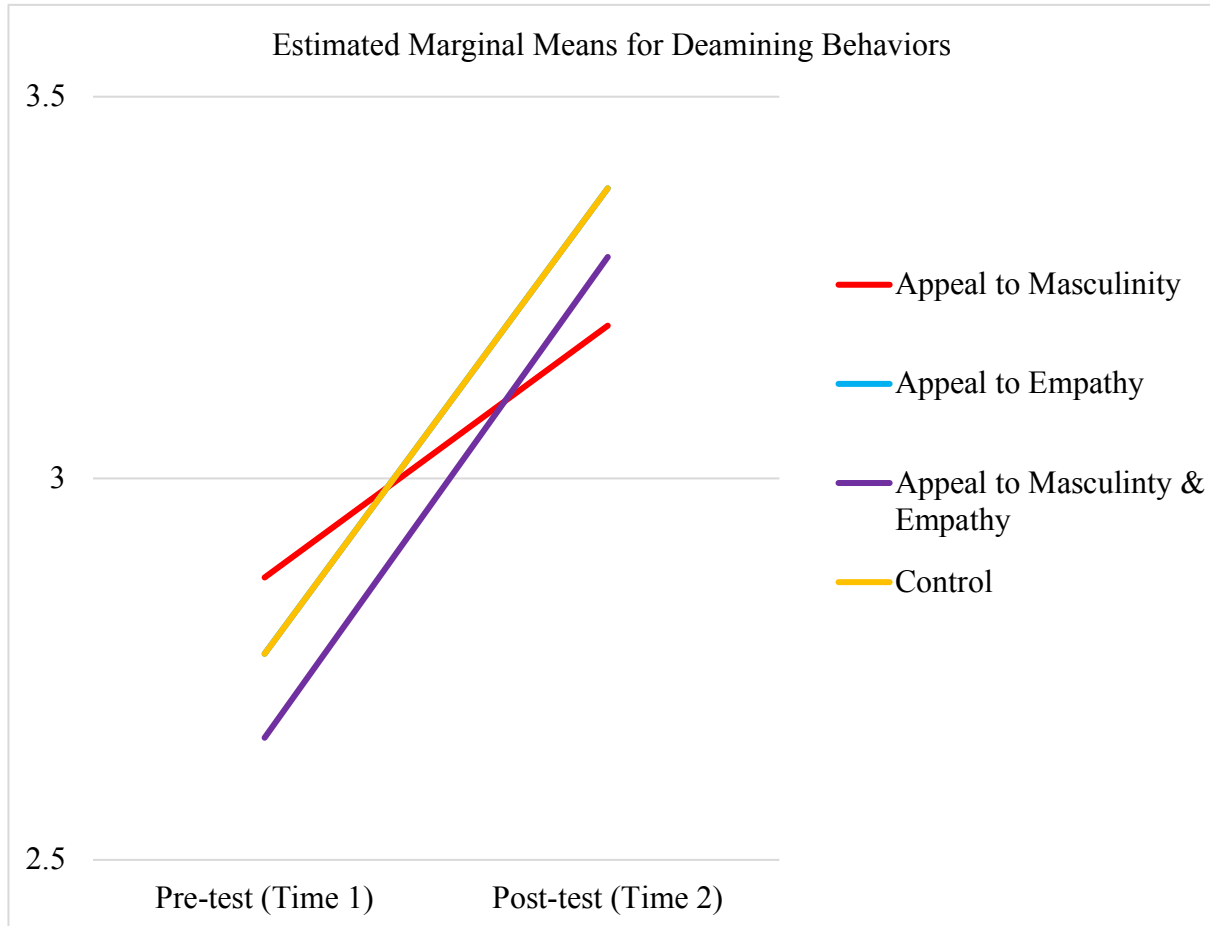


Figure 6: Graph of Interaction Between Time and Condition for Threatening and Aggressive Behaviors

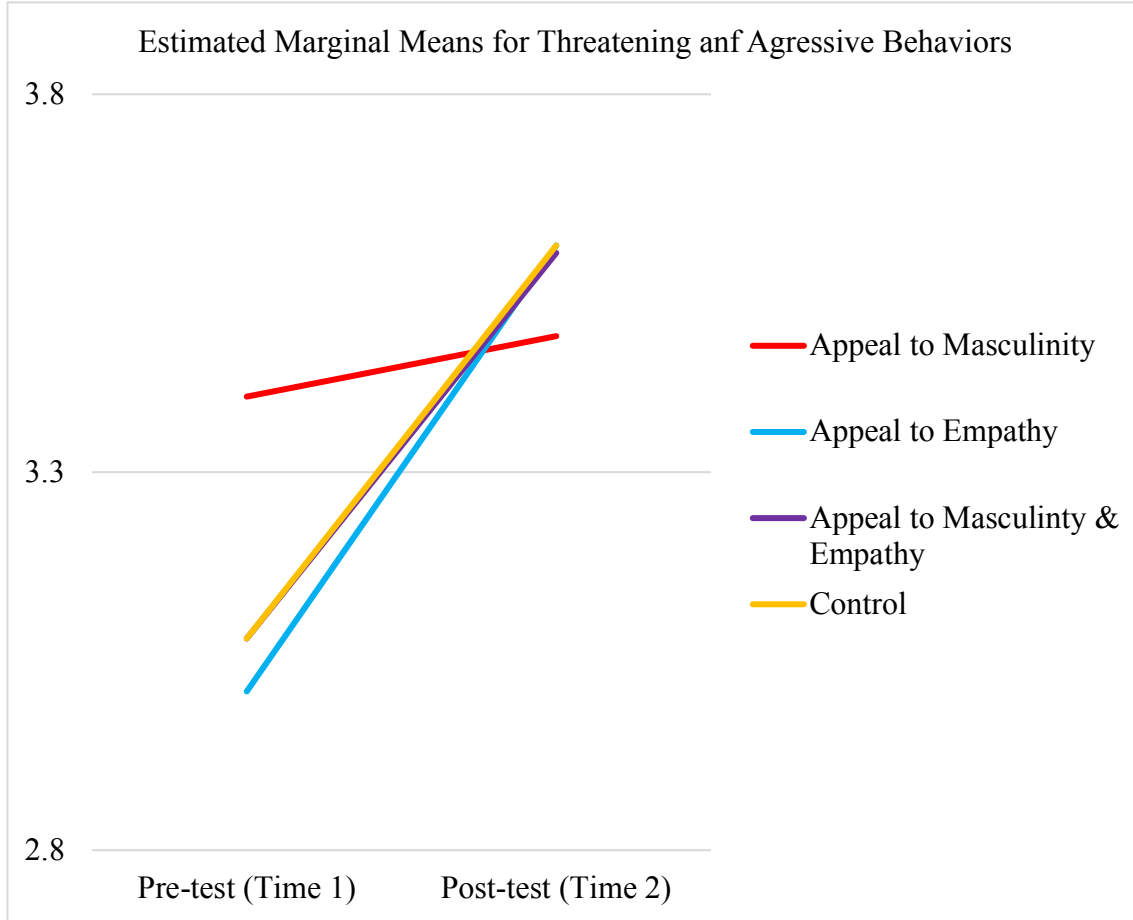
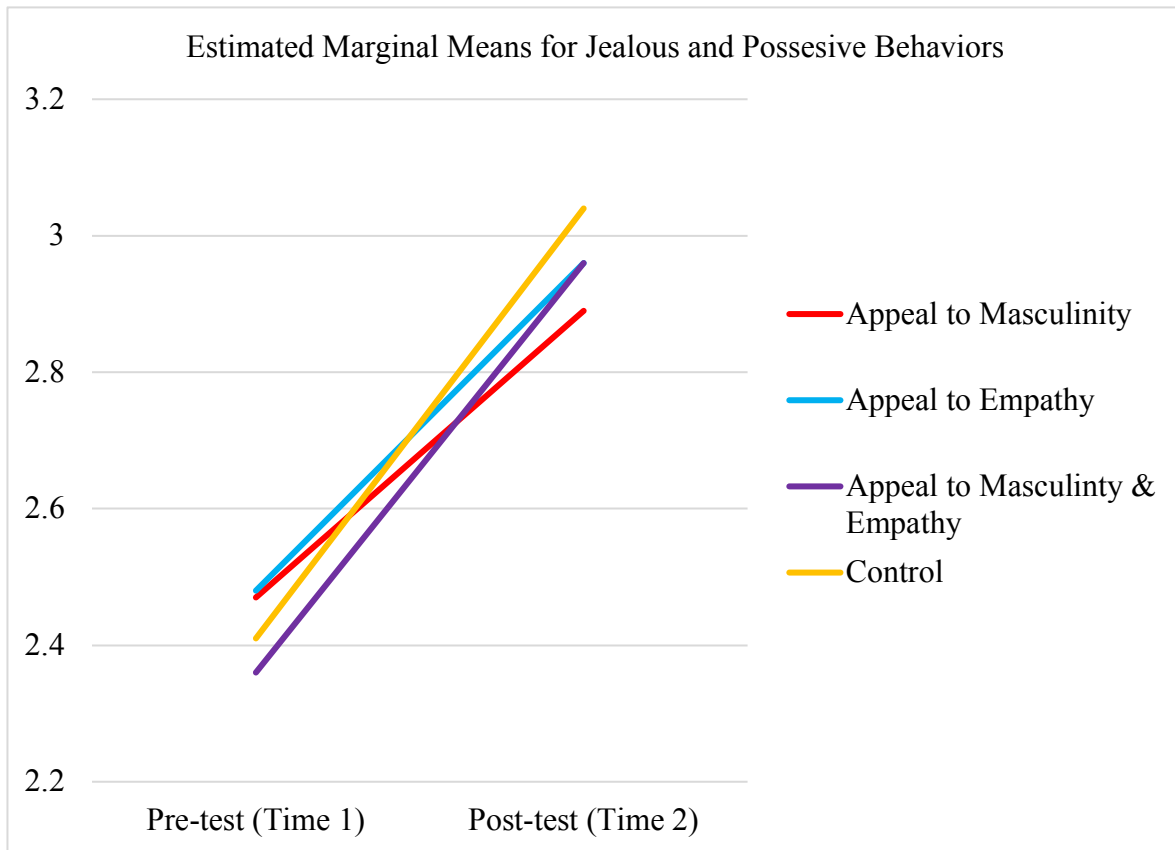


Figure 7: Graph of Interaction Between Time and Condition for Jealous and Possessive Behaviors



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