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AN ECOLOGICALLY-VALID INTERVENTION FOR MEN'S ALCOHOL-RELATED AGGRESSION TOWARD WOMEN

by

KATHRYN E. GALLAGHER

Under the Direction of Dominic J. Parrott, Ph.D.

ABSTRACT

The primary aim of the present investigation was to directly examine a theoretically-based, ecologically-valid intervention and proposed mechanism for reducing at risk men's alcohol-related aggression toward women for the bar setting. This study was developed in response to a critical need to address barriers to interventions for alcohol-related. This literature called for research to empirically investigate (a) specific intervention techniques that reduce aggression, (b) in whom such interventions will have the greatest impact, and (c) the mechanisms that account for such effects.

Results of this study evidenced that the attention-allocation model-inspired intervention, relative to control, was associated with less alcohol-related physical aggression toward a female confederate. This finding held for men who reported lower, but not higher, levels of masculine gender role stress. However, results of the study did not support the hypotheses that intoxicated men who received the intervention, relative to control, would display the lowest levels of negative cognition and that masculine gender role stress would moderate this effect. Thus, the present study successfully

addressed two of the three barriers cited. Discussion focused on how these data inform intervention programming for alcohol-related aggression.

INDEX WORDS: Alcohol consumption, Alcohol myopia theory, Attention-allocation model, Physical aggression, Intervention

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by

KATHRYN E. GALLAGHER

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

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1 INTRODUCTION

It is well established that alcohol is a contributing cause of men's aggression toward women (Abbey, Zawacki, & Buck, 2005; Leonard & Quigley, 1999). Data indicate that men perpetrate more severe acts of violence, and women report more severe effects of injury, if the male perpetrator consumed alcohol at the time of the assault (Testa, Quigley, & Leonard, 2003; Tjaden & Thoennes, 2000). Furthermore, the literature clearly indicates that alcohol-related aggression does not discriminate based on location or victim-perpetrator relationship. Indeed, men's acute alcohol consumption has been linked to women's victimization across contexts, with acquaintance sexual aggression and intimate partner violence being the most prevalent (Testa & Parks, 1996). However, event-based research in bar settings has suggested that women experience more aggression when they interact with men who they do not know then when they interact with an acquaintance (Parks, 2000). As such, it can be argued that acute alcohol intoxication may engender men's aggression toward women under numerous circumstances and independent of men's relationship with the victim.

Nonetheless, the field has identified two settings in which women are *most at risk* to experience alcohol-related aggression from men: the bar and the home (e.g., Leonard, Quigley, & Collins, 2002; Parks, Miller, Collins, & Zetes-Zanatta, 1998; Parks & Miller, 1997). Although both contexts merit investigation, the proposed work will focus on an intervention that may reduce alcohol-related aggression in the bar (or similar pubic settings); it is expected that these data will inform future research for home-based intervention. While it is acknowledged that men are the victims of a great deal of aggression in the bar setting (Leonard et al., 2002), women similarly spend substantial time in bars and encounter high rates of aggression by men (Parks et al., 1998; Parks & Miller, 1997). For example, using both questionnaire and focus-group measures, Parks and Miller (1997) found that 48% of women reported that they had experienced physical aggression (e.g., assault with a weapon) and 33% of women

reported that they had experienced sexual aggression (e.g., completed rape) associated with drinking in a bar. Using prospective daily logs and biweekly interviews over only a 12 week period, Parks (2000) found that 56% of women had experienced verbal (e.g., threat of murder), physical (e.g., grabbed and slapped), or sexual (e.g., forced sexual contact) aggression by men in bars (68% of these instances were nonsexual). Furthermore, past research has shown that approximately 80% of men endorse perpetrating unwanted physical contact against a woman (e.g., groping) in a bar (Thompson & Cracco, 2008).

Nevertheless, not all men perpetrate aggression toward women every time they drink alcohol in a bar. As such, it is critical that research consider strongly the theoretical mechanisms by which alcohol is believed to facilitate aggression toward women, as well as in whom and under what conditions these effects are most likely to be observed. Indeed, it has been emphasized that theoretical approaches to the study of alcohol-related aggression must examine the confluent impacts of alcohol consumption (e.g., theoretical models), aggression-facilitating characteristics of individuals (e.g., individual risk factors), and situational contexts (e.g., risky environments) (Lang, 1993; Leonard, Quigley, & Collins, 2003). Lang (1993) conceptualized this as an interaction of Agent (alcohol) X Host (person) X Environment (situation). However, a dearth of experimental work has taken into account simultaneously these three interrelated domains. The proposed work will address how each area is purported to contribute to an optimal intervention for alcohol-related aggression toward women. Pertinent theory and empirical evidence to this end are reviewed herein.

1.1 Theoretical Explanations for Alcohol-Related Aggression

Substantial scientific advancements during the past several decades have led to the development of numerous theories for the alcohol-aggression relation. The three most prominent explanations for alcohol-related aggression propose that the pharmacological properties of alcohol impact aggressive behavior by impairing the anxiety/fear response (Pihl, Peterson, & Lau, 1993),

increasing arousal (Rule & Nesdale, 1976), and disrupting attentional capacity (Giancola, 2000, 2004; Steele & Josephs, 1990).

1.1.1 Alcohol impairs anxiety/fear.

Extant research on the relation between anxiety/fear and aggression has produced inconsistent findings (for a review, see Greely & Oei, 1999; Sayette, 1993; Parrott, Gallagher, & Zeichner, 2012; Sher, 1987). Specifically, alcohol has been shown to increase, decrease, and have no impact on the anxiety/fear response (Cappell & Greeley, 1987; Sher, 1987; Steele & Josephs, 1988). For instance, while sober, a provoked individual may experience heightened anxiety and/or fear due to the negative consequences (e.g., retaliation, jail) associated with aggressive behavior. In this instance, the experience of anxiety and fear is posited to suppress an aggressive response because the anxiety/fear response facilitates attention toward potential negative consequences. However, if intoxicated, the same individual is presumably less likely to experience anxiety and fear due to the anxiolytic effects of alcohol. As such, the intoxicated individual is more likely to respond with aggressive behavior (Ito, Miller, & Pollock 1996; Phillips & Giancola, 2008).

1.1.2 Alcohol increases arousal.

Increased arousal has been associated with aggressive behavior (for a review, see Anderson & Bushman, 2002; Rule & Nesdale, 1976). Moreover, alcohol consumption has been found to differentially impact arousal on the ascending and descending limbs of the Breath Alcohol Concentration (BrAC) curve (Addicott, Marsh-Richard, Mathias, & Dougherty, 2007; Giancola & Zeichner, 1997; Martin, Earleywine, Musty, Perrine, & Swift, 1993). Specifically, research suggests that human arousal increases during the ascending limb of the BrAC curve when the stimulant effects (e.g., vigor) of alcohol intoxication are most prominent. Conversely, human arousal reportedly decreases during the descending limb of the BrAC curve when the sedative effects (e.g., fatigue) of alcohol intoxication are

most prominent. Accordingly, experimental research has shown that aggression most often occurs during the ascending limb of intoxication (Giancola & Zeichner, 1997).

1.1.3 Alcohol disrupts attentional capacity.

The pharmacological effects of alcohol have been shown to disrupt attentional capacity and working memory, which are central to maintaining inhibitory control over behavior (Giancola, 2000, 2004; Steele & Josephs, 1990). Specifically, the cognitive abilities central to this disruption include abstract reasoning, conceptualization, planning, problem solving, decision making, information processing, and inhibition (Chermack & Giancola, 1997; Kimberg & Farah, 1993; Steele & Josephs, 1990), which are said to comprise an overall construct of executive cognitive functioning (Giancola, 2000). Thus, the robust relation between alcohol-induced cognitive impairment and aggression is not surprising.

Nevertheless, it is important to note that the literature on cognitively mediated intoxicated aggression is extensive, and myriad other factors have been investigated to account for this relation. For example, rather than focusing on the pharmacological effects of alcohol, much research has demonstrated that alcohol-related expectancies also engender aggression (for a review, see Quigley & Leonard, 2006). Though expectancy theory has produced robust findings in the alcohol and aggression literature, other research has found evidence to contradict the expectancy-aggression relationship (e.g., Giancola, Godlaski, & Parrott, 2006; Giancola & Zeichner, 1997). Though interesting, exploring all of these factors is beyond the scope of the proposed project. Thus, the following theoretical discussion will concentrate on how a widely-accepted cognitive explanation of the alcohol and aggression relation – the attention-allocation model of alcohol myopia theory – may inform intervention for alcohol related aggression toward women.

1.2 Attention-Allocation Model – Alcohol as the Agent

One of the most well-accepted cognitive-based theories for intoxicated behavior – alcohol myopia theory – (Steele & Josephs, 1990; Taylor & Leonard, 1983) purports that the pharmacological properties of alcohol narrow attentional focus, restrict both the internal and external cues individuals perceive, and reduce individuals' capacity to process and generate meaning from information they do perceive. One model of alcohol myopia theory, the attention-allocation model, has procured a wealth of support as an explanation for alcohol-related aggression (Gallagher & Parrott, 2011; Giancola & Corman, 2007) and numerous other behaviors of public concern (e.g., unprotected sex: MacDonald, Zanna, & Fong, 1996; drinking and driving: MacDonald, Zanna, & Fong, 1995; suicide: Hufford, 2001; disinhibited eating: Ward & Mann, 2000). According to the attention-allocation model, the pharmacological properties of alcohol impair working memory, which then restricts the inebriate's ability to perceive and process instigatory and inhibitory cues. Because in most real-world situations cues that instigate behavior (e.g., provocation from a woman) are more salient and easier to process than cues that inhibit behavior (e.g., negative consequences of aggression toward women), intoxication is likely to facilitate attention toward cues that instigate behavior. As a result, intoxicated individuals are posited to allocate their attention in such a way that they perceive and process only the most salient cues of a situation (e.g., provocation from a woman) to the exclusion of less salient inhibitory cues (e.g., social norms that proscribe violence toward women). As a consequence of this attentional focus, aggression is more likely to occur.

The attention-allocation model has largely been utilized to explain why alcohol increases aggressive behavior. However, this model also makes the counterintuitive prediction that alcohol may *decrease* aggressive behavior, even below that of *sober* individuals. In a situation where non-provocative cues are most salient, alcohol myopia theory states that the narrowed attentional capacity of the inebriate will be focused on those cues leaving little space in working memory to focus on less

salient provocative cues. In contrast, sober individuals faced with the same situation will still possess sufficient working memory to allocate attention to both sets of cues, thus increasing their likelihood of aggressive action above that of intoxicated individuals.

In line with the tenants of the attention-allocation model, recent findings suggest that cognitive distraction reduces attention toward aggression stimuli and physical aggression among provoked, intoxicated men (Gallagher & Parrott, 2011; Giancola & Corman, 2007). This research postulates that distraction redirects attention away from provocation to reduce alcohol facilitated aggression. Since provocation is one of the greatest elicitors of alcohol-related aggression, this effect is said to be paramount when considering intervention (for a review see Giancola, Josephs, Parrott, & Duke, 2010). For example, in a recent study by Giancola and Corman (2007), participants were randomly administered either an alcohol or placebo beverage and participated in a modified version (Giancola & Zeichner, 1995) of the Taylor Aggression Paradigm (Taylor, 1967). The Taylor Aggression Paradigm is presented as a reaction time competition in which electrical shocks are administered to and received from a fictitious male opponent. Participants are free to deliver a range of shocks to their "opponent" when they win trials and receive shocks that escalate in shock intensity from their "opponent" when they lose trials. Physical aggression was defined as the summation of standardized scores for the average intensity and duration of shocks selected. Participants competed in this task without distraction or while presented with a moderate-load distraction task designed to disrupt working memory. In accordance with the attention-allocation model, the moderate-load distraction task was successful in attenuating alcohol-related aggression for inebriated individuals *below* that of sober individuals. Results further confirmed moderate-load distraction (i.e., holding four memory sequences in working memory) to be optimal for reducing aggression, relative to higher or lower levels (e.g., holding eight or two sequences in working memory) of distraction (Giancola & Corman, 2007).

Later, Gallagher and Parrott (2011) replicated and extended these findings by providing the first direct test of the cognitive underpinnings of the attention-allocation model as an explanation for alcohol-related aggression. In this study, participants were randomly administered either an alcohol or no-alcohol control beverage and participated in a dot probe task (e.g., Mogg & Bradley, 1999) and a modified version (Giancola & Zeichner, 1995) of the Taylor Aggression Paradigm. The dot probe task assessed participants' attention-allocation to aggression-themed words, which was defined as participants' aggression bias; consistent with Giancola and Corman (2007), physical aggression was defined as the summation of standardized scores for the average intensity and duration of shocks selected on the Taylor Aggression Paradigm. However, unlike Giancola and Corman (2007), participants were highly provoked via reception of electric shocks and a verbal insult from the fictitious male opponent after they consumed their beverage. Following the provocation, participants completed the dot probe and aggression tasks without distraction or while presented with a moderate-load distraction task (Giancola & Corman, 2007). Consistent with the attention-allocation model, intoxicated men whose attention was distracted displayed significantly lower levels of aggression bias and enacted significantly less physical aggression than intoxicated men whose attention was not distracted. In fact, results evidenced that intoxicated men whose attention was distracted evidenced the *lowest* levels of aggression, even below that of sober men.

However, contrary to expectations, results of the study indicated that aggression bias did not account for (i.e., mediate) the lower levels of alcohol-related aggression in the distraction, relative to the no-distraction, condition. It was postulated that this outcome resulted from the artificial method used to measure aggression bias. Indeed, the dot probe task assessed men's attentional bias toward aggression words, which were one step removed from the hypothesized attentional biases toward the environmental cues purported to mediate alcohol-related aggression (i.e., instigatory cues of provocation) (Gallagher & Parrott, 2011). In response to this, researchers proposed that future studies

may benefit from utilizing assessment measures that are better able to capture the intervening cognitive mechanisms for this aggression such as the simultaneous employment of real-time measures of state affect and cognition during the aggression task. To this end, past research has successfully utilized facial coding (e.g., Parrott, Zeichner, & Stephens, 2003) to assess state affect and the Articulated Thoughts in Simulated Situations paradigm (e.g., Eckhardt, Barbour, & Davison, 1998) to assess "in-the-moment" cognitions. Researchers argued that employing these methodologies during the aggression task may provide an assessment of attention-allocation that more readily maps onto participants' behavior. Nevertheless, the overall results of this study replicated and extended past evidence that cognitive distraction is associated with lower levels of alcohol-related aggression in highly provoked males and provided the first known cognitive data to support the attentional processes posited by the attention-allocation model.

Collectively, these data suggest that cognitive distraction facilitates the reallocated toward inhibitory mechanisms (and away from instigatory mechanisms). In essence, cognitive distraction is said to hijack the alcohol myopia of inebriated persons so that their attention may be focused onto cues that presumably inhibit aggression. In line with this, Giancola and colleagues (2010) posited that distraction may decrease aggression due to (1) reduction in negative and/or angry affective and cognitive states that promote aggressive behavior, (2) reduction in hostile cognitive rumination (i.e., perseveration on provoking stimuli) that promote aggressive behavior, (3) increased self-awareness whereby an individual can focus on pre-existing self-relevant pro-social behaviors, and (4) increased empathy whereby an individual can focus on pre-existing empathetic thoughts toward others. Collectively, these findings and hypotheses are in line with the attention-allocation model and provide strong evidence that cognitive self-regulation is a critical factor in the reduction of alcohol-related aggression.

Although this theoretical mechanism for alcohol related aggression is well established, alcohol does not take us on a roller coaster ride of "immediate impulses arising from whatever cues are salient"

on every drunken occasion (Steele & Josephs, 1990; p. 354). In other words, alcohol intoxication does not facilitate aggression for all persons or for persons in all situations. Thus, it is imperative that research investigate which persons are most vulnerable to alcohol's facilitative effects on aggression and under what environmental conditions this aggression is most likely to occur. Only then can the theoretical predictions of the attention-allocation model be utilized to develop effective interventions for alcohol-related aggression.

1.3 Individual Risk Factors – Masculine Gender Role Stress as the Host

Extant research has identified numerous individual differences that influence the alcohol-aggression relation (Chermack & Giancola, 1997; Giancola and Zeichner, 1995; Parrott and Giancola, 2004; Taylor and Chermack, 1993). Indeed, a significant number of studies indicate that alcohol only facilitates aggression for those who possess risk factors for aggressive behavior (see Chermack & Giancola, 1997). Pertinent to this proposal, research has indicated that alcohol is more likely to facilitate aggression toward women among men who evidence alcohol-aggression expectancies (Barnwell, Borders, & Earlywine, 2006), dispositional aggression (Barnwell et al., 2006), an aggressive personality style (Heyman, O'Leary, & Jouriles, 1995), a history of problem drinking (Heyman et al., 1995), avoidance coping and hostility (Schumacher, Homish, Leonard, Quigley, & Kearns-Bodkin, 2008), jealousy (Foran & O'Leary, 2008), and antisocial personality disorder (Fals-Stewart, Leonard, & Birchler, 2005).

Despite this developing literature, the importance of advancing this line of research has not diminished. As Giancola and colleagues (2010) recently stated "Knowing who is most at risk for transforming from Jekyll into Hyde under the influence of alcohol is obviously important" (p. 266). Taken a step further, it is also useful to examine individual differences that relate more precisely to men's alcohol-related aggression toward women. Indeed, extant research has identified general, broad-based constructs (e.g., dispositional aggression, an aggressive personality style) associated with this aggression. However, more absent in the literature are constructs common to interactions in which

male-to-female alcohol-related aggression is likely to occur (e.g., a gender-relevant provocative scenario).

In particular, one understudied construct pertinent to men's aggression toward women is masculine gender role stress. Masculine gender role stress refers to men's tendency to experience negative psychological (e.g., insecurity, low self-esteem, increased anger) and physiological effects (e.g., increased cardiovascular reactivity and skin conductance) from their attempts to meet societally-based standards of the male gender role. A growing body of evidence suggests that men who hold traditional beliefs about the male gender role are at risk to experience a great deal of stress in situations where their male gender role is challenged (Cosenzo, Franchina, Eisler, & Krebs, 2004; Eisler, Franchina, Moore, Honeycutt, & Rhatigan, 2000; Franchina, Eisler, & Moore, 2001; Good et al., 1995). Not surprisingly, masculine gender role stress has been directly associated with men's aggression toward women (Copenhaver, Lash, & Eisler, 2000; Eisler et al., 2000; Franchina et al., 2001; Jakupcak, Lisak, & Roemer, 2002; Moore et al., 2008).

Indeed, pertinent research has indicated that high masculine gender role stress men who are provoked by a female confederate experience increased negative affect, hostile thoughts, and arousal which, in turn, facilitates aggression (Eisler et al., 2000). Importantly, evidence suggests that masculine gender role stress is a more direct predictor of men's behavior than specific norms of masculine ideologies (Thompson, Pleck, & Ferrera, 1992). In line with this, research suggests that masculine gender role stress accounts for the relation between certain norms of hegemonic masculinity and men's hostile attitudes toward women (Gallagher & Parrott, 2011), a salient risk factor for men's aggression toward women (Abbey, McAuslan, & Ross, 1998; Lonsway & Fitzgerald, 1995; Malamuth, 1983).

These data are supported by relevant theories in the violence against women literature. For instance, men who manifest hostile, insecure, and defensive feelings in their relationships with women may use aggression to regain their sense of power and control (Malamuth, Sockloskie, Koss, & Tanaka,

1991; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Accordingly, it has been argued that sexual aggression may act to offset any perceived masculinity threat (e.g., personal inferiority) these men may feel. Similarly, men may develop hostile attitudes toward women and aggress against them as a way to attenuate feelings of personal weakness and uncertainty and, ultimately, to displace their state of stressful discontent (Cowan & Mills, 2004). From this, it is reasonable to contend that masculine gender role stress reflects men's tendency to experience the insecurity, defensiveness, personal weakness, and stressful discontent that may be a central motivation for aggression toward women.

1.4 What Mechanisms Might Account for This Effect?

An understanding of individual risk factors that increase men's alcohol-related aggression toward women is obviously important. Still, it is critical to also understand the mechanisms that account for this aggression. To expand upon the attention-allocation model, Giancola and colleagues (2010) have suggested that various aspects of cognition may mediate the impact of distraction on alcohol-related aggression. In support of this, pertinent research suggests that emotion regulation is an important factor in alcohol-related aggression (Giancola, Josephs, DeWall, & Gunn, 2009). According to Berkowitz's (1989) cognitive-neoassociationistic model, the elicitation of negative affect is posited to activate aggression-related behavioral, emotional, and cognitive components that are linked within an associative network. Pertinent theory suggests that provocation (and other conflict-promoting cues) produce negative affect which activates an associative network of aggression-related thoughts, feelings, memories, expressive motor reactions, and physiological responses (Berkowitz, 1990; 1993). In accordance with this model, high masculine gender role stress men who are intoxicated and provoked by a woman will myopically focus on the experience of negative affect, which will then activate other nodes in the associative network such as hostility toward women, arousal, anger, and other individually-based negative cognitions. Collectively, this activation is theorized to engender men's aggression toward women. In fact Berkowitz (1989) purported that negative affect "gives rise automatically to a variety of

expressive motor reactions, feelings, thoughts, and memories that are associated with both flight and fight tendencies, that is, with the inclinations to escape/avoid and to attack" (p. 69).

Consistent with this theory, a multitude of studies indicate that individuals who exhibit difficulty regulating negative emotion (e.g., high trait anger and hostility, low anger control, difficult temperament) are more susceptible to alcohol's facilitative effect on aggression (e.g., Giancola, 2004; Parrott & Giancola, 2004). Indeed, cognitive-behavioral theory and research suggests a strong correlation between affect and thought which is said to comprise an overall state of cognition (Wright, Basco, & Thase, 2006). Thus, it is reasonable to propose that, to the extent that an intervention can shift attention away from the source of negative affect, this associative network will not be activated, and the likelihood of aggressive behavior will be reduced.

1.5 Ecologically-Valid Intervention – The Bar Setting as the Environment

Together, this theoretical and empirical work has begun to establish a foundation for intervention research in the field of alcohol-related aggression. From these studies, researchers have proposed ecologically valid intervention strategies for alcohol-related aggression that causally influence attention-allocation and, in turn, decrease negative cognitions that promote aggressive behavior. These interventions call for the use of "highly salient, frequent, and easy-to-process anti-violence cues that will re-direct the inebriate's attention away from hostile provocative cues onto more salient non-provocative, or even inhibitory, cues in situations in which violence often accompanies alcohol intoxication (e.g., bars, sports venues, college campus parties, etc.)" (Giancola et al., 2010, p. 272). These may include individual interventions that increase or decrease cognitive states associated with aggressive behavior (e.g., self-awareness, angry cognitions, mindfulness), as well as public interventions designed to manipulate the attentional focus of inebriates, such as flashing signs in bars that proscribe violence (Gallagher, Hudepohl, & Parrott, 2010; Giancola et al., 2009, 2010).

In particular, Giancola and colleagues (2009, 2010) review of the literature aggregated a wealth of evidence to support the mechanisms of *self-awareness* as a key component in this effort. Indeed, past research demonstrates that alcohol impairs self-awareness processing (Hull, 1981; Hull, Levenson, Young, & Sher, 1983), which may impede a person's capacity to process self-relevant cues that discourage aggressive behavior. Laboratory research suggests that interventions designed to increase self-awareness, such as the addition of mirrors, reduces alcohol-related aggressive behavior toward oneself (Berman, Bradley, Fanning, & McCloskey, 2009) and others (Bailey, Leonard, Cranston, & Taylor, 1983). Thus, by increasing self-awareness, the inebriate is distracted from provocation and able to process cues of inhibition. This ability to self-monitor is an important component in the regulation of affective, cognitive, and behavioral responses. However, despite the acquisition of these data, no study to date has translated these findings into an intervention for alcohol-related aggression. Before such work can progress further, it is critical to demonstrate how the proposed theoretically-based interventions might actually affect attention-allocation.

In particular, the bar setting has been identified as an understudied but highly feasible point of intervention for alcohol-related aggression (Leonard et al., 2003). To move the field in this direction, researchers have proposed that "small-scale but rigorous studies could be undertaken to address more systematically the potential for reducing the contribution of specific environmental risk factors to bar violence and to assess the effects of specific regulatory techniques" (Graham & Homel, 2008, p. 256). For example, research has implicated several environmental characteristics common to bars that increase the risk of alcohol-related aggression (Graham, 2009; Leonard et al., 2003); these include crowding, poor traffic flow, dancing, pool playing, excessive noise, and even the sound of music! Even so, these factors may not be conducive to regulatory techniques for intervention. In other words, eliminating music or redesigning the layout of bars may not be feasible options for existing establishments (Graham & Homel, 2008). Thus, instead of *taking away* characteristics from bars, it may

be more reasonable to *add* characteristics to bars. For instance, research has found that the addition of video cameras outside entertainment areas reduced the number of assault-related emergency department attendances (Sivarajasingam, Shepherd, & Matthews, 2003). However, no study has tested whether adding salient self-awareness cues to the physical environment of a public setting can reduce alcohol-related aggression.

1.6 Overview of the Proposed Study and Hypotheses

A wealth of evidence has identified acute alcohol consumption, masculine gender role stress, and negative cognitions to be significant determinants of men's aggression toward women. However, only recently has research begun to explore interventions for alcohol-related aggression and no study to date has investigated the impact gender role stress may have on men's response to intervention. Consistent with the tenants of the attention-allocation model of alcohol myopia theory, recent research has demonstrated that cognitively focused manipulations (e.g., cognitive distraction) are effective at reducing alcohol-related aggression (Gallagher & Parrott, 2011; Giancola & Corman, 2007). From these studies, researchers have proposed ecologically valid interventions for alcohol-related aggression that causally influence attention-allocation and, in turn, decrease negative cognitions that promote aggressive behavior. Though these data significantly contributed to the alcohol-aggression literature, it is important that future research investigate ways to reduce alcohol-related aggression within a more clinically useful and ecologically valid context.

To this end, there exist several critical barriers to addressing this problem: (a) interventions to reduce aggression and the mechanisms that account for these effects have not been empirically tested, and (b) in whom such interventions will have the greatest impact remains unclear. This project directly addressed these needs by examining a theoretically-based, ecologically-valid intervention and proposed mechanism for reducing at risk men's alcohol-related aggression toward women that can be directly implemented into the bar setting.

As depicted in Figure 1, the current study was guided by three main goals that collectively examined the confluent impacts of alcohol consumption, aggression-facilitating characteristics of individuals, and situational contexts (Lang, 1993; Leonard et al., 2003). This approach is in line with Lang's (1993) conceptualization that it is important to consider the interaction of Agent (alcohol) X Host (person) X Environment (situation). As such, the first goal of the present study was (1) to investigate the interactive effect of an attention-allocation model-inspired intervention and masculine gender role stress on intoxicated men's physical aggression toward women in a sample of men who drink alcohol heavily and have a recent history of physical aggression toward women. It was hypothesized that intoxicated men who received the intervention, relative to control, would enact significantly less aggression toward a female confederate following a gender-relevant provocation from that female. Further, it was hypothesized that masculine gender role stress would moderate this effect. Specifically, men who reported higher levels of masculine gender role stress were expected to display significantly less aggression while intoxicated following the intervention, relative to control. No such differences were expected for men who reported lower levels of masculine gender role stress. Consistent with past research (Gallagher & Parrott, 2011; Giancola & Corman, 2007), physical aggression was assessed using a modified version (Giancola & Zeichner, 1995) of the Taylor Aggression Paradigm. Pertinent literature has established that the Taylor Aggression Paradigm is a direct measure of physical aggression (Giancola & Parrott, 2008).

The second goal was (2) to investigate the effect of an attention-allocation model-inspired intervention on intoxicated men's negative cognitions following both a gender-relevant provocation from that female and an adversarial encounter with that female. It was hypothesized that intoxicated men who received the intervention, relative to control, would display the lowest levels of negative cognition and that masculine gender role stress would moderate this effect. Specifically, men who reported higher levels of masculine gender role stress were expected to display significantly less

negative cognition while intoxicated following the intervention, relative to control. No such differences were expected for men who reported lower levels of masculine gender role stress. Men's cognitions were assessed using a modified version of the Articulated Thoughts in Simulated Situations paradigm (Davison, Robins, & Johnson, 1983). Pertinent literature has established that the Articulated Thoughts in Simulated Situations paradigm is an effective measure of in-the-moment cognitions in situations of interpersonal conflict (reviewed in Davison, Vogel, & Coffman, 1997).

The third goal was (3) to investigate whether these cognitions would mediate the interactive effect of the intervention and masculine gender role stress on intoxicated men's physical aggression (if such a relation is found). It was hypothesized that the intervention-facilitated reduction of physical aggression among higher masculine gender role stress men would be mediated by less negative cognition.

Hypothesized Relations Between Intervention, Masculine Gender Role Stress, and Negative Cognitions on Alcohol-Related Physical Aggression

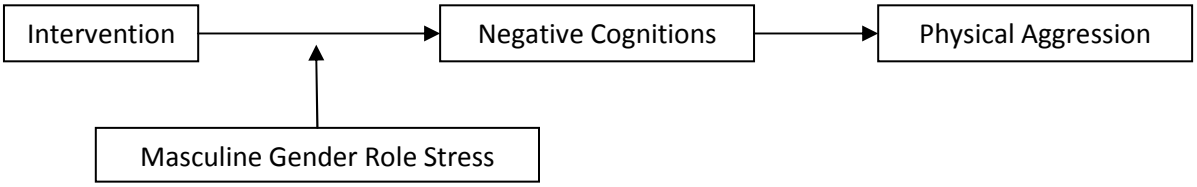

Figure 1. Mediated moderation model being tested (on the basis of Muller, Judd, & Yzerbyt, 2005).

Importantly, the intent of this work was to advance past findings that inhibitory cues reduce aggressive behavior (e.g., Bailey et al., 1983; Giancola & Corman, 2007) by utilizing (1) ecologically-valid techniques (Giancola et al., 2010), (2) a high risk sample of heavy drinking male perpetrators, and (3) a gender-relevant masculinity threat from the female confederate. The ultimate goal of the intervention was to exploit the alcohol myopia of inebriated persons and focus attention onto cues that inhibit aggressive behavior. This goal was accomplished by testing whether an intervention designed to focus attention onto inhibitory and self-awareness cues was associated with lower levels of alcohol-related

aggression toward women. Though it was beyond the scope of this project to disentangle the independent influences of inhibitory and self-awareness cues, findings provide much needed data to support future research on the mechanisms by which interventions reduce aggression.

2 METHOD

2.1 Recruitment Procedures and Eligibility Criteria

Prior to data collection, this study was approved by the university's Institutional Review Board. Nonprobability sampling was used, in which participants from the local metro-Atlanta community responded to newspaper and online advertisements that were read by different strata of the socioeconomic spectrum. Advertisements read "Researchers at Georgia State University seeking males age 21 or older for study of alcohol's effect on behavior. Earn between $20 and $100" and invited participants to telephone the laboratory. Upon contacting the laboratory, respondents were provided with a short description of the study, required time commitment, and financial compensation. Interested men were subsequently screened by telephone for the following eligibility criteria. These eligibility criteria were subsequently re-verified during Session 1 and Session 2 of the experimental procedures.

In order to be eligible, respondents had to self-report that they were male and at least 21 years of age. Men (but not women) were recruited because most laboratory research demonstrates that the effect size of alcohol on direct physical aggression is larger in men than in women (Giancola et al., 2009; Gussler-Burkhardt & Giancola, 2005). Also, due to the fact that the legal drinking age for alcohol consumption is 21, it was required that participants be of legal drinking age in order to participate in the experimental proceedings. In addition, only heterosexual men were eligible to complete the experimental procedures (i.e., Session 2) because an abundance of research shows that this

demographic tends to perpetrate the most severe aggression toward women (Tjaden & Thoennes, 2000). This eligibility criterion was not assessed over the phone in order to reduce response bias.

Respondents were not eligible to participate if they self-reported that they were less than 6 feet tall and over 230 lbs or over 6 feet tall and over 250 lbs. To minimize the possibility that participants would experience adverse reactions to the alcohol dose administered, participants who weighed greater than 250 lbs were not eligible to participate. This decision was made because alcohol dosing is based on body weight and it is important to ensure that participants are not given excessively large amounts of alcohol due to high levels of body fat.

All respondents had to self-report that they consumed an average of at least five or more standard alcoholic drinks per occasion, an average of twice per month or more, for the past year. Respondents who self-reported that they weighed more than 160 lbs. must also self-report that they have – on at least three occasions during the past year – consumed a quantity of alcohol that is equal to or greater than the standard dose administered for their weight in the laboratory (please see Table 1). For example, if a person self-reported that he is over 6 feet tall and weighed 250 pounds, he had to self-report that he had consumed at least 8 or more standard alcoholic drinks on at least 3 occasions during the past year (this requirement was in addition to the participant reporting that he averaged at least five standard drinks per drinking day an average of twice per month). The Drinking Patterns Questionnaire (NIAAA, 2008) was used to assess these drinking requirements. These height/weight and drinking criteria were chosen to (1) ensure that the dose of alcohol participants receive in the study (overall dose of 0.99 g/kg body weight of 95% ethanol USP mixed in a 1:5 ratio with Tropicana orange juice) did not produce a BrAC that was higher than what participants reach with self-administration, and (2) reduce the risk that participants would experience any negative effects from the dose of alcohol used in this investigation.

Table 1

Standard Drink Equivalents of Laboratory Alcohol Dose

Weight	100 lbs.	130 lbs.	160 lbs.	190 lbs.*	220 lbs.	250 lbs.
Dose 0.99 g/kg	3.0	4.0	4.9	5.8	6.7	7.6

Note. Number of standard drinks by alcohol dose and body weight; * Average weight for men ages 20 and over in the U.S. is 190 lbs (86 kg; McDowell, Fryar, Hirsch, & Ogden, 2005). Though the alcohol content of what is considered a "standard drink" varies considerably (see Turner, 1990), for comparison purposes we use the National Institute on Alcohol Abuse and Alcoholism's definition of 14g of pure alcohol (NIAAA, 2000) as the measure of a "standard drink." This is roughly equal to 12 oz (355 ml) of beer, 5 oz (148 ml) of wine, and 1.5 oz (44 ml) of liquor.

In addition to these minimum drinking criteria, respondents had to self-report that they were not currently seeking treatment or in recovery for an alcohol use disorder. Importantly, men were not excluded from the study on the basis of excessive alcohol consumption (e.g., alcohol abuse or dependence). Excluding problem drinkers would have excluded a critical portion of the population of interest. Moreover, respondents who self-reported a head trauma that required medical attention or those who reported that they had been diagnosed with a neurological disorder, bipolar disorder, any psychotic disorder, current major depression, or other significant psychiatric symptomatology were excluded because these conditions have the potential to confound the aggression data. Furthermore, individuals who self-reported abstinence from alcohol use, or a condition in which alcohol consumption was medically contraindicated were also not allowed to participate in the research. Finally, any respondent who self-reported medication that might contraindicate the use of alcohol were excluded. It was proposed that participants would be included only if they endorsed non-severe aggression toward a female during the past year. This criterion was assessed by asking respondents several questions from the Modified Conflict Tactics Scale 2-Revised (CTS-2; Straus, Hamby, Bony-McCoy, & Sugarman, 1996; see below). Only the Physical Assault and Psychological Aggression subscales were administered during

the telephone screening interview in order to limit respondent burden. The Psychological Aggression subscale questions were administered prior to the Physical Assault subscale questions in order to create an effect of escalating severity and increase respondents' comfort in endorsing more severe acts of aggression. In order to meet this criterion, respondents were required to self-report that they had perpetrated at least one act of minor physical aggression against any woman (i.e., not just intimates) in the past year; men who endorsed severe physical aggression during the past year were not eligible to participate.

However, in contrast to what was proposed, participants were not required to endorse aggression toward women during the past year. This criterion was removed after the recruitment of 33 total subjects for Part 1, of which only four subjects (12%) were deemed eligible for Part 2 of the study. Eighteen of the 29 ineligible subjects [62%] were excluded based on the aggression criterion alone. These participants (and several others) orally endorsed minor (but not severe) physical aggression during the telephone screening interview and subsequently did not continue to endorse minor physical aggression on the questionnaire during Part 1. These 33 subjects (including the four subjects who completed Part 2) were removed from all subsequent methodological and analytic details, outlined below. However, eligibility remained contingent on the absence of endorsement of severe physical aggression toward a woman during the past year, assessed during Part 1 of the study.

Upon completion of the telephone interview, participants were contacted within 1-2 business days regarding their eligibility. Participants who did not meet criteria for eligibility were notified and thanked for their time. Eligible participants were read a standardized description of the protocol and scheduled for an experimental appointment. To ensure that the experimental methodology was not compromised, the true nature of the study was not divulged to participants at this time.

2.2 Participants

Participants were 218 men who met eligibility criteria assessed during the telephone interview and presented to the laboratory. Of these men, 112 were deemed ineligible based on the pre-determined screening criteria (described above). This left a total sample of 106 healthy, heterosexual, non-treatment seeking heavy drinking men aged 21 or older who completed the experimental portion (i.e., Session 2) of the study.

Of the 106 participants who were eligible for the experimental portion of the study, one did not comply with the experimental protocol (e.g., refused to listen to the experimenter), one became nauseous during the experimental procedure, one requested that his data be deleted, five did not have data due to a computer or experimenter error, and four were not deceived (see deception manipulation below). This left a final sample of 94 men (Age: M = 35.61, SD = 11.44) upon which all subsequent analyses were based. The racial composition of this sample consisted of 72 African-Americans, 14 Caucasians, and 8 men who identified with another racial background. Seventy-three percent of participants had never been married, the mean education level was 14 years, and the mean income level was $19,760 yearly. In addition, 61% of men reported to have engaged in at least one episode of minor physical assault against any woman within the past year which is comparable to a past local community sample of social, but not heavy, drinking men (Gallagher & Parrott, 2010). Please see Table 2 for the demographics of the drinking variables.

Table 2

Means and Standard Deviations for Minor Physical Aggression and Drinking Variables for the Present Study

Variable	*M* (*SD*)	Range	Percent
Minor Physical Aggression (past year)			61
Number of drinking days	168 (107)	30–365	
Drinks per drinking day	7.6 (3.5)	5.5–25	
Largest quantity of drinks (past year)	13.6 (7.0)	6-36	
Frequency of largest quantity (past year)	64.8 (91.3)	1.5-365	
AUDIT score	9.8 (4.7)	4-25	

Note. n = 94. AUDIT = Alcohol Use Disorders Identification Test.

2.3 Experimental Design

Participants were randomly assigned to an intervention or control group using Urn randomization (Stout, Wirtz, Carbonari, & Del Boca, 1994). The following variables were included in the Urn: age, years of education, marital status, race, average yearly income, average frequency and quantity of alcohol consumption, and dispositional physical aggression. The urn procedure was selected because it is less vulnerable to selection bias relative to other procedures of randomization (e.g., biased-coin design, permuted-block design) and was designed to ensure that both the intervention and control groups would be balanced on the aforementioned variables.

Moreover, an abundance of research has evidenced longstanding negligible effects of (1) placebo control beverages (i.e., told alcohol, receive no alcohol) and (2) no-alcohol control beverages (i.e., told no alcohol, receive no alcohol) on aggression (e.g., Bushman & Cooper, 1990; Hull & Bond, 1986). Relevant to the present study, two recent studies found that a cognitive distraction intervention failed

to reduce aggression in men who received placebo control beverages (Giancola & Corman, 2007) or highly provoked men who received no-alcohol control beverages (Gallagher & Parrott, 2010). However, this intervention significantly reduced aggression among intoxicated men. These findings beget the use of placebo and no-alcohol control groups insignificant in future studies in this area. As such, placebo and no-alcohol control groups were not utilized and every participant received alcohol.

Ideally, this project would have assessed baseline levels of aggression on the Taylor Aggression Paradigm in order to demonstrate that aggression decreases following the intervention. However, there are methodological and feasibility issues that complicate the use of a pre-test/post-test design. Most notably, during the Taylor Aggression Paradigm, all participants receive escalating levels of shock designed to provoke participants during an increasingly adversarial interpersonal interaction. Thus, escalating levels of provocation at pre-test would have carried over (and thus potentially confounded) subsequent post-test assessments of aggression that would also include low and high levels of provocation. Although this issue does not preclude the use of a pre-test/post-test design with the Taylor Aggression Paradigm, reconciling this methodological issue would have taken far more fiscal resources and time (due to the need for multiple studies and/or a larger sample) than the present project could allow. Ultimately, the purpose of the present project was not to conduct a "treatment outcome" study. Rather, the purpose of this study was to determine whether the proposed intervention was associated with lower levels of aggression.

2.4 Materials

2.4.1 Demographic form.

This form assessed participants' age, ethnic background, race, highest level of education, self-reported sexual orientation, and income level.

2.4.2 Drinking Patterns Questionnaire (DPQ; NIAAA, 2008).

This 6-item self-report measure assessed individuals' patterns of alcohol consumption during the past 12 months. Of particular relevance were four questions that assessed respondents' average quantity of alcohol consumption during the past year ("During the last 12 months, how many alcoholic drinks did you have on a typical day when you drank alcohol?"), average frequency of alcohol consumption during the past year ("During the last 12 months, how often did you usually have any kind of drink containing alcohol? A drink was defined as half an ounce of absolute alcohol (e.g. a 12 ounce can or glass of beer or wine cooler, a 5 ounce glass of wine, or a drink containing 1 shot of liquor)", largest quantity of alcohol consumption during the past year ("During the last 12 months, what is the largest number of drinks containing alcohol that you drank within a 24 hour period?"), and frequency of largest quantity of alcohol consumption during the past year ("During the last 12 months, how often did you drink this largest number of drinks?").

2.4.3 Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001).

This NIAAA-recommended 10-item diagnostic scale was developed by the World Health Organization to screen for excessive alcohol consumption. This measure was utilized to provide personalized alcohol use psychoeducation and treatment referrals. Per AUDIT recommendations and the ethical guidelines of alcohol administration research, all men received literature focused on the reduction of hazardous drinking. Further, men who scored 16-19 also received referrals for brief counseling and continued monitoring; men who scored 20 or above also received referrals for further diagnostic evaluation for alcohol dependence.

2.4.4 Symptom Checklist-90-Revised (SCL090_R; Deragotis, 1983).

This 90-item self-report instrument measured the presence of acute psychiatric symptomatology. It was administered to confirm participants' reported absence of acute psychiatric symptomatology. Any participant who obtained a T-score above 65 on the Global Severity Index (GSI) was excluded from the study.

2.4.5 Conflict Tactics Scale – Revised (CTS-2; Straus et al., 1996).

The Physical Assault subscale of a modified version of the CTS-2 was used to assess perpetration of physical aggression toward women during the past year. The CTS-2 is a widely used and well-validated self-report instrument that measures the frequency of aggression within intimate relationships. For the present study, this measure was modified to assess the frequency of aggression toward all women (not just intimate partners) by changing the phrase "your partner" to "a woman". Participants were instructed to indicate on a 7-point scale how many times they have engaged in these behaviors over the past year. Responses range from 0 (never) to 6 (more than 20 times). Sample items include "Have you twisted a woman's arm or hair?" (minor physical aggression) and "Have you burned or scalded a woman on purpose?" (severe physical aggression).

2.4.6 Masculine Gender Role Stress Scale (Eisler & Skidmore, 1987).

The Masculine Gender Role Stress Scale is a widely used and well-validated self-report measure of the extent to which gender relevant situations (e.g., "Being outperformed at work by a woman") are cognitively appraised as stressful or threatening. This scale consists of 40 items and responses may range from 0 (not at all stressful) to 5 (extremely stressful). Higher scores reflect more dispositional gender role stress. This scale has been shown to identify situations that are cognitively more stressful for men than women. Although masculine gender role stress is related to masculine ideology (McCreary et al., 1997; Walker et al., 2000), this construct is a "unique and cohesive construct that can be

measured globally" (Walker, Tokar, & Fischer, 2000, p. 105). Research indicates it exhibits good psychometric properties (Eisler, Skidmore, & Ward, 1988). Prior research conducted with the present study's target population has found masculine gender role stress scores to be well distributed (i.e., unimodal, not skewed) with good alphas. A Cronbach alpha coefficient of .94 was obtained for the present sample.

2.4.7 Taylor Aggression Paradigm (TAP; Taylor, 1967).

A modified version of the Taylor Aggression Paradigm (Giancola & Zeichner, 1995) was used to assess direct physical aggression. Participants competed in a reaction time task where electrical shocks were administered to and received from a "fictitious" opponent (for more detail see "Deception Manipulation" below). Participants were seated at a table in a small room. On the table facing participants was a computer screen and keyboard. The numbers "1" through "10" on a computer keyboard were labeled from "low" to "high" to allow the participants to determine varying levels of shock to administer. Participants received visual feedback on the computer monitor indicating whether they "won" or "lost" the trial as well as the shock level selected and received. A Precision Regulated Animal Shocker (Coulbourn, Allentown, PA) was used to generate the shocks. The computer software that controls the task was developed by Vibranz Creative Group (Lexington, KY). In accordance with past research (e.g., Gallagher & Parrott, 2011; Giancola & Corman, 2007), physical aggression was defined as the summation of standardized scores for the average intensity and duration of shocks selected.

The reaction time task consisted of two successive blocks of trials (34 trials total). During the first block (i.e., low provocation), participants received shock intensities between "1" and "2" after they lost a trial. During the next block (i.e., high provocation), they received shock intensities between "9"and "10" after they lost a trail. Each block consisted of 16 trials (8 wins and 8 loses). There were two transition trials between the blocks in which participants "lost" and received shock intensities of "5" and

"6," respectively. These two trials were added to provide a smooth transition between the low and high provocation blocks. Utilizing this low-high sequence added external validity to the task as it best reflects an escalating aggressive interaction between individuals in "real-life" situations (Taylor & Chermack, 1993). All shocks delivered to participants were of a one second duration.

In actuality, reaction time was not measured and the competitive task was used to lead participants to believe that they were engaging in an adversarial interaction with another individual (a woman). The win/lose sequence was predetermined and presented in a fixed-random order with trials interspersed by five-second intervals. A computer controlled the initiation of trials, administration of shocks to the participants, and the recording of their responses. The experimenters, other electronic equipment, and the computer that controls the task were located in an adjacent control room out of the participant's view.

2.4.8 Articulated Thoughts in Simulated Situations (Davison, Robins, & Johnson, 1983).

A modification of the Articulated Thoughts in Simulated Situations paradigm was used to assess cognitions experienced during the Taylor Aggression Paradigm. In a typical version of this procedure, participants listen to audiotaped vignettes and imagine themselves in the portrayed scenarios. Then, participants are asked to "talk out loud" about their thoughts and feelings into a microphone attached to a hidden tape recorder. The verbal articulations of participants are then coded using well-validated manuals (e.g., Davison et al., 1983).

In the present study, this task was modified in that participants were asked to report verbal articulations regarding an actual experience (i.e., the Taylor Aggression Paradigm) rather than an imagined scenario. Participants were asked to "talk out loud" about their thoughts and feelings into a microphone connected to an audio recording device. In accordance with past research on aggression toward women, participants' articulations were first transcribed by a laboratory staff member. These transcriptions were then coded by two trained, independent raters (blind to experimental condition) in

accordance with the manual for the Articulated Thoughts in Simulated Situations paradigm specific to aggression toward women (e.g., Eckhardt et al., 1998). ATLAS.ti Qualitative Data Analysis Software (version 6.2.28) was utilized for the coding. Negative cognitions were defined as the frequency by which participants' articulated statements that met criteria for each main category: Hostile Attributions (e.g., "she must hate men"), Articulated Anger Statements (e.g., "I felt angry"), Aggressive Behavioral Intentions (e.g., "I'd slap her if she said that to my face"), Benevolent Sexism Statements (e.g., "I didn't want to shock her because men should protect women from pain"), and Reaffirming Masculinity Statements (e.g., "I wasn't going to let a woman beat me"), as well as category subcomponents. See Appendix I for more detail.

Cohen's kappa coefficients were generated to assess inter-rater agreement for each of the categories and category subcomponents. The inter-rater agreement was high and ranged from .86-1.0. Analyses were conducted with one randomly selected rater's scores; the Negative Cognitions variable was computed by aggregating the frequency of articulated statements across the five main categories and individual subcomponents.

2.5 Deception Manipulation

To disguise the true aims of the study, participants were told that the purpose of the study was to examine the effect of alcohol on reaction time under competitive conditions. In order to convince participants that they were competing against a woman, participants were informed that they would undergo a pain threshold prior to the reaction time task. Participants' were told that their opponent would complete her pain threshold first and participants heard their opponent's responses over an intercom system. The "opponent's" voice was pre-recorded by the female confederate. The female's voice ensured that participants were convinced they were competing against another person (a woman) in the study. Prior research has confirmed the success of this manipulation (Parrott & Zeichner, 2005; Parrott & Giancola, 2004).

In order for aggression data to be valid, it must be demonstrated that participants believed they were competing against a woman on a "reaction time" task and that this task was not a measure of aggression. This was determined by the administration of a brief verbal interview in which participants answered questions specific to these elements, prior to a standardized debriefing.

Participants were given twenty minutes to consume two drinks consisting of an overall dose of 0.99 g/kg body weight of 95% ethanol USP mixed in a 1:5 ratio with Tropicana orange juice. This dose was chosen because it reliably produces BrACs between .08%-.12% within 20 minutes of beverage consumption. This level maximized the likelihood of producing an alcohol-related effect on physical aggression (Duke, Giancola, Morris, Holt, & Gunn, 2011). Beverage administration occurred before 12 p.m. and followed a strict protocol to ensure that participants did not receive a dose or achieve a BrAC higher than what they would reach with self-administration on at least some occasions in the past year.

The beverage was poured into two glasses in equal quantities. All beverages were served chilled with no ice. Participants were given their two glasses at equally-spaced time intervals during the twenty minute interval to control for rate of drinking. Immediately following beverage consumption, all participants rinsed their mouths with water. BrACs were assessed with the Alco-Sensor IV breath analyzer (Intoximeters, Inc., St. Louis, MO). BrACs were monitored every five minutes after beverage consumption. The gender-relevant provocation (see below) commenced after participants reached .08% on the ascending limb of the BrAC curve, where the stimulating effects of alcohol are most likely to be produced (Addicott et al., 2007; Giancola & Zeichner, 1997; Martin et al., 1993).

2.6 Gender-Relevant Provocation

An established procedure was used to deliver a gender-relevant masculinity threat (e.g., Cohn, Seibert, & Zeichner, 2009). Participants were told ahead of time that they would be able to view both their own "personality profile" and view and comment on their opponent's profile. They were told that their personality profiles reflected their answers to self-report questionnaire measures obtained during

Session 1 of the study. Upon reaching a BrAC of .08%, a fictitious, pre-constructed paper graph of the female confederate's personality profile was provided to participants (in a manila envelope) that placed her in the "neutral range" of personality. Participants were instructed to review the graph, provide their opinion of their opponent's personality profile by writing a brief comment on the sheet, and place the graph back into the envelope. Following this, a fictitious, pre-constructed paper graph of the participants' personality profile was provided to participants (in a manila envelope) that placed participants in the "female range" of personality. A fictitious, pre-constructed comment from the female confederate was written on the profile that stated "LoL! That test put you more in the 'Girl' range than me! OMG, most guys I hang out with are better at these physical type games than me. But I guess you aren't like 'most ' guys. IMHO I'm definitely going to beat you!!" Past research indicates that men experience increased feelings of threat when they receive feedback inconsistent with their gender role (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008).

2.6.1 Attention-Allocation Model Intervention

The intervention was informed by techniques proposed by Giancola and colleagues (2009, 2010) to inhibit aggressive behavior. All participants were seated in a room with a desk and a computer. For participants in the intervention condition, the room was also equipped with two large mirrors positioned directly in participants' line of sight. Additionally, the room contained three cameras. The first camera was a tripod "security camera" linked to a closed-circuit television screen (both visible to participants) that displayed the participant's behavior in real-time. The second and third cameras were mounted on the wall to the left of the participant's desk. Participants also received a drink coaster with the imprinted slogan "what does my behavior say about me?" The mirrors, slogan, and visual display of participants' behavior served as inhibitory, self-relevant cues and further invoked the real-world effect of security cameras and coasters with slogans that can easily be utilized in the bar setting. For

participants in the control condition, the room was equipped with only a desk, a computer, and a blank drink coaster; these aforementioned inhibitory, self-relevant cues were not present.

In order to ensure participants attended to the intervention cues (i.e., the mirrors, coaster slogan, and cameras), participants were asked to complete a ten-item true/false questionnaire directly at the end of the experimental procedures. Sample items included "There was a phrase written on my drink coaster" and "I could not see my reflection during the study." All participants, regardless of experimental condition, completed this questionnaire.

2.7 Procedure

2.7.1 Session 1.

Participants arrived to the laboratory on their designated day and time. Upon arrival, participants were greeted in the lobby by an experimenter and led to a private room. At this time, participants were asked to present a picture ID and provided informed consent. Participants' BrAC was assessed to confirm sobriety. Participants who entered the laboratory with a BrAC above 0%, as determined by a breath-analyzer, were prohibited from completing the study on that day and asked to reschedule. Participants' height and weight was assessed at this time. Participants were informed that the purpose of the study is to examine the effect of alcohol on reaction time using a competitive reaction time task. Participants were reminded that, if eligible, they would be completing the reaction time task during their second experimental session to occur on a separate day.

Participants then completed a paper packet of screening measures. This packet included the Drinking Patterns Questionnaire (NIAAA, 2008), the Symptom Checklist 90 – Revised (SCL-90-R; Deragotis, 1983), and an adaptation of the telephone screening interview to re-assess for pertinent exclusionary criteria such as medical conditions, current medications, etc.

Upon completion of this packet, participants completed a separate computer assessment battery using MediaLab 2000 software. This software is advantageous because the data can be downloaded directly into statistical software programs. The experimenter provided instructions on how to operate the computer program that administered the questionnaire battery. The experimenter was also available to answer any questions during the session. This questionnaire battery included the Demographic Form, the Aggression Questionnaire (AQ; Buss & Perry, 1992), the Masculine Gender Role Stress Scale (Eisler & Skidmore, 1987), the Conflict Tactics Scale – Revised (CTS-2; Straus et al., 1996), and other questionnaires unrelated to the present proposal.

While participants completed the MediaLab questionnaires, the experimenter scored the measures from the initial screening battery. Upon completion of the MediaLab questionnaire battery, eligible participants were scheduled for Session 2 to occur on a separate day; ineligible participants were given psychoeducational materials about the hazardous effects of heavy drinking by a trained research assistant. The purpose of this packet was to help improve participants' self-understanding of their alcohol consumption by educating them about hazardous alcohol consumption; however, this packet did not contain information pertaining to clinical intervention for hazardous drinking. In addition, ineligible participants received psychoeducational materials about violence toward women. The trained research assistant reviewed the psychoeducational materials with all participants, explained the information, and answered any questions using an experimental protocol. Participants were told that they were receiving these materials because it is important for everyone who drinks alcohol to understand how alcohol can affect them. In addition, they were told that, because the present study involved questions regarding aggression toward women, it is important for everyone to have information on this topic. Ineligible participants were then paid at a rate of $10 dollars per hour and thanked for their participation.

2.7.2 Session 2.

Participants arrived to the laboratory on their designated day and time. Upon arrival, participants were greeted in the lobby by an experimenter and led to a private room. Following informed consent, an experimenter verified age with a picture ID, ensured that BrAC was 0%, re-verified all screening criteria (described above), and asked participants to complete the Alcohol Use Disorders Identification Test (AUDIT; Babor et al., 2001). As part of the consent process, participants were required to give their keys (if they were carrying keys) and valid picture ID (e.g., a driver's license) to the experimenter with the understanding that these items would be returned at the end of the study upon reaching a BrAC of 0.04%. Participants were then led to a small experimental room that was either equipped or not equipped with the intervention cues.

Participants received instructions about the tasks. Participants were informed that, as part of the study, they would complete a competitive reaction time task (i.e., the Taylor Aggression Paradigm) against another participant (a female confederate) in the study. They were informed that the reaction time task would involve the use of electric shocks. In the Taylor Aggression Paradigm, participants were instructed that shortly after the words "Get Ready" appeared on the computer screen, the words "Press the Spacebar" would appear at which time they would have to press, and hold down, the spacebar. Following this, the words "Release the Spacebar" would appear at which time they would have to lift their fingers off of the spacebar as quickly as possible. A "win" would be signaled by the words "You Won. You Get to Give a Shock" and a "loss" would be signaled by the words "You Lost. You Get a Shock." A winning trial allowed participants to deliver a shock to their opponent and a losing trial resulted in receiving a shock from this individual. Participants were told that they had a choice of 10 different shock intensities to administer at the end of each winning trial for a duration of their choosing. They were also told about the possibility of pressing shock button "1" (out of ten) which would deliver a "hardly noticeable" shock to their opponent. Following these instructions, participants were told that,

following the competitive reaction time task, they would be asked to “talk out loud” about their thoughts and feelings into a microphone that would be attached to a tape recorder. Participants were reminded that their responses would be recorded, would remain confidential, and that they had the option to decline to have their voices recorded and may choose to have their voice recording erased at the end of the session.

After receiving these instructions, participants received their beverages. Immediately following beverage consumption, all participants rinsed their mouths with water. BrACs were assessed with the Alco-Sensor IV breath analyzer (Intoximeters, Inc., St. Louis, MO). After participants achieved an approximate BrAC of .07%, the experimenter attached a shock electrode to the participants' index and middle finger of their nondominant hand in preparation for a pain threshold assessment. The experimenter then went into the control room and immediately conducted the pain assessment. Participants’ pain thresholds were assessed in order to determine the intensity parameters for the shocks they were to receive. Participants were informed that the pain threshold of their opponent would be assessed prior to determining their own pain threshold. Participants were informed that they would be able to hear their opponent's responses over an intercom and that their opponent would be able to hear their responses. This procedure served to reinforce participants’ belief that they were competing against another individual. This entire pain threshold procedure lasted approximately 2-3 minutes.

Assessment of the opponent’s pain threshold was heard over an intercom in the participants’ room. In actuality, an audio recording was played in which the confederate (a female) read a list of predetermined statements regarding her pain experience. Next, participants’ pain thresholds were assessed to determine the intensity parameters for the shocks they were to receive. This was accomplished via the administration of short-duration shocks (1-sec) in an incremental stepwise intensity method from the lowest available shock setting, which is imperceptible, until the shocks

reached a reportedly "painful" level. Participants were instructed to indicate when the shocks reached a reportedly "painful" level. The experimenter then stopped the pain threshold assessment at that time. The Precision Regulated Animal Shocker (Coulbourn, Allentown, PA) and software that controlled the administration of shocks (Vibranz Creative Group; Lexington, KY) limited the highest possible shock intensity to 2.5 mA – even if participants indicated that they were willing to be shocked at a higher level.

Following the pain threshold and participants' reaching a BrAC of .08%, the gender-relevant provocation was delivered. Immediately after this, participants completed the reaction time competition (i.e., the Taylor Aggression Paradigm) in their assigned intervention conditions. This task took approximately 15 minutes to complete. After completion of the Taylor Aggression Paradigm, participants were asked to "talk out loud" about their thoughts and feelings into a microphone that was mounted on their desk (i.e., Articulated Thoughts in Simulated Situations Paradigm). Participants were reminded that their responses would be recorded and would remain confidential. Following this, the experimenter entered the room, obtained a BrAC reading, and asked participants to complete the Intervention Manipulation Check questionnaire. A debriefing session was then conducted.

2.7.3 Debriefing and compensation.

In order for aggression data to be valid, it must be demonstrated that participants believed that they were competing against another individual (a woman) on a "reaction time" task and that this task was not a measure of aggression. This was determined by the administration of a brief verbal interview prior to the debriefing of the participant. Specifically, participants were asked whether or not they thought the task was a good measure of reaction time. Additionally, participants were asked to provide verbally an "impression" of their opponent, and comment on whether they thought their opponent was "reasonable."

Participants were debriefed by the experimenter in two phases. First, they received a limited debriefing immediately after completing the reaction time task. Although they were still intoxicated at

this time, a limited debriefing was conducted to minimize potential ill effects from the deception manipulation. In the limited debriefing, participants were told that their opponent was fictitious, that the "personality profile" feedback they received from their "opponent" was predetermined, that all participants receive the same "personality profile" feedback, and that this feedback was not a reflection of their personality in any way. Furthermore, they were informed that at no time during the procedure did they actually administer an electric shock to anyone, and that their responses were "normal" and consistent with those of others in past studies. They were also informed that they were not told, at the beginning of the study, that the Taylor Aggression Paradigm measures aggression because many people artificially alter their responses if they are aware of this information. To mitigate the likelihood that subjects may feel intellectually inadequate because they were deceived by any manipulations, they were told that approximately 95% of the participants in similar projects were also deceived and that being deceived is completely "normal" [Note: they were also told that the percentage of participants deceived in the present study was not yet available, but that it is expected to be similar to this estimate]. Questions and concerns were then addressed. Additional information about the study's aims was not provided at this time due to participants' level of intoxication. However, participants received a full debriefing with all of this information (described above) after their BrAC had reached .04%.

Due to the fact that the study procedures involved a gender-relevant provocation from a woman, a Post-Debriefing Safety Interview was administered at the end of the final debriefing (i.e., just before participants were allowed to leave the laboratory). This assessment consisted of a written measure designed to evaluate participants' risk of aggression after leaving the laboratory and their experiences of distress as a result of participating in the study. For example, participants were asked "Do you have any specific plans to aggress, physically or otherwise, against a woman or another individual?" and "Do you feel or believe that participation in this study may have left you more inclined

to harm, physically or otherwise, a woman or another individual?" Participants completed the post-debriefing interview upon reaching a BrAC of .04%.

Immediately prior to being discharged from the laboratory, participants were given psychoeducational materials about the hazardous effects of heavy drinking, information pertaining to clinical intervention for hazardous drinking, and referrals (as appropriate based on participant's individual AUDIT score) by the experimenter. The purpose of this packet was to help to improve subjects' self-understanding of their alcohol consumption by educating them about hazardous alcohol consumption and to provide participants with clinical information specific to their level of hazardous drinking. In addition, participants received psychoeducational materials about violence toward women. Participants were told that they were receiving these psychoeducational materials because it is important for everyone who drinks alcohol to understand how alcohol can affect them. In addition, they were told that, because the present study involved questions regarding aggression toward women, it is important for everyone to have information on this topic. The experimenter reviewed the information with participants and answered questions. If participants required or requested referrals, the experimenter discussed with participants the reason for receiving the referrals (i.e., the amount of alcohol they regularly consume is at a level that might be putting them at risk and may warrant further assessment) and discussed the referral options with them and provided them with a "Referral Assistance" form that discussed steps for choosing the most appropriate treatment setting. Participants were then paid at a rate of $10 dollars per hour and thanked for their participation.

To minimize the possibility that participants would drive a motor vehicle after leaving the laboratory, they were transported home via pre-arranged transportation (e.g., a ride from a family member or friend) or via public transportation (e.g., Metropolitan Atlanta Rapid Transit) at no cost to the participant. Moreover, they were not allowed to leave the laboratory until their BrAC had fallen to 0.04% on two consecutive readings (in accordance with NIAAA guidelines).

2.7.4 Procedure for the Present Study

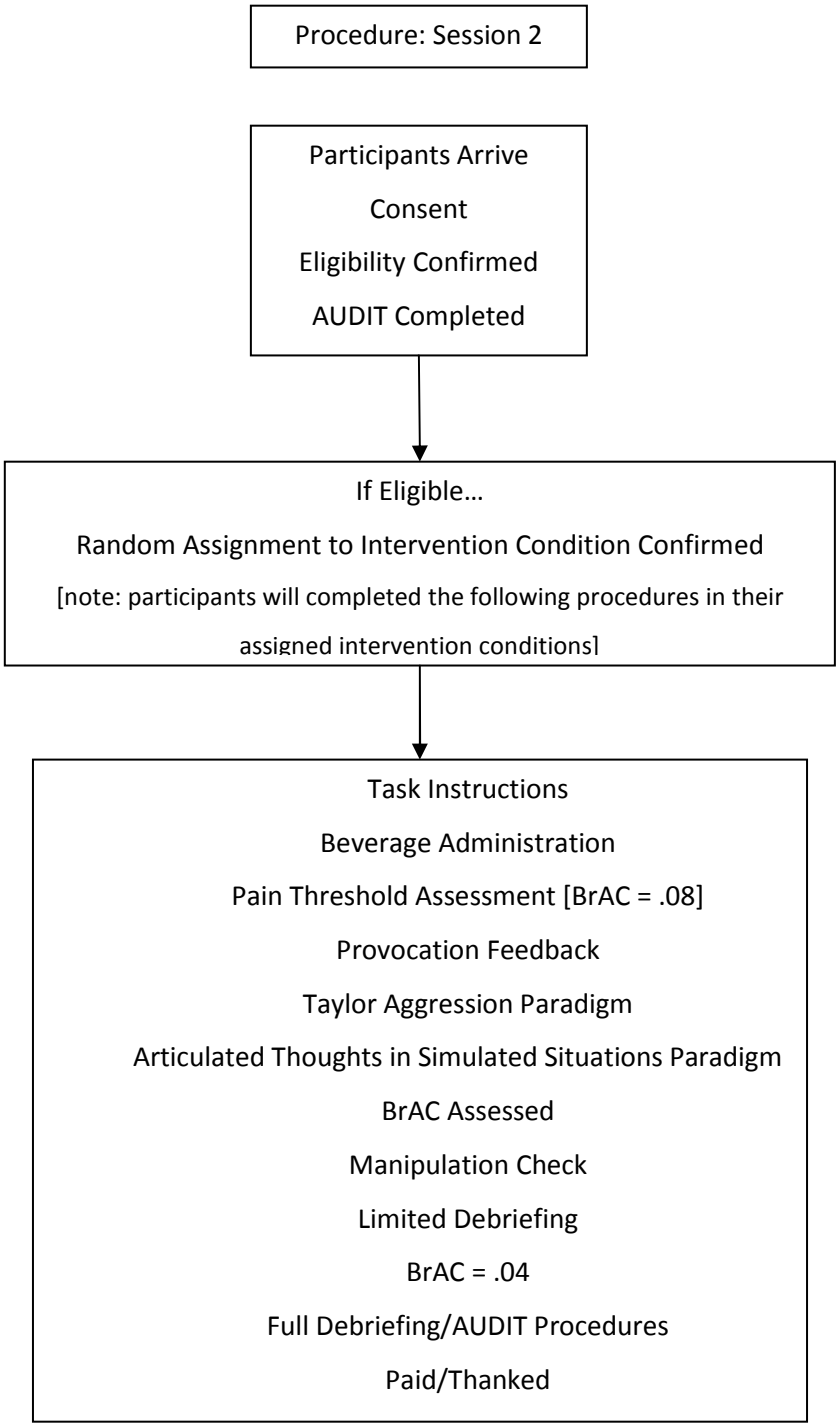

Figure 2. AUDIT = Alcohol Use Disorders Identification Test. This flow chart represents the order of events for Part 2 of the present study.

3 DATA REDUCTION

3.1 Physical Aggression

Physical aggression was derived from the summation of the standardized intensity and duration of shocks delivered to the opponent on the experimental trials of the TAP. Data for shock intensity and duration (in milliseconds) were first transformed into z scores and then summed.

3.1.1 Shock intensity.

This measure represented the average shock intensity chosen by the participant across all winning trials.

3.1.2 Shock duration.

This measure represented the average shock duration (in milliseconds) chosen by the participant across all winning trials.

3.2 Dispositional Physical Aggression

Dispositional physical aggression represented the cumulative score on the Physical Aggression subscale of the Aggression Questionnaire.

3.3 Negative Cognitions

Negative cognitions were defined as the frequency by which participants' articulated statements met criteria for each main category: Hostile Attributions, Articulated Anger Statements, Aggressive Behavioral Intentions, Benevolent Sexism Statements, and Reaffirming Masculinity Statements as well as their individual subcomponents (e.g., Aggressive Behavioral Intentions - Belligerence). See Appendix I for more detail. The frequency counts of articulated statements were summed across categories to create a total score termed Negative Cognitions.

3.4 Breath Alcohol Concentration (BrAC)

This variable was measured using the Alco-Sensor IV breath analyzer (Intoximeters Inc., St. Louis, MO). Three measures of BrAC were utilized.

3.4.1 BrAC1.

This BrAC measurement was conducted upon participants' arrival at the laboratory during session 2.

3.4.2 BrAC2.

This BrAC measurement was conducted immediately prior to the beginning of the gender-relevant provocation procedures and the Taylor Aggression Paradigm. As some participants required several BrAC measurements in order to document a BrAC of at least 0.08 %, this variable only reflects the final measurement.

This BrAC measurement was conducted immediately following completion of the Taylor Aggression Paradigm.

4 RESULTS

4.1 Manipulation Checks

4.1.1 Deception manipulation.

To verify task deception, participants were asked to discuss orally with the experimenter whether or not they thought the TAP was a good measure of reaction time. In addition, participants were asked to describe orally their overall "impression" of their opponent during the task and to comment on whether they thought their opponent was "reasonable." The deception manipulation appeared successful. Four participants (two intervention condition and two control condition) reported

that they did not believe they were competing against another person and were removed from analyses.

4.1.2 Attention-allocation model-inspired intervention manipulation check.

To verify that participants in the intervention condition attended to the intervention cues (i.e., the mirrors, coaster slogan, and cameras), participants were asked to complete a ten-item true/false questionnaire that assessed their awareness of the presence of these cues. Results of this assessment indicated that 98% of participants in the intervention condition correctly answered all ten questions. BrAC levels. All participants tested in this study had BrACs of .00% upon entering the laboratory. Participants in the intervention group had a mean BrAC of .092% (SD = .015%) just before the administration of the gender-relevant provocation and a mean BrAC of .114% (SD = .019%) immediately following the Articulated Thoughts in Simulated Situations paradigm. Participants in the control group had a mean BrAC of .088% (SD = .013%) just before the administration of the gender-relevant provocation and a mean BrAC of .112% (SD = .020%) immediately following the Articulated Thoughts in Simulated Situations paradigm. A 2 (Condition) X 2 (Time) repeated measures ANOVA was conducted to verify that there were not significant differences in BrAC ratings between the intervention and control conditions. Results of this analysis confirmed this assumption. As expected, the only significant finding in this model was a significant main effect of time (i.e., the difference between pre-and-post BrAC scores) $F(1, 92) = 289.61$, $p < .01$. Thus, it was concluded that all participants were on the ascending limb of the BrAC curve during the experimental procedures.

4.2 Data Preparation

4.2.1 Preliminary analyses.

Bivariate correlations for all key study variables are presented in Tables 3-5. Of particular note, the bivariate correlation between intervention condition and physical aggression (derived from the

Taylor Aggression Paradigm) was negative and significant for men who did not endorse recent perpetration of physical aggression toward a woman, but was not significant for men who did endorse recent perpetration of physical aggression toward a woman (Tables 4-5). Urn randomization was utilized to ensure equal distribution of pertinent variables across the experimental groups. To confirm this assumption, a series of independent samples t-tests were conducted with pertinent demographic characteristics (e.g., age, years of education, yearly income, race, marital status), past alcohol use (i.e., frequency and quantity alcohol consumption), and dispositional physical aggression. An independent samples t-test was also conducted to ensure equal distribution of self-reported perpetration of minor physical aggression toward any woman during the past year (CTS-2-R; Straus et al., 1996). No significant group differences emerged. Chi-square analysis did not detect a significant difference in the racial composition or marital status of the experimental groups.

4.2.2 Negative cognitions.

An independent samples t-test evidenced no significant differences in the number of articulations for any category between intervention groups. As a whole, participants only produced a substantial number of articulations for the Reaffirming Masculinity Statements category. Please refer to Table 9 for a detailed report of the frequency of articulations generated by category, per condition. See Appendix I for a complete list of the categories and Appendix J for sample statements of articulations.

4.3 Examination of Masculine Gender Role Stress, Alcohol Use, Minor Physical Aggression, and Pertinent Demographic Variables Across Samples

When compared to previously collected (i.e., within the past ten years), demographically comparable samples in the same geographic region, the present sample evidenced an unusually low mean score for the masculine gender role stress scale. Please refer to Table 10 for detailed information regarding the masculine gender role stress scale scores of the present sample as well as three

comparison samples. For all three comparison samples, men who endorsed severe physical aggression were eliminated in order to obtain the most approximate comparison possible to the present study. The first comparison sample was collected from the local metro-Atlanta community (please see Table 8 for further detail). This sample was comprised of 370 heterosexual, social drinking men aged 21-35 (Age: M = 24.55, SD = 2.71). The racial composition of this sample consisted of 212 African-Americans, 110 Caucasians, and 48 men who identified with another racial background. Eighty-five percent of participants had never been married, the mean education level was 15 years, and the mean income level was $25,980 yearly.

Table 3

Correlation Matrix of Key Study Variables in the Full Sample

	1	2	3	4	5	6	7	8	9	10	11
1 Group	1	-.27**	.16	-.01	.04	-.06	.08	.14	.21*	-.08	.04
2 Aggression		1	.08	.06	.16	.09	.01	.09	.02	.21*	.05
3 MGRS			1	.05	.35**	.16	-.13	-.0	.11	-.13	.15
4 Negative Cognitions				1	.22*	.03	.02	.03	.06	.02	.10
5 AQ-PA					1	.40**	-.08	.03	.27**	-.13	.14
6 CTS-2-PA (minor)						1	.17	.14	.18	-.03	.23*
7 Frequency							1	.23*	.18	.41**	.50**
8 Quantity								1	.38**	.34**	.38**
9 Largest Quantity									1	-.20	.35**
10 Freq Largest Quant										1	.33**
11 AUDIT											1

Note. n = 94; Group = Experimental Group with Control Set to Zero; Aggression = Physical Aggression on the Taylor Aggression Paradigm; MGRS = Masculine Gender Role Stress; AQ-PA = Aggression Questionnaire Physical Aggression Subscale; CTS-2-PA (minor) = Conflict Tactics Scale – Revised Minor Physical Aggression Subscale; Frequency = Average Frequency of Alcohol Consumption during the Past Year; Quantity = Average Quantity of Alcohol Consumption during the Past Year; Largest Quantity = Largest Quantity of Alcohol Consumption during the Past Year; Freq Largest Quant = Frequency of Largest Quantity of Alcohol Consumed during the Past Year; AUDIT = Alcohol Use Disorders Identification Test.

* = Correlation is significant at the .05 level; ** = Correlation is significant at the .01 level

Table 4

Correlation Matrix of Key Study Variables in Men Who Did Not Endorse Recent Perpetration of Physical Aggression toward a Woman

	1	2	3	4	5	6	7	8	9	10
1 Group	1	-.41*	.04	-.25	.07	-.02	.25	.27	-.16	-.06
2 Aggression		1	-.03	.15	-.10	-.06	-.04	-.09	.07	-.01
3 MGRS			1	-.07	.27	-.15	-.11	.01	-.08	.17
4 Negative Cognitions				1	-.09	-.24	-.03	-.28	.10	-.19
5 AQ-PA					1	-.08	.07	.25	-.16	.31
6 Frequency						1	.19	-.02	.59**	.47**
7 Quantity							1	.47**	-.12	.37*
8 Largest Quantity								1	.36*	.24
9 Freq Largest Quant									1	.24
10 AUDIT										1

Note. n = 37; Group = Experimental Group with Control Set to Zero; Aggression = Physical Aggression on the Taylor Aggression Paradigm; MGRS = Masculine Gender Role Stress; AQ-PA = Aggression Questionnaire Physical Aggression Subscale; CTS-2-PA (minor) = Conflict Tactics Scale – Revised Minor Physical Aggression Subscale; Frequency = Average Frequency of Alcohol Consumption during the Past Year; Quantity = Average Quantity of Alcohol Consumption during the Past Year; Largest Quantity = Largest Quantity of Alcohol Consumption during the Past Year; Freq Largest Quant = Frequency of Largest Quantity of Alcohol Consumed during the Past Year; AUDIT = Alcohol Use Disorders Identification Test.

* = Correlation is significant at the .05 level; ** = Correlation is significant at the .01 level

Table 5

Correlation Matrix of Key Study Variables in Men Who Endorsed Recent Perpetration of Physical Aggression toward a Woman

	1	2	3	4	5	6	7	8	9	10
1 Group	1	-.20	.23	.08	-.05	.09	.07	.15	-.06	.05
2 Aggression		1	.16	-.01	.24	.03	.122	.05	.27*	.06
3 MGRS			1	.10	.41**	-.16	.02	.15	-.18	.11
4 Negative Cognitions				1	.24	.09	-.01	.14	-.04	.18
5 AQ-PA					1	-.20	-.10	.19	-.19	-.03
6 Frequency						1	.21	.22	.31*	.46**
7 Quantity							1	.31*	.47**	.35**
8 Largest Quantity								1	-.17	.36**
9 Freq Largest Quant									1	.36**
10 AUDIT										1

Note. n = 57; Group = Experimental Group with Control Set to Zero; Aggression = Physical Aggression on the Taylor Aggression Paradigm; MGRS = Masculine Gender Role Stress; AQ-PA = Aggression Questionnaire Physical Aggression Subscale; CTS-2-PA (minor) = Conflict Tactics Scale – Revised Minor Physical Aggression Subscale; Frequency = Average Frequency of Alcohol Consumption during the Past Year; Quantity = Average Quantity of Alcohol Consumption during the Past Year; Largest Quantity = Largest Quantity of Alcohol Consumption during the Past Year; Freq Largest Quant = Frequency of Largest Quantity of Alcohol Consumed during the Past Year; AUDIT = Alcohol Use Disorders Identification Test.

* = Correlation is significant at the .05 level; ** = Correlation is significant at the .01 level

Table 6

Qualitative Data from the Articulated Thoughts in Simulated Situations Paradigm

	Control Condition (*n* = 48)		Intervention Condition (*n* = 46)		Total Sample (*n* = 94)	
ATSS Category	Not Present	Present (Frequency)	Not Present	Present (Frequency)	Not Present	Present (Frequency)
Total Score	16	34 (115)	15	31 (109)	31	63 (224)
ABI - Belligerence	44	4 (4)	43	3 (3)	87	7 (7)
ABI - Physical Aggression	45	3 (3)	45	1 (1)	90	4 (4)
ABI - Verbal Aggression	48	0 (0)	45	1 (1)	93	1 (1)
AS - Anger	48	0 (0)	43	3 (3)	91	3 (3)
AS - Negative Affect	47	1 (1)	46	0 (0)	93	1 (1)
Hostile Attributions	39	9 (13)	37	9 (11)	76	18 (24)
RMS - Antifemininity	36	12 (14)	32	14 (17)	68	26 (31)
RMS - Status	29	19 (26)	33	13 (17)	62	32 (43)
RMS - Toughness	32	16 (21)	32	14 (18)	64	30 (39)
RMS - MGRS	30	18 (26)	26	20 (29)	56	38 (55)
Benevolent Sexism	42	6 (7)	39	7 (9)	81	13 (16)

Note. ABI = Aggressive Behavioral Intentions; AS = Anger Statements; RMS = Reaffirming Masculinity Statements; MGRS = Masculine Gender Role Stress. These data represent the frequency of articulations generated by coding category, per intervention condition.

Table 7

Mean, Standard Deviation, and Item Mean for Masculine Gender Role Stress across Community and University Samples

Present Sample (n = 94)			Community Sample (n = 370)			College Sample #1 (n = 80)			College Sample #2 (n = 94)		
M (*SD*)	Range	*M* Item	*M* (*SD*)	Range	*M* Item	*M* (*SD*)	Range	*M* Item	*M* (*SD*)	Range	*M* Item
55.81 (32.62)	0-167	1.4	74.86 (32.52)	0-159	1.87	85.79 (28.28)	20-134	2.14	78.81 (27.87)	8-142	1.97

Note. MGRS = Masculine Gender Role Stress.

Table 8

Means and Standard Deviations for Minor Physical Aggression and Drinking Variables for the Community Comparison Sample

Variable	*M* (*SD*)	Range	Percent
Minor Physical Aggression (past year)			66
Number of drinking days	117.3 (78)	7-365	
Drinks per drinking day	7.5 (1.2)	1-10	
Largest quantity of drinks (past year)	5.35 (1.6)	1-10	
Frequency of largest quantity (past year)	6.8 (1.6)	1-9	

Note. n = 370.

The second comparison sample was collected from undergraduate students at Georgia State University (please see Table 9 for further detail). This sample was comprised of 80 heterosexual, social drinking men (Age: *M* = 20.56, *SD* = 2.67). The racial composition of this sample consisted of 19 African-Americans, 47 Caucasians, and 14 men who identified with another racial background. Seventy-one percent of participants had never been married, the mean education level was 15 years, and the mean income level was $38,000 yearly.

Table 9

Means and Standard Deviations for Minor Physical Aggression and Drinking Variables for the College Comparison Sample #1

Variable	*M* (*SD*)	Range	Percent
Minor Physical Aggression (past year)			62
Number of drinking days	101 (106.4)	0-365	
Drinks per drinking day	5.4 (4.5)	1-25	
Largest quantity of drinks (past year)	11.3 (7.8)	1-36	
Frequency of largest quantity (past year)	26 (55.5)	7-365	

Note. n = 80.

The third comparison sample was collected from undergraduate students at Georgia State University (please see Table 10 for further detail). This sample was comprised of 94 heterosexual, social drinking men (Age: *M* = 21.48, *SD* = 5.14). The racial composition of this sample consisted of 20 African-Americans, 43 Caucasians, and 31 men who identified with another racial background. Eighty-five percent of participants had never been married, the mean education level was 15 years, and the mean income level was $32,819 yearly.

Overall, as compared to the comparison samples, it appears that the present sample was comprised of slightly older men who had histories of heavier alcohol use. This result is a direct product of the recruitment method utilized by the present project; the present project recruited heavy drinking (as opposed to social drinking) males from the local community and did not impose an age limit on the sample (as opposed to the community comparison sample highlighted). Please refer to the discussion section for more detail regarding the meaning of this result.

Table 10

Means and Standard Deviations for Minor Physical Aggression and Drinking Variables for the College Comparison Sample #2

Variable	*M* (*SD*)	Range	Percent
Minor Physical Aggression (past year)			75
Number of drinking days	71.4 (85.5)	1.5-365	
Drinks per drinking day	5 (3.7)	1-21.5	
Largest quantity of drinks (past year)	9.9 (7.5)	1-36	
Frequency of largest quantity (past year)	20.8 (44.6)	7-365	

Note. n = 94.

4.4 Regression Analyses

The overarching hypothesis of mediated moderation was tested in accordance with the procedures outlined by Muller, Judd, and Yzerbyt (2005) using ordinary least squares regression. Prior to testing the model, dummy coding was employed to standardize the categorical predictor variable (i.e., intervention group). Further, the continuous predictor variable (i.e., masculine gender role stress) was mean centered by subtracting the mean score of the variable from the raw score of the variable (Cohen, Cohen, West, & Aiken, 2003). According to Aiken and West (1991), mean centering first-order continuous variables is advantageous for both statistical and substantive reasons. Most importantly, this procedure reduces multicollinearity between interaction terms and their constituent lower-order terms and improves the interpretability of regression equations. Furthermore, the computation of interactions with raw scores yields incorrect regression coefficients because they are not scale invariant. Interaction terms were calculated by obtaining cross-products of pertinent first-order variables. Regression coefficients for simple effects were examined to determine whether they are

significantly different from zero (Cohen et al., 2003). When using this procedure, it is important to interpret the unstandardized, and not the standardized, regression solution. As such, all parameter estimates for interaction effects are reported as unstandardized *b*s. In contrast, estimates of main effects and simple slopes are reported as standardized *β*s.

4.5 Effects of Masculine Gender Role Stress on the Relation Between Intervention and Alcohol-Related Physical Aggression

In the first model (Hypothesis 1), the outcome variable (i.e., Physical Aggression) was hierarchically regressed on the predictor (i.e., Intervention Group) and the moderator (i.e., Masculine Gender Role Stress) in Step 1, and the Intervention Group X Masculine Gender Role Stress interaction in Step 2. In order to demonstrate the first criterion of mediated moderation, the Intervention Group X Masculine Gender Role Stress interaction term in Step 2 must be significant.

In Step 1, the regression model was significant, $F(2, 91) = 4.37$, $p = .02$, $R^2 = .068$. Intervention condition was the only significant main effect in the model ($\beta = -.288$, $p < .01$). This indicated that men who received the intervention, relative to control, enacted significantly less alcohol-related physical aggression toward the female confederate.

In Step 2, the regression model was significant, $F(3, 90) = 6.17$, $p < .01$, $R^2 = .143$. The interaction effect between intervention condition and masculine gender role stress was significant ($b = -.031$, $p < .01$). As can be seen in Figures 3, 4, and 5, examination of this interaction indicated that men who received the intervention, relative to control, enacted significantly less alcohol-related physical aggression but only when they endorsed lower ($\beta = -.58$, $p < .01$) relative to higher ($\beta = .007$, $p = .96$) levels of masculine gender role stress. This finding suggested that the intervention was associated with less alcohol-related physical aggression toward women, but only for men who were at lower risk (i.e., lower levels of masculine gender role stress) for perpetrating this aggression. As such, the first criterion of mediated moderation was met.

4.5.1 Effects of Masculine Gender Role Stress on the Relation Between Intervention and Alcohol-Related Physical Aggression

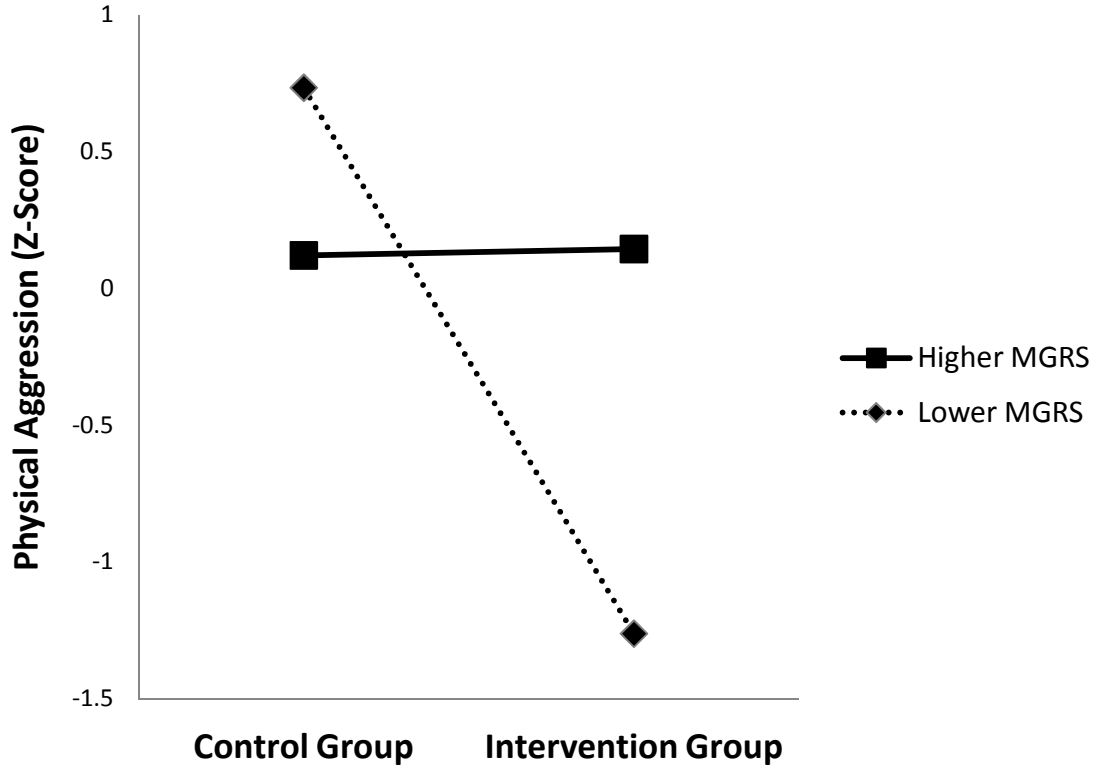

Figure 3. Physical aggression was defined as the summation of standardized scores for the average intensity and duration of shocks selected.

4.5.2 Effects of Masculine Gender Role Stress on the Relation Between Intervention and Alcohol-Related Physical Aggression

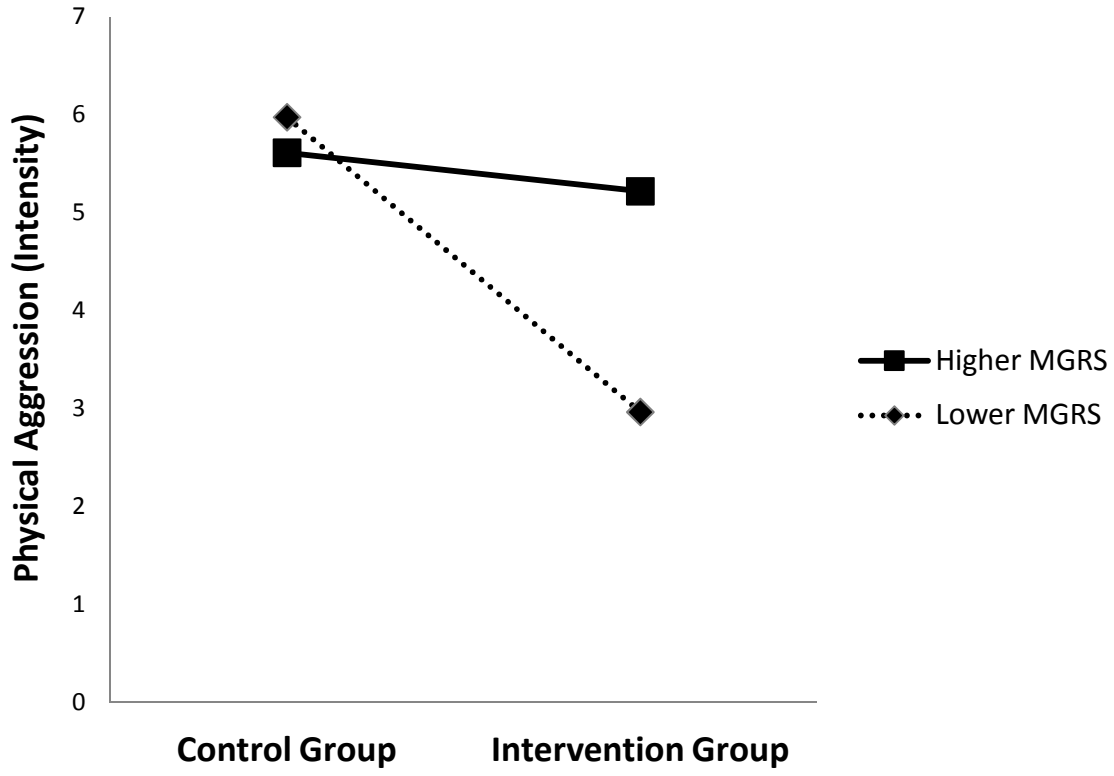

Figure 4. Physical aggression was defined as the intensity of shocks (ranging from 1-10) selected. Data for this graph are not represented in the results section.

4.5.3 The Conditional Effect of the Attention-Allocation Model-Inspired Intervention on Physical Aggression at Values of Masculine Gender Role Stress

Figure 5. The Masculine Gender Role Stress variable is mean centered. The light gray shading represents the level of masculine gender role stress by which the effect of the intervention diminishes to a non-significant level.

4.6 Effects of Masculine Gender Role Stress on the Relation between Intervention and Alcohol-Related Negative Cognitions

In the second model (Hypothesis 2), the mediating variable (i.e., Negative Cognitions) was hierarchically regressed on the predictor (i.e., Intervention Group) and the moderator (i.e., Masculine Gender Role Stress) in Step 1, and the Intervention Group X Masculine Gender Role Stress interaction in

Step 2. In order to demonstrate the second criterion of mediated moderation, the Intervention Group X Masculine Gender Role Stress interaction term in Step 2 must be significant

In Step 1, the regression model was not significant, $F(2, 91) = .11$, $p = .89$, $R^2 = .003$. No variables in this model were significant. In Step 2, the regression model was not significant, $F(3, 90) = .25$, $p = .86$, $R^2 = .008$. No variables in this model were significant. This indicated that the intervention did not impact men's alcohol-related negative cognitions toward women in an interpersonally provocative encounter. Thus, the second criterion for mediated moderation was not met and no further analyses were conducted[1].

5 DISCUSSION

The primary aim of the present investigation was to directly examine a theoretically-based, ecologically-valid intervention and proposed mechanism for reducing at risk men's alcohol-related aggression toward women for the bar setting. This study was developed in response to a critical need to address barriers to interventions for alcohol-related aggression (Giancola et al., 2009, 2010). This literature called for research to empirically investigate (a) specific intervention techniques that reduce aggression, (b) in whom such interventions will have the greatest impact, and (c) the mechanisms that account for such effects.

5.1 Effects of Intervention on Alcohol-Related Physical Aggression

As expected, results of this study evidenced that the attention-allocation model-inspired intervention, relative to control, was associated with less alcohol-related physical aggression toward a female confederate. This is consistent with past findings that cognitive distraction reduces attention toward aggression stimuli and physical aggression among provoked, intoxicated men (Gallagher &

[1] Because the mediating variable (i.e., Negative Cognitions) was positively skewed, regression analyses were also conducted using a square root transformation of this variable. Results did not significantly differ.

Parrott, 2011; Giancola & Corman, 2007). Of import, the present result incrementally advanced this line of work by using ecologically-valid techniques (Giancola et al., 2010), a high risk community sample of heavy drinking males, and a gender-relevant masculinity threat from a female confederate. This context is important given that the majority of alcohol-aggression studies to date (Gallagher & Parrott, 2011; Giancola & Corman, 2007) have (1) utilized techniques (e.g., cognitive distraction computerized tasks) less likely to be implemented into the bar setting, (2) recruited social, as opposed to heavy, drinking males who are less likely to perpetrate aggression toward women (e.g., Gallagher & Parrott, 2010; Gallagher et al., 2010; Heyman et al., 1995), and (3) have not implemented a gender relevant provocation from a female confederate.

The present result can be interpreted within the framework of the attention-allocation model of alcohol myopia theory (Steele & Josephs, 1990; Taylor & Leonard, 1983). According to this theory, alcohol intoxication facilitates attentional focus toward salient instigatory cues (e.g., provocation from a woman) that promote aggressive behavior, which in turn, shifts attentional focus away from less salient inhibitory cues (e.g., social proscriptions against aggression toward a woman) that discourage aggressive behavior. It is posited further that this effect is most likely to facilitate aggression when the inebriate is faced with a situation where strong instigatory cues compete with strong inhibitory cues for attentional resources. Though, the attention-allocation model has largely been utilized to explain why alcohol increases aggressive behavior, this model also makes the counterintuitive prediction that alcohol may decrease aggressive behavior, even below that of sober individuals. In a situation where non-provocative cues are most salient, alcohol myopia theory states that the narrowed attentional capacity of the inebriate will be focused on those cues leaving little space in working memory to focus on less salient provocative cues.

In line with these tenants, this finding suggests that the inhibitory cues of the intervention were most salient and facilitated an alcohol-related shift in attention away from the instigatory cues present

in the environment (i.e., provocation from the woman). If this is the case, the intervention cues hijacked the alcohol myopia of these men and led to their lower levels of aggression. This finding provides data to support the first endeavor set forth by the field to empirically investigate specific intervention techniques associated with lower levels of aggressive behavior. If future studies can replicate and add to this finding, direct implementation of these cues into the bar setting may have a substantial impact on men's alcohol-related aggression toward women.

5.2 Effects of Masculine Gender Role Stress on the Relation between Intervention and Alcohol-Related Physical Aggression

Although this finding was an important advancement in the alcohol-aggression literature, it was also critical to understand for whom this intervention would have the greatest impact. Contrary to expectations, results of this study evidenced that the attention-allocation model-inspired intervention was associated with less alcohol-related aggression toward women for men who reported lower, but not higher, levels of masculine gender role stress. This result indicates that the intervention cues were only effective at impacting alcohol-related aggression toward women in men at lower risk of perpetrating this aggression (Copenhaver et al., 2000; Eisler et al., 2000; Franchina et al., 2001; Jakupcak et al., 2002; Moore et al., 2008). This finding is consistent with the bivariate correlation between intervention condition and physical aggression that was significant for men who did not endorse recent perpetration of physical aggression toward a woman, but was not significant for men who did endorse recent perpetration of physical aggression toward a woman.

In hindsight, however, this result is not surprising. Reviewing back to the context of the study, it is important to remember that the present sample was comprised solely of men who drink heavily (e.g., Gallagher & Parrott, 2010; Gallagher et al., 2010; Heyman et al., 1995) and were acutely intoxicated at the time of their behavior (Chermack & Blow, 2002; Murphy, Winters, O'Farrell, Fals-Stewart, & Murphy, 2005) – two important risk factors for men's aggression toward women. Furthermore, this study

implemented a gender-relevant provocation in an already adversarial encounter (i.e., provoked aggression trials of the TAP). Indeed, provocation is one of the greatest elicitors of aggression (e.g., Anderson & Bushman, 2002; Bettencourt & Miller, 1996; Giancola et al., 2002) which was only compounded further by the masculinity threat perpetrated by the female confederate (Vandello et al., 2008). As such, it can be argued that the attention-allocation model-inspired intervention was associated with lower levels of aggression toward women for men who were a "triple threat" (i.e., men who: (1) had a history of heavy alcohol use, (2) were acutely intoxicated, and (3) encountered gender-relevant provocation), but not for men who were a "quadruple" threat (i.e., the addition of a higher level of masculine gender role stress). If analyses had been conducted separately with men who did and did not endorse a recent history of physical aggression toward a woman, it is likely that a similar pattern would have emerged.

This result may have occurred due to the likelihood that these higher gender role stress men were especially sensitive to the masculinity threat perpetrated by the female confederate. Indeed, masculine gender role stress has been directly associated with men's aggression toward women (Copenhaver, Lash, & Eisler, 2000; Eisler et al., 2000; Franchina et al., 2001; Jakupcak et al., 2002; Moore et al., 2008). Furthermore, pertinent theory contends that masculine gender role stress reflects men's tendency to experience the insecurity, defensiveness, personal weakness, and stressful discontent that may be a central motivation for aggression toward women (Cowan & Mills, 2004; Malamuth, Sockloskie, Koss, & Tanaka, 1991; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Given this, it is possible that the salience of the instigatory cues of the provocation may have overridden the impact of the inhibitory cues of the intervention.

Moreover, it is also possible that the attention-allocation model-inspired intervention cues backfired, and myopically focused higher masculine gender role stress men's attention onto the masculinity threat. In doing so, the mirrors, cameras, and coaster slogan may have prompted these men

to aggress toward the woman in order to prove or even save their threatened masculinity. This finding provides initial data to support the second endeavor set forth by the field to empirically identify in whom particular interventions may have the greatest impact; however, it is imperative that future work explore further these individual factors.

5.3 Effects of Masculine Gender Role Stress on the Relation Between Intervention and Alcohol-Related Negative Cognitions

Counter to expectations, results of the study did not support the hypotheses that intoxicated men who received the intervention, relative to control, would display the lowest levels of negative cognition and that masculine gender role stress would moderate this effect. Several explanations for this outcome can be advanced. First, a retrospective power analysis indicated achieved power of .11 which is substantially lower than expected. Because the present study is greatly underpowered for analysis of these cognitions, any interpretation of this null finding should be approached with caution. Second, and most simplistically, it is possible that the attentional shift that resulted from the attention-allocation model-inspired intervention was not associated with a lower number of men's alcohol-related negative cognitions, regardless of level of masculine gender role stress. However, verification of this conclusion would be surprising given that a multitude of studies indicate that individuals who exhibit difficulty regulating negative emotion (e.g., high trait anger, low anger control, difficult temperament) are more susceptible to alcohol's facilitative effect on aggression (e.g., Giancola, 2004; Parrott & Giancola, 2004).

More probable, is the notion that the modified version of the Articulated Thoughts in Simulated Situations paradigm (e.g., Eckhardt et al., 1998) did not accurately capture men's "in-the-moment" cognitions. For example, it is possible that the experimental setting inhibited participants' report of what they were thinking and feeling directly following the aggression task. Of qualitative note, participants frequently requested to urinate at the beginning of this procedure which may have

impeded their ability to be forthcoming. In addition, the nature of the experimental setting may have engendered effects of social desirability; it is possible that the male participants did not want to provide their genuine thoughts and feelings at the request of a female experimenter who was audio-recording them. Further, it is possible that this sample of men did not have conscious awareness into their true thoughts and feelings and, therefore, were unable to articulate them.

Alternatively, it is also possible that the attention-allocation model-inspired intervention was not able to impact participants' engrained response patterns. In hindsight, this is not a surprising outcome. Indeed, our sample consisted of men who were (1) acutely intoxicated, (2) heavy dispositional drinkers, (3) generally lower in socioeconomic status and education, and (4) over half (61%) self-admitted perpetrators of a recent act of minor physical aggression toward a woman. As such, it is unlikely that any brief intervention would be able to substantially modify long-held schemas that influence articulated thoughts and emotions captured by the Articulated Thoughts in Simulated Situations paradigm. This result leaves unanswered what mechanism(s) may account for the effectiveness of the intervention. It will be important for future research to undertake the important task of elucidating these mechanisms.

Of particular note, participants' self-reported masculine gender role stress scores were unusually low in the present sample (see Table 10). It is unclear why these scores were lower relative to community and college-based samples in the area during the past 10 years. As compared to past samples, the present participants were slightly older and had histories of heavy alcohol use. These differences may have led to response bias. For example, older participants may have had less recent experiences on college campuses. This is especially true relative to college-based samples. Given that the study was conducted on a university campus, this may have engendered suspicion or anxiety in men, leading them to underreport on sensitive questions. Furthermore, men were asked to answer several questions regarding their alcohol use, both over the phone and on questionnaires in the laboratory.

These questions may have unintentionally primed participants to feel sensitively about their answers, due to their reported heavy alcohol use. Of course, it is also possible that this sample of men actually experienced lower levels of dispositional masculine gender role stress as compared to the previous samples. The reason for these lower scores as well as the impact this may have had on the findings remains unclear.

5.4 Role of the Female Experimenter

In addition to discussing methodological implications of the study's design, paradigms, and measures, it is important to consider the impact of the experimenter on the results. The role of the experimenter is a crucial element of research that is often not discussed. I, the author of this dissertation and primary investigator, am a white, heterosexual, female, clinical psychology doctoral candidate in an APA-approved scientist practitioner program. During my graduate training I have received rigorous, individualized research and clinical mentorship; I have chosen to focus my clinical training on psychodynamic/psychoanalytic theory and practice. I identify strongly as both a researcher and a clinician and brought all of these aspects of myself to this project.

During the course of this study, I was acutely aware of my personal reactions to my sample of men who frequently perpetrated acts of sexual harassment toward me and my research staff. Examples of this harassment ranged from perseverative comments regarding our physical appearances to unwanted touching. Though these behaviors were alarming, in hindsight they are not surprising. This study utilized a sample of male participants who were (1) heavy drinkers, (2) lower in socioeconomic status and education, and (3) mostly perpetrators of a recent act of physical aggression toward a woman (61%). To complete this project, I intoxicated these men and exposed them to a masculinity threat from a female fictitious opponent. The culmination of these factors created an environment that likely promoted these behaviors.

It is impossible to quantify how these acts of harassment may have impacted study results. One possibility is that these behaviors represented a displacement defense mechanism whereby participants re-directed their thoughts and feelings away from the female confederate and toward the female experimenter. In fact, in many ways the procedures of this study may have encouraged this unconscious process. For example, the female confederate methodologically represented an adversarial opponent who threatened the participant's masculine identity. Alternatively, the female experimenter represented an empathic primary contact person who explained the procedures, obtained informed consent, and answered questions and concerns. In this way, it makes sense that men would act out their negative reactions (e.g., anger, hostility) toward the female experimenter – a woman who represented a safer object, relative to the female confederate – a woman who represented a punitive, adversarial opponent. In the event that a displacement defense was inadvertently engendered, it would provide an alternative explanation for the null finding of the hypothesized effect of the attention-allocation model-inspired intervention on intoxicated men's negative cognitions (Hypothesis 2).

As a female researcher who experienced these behaviors weekly, I sought supervision and mentorship to process my own thoughts and feelings. As part of this process, I remained acutely aware of the elements of myself that are more privileged and more marginalized. Relative to my mostly African-American, lower socioeconomic status, male sample, I hold unearned privileges as a white, heterosexual, advanced educated, middle class person. These unearned privileges are salient to me because of my female identity, a more marginalized piece of myself; the part of myself that was triggered by the maleness and aggressiveness of my participants.

This process of self-reflection – which I have practiced in both my research and clinical work – afforded me the empathy I needed to work successfully with this population of men. As a psychodynamic/psychoanalytically oriented trainee, I have been asked to routinely confront, acknowledge, and analyze my countertransference reactions in my therapeutic relationships. I utilized

these skills to understand and manage my personal reactions to my research participants. One way I did this was through building brief but meaningful relationships with participants during the motivational interviewing sessions that occurred following the study. Qualitatively, many of the men discussed experiences of family of origin violence and alcoholism which allowed me to create a narrative of the experiences that likely contributed to their reported and enacted behaviors. I also scheduled time to meet with my undergraduate research staff to process the experiences of harassment that they encountered throughout the study. This afforded me peer support and an opportunity for supervision of my supervision experience.

As a female researcher, this study was difficult to conduct. However, I believe it is imperative that the field continue to recruit and study men who are most at risk of perpetrating acts of physical and sexual aggression toward women. Though future researchers may choose to have men serve as the primary experimenter of these studies, I believe it is a mistake to make that recommendation. Like psychotherapy, the research process is not meant to be easy. If it were easy, we would lose value in the products we achieve. What I do encourage is that future researchers continue to process and write about their experiences of countertransference in the research process. This is not something that is common in the research literature and, in fact, was once not common in the psychotherapy literature. In a letter to Carl Jung (1912) Freud wrote "…I believe an article on 'counter-transference' is sorely needed; of course, we could not publish it, we should have to circulate copies among ourselves" (McGuire, 1974; pg. 476). Since this letter, the psychotherapy literature has been ripe with discussion on how countertransference may affect the psychotherapy process. It is not conceivable that researchers have not thought of these issues; rather, it is believed that, like Freud's letter to Jung, this topic has been treated as an unspoken variable of the research setting. It is my hope that this dissertation will contribute to the beginnings of this discussion within our field.

5.5 Limitations

Several limitations of the present study merit discussion. First, and most notably, a post-hoc power analysis indicated that the present study was underpowered to test sufficiently the second model (Hypothesis 2). Furthermore, it is unclear how the impact of the female experimenter may have influenced this finding. Thus, any interpretation related to this finding should be approached with great caution.

Second, participants' cognitions were not recorded during the aggression task. This order of events was put into place to preserve the integrity of the aggression data. Nonetheless, the break in time between participants' behavior on the aggression task and their ability to express their thoughts and feelings regarding this experience, may have contributed to the null finding. Relatedly and as previously mentioned, the methodological nature of the Articulated Thoughts in Simulated Situations paradigm may have unduly inhibited participants' articulations. This limitation may be avoided in future research by employing alternative techniques such as the Facial Action Coding system (Ekman & Friesen, 1978a; Ekman & Friesen, 1978b) which can covertly capture participants' affective states and cognitions at the time of the behavior.

Third, the present study only measured dispositional masculine gender role stress; participants' state masculine gender role stress and affect were not assessed prior to the aggression task. As such, definitive conclusions regarding the impact of masculine gender role stress

Fourth, due to the previously discussed methodological constraints of the Taylor Aggression Paradigm, these data do not provide conclusive evidence that the intervention cues reduced participants' aggression. In addition, this study is unable to dismantle the active ingredients of the intervention; it is not possible to know why the intervention cues were associated with lower levels of alcohol-related aggression toward a female confederate. As such, it is important to consider future directions of this research that may account for these limitations.

5.6 Directions for Future Research

The present study provides the first known data toward the construction of a theoretically-based, ecologically-valid intervention for at-risk men's alcohol-related aggression toward women. This is a burgeoning area that requires large-scale studies that can reconcile the limitations of the present study and contribute further to the literature. The present data can be utilized as a platform for this work; indeed, this research provides much needed insight into the construction of these studies which will contribute greatly to the field.

For example, future research in the bar setting could employ a repeated measure multiple baseline design where baseline rates of aggression toward women were captured via hidden cameras within a bar setting for a given period of time (e.g., three months). Following this baseline assessment, an established intervention (e.g., coasters with anti-violence slogans, visible cameras) could be implemented in accordance with data garnered from larger-scale laboratory studies, and men's aggression toward women could be assessed again to establish a treatment baseline for a three-month period. The intervention could then be removed for a three-month period to re-assess baseline rates of aggression toward women.

Furthermore, a larger-scale study could implement multiple conditions that experimentally manipulate variables such as the type of intervention cue, level of provocation, beverage condition, perpetrator status, and participant gender. This would allow researchers to dismantle further the various interactions of Agent (alcohol) X Host (person) X Environment (situation). Once this research is accomplished, randomized controlled trials with attention to the mechanism(s) of action (i.e., the processes and/or events that lead to and cause the therapeutic change) (Kazdin & Nock, 2003) can be conducted to garner true treatment outcome data.

Collectively, these efforts would allow the field to break through critical barriers by understanding (a) the specific intervention techniques that reduce aggression, (b) in whom selected interventions have

the greatest impact, and (c) the mechanisms that account for such effects. Foremost, these efforts would allow for the translation of this work into real-world interventions for men's alcohol-related aggression toward women.

To facilitate progress in this field, it is important to revisit a key methodological impasse of the present study. Originally, this study sought to recruit heavy drinking males with a history of minor physical aggression toward any woman (i.e., not just intimates) during the past year. This aggression criterion was eliminated at an early stage of the study due to extreme difficulty with recruitment. Similar to the lower response bias for the masculine gender role stress variable, it is postulated that this problem was a product of response bias. It is possible participants may have responded inaccurately to these questions during Part 1 because they recalled answering the same questions during the telephone screening interview. This may have accidentally elicited suspicion, anxiety, or concern in participants which may have led to inaccurate responses. In addition, many of the experimenters for Part 1 were young women which might have impacted the manner in which these men responded to the questions.

Unfortunately, because the origin(s) of this recruitment difficulty cannot be clarified, the burden will ultimately fall on future research to remedy this recruitment strategy. In larger-scale studies that have multiple groups, one solution may be to incorporate perpetrator and non-perpetrator groups. This method would need to be monitored carefully to ensure equal distribution over time between the two categories. Alternatively, if researchers wish to recruit only men who have violent histories, studies may elect to ask participants the Psychological, but not the Physical, Aggression items during the telephone screening interview. Since research suggests a strong correlation between psychological aggression and physical aggression (e.g., Hamby & Sugarman, 1999; Murphy & O'Leary, 1989; Murphy & Ting, 2010), and individuals are significantly more likely to report psychological aggression, relative to physical aggression (Straus et al., 1996) this strategy is likely to reduce the number of participants who are deemed ineligible upon presenting to the laboratory.

5.7 Concluding Summary

It is well established that alcohol is a contributing cause of men's aggression toward women (Abbey et al., 2005; Leonard & Quigley, 1999). Data indicate that men perpetrate more severe acts of violence, and women report more severe effects of injury, if the male perpetrator consumed alcohol at the time of the assault (Testa et al., 2003; Tjaden & Thoennes, 2000). However, only recently has research demonstrated that cognitively focused manipulations (e.g., cognitive distraction) are effective at reducing alcohol-related aggression (Gallagher & Parrott, 2011; Giancola & Corman, 2007). From these studies, researchers have proposed ecologically valid interventions for alcohol-related aggression that causally influence attention-allocation and, in turn, decrease negative cognitions that promote aggressive behavior (Giancola et al., 2009, 2010). However, before these interventions can be utilized in real-world settings (e.g., a bar), laboratory research must be conducted to test (1) whether these interventions are associated with less aggression toward women, (2) in whom such an intervention will have the greatest impact, and (3) the cognitive mechanisms that account for this effect. These limitations have been significant barriers to the development of effective interventions for men's alcohol-related aggression toward women and speak to the critical need for data to inform the direction of prevention programming in this area.

This call in the literature provided the impetus for the present investigation which assessed a theoretically-based, ecologically-valid intervention and proposed mechanism for reducing at risk men's alcohol-related aggression toward women for the bar setting. Results of this study evidenced that the attention-allocation model-inspired intervention, relative to control, was associated with less alcohol-related physical aggression toward a female confederate. This finding held for men who reported lower, but not higher, levels of masculine gender role stress. However, results of the study did not support the hypotheses that intoxicated men who received the intervention, relative to control, would display the

lowest levels of negative cognition and that masculine gender role stress would moderate this effect. Thus, the present study successfully addressed two of the three barriers cited.

It is clear that continued intervention-based research for men's alcohol-related aggression toward women is greatly needed. Data from the current project are among the first in this burgeoning area. The field requires large-scale studies that can reconcile the limitations of the present study and contribute further to this literature. The present study provides the field with a platform for which to base this future work.

REFERENCES

Abbey, A., McAuslan, P., & Ross, L. T. (1998). Sexual assault perpetration by college men: The role of alcohol, misperception of sexual intent, and sexual beliefs and experiences. *Journal of Social and Clinical Psychology, 17*, 167-196.

Abbey, A., Zawacki, T., & Buck, P. O. (2005). The effects of past sexual assault perpetration and alcohol consumption on men's reactions to women's mixed signals. *Journal of Social and Clinical Psychology, 24*, 129-155.

Addicott, M. A., Marsh-Richard, D. M., Mathias, C. W., & Dougherty, D. M. (2007). The biphasic effects of alcohol: Comparisons of subjective and objective measures of stimulation, sedation, and physical activity. *Alcoholism: Clinical and Experimental Research, 31*, 1883-1890.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions:* Sage Publications, Inc.

Anderson, C., & Bushman, B. (1997). External validity of "trivial" experiments: The case of laboratory aggression. *Review of General Psychology, 1*, 19-41.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27-51.

ATLAS.ti Qualitative Data Analysis Software (version 6.2.28) [Computer software]. Berlin, Germany.

Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001) AUDIT: the alcohol use disorders identification test. Guidelines for use in primary health care. Department of Mental Health and Substance Dependence, World Health Organization, Geneva.

Bailey, D., Leonard, K., Cranston, J., & Taylor, S. (1983). Effects of alcohol and self-awareness on human physical aggression. *Personality and Social Psychology Bulletin, 9,* 289-295.

Barnwell, S., Borders, A., & Earlywine, M. (2006). Alcohol- aggression expectancies and dispositional aggression moderate the relationship between alcohol consumption and alcohol-related violence. *Aggressive Behavior, 32*, 517-527.

Bettencourt, B. A., & Miller, N. (1996). Gender differences in aggression as a function of provocation: A meta-analysis. *Psychological Bulletin, 119*, 422-447.

Berkowitz, L. (1989). Frustration-aggression hypothesis: Examination and reformulation. *Psychological Bulletin, 106*, 59-73.

Berkowitz, L. (1990). On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis. *American Psychologist, 45,* 494-503.

Berkowitz, L. (1993). *Aggression: Its causes, consequences, and control*. New York: McGraw Hill.

Berman, M., Bradley, T., Fanning, J., & McCloskey, M. (2009). Self-focused attention reduces self-injurious behavior in alcohol-intoxicated men. *Substance Use and Misuse, 44*, 1280-1297.

Bushman, B., & Cooper, H. (1990). Effects of alcohol on human aggression: An integrative research review. *Psychological Bulletin, 107*, 341-354.

Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*(3), 452.

Cappell, H., & Greeley, J. (1987). Alcohol and tension reduction: An update on research and theory. In H. Blane & H. Leonard (Eds.), Psychological theories of drinking and alcoholism (pp.15–54). New York: Guilford Press.

Chermack, S., & Blow, F. (2002). Violence among individuals in substance abuse treatment: The role of alcohol and cocaine consumption. *Drug and Alcohol Dependence, 66*, 29-37.

Chermack, S., & Giancola, P. (1997). The relationship between alcohol and aggression: An integrated biopsychosocial approach. *Clinical Psychology Review, 6*, 621-649.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.), New Jersey: Lawrence Erlbaum Associates, Inc.

Cohn, A. M., Seibert, L. A. & Zeichner, A. (2009). The role of restrictive emotionality, trait anger, and masculinity threat in men's perpetration of physical aggression. *Psychology of Men and Masculinity, 10*, 218-224.

Copenhaver, M. M., Lash, S. J., & Eisler, R. M. (2000). Masculine gender-role stress, anger, and male intimate abusiveness: Implications for men's relationships. *Sex Roles, 42*, 405-414.

Cosenzo, K. A., Franchina, J. J., Eisler, R. M., & Krebs, D. (2004). Effects of masculine gender-relevant task instructions on men's cardiovascular reactivity and mental arithmetic performance. *Psychology of Men and Masculinity, 5*, 103-111.

Cowan, G., & Mills, R. D. (2004). Personal inadequacy and intimacy predictors of men's hostility toward women. *Sex Roles, 51*, 67-78.

Davison, G. C., Robins, C, & Johnson, M. K. (1983). Articulated thoughts during simulated situations: A paradigm for studying cognition in emotion and behavior. *Cognitive Therapy and Research, 7*, 17-39.

Davison, G. C., Vogel, R. S. & Coffman, S. G. (1997). Think-aloud approaches to cognitive assessment and the articulated thoughts in simulated situations paradigm. *Journal of Consulting and Clinical Psychology, 65*, 950-958.

Deragotis, L. (1983). SCL-90-R: Administration, scoring, and procedures manual – II for the revised version Towson, MD: Clinical Psychometric Research.

Duke, A. A., Giancola, P. R., Morris, D. H., Holt, J. C. D., & Gunn, R. L. (2011). Alcohol dose and aggression: Another reason why drinking more is a bad idea. *Journal of Studies on Alcohol and Drugs, 72*, 34-43.

Eckhardt, C. I., Barbour, K. A., & Davison, G. C. (1998). Articulated thoughts of martially violent and nonviolent men during anger arousal. *Journal of Consulting and Clinical Psychology, 66*, 259-269.

Eisler, R. M., Franchina, J. J., Moore, T. M., Honeycutt, H. G., & Rhatigan, D. L. (2000). Masculine gender role stress and intimate abuse: Effects of gender relevance of conflict situations on men's attributions and affective responses. *Psychology of Men and Masculinity, 1*, 30-36.

Eisler, R. M., & Skidmore, J. R. (1987). Masculine gender role stress: Scale development and component factors in the appraisal of stressful situations. *Behavior Modification, 11*, 123-136.

Eisler, R. M., Skidmore, J. R., & Ward, C. H. (1988). Masculine gender-role stress: Predictor of anger, anxiety, and health-risk behaviors. *Journal of Personality Assessment, 52*, 133-141.

Ekman, P., & Friesen, W. V. (1978a). *Facial Action Coding System*. Palo Alto, CA: Consulting Psychologists Press.

Ekman, P., & Friesen, W. V. (1978b). *Investigator's guide: Part Two. Facial Action Coding System*. Palo Alto, CA: Consulting Psychologists Press.

Fals-Stewart, W., Leonard, K. E., & Birchler, G. R. (2005). The occurrence of male-to-female intimate partner violence on days of men's drinking: The moderating effects of antisocial personality disorder. *Journal of Consulting and Clinical Psychology, 73*, 239-248.

Foran, H. M., & O'Leary, K. D. (2008). Problem drinking, jealousy, and anger control: Variables predicting aggression against a partner. *Journal of Family Violence, 23*, 141-148.

Franchina, J. J., Eisler, R. M., & Moore, T. M. (2001). Masculine gender role stress and intimate abuse: Effects of masculine gender relevance of dating situations and female threat on men's attributions and affective responses. *Psychology of Men and Masculinity, 2*, 34-41.

Gallagher, K. E., Hudepohl, A. D., & Parrott, D. J. (2010). The power of being present: The role of mindfulness on the relation between men's alcohol use and sexual aggression toward intimate partners. *Aggressive Behavior, 36*, 405-413.

Gallagher, K. E., & Parrott, D. J. (2010). Influence of heavy episodic drinking on the relation between men's locus of control and aggression toward intimate partners. *Journal of Studies on Alcohol and Drugs, 71*, 299-306.

Gallagher, K. E., & Parrott, D. J. (2011). Does distraction reduce the alcohol-aggression relation?: A cognitive and behavioral test of the attention-allocation model. *Journal of Consulting and Clinical Psychology, 79*, 319-329.

Gallagher, K. E., & Parrott, D. J. (2011). What accounts for men's hostile attitudes toward women?: The influence of hegemonic male role norms and masculine gender role stress. *Violence Against Women, 17*, 568-583.

Giancola, P. R. (2000). Executive functioning: A conceptual framework for alcohol-related aggression. *Experimental and Clinical Psychopharmacology, 8*, 576-597.

Giancola, P. R. (2004). Executive functioning and alcohol-related aggression. *Journal of Abnormal Psychology, 113*, 541-555.

Giancola, P. R., & Corman, M. D. (2007). Alcohol and aggression: A test of the attention-allocation model. *Psychological Science, 18*, 649-655.

Giancola, P. R., Godlaski, A. J., & Parrott, D. J. (2006). Perception of one's attacker's intentions following an aggressive interaction involving alcohol. *Journal of General Psychology, 133*, 389-400.

Giancola, P. R., Helton, E. L., Osborne, A. B., Terry, M. K., Fuss, A. M., & Westerfield, J. A. (2002). The effects of alcohol and provocation on aggressive behavior in men and women. *Journal of Studies on Alcohol, 63*, 64-73.

Giancola, P. R., Josephs, R. A., DeWall, C. N., & Gunn, R. L. (2009). Applying the attention-allocation model to the explanation of alcohol-related aggression: Implications for prevention. *Substance Use and Misuse, 44*, 1263-1279.

Giancola, P. R., Josephs, R. A., Parrott, D. J., & Duke, A. A. (2010). Alcohol myopia revisited: Clarifying aggression and other acts of disinhibition through a distorted lens. *Perspectives on Psychological Science, 5*, 265-278.

Giancola, P. R., & Parrott, D. J. (2008). Further evidence for the validity of the Taylor Aggression Paradigm. *Aggressive Behavior, 34*, 214-229.

Giancola, P. R. & Zeichner, A. (1995). An investigation of gender differences in alcohol-related aggression. *Journal of Studies on Alcohol, 56*, 573-579.

Giancola, P. R., & Zeichner, A. (1997). The biphasic effects of alcohol on human physical aggression. *Journal of Abnormal Psychology, 106*, 598-607.

Good, G. E., Robertson, J. M., O'Neil, J. M., Fitzgerald, L. F., Stevens, M., DeBord, K. A., Bartels, K. M., & Braverman, D. G. (1995). Male gender role conflict: Psychometric issues and relations to psychological distress. *Journal of Counseling Psychology, 42*, 3-10.

Graham, K. (2009). They fight because we let them! Applying a situational crime prevention model to barroom violence. *Drug and Alcohol Review, 28*, 103-109.

Graham, K., & Homel, R. (2008). Raising the bar: Preventing aggression in and around bars, pubs, and clubs, Portland, Oregon: Willan Publishing.

Greeley, J., & Oei, T. (1999). Alcohol and tension reduction. In K.E. Leonard & H.T. Blane (Eds.), *Psychological theories of drinking and alcoholism* (2nd ed.) (pp. 14-53). New York, NY: Guilford Press.

Gussler-Burkhardt, N.L., & Giancola, P.R. (2005). A further investigation of gender differences in alcohol-related aggression. *Journal of Studies on Alcohol, 66*, 413-422.

Hamby, S. L., & Sugarman, D. B. (1999). Acts of Psychological Aggression Against a Partner and Their Relation to Physical Assault and Gender. *Journal of Marriage and the Family, 61*, 959-970.

Heyman, R. E., O'Leary, K. D., & Jouriles, E. N. (1995). Alcohol and aggressive personality styles: Potentiators of serious physical aggression against wives. *Journal of Family Psychology, 9*, 44-57.

Hufford, M. R. (2001). Alcohol and suicidal behavior. *Clinical Psychology Review, 21*, 797-811.

Hull, J. (1981). A self-awareness model of the causes and effects of alcohol consumption. *Journal of Abnormal Psychology, 90,* 586-600.

Hull, J. G., & Bond, C. F. (1986). Social and behavioral consequences of alcohol consumption and expectancy: A meta-analysis. *Psychological Bulletin, 99*, 347-360.

Hull, J., Levenson, R., Young, & Sher, K. (1983). Self-awareness-reducing effects of alcohol consumption. *Journal of Personality and Social Psychology, 44,* 461-473.

Ito, T. A., Miller, N., & Pollock, V. E. (1996). Alcohol and aggression: A meta-analysis on the moderating effects of inhibitory cues, triggering events, and self-focused attention. *Psychological Bulletin, 120*, 60-82.

Jakupcak, M., Lisak, D., & Roemer, L. (2002). The role of masculine ideology and masculine gender role stress in men's perpetration of relationship violence. *Psychology of Men and Masculinity, 3*, 97-106.

Kazdin, A. E., & Nock, M. K. (2003). Delineating Mechanisms of Change in Child and Adolescent Therapy: Methodological Issues and Research Recommendations. *Journal of Child Psychology and Psychiatry, 44*, 1116-1129.

Kimberg, D. Y., & Farah, M. J. (1993). A unified account of cognitive impairments following frontal lobe damage: The role of working memory in complex, organized behavior. *Journal of Experimental and Psychology: General, 122*, 411-428.

Lang, 1993. A.R. Lang, Alcohol-related violence: Psychological Perspectives. In: S.E. Martin, Editor, Alcohol and interpersonal violence: Fostering multidisciplinary perspectives, National Institutes

of Health, Rockville, MD (1993), pp. 121–147 NIAAA Research Monograph No. 24, NIH Pub. No. 93-3496.

Leonard, K. E., Quigley, B. M., & Collins, R. L. (2002). Physical aggression in the lives of young adults: Prevalence, location, and severity among college and community samples. *Journal of Interpersonal Violence, 17*, 533-550.

Leonard, K. E., Quigley, B. M., & Collins, R. L. (2003). Drinking, personality, and bar environmental characteristics as predictors of involvement in barroom aggression. *Addictive Behaviors, 28*, 1681-1700.

Leonard, K. E. & Quigley, B. M. (1999). Drinking and marital aggression in newlyweds: An event-based analysis of drinking and the occurrence of husband marital aggression. *Journal of Studies on Alcohol, 60*, 537-545.

Lonsway, K. A., & Fitzgerald, L. F. (1995). Attitudinal antecedents of rape myth acceptance: A theoretical and empirical reexamination. *Journal of Personality and Social Psychology, 68*, 704-711.

MacDonald, T., Zanna, M., & Fong, G. (1995). Decision making in altered states: Effects of alcohol on attitudes toward drinking and driving. *Journal of Personality and Social Psychology, 68*, 973-985.

MacDonald, T., Zanna, M., & Fong, G. (1995). Decision making in altered states: Effects of alcohol on attitudes toward drinking and driving. *Journal of Personality and Social Psychology, 68*, 973-985.

MacDonald, T. K., Zanna, M. P., & Fong, G. T. (1996). Why common sense goes out the window: Effects of alcohol on intentions to use condoms. *Personality and Social Psychology Bulletin, 22*, 763-775.

Malamuth, N. M. (1983). Factors associated with rape as predictors of laboratory aggression against women. *Journal of Personality and Social Psychology, 45*, 432-442.

Malamuth, N. M., Linz, D., Heavey, C. L., Barnes, G., & Acker, M. (1995). Using the confluence model of sexual aggression to predict men's conflict with women: A 10-year follow-up study. *Journal of Personality and Social Psychology, 69*, 353-369.

Malamuth, N. M., Sockloskie, R., Koss, M. P., & Tanaka, J. (1991). The characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology, 59*, 670-681.

Martin, C. S., Earleywine, M., Musty, R. E., Perrine, M. W., & Swift, R. M. (1993). Development and validation of the biphasic alcohol effects scale. *Alcoholism: Clinical and Experimental Research, 17*, 140-146.

McCreary, D. R., Newcomb, M.D., & Sadava, S.W. (1998). Dimensions of the male gender role: A confirmatory factor analysis in men and women. *Sex Roles, 39*, 81-95.

McDowell, M. A., Fryar, C. D, Hirsch, R., & Ogden, C. L. (2005). Anthro-pometric reference data for children and adults: U.S. population, 1999-2002. *Advance Data From Vital and Health Statistics, No. 361, DHHS Publication No. (PHS) 2005-1250 05-0345*. Hyattsville, MD: National Center for Health Statistics.

Mogg, K., & Bradley, B. P. (1999). Orienting of attention to threatening facial expressions presented under conditions of restricted awareness. *Cognition and Emotion, 13*, 713-740.

Moore, T. M., Stuart, G. L., McNulty, J. K., Addis, M. E., Cordova, J. V., & Temple, J. R. (2008). Domains of masculine gender role stress and intimate partner violence in a clinical sample of violent men. *Psychology of Men and Masculinity, 9*, 82-89.

Muller, D., Judd, C. M., & Jzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology, 89*, 852-863.

Murphy, C. M., & O'Leary, K. D. (1989). Psychological aggression predicts physical aggression in early marriages. *Journal of Consulting and Clinical Psychology, 57*, 579-582.

Murphy, C. M., & Ting, L. (2010). The effects of treatment for substance use problems on intimate partner violence: A review of empirical data.

Murphy, C., Winters, J., O'Farrell, T., Fals-Stewart, W., & Murphy, M. (2005). Alcohol consumption and intimate partner violence by alcoholic men: Comparing violent and nonviolent conflicts. *Psychology of Addictive Behaviors, 19*, 35-42.

National Institute On Alcohol Abuse and Alcoholism. (2000). Tenth Special Report to the U.S. Congress on Alcohol and Health. National Institutes of Health, Washington, DC (NIH Publication No. 00-1583).

National Institute On Alcohol Abuse and Alcoholism. (2003, October 15-16). Task Force on Recommended Alcohol Questions - National Council on Alcohol Abuse and Alcoholism Recommended Sets of Alcohol Consumption Questions. Retrieved March 8, 2008, from http://www.niaaa.nih.gov/Resources/ResearchResources/TaskForce.htm**.**

Parks, K. A. (2000). An event-based analysis of aggression women experience in bars. *Psychology of Addictive Behaviors, 14*, 102-110.

Parks, K. A., & Miller, B. A. (1997). Bar victimization of women. *Psychology of Women Quarterly, 21*, 509-525.

Parks, K. A., Miller, B. A., Collins, R. L., & Zetes-Zanatta, L. (1998). Women's descriptions of drinking in bars: Reasons and risks. *Sex Roles, 38*, 701–717.

Parrott, D. J., Gallagher, K. E., & Zeichner, A. (2012). Liquid courage or liquid fear: Alcohol intoxication and anxiety facilitate physical aggression. *Substance Use and Misuse, 47*, 774-786.

Parrott, D. J., & Giancola, P. R. (2004). A further examination of the relation between trait anger and alcohol-related aggression: The role of anger control. *Alcoholism: Clinical and Experimental Research, 28*, 855-864.

Parrott, D. J., & Zeichner, A. (2005). Effects of sexual prejudice and anger on physical aggression toward gay and heterosexual men. *Psychology of Men and Masculinity, 6*, 3-17.

Parrott, D. J., Zeichner, A., & Stephens, D. (2003). Effects of alcohol, personality, and provocation on the expression of anger in men: A facial coding analysis. *Alcoholism: Clinical and Experimental Research, 27*, 937-945.

Phillips, J.P., & Giancola, P.R. (2008). Experimentally induced anxiety attenuates alcohol-related aggression in men. *Experimental and Clinical Psychopharmacology, 16*, 43-56.

Pihl, R. O., Peterson, J. B., & Lau, M. A. (1993, September). A biosocial model of the alcohol-aggression relationship. *Journal of Studies on Alcohol* (Suppl. 11), 128-139.

Quigley, B. M., & Leonard, K. E. (2006). Alcohol expectancies and intoxicated aggression. *Aggression and Violent Behavior, 11*, 484-496.

Rule, B. G., & Nesdale, A. R. (1976). Emotional arousal and aggressive behavior. *Psychological Bulletin, 83*, 851-863.

Sayette, M.A. (1993). An appraisal-disruption model of alcohol's effects on stress responses in social drinkers. *Psychological Bulletin, 114*, 459-476.

Schumacher, J. A., Homish, G. G., Leonard, K. E., Quigley, B. M., & Kearns-Bodkin, J. N. (2008) Longitudinal moderators of the relationship between excessive drinking and intimate partner violence in the early years of marriage. *Journal of Family Psychology, 22*, 894-904.

Sher, K. (1987). Stress response dampening. In H. Blane & H. Leonard (Eds.), Psychological theories of drinking and alcoholism (pp. 227–271). New York: Guilford Press.

Sivarajasingam, V., Shepherd, J. P., & Matthews, K. (2003). Effect of urban closed circuit television on assault injury and violence detection. *Injury Prevention, 9*, 312-316.

Steele, C. M., & Josephs, R. A. (1988). Drinking your troubles away II: An attention-allocation model of alcohol's effect on psychological stress. *Journal of Abnormal Psychology, 97*, 196-205.

Steele, C. M., & Josephs, R. A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist, 45*, 921-933.

Stout, R.L., Wirtz, P.W., Carbonari, J.P. & Del Boca, F.K. (1994). Ensuring balanced distribution of prognostic factors in treatment outcome research. Journal of Studies on Alcohol, Supplement No. 12, 70-75.

Straus, M. A., Hamby, S. L., Bony-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316.

Taylor, S. P. (1967). Aggressive behavior and physiological arousal as a function of provocation and the tendency to inhibit aggression. *Journal of Personality, 35*, 297-310.

Taylor, S. P., & Chermack, S. T. (1993). Alcohol, drugs, and human physical aggression. *Journal of Studies on Alcohol,* (Suppl. 11), 78-88.

Taylor, S. P., & Leonard, K. E. (1983). Alcohol and human aggression. In R. G. Geen & E. I. Donnerstein (Eds.), *Aggression: Theoretical and empirical reviews* (pp. 77-102). New York: Academic Press.

Testa, M. & Parks, K. A. (1996). The role of women's alcohol consumption in sexual victimization. *Aggression and Violent Behavior*, 1, 217-234.

Testa, M., Quigley, B. M., & Leonard, K. E. (2003). Does alcohol make a difference?: Within-participants comparison of incidents of partner violence. *Journal of Interpersonal Violence, 18*, 735-743.

Thompson, E. H., Jr., & Cracco, E. J. (2008). Sexual aggression in bars: What college men can normalize. *The Journal of Men's Studies, 16*, 83-97.

Thompson, E. H., Pleck, J. H., & Ferrera, D. L. (1992). Men and masculinities: Scales for masculinity ideology and masculinity-related constructs. *Sex Roles, 27*, 573-604.

Tjaden, P., & Thoennes, N. (2000). Findings from the National Violence Against Women Survey. Washington, DC: U.S. Department of Justice.

Vandello, J. A., Bosson, J. K., Cohen, D., Burnaford, R. M., & Weaver, J. R. (2008). Precarious manhood. *Journal of Personality and Social Psychology, 95*, 1325-1339.

W. McGuire (1974). The Freud/Jung Letters: The Correspondence Between Sigmund Freud and C.G. Jung, (Trans. R. F. C. Hull), Cambridge, MA, Harvard University Press.

Walker, D.F., Tokar, D.M., & Fischer, A.R. (2000). What are eight masculinity-related instruments measuring? Underlying dimensions and their relations to sociosexuality. *Psychology of Men & Masculinity, 2*, 98-108.

Ward, A., & Mann, T. (2000). Don't mind if I do: Disinhibited eating under cognitive load. *Journal of Personality and Social Psychology, 78,* 753-763.

Wright, J. H., Basco, M. R., & Thase, M. E. *Learning Cognitive-Behavior Therapy: An Illustrated Guide*. American Psychiatric Publishing Inc. Arlington, VA.

APPENDICES

Appendix A

DEMOGRAPHICS FORM

Age: _____

Years of education including kindergarten: _____

Marital Status (please check one):
___ Single (never married)
___ Married
___ Not married but living with intimate partner
___ Divorced
___ Widowed
___ Separated

How do you describe you ethnicity?

___ Hispanic or Latino
___ Non-hispanic or Non-latino

How do you describe your race?

___ American Indian or Alaska native
___ Asian
___ Native Hawaiian or Other Pacific Islander
___ Black or African-American
___ White
___ More than one race

Please indicate your sexual orientation: Heterosexual Homosexual Bisexual

YOUR average yearly income if you support yourself or your parents' average yearly income if they support you (please check one):

____ $0-$5,000
____ $5,000-$10,000
____ $10,000-$20,000
____ $20,000-$30,000
____ $30,000-$40,000
____ $40,000-$50,000
____ $50,000-$60,000
____ $60,000-$70,000
____ $70,000+

Appendix B

DRINKING PATTERNS QUESTIONNAIRE

Question 1

During the last 12 months, how often did you usually have any kind of drink containing alcohol? **By a drink, we mean half an ounce of absolute alcohol (e.g. a 12 ounce can or glass of beer or wine cooler, a 5 ounce glass of wine, or a drink containing 1 shot of liquor).** Choose only one.

___ Every day
___ 5 to 6 times a week
___ 3 to 4 times a week
___ Twice a week
___ Once a week
___ 2 to 3 times a month
___ Once a month
___ 3 to 11 times in the past year
___ 1 or 2 times in the past year

(IF YOU CHOSE AN ANSWER ABOVE, PLEASE SKIP AHEAD TO QUESTION #2)

___ I did not drink any alcohol in the past year, but I did drink in the past **(GO TO QUESTION #1A)**

___ I never drank any alcohol in my life **(GO TO QUESTION #1B)**

Question 1A

During your lifetime, what is the maximum number of drinks containing alcohol that you drank within a 24-hour period? **(Remember, answer this question ONLY if you did not drink any alcohol during the past 12 months)**

___ 36 drinks or more
___ 24-35 drinks
___ 18-23 drinks
___ 12-17 drinks
___ 8-11 drinks
___ 5-7 drinks
___ 4 drinks
___ 3 drinks
___ 2 drinks
___1 drink

(OK. PLEASE SKIP AHEAD TO THE MEDICAL HISTORY QUESTIONNAIRE)

Question 1B

So you have never had a drink containing alcohol in your entire life. (asked only of those who say they never drank alcohol in their lives.)

___ Yes, I never drank **(OK. PLEASE SKIP AHEAD TO THE MEDICAL HISTORY QUESTIONNAIRE)**

___ No, I did drink **(OK. GO BACK TO QUESTION 1 AND REPEAT)**

Question 2

During the last 12 months, how many alcoholic drinks did you have on a typical day when you drank alcohol?

___ 25 or more drinks
___ 19-24 drinks
___ 16-18 drinks
___ 12-15 drinks
___ 9-11 drinks
___ 7-8 drinks
___ 5-6 drinks
___ 3-4 drinks
___ 2 drinks
___ 1 drink

Question 3

During the last 12 months, what is the largest number of drinks containing alcohol that you drank within a 24 hour period?

___ 36 drinks or more
___ 24-35 drinks
___ 18-23 drinks
___ 12-17 drinks
___ 8-11 drinks
___ 5-7 drinks
___ 4 drinks
___ 3 drinks
___ 2 drinks
___ 1 drink

Question 4

During the last 12 months, how often did you drink this largest number of drinks? Choose only one.

___ Every day
___ 5-6 times a week
___ 3-4 times a week
___ Twice a week
___ Once a week
___ 2-3 times a month
___ Once a month
___ 3-11 times in the past year

Question 5

During the last 12 months, how often did you have 5 or more (males) or 4 or more (females) drinks containing any kind of alcohol within a two hour period? (That would be the equivalent of at least 5 (4) 12-ounce cans or bottles of beer, 5 (4) five ounce glasses of wine, 5 (4) drinks each containing one shot of liquor or spirits- to be provided my interviewer if asked.) Choose only one.

___ Every day
___ 5-6 days a week
___ 3-4 days a week
___ Two days a week
___ One day a week
___ 2-3 days a month
___ One day a month
___ 3-11 days in the past year
___ 1 or 2 days in the past year

Question 6

During your lifetime, what is the largest number of drinks containing alcohol that you drank within a 24-hour period?

___ 36 drinks or more
___ 24-35 drinks
___ 18-23 drinks
___ 12-17 drinks
___ 8-11 drinks
___ 5-7 drinks
___ 4 drinks
___ 3 drinks
___ 2 drinks
___ 1 drink

Appendix C

ALCOHOL USE DISORDERS IDENTIFICATION TEST

Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest. Place an X in one box that best describes your answer to each question.

Questions					
1. How often do you have a drink containing alcohol	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
3. How often do you have six or more drinks on one monthly almost occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
9. Have you or someone else been injured because of your drinking?	No		Yes but not in the last year		Yes during the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes but not in the last year		Yes during the last year

Appendix D

SYMPTOM CHECKLIST -90-REVISED

0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely

SCL-90

Instructions: This questionnaire consists of a list of problems people sometimes have. Read each one carefully and circle the number of the response that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Circle only one number for each problem. Do not skip any items. If you change your mind, draw an "X" through your original answer and then circle your new answer. Read the example before you begin. If you have any questions, please ask the experimenter.

0 = Not at all 1 = A little bit 2 = Moderately 3 = Quite a bit 4 = Extremely		
Example Item	Bodyaches	0 1 2 3 4

In the past 7 days (including today), how much were you distressed by:

1.	Headaches	0 1 2 3 4
2.	Nervousness or shakiness inside	0 1 2 3 4
3.	Repeated unpleasant thoughts that won't leave your mind	0 1 2 3 4
4.	Faintness or dizziness	0 1 2 3 4
5.	Loss of sexual interest or pleasure	0 1 2 3 4
6.	Feeling critical of others	0 1 2 3 4
7.	The idea that someone else can control your thoughts	0 1 2 3 4
8.	Feeling others are to blame for most of your troubles	0 1 2 3 4
9.	Trouble remembering things	0 1 2 3 4
10.	Worried about sloppiness or carelessness	0 1 2 3 4
11.	Feeling easily annoyed or irritated	0 1 2 3 4
12.	Pains in heart or chest	0 1 2 3 4

13.	Feeling afraid in open spaces or on the streets	0 1 2 3 4
14.	Feeling low in energy or slowed down	0 1 2 3 4
15.	Hearing voices that other people do not hear	0 1 2 3 4
16.	Trembling	0 1 2 3 4
17.	Feeling that most people cannot be trusted	0 1 2 3 4
18.	Poor appetite	0 1 2 3 4
19.	Crying easily	0 1 2 3 4
20.	Feeling shy or uneasy with the opposite sex	0 1 2 3 4
21.	Feelings of being trapped or caught	0 1 2 3 4
22.	Suddenly scared for no reason	0 1 2 3 4
23.	Temper outbursts that you could not control	0 1 2 3 4
24.	Feeling afraid to go out of your house alone	0 1 2 3 4
25.	Blaming yourself for things	0 1 2 3 4
26.	Pains in lower back	0 1 2 3 4
27.	Feeling blocked in getting things done	0 1 2 3 4
28.	Feeling lonely	0 1 2 3 4
29.	Feeling blue	0 1 2 3 4
30.	Worrying too much about things	0 1 2 3 4
31.	Feeling no interest in things	0 1 2 3 4
32.	Feeling fearful	0 1 2 3 4
33.	Your feelings being easily hurt	0 1 2 3 4
34.	Other people being aware of your private thoughts	0 1 2 3 4
35.	Feeling others do not understand you or are unsympathetic	0 1 2 3 4
36.	Feeling that people are unfriendly or dislike you	0 1 2 3 4
37.	Having to do things very slowly to insure correctness	0 1 2 3 4
38.	Heart pounding or racing	0 1 2 3 4
39.	Nausea or upset stomach	0 1 2 3 4
40.	Feeling inferior to others	0 1 2 3 4
41.	Soreness of your muscles	0 1 2 3 4
42.	Feeling that you are watched or talked about by others	0 1 2 3 4
43.	Trouble falling asleep	0 1 2 3 4

44.	Having to check and double-check what you do	0 1 2 3 4
45.	Difficulty making decisions	0 1 2 3 4
46.	Feeling afraid to travel on buses, subways, or trains	0 1 2 3 4
47.	Trouble getting your breath	0 1 2 3 4
48.	Hot or cold spells	0 1 2 3 4
49.	Having to avoid certain things, places, or activities because they frighten you	0 1 2 3 4
50.	Your mind going blank	0 1 2 3 4
51.	Numbness or tingling in parts of your body	0 1 2 3 4
52.	A lump in your throat	0 1 2 3 4
53.	Feeling hopeless about the future	0 1 2 3 4
54.	Trouble concentrating	0 1 2 3 4
55.	Feeling weak in parts of your body	0 1 2 3 4
56.	Feeling tense or keyed up	0 1 2 3 4
57.	Heavy feelings in your arms or legs	0 1 2 3 4
58.	Overeating	0 1 2 3 4
59.	Feeling uneasy when people are watching or talking about you	0 1 2 3 4
60.	Having thoughts that are not your own	0 1 2 3 4
61.	Having urges to beat, injure, or harm someone	0 1 2 3 4
62.	Awakening early in the morning	0 1 2 3 4
63.	Having to repeat the same actions such as touching, counting, or washing	0 1 2 3 4
64.	Sleep that is restless or disturbed	0 1 2 3 4
65.	Having urges to break or smash things	0 1 2 3 4
66.	Having ideas or beliefs that others do not share	0 1 2 3 4
67.	Feeling very self-conscious with others	0 1 2 3 4
68.	Feeling uneasy in crowds, such as shopping or at a movie	0 1 2 3 4
69.	Feeling everything is an effort	0 1 2 3 4
70.	Spells of terror or panic	0 1 2 3 4
71.	Feeling uncomfortable about eating or drinking in public	0 1 2 3 4
72.	Getting into frequent arguments	0 1 2 3 4

73.	Feeling nervous when you are left alone	0 1 2 3 4
74.	Others not giving you proper credit for your achievements	0 1 2 3 4
75.	Feeling lonely even when you are with people	0 1 2 3 4
76.	Feeling so restless you couldn't sit still	0 1 2 3 4
77.	Feelings or worthlessness	0 1 2 3 4
78.	The feeling that something bad is going to happen to you	0 1 2 3 4
79.	Shouting or throwing things	0 1 2 3 4
80.	Feeling afraid that you will faint in public	0 1 2 3 4
81.	Feeling that people will take advantage of you if you let them	0 1 2 3 4
82.	Having thoughts about sex that bother you a lot	0 1 2 3 4
83.	The idea that you should be punished for your sins	0 1 2 3 4
84.	Thoughts and images of a frightening nature	0 1 2 3 4
85.	The idea that something serious is wrong with your body	0 1 2 3 4
86.	Never feeling close to another person	0 1 2 3 4
87.	Feelings of guilt	0 1 2 3 4
88.	The idea that something is wrong with your mind	0 1 2 3 4

Appendix E

AGGRESSION QUESTIONNAIRE

Instructions: For each of the following below, please circle a number that best indicates how the statement applies to you. Answer according to the following scale:

1 - Extremely uncharacteristic of me
2 -
3 - Moderately characteristic of me
4 -
5- Extremely characteristic of me

1. Once in a while I can't control the urge to strike another person	1	2	3	4	5
2. I tell my friends openly when I disagree with them	1	2	3	4	5
3. I flare up quickly but get over it quickly	1	2	3	4	5
4. I am sometimes eaten up with jealously	1	2	3	4	5
5. Given enough provocation, I may hit another person	1	2	3	4	5
6. I often find myself disagreeing with people	1	2	3	4	5
7. When frustrated, I let my irritation show	1	2	3	4	5
8. At times I feel I have gotten a raw deal out of life	1	2	3	4	5
9. If somebody hits me, I hit back	1	2	3	4	5
10. When people annoy me, I may tell them what I think of them	1	2	3	4	5
11. I sometimes feel like a powder keg ready to explode	1	2	3	4	5
12. Other people always seem to get the breaks	1	2	3	4	5
13. I get into fights a little more than the average person	1	2	3	4	5
14. I can't help getting into arguments when people disagree with me	1	2	3	4	5
15. I am an even-tempered person	1	2	3	4	5
16. I wonder why sometimes I feel so bitter about things	1	2	3	4	5
17. If I have to resort to violence to protect my rights, I will	1	2	3	4	5
18. My friends say that I'm somewhat argumentative	1	2	3	4	5
19. Some of my friends think I'm a hothead	1	2	3	4	5

20. I know that "friends" talk about me behind my back	1	2	3	4	5
21. There are people who pushed me so far that we came to blows	1	2	3	4	5
22. Sometimes I fly off the handle for no good reason	1	2	3	4	5
23. I am suspicious of overly friendly strangers	1	2	3	4	5
24. I can think of no good reason for ever hitting a person	1	2	3	4	5
25. I have trouble controlling my temper	1	2	3	4	5
26. I sometimes feel that people are laughing at me behind my back	1	2	3	4	5
27. I have threatened people I know	1	2	3	4	5
28. When people are especially nice, I wonder what they want	1	2	3	4	5
29. I have become so mad that I have broken things	1	2	3	4	5

Appendix F

CONFLICT TACTICS SCALE –REVISED

Below is a list of some things men and women do when they are arguing. Please indicate how often each happened and who it happened with **during the past year**.

How many times **in the past year**:

0 = Never in the past year 1 = Once in the past year 2 = Twice in the past year
3 = 3-5 times in the past year 4 = 6-10 times in the past year 5 = 11-20 times in the past year
6 = More than 20 times in the past year

1.	**Have you showed a woman you cared even though you disagreed?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
2.	**Has a woman showed care for you even though you disagreed?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
3.	**Have you explained your side of a disagreement to a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
4.	**Has a woman explained her side of a disagreement to you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
5.	**Have you thrown something at a woman that could hurt?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
6.	**Has a woman thrown something at you that could hurt?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
7.	**Have you insulted or sworn at a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
8.	**Has a woman insulted or sworn at you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
9.	**Have you twisted a woman's arm or hair?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a	

	girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
10.	**Has a woman twisted your arm or hair?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
11.	**Have you had a sprain, bruise, or small cut because of a fight with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
12.	**Has a woman had a sprain, bruise, or small cut because of a fight with you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
13.	**Have you shown respect for a woman's feelings about an issue?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
14.	**Has a woman shown respect for your feelings about an issue?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
15.	**Have you made a woman have sex without a condom?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
16.	**Has a woman made you have sex without a condom?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
17.	**Have you pushed or shoved a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
18.	**Has a woman pushed or shoved you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
19.	**Have you used force (like hitting, holding down, or using a weapon) to make a woman have anal or oral sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
20.	**Has a woman used force (like hitting, holding down, or using a**	0 1 2 3 4 5 6

	weapon) to make you have anal or oral sex?	
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
21.	**Have you used a knife or gun on a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
22.	**Has a woman used a knife or gun on you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
23.	**Have you passed out from being hit on the head by a woman in a fight?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
24.	**Has a woman passed out from being hit on the head by you in a fight?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
25.	**Have you called a woman fat or ugly?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
26.	**Has a woman called you fat or ugly?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
27.	**Have you punched or hit a woman with something that could hurt?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
28.	**Has a woman punched or hit you with something that could hurt?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
29.	**Have you destroyed something belonging to a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
30.	**Has a woman destroyed something belonging to you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a	

	girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
31.	**Have you gone to the doctor because of a fight with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
32.	**Has a woman gone to the doctor because of a fight with you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
33.	**Have you choked a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
34.	**Has a woman choked you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
35.	**Have you shouted or yelled at a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
36.	**Has a woman shouted or yelled at you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
37.	**Have you slammed a woman against a wall?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
38.	**Has a woman slammed you against a wall?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
39.	**Have you said you were sure that you and a woman could work out a problem?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
40.	**Has a woman said that she was sure that you and she could work out a problem?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
41.	**Have you needed to see a doctor because of a fight with a woman,**	0 1 2 3 4 5 6

	but didn't?	
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
42.	**Has a woman needed to see a doctor because of a fight with you, but didn't?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
43.	**Have you beat up a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
44.	**Has a woman beat you up?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
45.	**Have you grabbed a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
46.	**Has a woman grabbed you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
47.	**Have you used force (like hitting, holding down, or using a weapon) to make a woman have sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
48.	**Has a woman used force (like hitting, holding down, or using a weapon) to make you have sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
49.	**Have you stomped out of the room or house or yard during a disagreement with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
50.	**Has a woman stomped out of the room or house or yard during a disagreement with you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	

51.	**Have you insisted on sex when a woman did not want to (but did not use physical force)?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
52.	**Has a woman insisted on sex when you did not want to (but did not use physical force)?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
53.	**Have you slapped a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
54.	**Has a woman slapped you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
55.	**Have you had a broken bone from a fight with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
56.	**Has a woman had a broken bone from a fight with you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
57.	**Have you used threats to make a woman have oral or anal sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
58.	**Has a woman used threats to make you have oral or anal sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
59.	**Have you suggested a compromise to a disagreement with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
60.	**Has a woman suggested a compromise to a disagreement with you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
61.	**Have you burned or scalded a woman on purpose?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin,	

	niece), friend, stranger, other _____)	
62.	**Has a woman burned or scalded you on purpose?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
63.	**Have you insisted on oral or anal sex when a woman did not want to (but did not use physical force)?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
64.	**Has a woman insisted on oral or anal sex when you did not want to (but did not use physical force)?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
65.	**Have you accused a woman of being a lousy lover?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
66.	**Has a woman accused you of being a lousy lover?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
67.	**Have you said something to spite a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
68.	**Has a woman done something to spite you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
69.	**Have you threatened to hit or throw something at a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
70.	**Has a woman threatened to hit or throw something at you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
71.	**Have you felt a physical pain that still hurt the next day because of a fight with a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
72.	**Has a woman felt a physical pain that still hurt the next day**	0 1 2 3 4 5 6

	because of a fight with you?	
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
73.	**Have you kicked a woman?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
74.	**Has a woman kicked you?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
75.	**Have you used threats to make a woman have sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
76.	**Has a woman used threats to make you have sex?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
77.	**Have you agreed to try a solution to a disagreement a woman suggested?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	
78.	**Has a woman agreed to a solution to a disagreement that you suggested?**	0 1 2 3 4 5 6
	If yes, who did this happen with? (example: partner (e.g., a girlfriend, wife), mother, sister, relative (e.g., an aunt, cousin, niece), friend, stranger, other _____)	

Appendix G

MASCULINE GENDER ROLE STRESS SCALE

Listed below are a number of situations that may or may not be considered stressful. Please indicate on a "0" (not at all stressful) to "6" (extremely stressful) scale the extent to which each of the following situations is stressful for you.

		Not At All						Extremely
1	Tell your spouse that you love her	0	1	2	3	4	5	6
2	Feeling that you are not in good physical condition	0	1	2	3	4	5	6
3	Being outperformed at work by a woman	0	1	2	3	4	5	6
4	Having to ask directions when you are lost	0	1	2	3	4	5	6
5	Being unemployed	0	1	2	3	4	5	6
6	Not being able to find a sexual partner	0	1	2	3	4	5	6
7	Telling someone that you feel hurt by what he/she said	0	1	2	3	4	5	6
8	Having a female boss	0	1	2	3	4	5	6
9	Working with people who seem more ambitious than you	0	1	2	3	4	5	6
10	Not making enough money	0	1	2	3	4	5	6
11	Having your lover say that she is not satisfied	0	1	2	3	4	5	6
12	Admitting that you are afraid of something	0	1	2	3	4	5	6
13	Letting a woman take control of the situation	0	1	2	3	4	5	6
14	Finding you lack the occupational skills to succeed	0	1	2	3	4	5	6
15	Talking with a "feminist"	0	1	2	3	4	5	6
16	Being perceived as "gay"	0	1	2	3	4	5	6
17	Having your children see you cry	0	1	2	3	4	5	6
18	Being married with someone who makes more money than you	0	1	2	3	4	5	6
19	Being with a woman who is more successful than you	0	1	2	3	4	5	6
20	Having people say that you are indecisive	0	1	2	3	4	5	6
21	Being unable to perform sexually	0	1	2	3	4	5	6
22	Losing in a sports competition	0	1	2	3	4	5	6
23	Being perceived as having feminine traits	0	1	2	3	4	5	6
24	Being outperformed in a game by a woman	0	1	2	3	4	5	6

25	Being too tired for sex when you lover initiates it	0	1	2	3	4	5	6
26	Appearing less athletic than a friend	0	1	2	3	4	5	6
27	Talking with a woman who is crying	0	1	2	3	4	5	6
28	Needing your spouse to work to help support the family	0	1	2	3	4	5	6
29	Having others say you are too emotional	0	1	2	3	4	5	6
30	Being unable to become sexually aroused when you want	0	1	2	3	4	5	6
31	Being compared unfavorably to men	0	1	2	3	4	5	6
32	Comforting a male friend who is upset	0	1	2	3	4	5	6
33	Admitting to your friends that you do housework	0	1	2	3	4	5	6
34	Working with people who are brighter than yourself	0	1	2	3	4	5	6
35	Getting passed over for a promotion	0	1	2	3	4	5	6
36	Knowing you cannot hold your liquor as well as others	0	1	2	3	4	5	6
37	Having a man put his arm around your shoulder	0	1	2	3	4	5	6
38	Being with a woman who is much taller than you	0	1	2	3	4	5	6
39	Staying home during the day with a sick child	0	1	2	3	4	5	6
40	Getting fired from your job	0	1	2	3	4	5	6

Appendix H

INTERVENTION MANIPULATION CHECK

Participant # _____

Please answer whether the following questions are true or false:

True/False:

1) There was a phrase written on my drink coaster.	T	F
2) I could not see my reflection during the study.	T	F
3) I could see myself on the television during the study.	T	F
4) There was a drink coaster that had the words 'my behavior' on it.	T	F
5) I could see someone else's behavior on the television during the study.	T	F
6) I competed against a female opponent during the study.	T	F
7) I competed against a male opponent during the study.	T	F
8) I participated in a reaction time task against another person during the study.	T	F
9) There was more than one camera in the room today.	T	F
10) There was more than one mirror in the room today.	T	F

Appendix I

ARTICULATED THOUGHTS IN SIMULATED SITUATIONS PARADIGM: DEFINITIONS OF CODES

1) <u>Aggressive Behavioral Intentions – Belligerence</u>

Subject appears to be trying to start an altercation

Threatening, challenging, provoking, and strongly cynical statements that are designed to entice an altercation are evidence of belligerence.

("Why doesn't she say that to my face?")

("Yeah, she thinks I'm like a woman, I'll show her")

("Oh aren't you god's gift to the world.")

2) <u>Aggressive Behavioral Intentions - Physical Aggression</u>

Expresses a desire to behaviorally aggress against Stephanie. Actions such as *pushing, shoving, hitting, etc.*

("I'd like to slap her")

The major criterion for this category is that the subject states an action that he would do if he was able to meet Stephanie.

("I'd mess her up if she had said that to my face!)

(If she comes near me, I'll show her whose the man!")

3) <u>Aggressive Behavioral Intentions - Verbal Aggression</u>

Look for curse's and personal generalizations

("You're such a ------!" "She is a -------!").

Also coded are statements that reflect the subject's desire to do any of the above forms of verbal aggression

(*"I hope I get to meet her after the study so I can tell her to fuck-off")*.

4) <u>Anger Statements – Anger</u>

Responses that refer to the emotion of anger evidenced by specific affect words, such as *annoyed, angry, upset, mad, furious, enraged, incensed, pissed-off, ticked-off, irate, boiling, burning, fuming, etc.*

5) <u>Anger Statements - Negative Affect</u>

Responses that refer to feeling something that isn't positive, suggests sadness, or disappointment, or has either a negative connotation or is representative of a state of confusion.

Look for affect words such as *curious, blue, sad, down uneasy, or confused*

6) <u>Hostile Attributions</u>

An individual arrives at a conclusion about another individual in the absence of confirming evidence (an incorrect conclusion regarding her intentionally.

A hostile attribution involves not only the misperception of causal intent, but also the assumption of hostile motivation.

<u>Examples</u>

"She must have shocked me so hard because she hates men"

"Stephanie was out to get me from the beginning"

"Women always think they can hit men and we won't hit them back"

7) <u>Reaffirming Masculinity Statements - Gender Roles: Antifemininity</u>

The belief that men should not engage in anything that could be considered 'feminine'

"This test put me in the female range and that is not correct"

"I hate women"

8) <u>Reaffirming Masculinity Statements - Gender Roles: Status</u>

The belief that men must gain personal status and the respect of others. This includes, but is not limited to any statement that indicates that men, relative to women, should be dominant, more powerful, and have a higher position (e.g., in society).

"It was important for me to shock her because I needed to stand my ground"

"I definitely put her in her place during this reaction time task"

9) <u>Reaffirming Masculinity Statements - Gender Roles: Toughness</u>

The expectation that men are emotionally and physically tough and willing to be aggressive. This includes, but is not limited to, any statement that indicates that men, relative to women, should be tougher, stronger, better able to tolerate pain (e.g., the shocks), more stoic, etc.

"I obviously won because men are faster/stronger than women"

"There is no way she could have beaten me"

"How dare she say I'm like a woman, I'm one of the strongest men I know"

10) <u>Reaffirming Masculinity Statements - Masculine Gender Role Stress</u>

The subject makes a statement regarding the stress to his masculine gender role. Masculine gender role stress refers to men's tendency to experience negative psychological (e.g., insecurity, low self-esteem, increased anger) and physiological effects (e.g., increased cardiovascular reactivity and skin conductance) from their attempts to meet societally-based standards of the male role

"I feel really confused about why this test put me in the female range. That is not correct"

"Something is wrong with this test"

"I want a re-do, for some reason I think she might have beat me. Maybe my keyboard is broken."

11) <u>Benevolent Sexism</u>

Benevolent sexism is the idea that men have more power and therefore are responsible for taking care of women (because women can't protect themselves). Women are inherently weaker than men and need to be shielded by them.

"I didn't want to shock her because men should protect women from pain"

Appendix J

ARTICULATED THOUGHTS IN SIMULATED SITUATIONS PARADIGM: QUALITATIVE EXAMPLES

1) **Hostile Attributions**

Participant #65: *"Alright so apparently my opponent Stephanie, um, so it was just kinda a fun game in the beginning. We were doing shocks around 1-2, to 3, maybe to 4, and I thought it would be funny a little bit into the game to do a number 10, but apparently she didn't forgive me after that, and she kept giving me 8s, 9s, and 10s for the rest of the game, so um pretty much every time I got a 9 or a 10 from her and if I won I would give maybe a 7 and if I won the next game I would go down to a 6 and a 5 to show that like, no hard feelings, but I always got a 9 or a 10 from her, so apparently she didn't really forgive me after that one 10."*

2) **Reaffirming Masculinity Statements - Masculine Gender Role Stress, Gender Roles: Antifemininity; Anger Statements – Anger**

Participant #33: *"She wrote, uh, "that test puts you on a girl range for me". Now that kinda pissed me off, I was ready to--I'm very competitive, I was ready to put it down"*

3) **Aggressive Behavioral Intentions – Verbal Aggression**

Participant #58: *"Damnit! I really wish that my opponent could hear what I'm saying right now because she's going down."*

4) **Reaffirming Masculinity Statements - Gender Roles: Status**

Participant #72: *"I would like to say that she is kind of challenging, you know, because being competing with a lady, with her ratio she is above the minimum level, so I can say I*

congratulate her for being an opponent with me, so only the results can say what happened, but I think I am the best."

5) <u>Reaffirming Masculinity Statements - Gender Roles – Toughness & Antifemininity</u>

<u>Participant #33:</u> *"What she wrote in her profile…I'm very very competitive, I'm an athlete, ya know, I played tennis and basketball comin up as a child. Very competitive, alright."*

6) <u>Reaffirming Masculinity Statements – Masculine Gender Role Stress; Gender Roles – Antifeminity & Status</u>

<u>Participant #213:</u> **"***I don't know how that- how that test put me in the girl range. I'm- I'm tryna figure that out. That, "laugh out loud, that test put you more in the girl range than me". Oh my- OMG as acronym for you know, Oh My God, "most guys I hang out with are better at these physical games than me, but I guess you aren't like most guys". I think she said, definitely going to beat you. Well I guess we'll- we'll see right, guess we gotta see the results, and see who won. I'm- I'm still trippin, like my- it said I'm in the girl range. I'm still tryna figure that out, man. How I'm in the girl range. I don't know, I guess I'm sensitive to female feelings or something, I don't know. I guess I can understand females, I guess that's what put me in they range, because I can understand them. That's all I can- that's all I can come up with at this time. Until we meet again, thank you, have a nice day. Peace."*

<u>Participant #240:</u> **"***Actually, I'm just curious as to how in the hell I scored in the girl range. I mean, I mean was I (laughs) - that's funny. She got jokes, so I like that. "The test put you more in the girl range than me, oh my God, most guys I hang out with are…"*

Oh my goodness and I always thought I was a thug, but ok. So I dunno what this-I don't know, the graph is-that's cute (laughs). I scored in the female range. That's nice. You can tell her how much I shocked the hell out of her if I want to (laughs). That's about all I got to say. I scored in the female range…in the girl range…I wish she could hear it. My goodness. Don't call me no girl."

Participant #33: *"Put me in a girl range, that kinda made me mad (laughs). But you just gotta judge by lookin at this chart here, tryin to read a chart, on a personality profile, right, you got physical behavior, how can you judge somebody's personality by just lookin at that, you know what I mean? It's impossible. It's not gonna happen."*

7) **Reaffirming Masculinity Statements – Gender Roles – Antifemininity & Toughness; Benevolent Sexism, & Aggressive Behavioral Intentions – Physical Aggression**

Participant #179: *"I thought my opponent- my opponent was real funny, she sent me that message earlier, talkin about "LOL, most men are not like that", but I'm a nice guy. I wanna be hard like a man supposed to be, but I wanna be soft like a man supposed to be too, especially with a woman. I'mma try to be nice to her from now on. But she's got it comin though, cause she made some accusations written from beginnin', and she gonna pay for that. I'm not gonna be mean, but I be- I'm just gonna be a man about it. So, I'm ready when she ready."*